

SUBJECT INDEX

A

- Aaiun-Tarfaya Basin
Moroccan Basin
 evolution, 500801
 margin, 500809, 500810, 500811, 500814
AAIW. *See* Antarctic Intermediate Water
Aaklout limestone, Moroccan Basin, margin, 500809
AAS. *See* atomic absorption spectrometry
Abaco Island, 110889
 fracture zones, 440203, 510028
Abashiri-Urahoro, Japan, volcanic arc, 190824
Abe River, 870624
Abenaki Formation, 500812, 500813
 Moroccan Basin, margin, 500812, 500813
 Scatarie Member, 760864
Aberdeen, 480009
Abou Simbel, 130977
Abruzzi Mountains, 131115
Abruzzi Trough, 131211
Abu Dhabi, 130693
Abukuma, amphiboles, 580663
Aburatsubo Cove, 870605, 870606
Abutment Plateau, 38S0735, 400183, 400561, 400584, 400681, 400811, 730487
 Frio Ridge, 400183
Abyssinia, 110611
Acadian belt, Goban Spur, evolution, 801200
Acajutla, El Salvador, 670268
Acapulco, 660345, 660516, 660547, 660592, 660659, 660723, 660726, 660727, 660728, 670368, 670595, 670733, 670775, 670776, 840667
 Guatemala, Pacific margin sediments, 670595
 Mexico, magmatic episodes, 660726, 660728
Acapulco granite, Mexico, magmatic episodes, 660726
accessory minerals
 diagenesis, 660513, 660518
 slope sediments, 840575, 840585, 840586
 residue, insoluble, fine-grained sediment, 670500
 sand
 diagenesis, 660513, 660518
 petrology, 660525
 trench slope, 660434
 sandstone, petrology, 660434
 source, mineralogy, 660525
accretion, 481145, 780005, 780602, 810901
 Atlantic Ocean C, basin, 511501
 Barbados, wedge, 780569, 780573, 780574, 780578
 Barbados Ridge, 780573, 780575, 780601, 780603
 Barracuda Ridge, decollement, 780053
 Biscay, Bay of N, continental margin, 481025
 California, Gulf of
 basalt, 650559, 650560
 crust, 650739, 650742, 650743, 650749
 Central America, western continental slope, 840921, 840936
 continental margin, structural evolution, 481042, 481051
 convergent margin, 780601, 840939
 Costa Rica, continental margin, 840923
 decollement, Barracuda Ridge, 780053
 deformation, distribution model, 870934
 dolomite, diagenetic, mud, anoxic
 diatomaceous, 640563, 640566
 geologic structure, 870810
 trench, 870810
 uplifting, 870811
 geology, 660581
 geophysical data, 840944
 Goban Spur, evolution, 801203, 801213
 hyaloclastite, ash, 650477
 igneous rocks, Neogene, 840949
 Japan Trench, 870749
 geology, 870703
 structural feature, 870825
 Lesser Antilles, 780030, 780036, 780569
 low velocity layer, wedge, trench, 870733
 major element
 California, Gulf of, 650575
 East Pacific Rise, 650575
 Mid-Atlantic Ridge, 650575
 Middle America Trench, 660825, 780601, 840851, 840911, 840951, 840954
 deformation propagation, 660834
 geotechnical properties, 660487
 Neogene, 840954
 offscraping, 660827, 660829, 660830
 slope deposits, 840954
 tectonic setting, 660825
 tectonics, 660837, 660842
 underplating, 660830, 660831, 660832, 660833
 mineral, heavy, subduction, 580661
 Nankai Trough, 780601
 magnetic mineral, 870763
 sediment, 870827
 structural feature, 870797, 870808
 structural features, 870797
 subduction rate, 870789
 turbidites, 870611
 Oligocene-Quaternary, 840947
 Pacific Ocean SW, island arcs, 300702, 300704
 paleomagnetic results, 870780
 permeability, subduction, 870843
 plate boundary, 820460
 previous work, introduction, convergent margin, 840939
 rates, 920598
 regional problems
 acoustic stratigraphy, 061304
 carbonate, 061303
 crust, 061301
 Rockall Plateau W, stratigraphy, 481063
 Rockall Rise SW, structure, 481079, 481083
 seismic reflections
 distribution, 660553
 velocity structure, 660552
 seismic stratigraphy
 control, 870750
 Hikurangi Trench S, 901332, 901333
 stratigraphy
 sea floor spreading, 481083
 transform boundary development, 481079
 structural evolution, tectonic history, 481063
 subduction rate, trench wedge geometry, 870792
 subsidence, postrift, 801134
 Tiburon Rise, 780035
 Tobago Basin, 780036
 trace elements
 California, Gulf of, 650575
 East Pacific Rise, 650575
 Mid-Atlantic Ridge, 650575
 volcanic rocks, submergence, 200694
 see also accretionary prism; accretionary wedge
 accretion, crustal
 California, Gulf of, 650739
 East Pacific Rise, 160938
 Pacific Ocean E, tectonic and depositional history, 160938
 accretion rate
 Goban Spur
 continental margin, 801132
 evolution, 801203
 Nankai Trough, heat flow, 870739
 accretionary complex
 Barbados Ridge, structure, 780049
 deformation, 870797
 Lesser Antilles, 780023, 780029, 780030, 780035, 780036, 780042, 780046, 780049, 780053, 780054, 780084, 780603
 acoustic basement, 780040
 basement, 780049, 780055
 bathymetry, 780063
 bedding orientation, 780535
 decollement, 780031, 780053, 780054, 780070, 780535, 780538, 780544, 780607
 deformation, 780030, 780036, 780039, 780046, 780049, 780054, 780055, 780063, 780079, 780081, 780535, 780603
 diapir, mud, 780031
 elevation, 780035
 geophysical setting, 780039
 gravity anomaly, 780030, 780050
 magnetic anomaly, 780050
 mesoscopic structures, 780535
 origin, 780601
 provinces, 780030
 seismic reflection, 780030
 seismostratigraphy, 780039, 780053
 slope, 780053, 780054
 structural variability, 780603
 tectonic setting, 780602
 thrust fault, 780535, 780537, 780542
 underthrusting, 780036
 variations in structure, 780035
 vein structure, 780542
 Nankai Trough, structural features, 870797
 physiography, Neogene-Quaternary, 870613
 structural features, 870797
 structure, Barbados Ridge, 780049
 subduction zone, 780618
 accretionary prism, 780569, 780575, 780576, 870941, 870950, 870951, 870953
 abnormal pore pressures, 780576
 acoustic properties, 870950
 acoustic velocity, protothrust zone, 870950
 Barbados, 780039, 780086
 northern border, 780094
 Barbados Ridge, 780042, 780046, 780049, 780053, 780054, 780559
 acoustic basement, 780040
 bathymetry, 780063
 decollement, 780053, 780054, 780070
 deformation, 780039, 780046, 780049, 780054, 780055, 780063
 geophysical setting, 780039
 geothermal gradient, 780597
 gravity anomaly, 780050
 magnetic anomaly, 780050
 seismostratigraphy, 780039, 780053
 slope, 780053, 780054
 basalt, geochemistry, 590753, 590793
 Benioff Zone, Wadati, 870953
 box fold, 870950
 brittle-plastic transition, 780575
 Central America, western continental slope, 840921
 Chatham Rise, seismic stratigraphy, 901326
 clay, diagenesis, 870953
 cohesion, 780571, 780574
 compression, 780569, 870953
 compressive failure, 780571
 continental margin, 840911
 decollement, Lesser Antilles, 780573, 780574, 780575, 780578
 decollement, multiple
 cause, 870953
 major accreted zone, 870951
 decollement, primary, 870950

2 Accretionary wedge

- decollement (Cont.)
 - cause, 870951
 - trapped water reactivation, 870953
- deformation, 780569, 870797, 870950
- dewatering, 870840, 870841
- distribution, 870936
- distribution model, 870934
- framework, 870927, 870937, 870938, 870939
- transitional boundary, 870950
- diagenetic fractures, 870953
- dissolution, 870953
- duplex thrust, 870951
- earthquake, thrust zone, 870953
- elastic rupture, 870953
- embayment, 870951
- faulting, active, 870953
- fluid pressure, 780571, 870576
- flysch, nappe, 870951
- frictional sliding, 780572
- geologic structure, volcanism, 870810
- geophysical setting, Barbados, 780039
- geothermal gradient, 780597
- gravity spreading, 780572
- high-angle thrust, 870950
- imbricate block, boundaries, 870950
- imbricate blocks, 870951
- imbricate slice, 870951
- imbricate thrust zone, 870950
- imbricate thrusting, vertical displacement, 870951
- Japan Trench, sedimentology, 870910
- landward block rotation, 870950
- Lesser Antilles
 - cohesive strength, 780574
 - compressive mechanics, 780569
 - deformation, 780566
 - fault angles, 780574
 - forearc, 780110
 - heat flow, 780597
 - shear stress, 780574
 - taper, 780573, 780578
 - tectonics, 780573
 - temperature, 780597
 - thermal gradient, 780597
 - wedge strength, 780573
- low-velocity layer, seismic coherence, 870727
- magnetic fabric, tectonic stress, 870620
- microfaulting, 870951
- Middle America Trench, structural features, 660802
- Minami Muroto Knoll, uplifting, 870951
- More prism interior section, featureless, 870934
- mud, thickening, 870950
- Nankai Island
 - accretionary wedge, 870950
 - wedge, 870953
- Nankai Trough, 870781, 870792, 870828, 870836, 870840, 870841
 - absolute reflection strength, 870727
 - accretionary tectonics, 870941
 - acoustic impedance, 870727
 - ash, 870695
 - dewatering, 870841
 - fault, thrust, 870941
 - low-velocity layer, 870727
 - plate boundary, convergent, 870941
 - prototrust zone, 870941
 - velocity, 870727
 - velocity distribution, 870941
- overburden trench-fill sediment, 870951
- paleomagnetic results, Nankai Trough, 870780
- physical properties, pore water pressure, 870836
- pore water pressure, 870951
- porosity, 870953
- prototrust zone, 870950
- secondary dewatering, 870953
- sedimentary facies, sedimentation model, 870626, 870627
- seismic coherence, 870941
- seismic reflection, Barbados Ridge, 780039, 780053
- shear stress, 780571, 780574
- shrinkage, 870953
- stresses, 780570
- structural features, 870798
- subduction, 780559
- subduction rate, trench wedge geometry, 870792
- taper, 780575, 780576
- tectonic zones, 870950
- thrust belt, 780575
- thrust fault, 780571, 780576, 870798
- thrust faulting, 780571
- thrust, nature of, 870950
- thrust slab 2, reflection character, 870934
- thrust types, 870947, 870948
- Tosa Terrace, faulting, 870953
- transport, horizontal, 870951
- trough floor, 870950
- tsunami, 870953
 - source, 870953
- turbidites
 - sedimentation, 870627
 - trench-fill, 870950
- underplating, 870950
- uplifting, 870953
 - seaward imbricate block, 870950
- velocity, 870951, 870953
- velocity distribution, 870948
- water overburden, 780570
- wedge
 - porosity, 870951
 - thickening, 870951
- accretionary wedge, 870748
- accumulation, rapid, 870750
- Barbados Ridge, 780569, 780573, 780574
 - cohesive strength, 780574
 - fault angles, 780574
 - shear stress, 780574
 - taper, 780573, 780578
 - tectonics, 780573
 - wedge strength, 780573
- carbon, geochemistry, 571319
- chain-saw mechanism, 870749
- chemical composition, metal, 571266
- chlorophyll, diagenesis, 571391
- decollement, 870749
 - graben floor, 870749
- fault, 870749
- Franciscan Basement, 630271
- graben, 870749
- Japan Trench, 870748
 - sediments, 571255
 - tectonics, 870745
- landward slope, 870748
- low velocity layer, decollement, 870733
- organic geochemistry, sediments, 571299
- overthrusting, 780569
- subduction
 - crust, oceanic, 870749
 - erosion, 870749
 - faulting, 870749
 - mechanism, 870749
 - tensional events, 870749
 - thrust fault, 870749
- Japan Trench, 870749
- accumulation rate, 440503, 440511, 490035, 490037, 490113, 490115, 490168, 490245, 490347, 490463, 580993, 580994, 650471, 730612, 730614, 730615, 730616, 740621, 740635, 780357, 780360, 780362, 780364, 780365, 800785, 800786
- abundance/barren, alternations, 800786
- abyssal plain sediments, 801048
- Africa NW, paleomagnetic results, 47A0470
- age vs. depth, 850718
 - calcium carbonate, 850718
- age-depth relationship, 850925, 850929
- significance, 850928, 850929
- alteration
 - bulk chemical changes, 650652
 - mineralogy, 540775, 540776
 - temperature, 920499
- anoxia, organic richness, 801011
- anoxia, global, evidence against, 801002
- Antarctica, 280930
- Arabian Sea, sediment history, 230509, 230515
- Atlantic Ocean N
 - Goban Spur, 801007, 801009
 - oxygen, 801010, 801011
 - sediments, 760477
- Atlantic Ocean NE, evolution, 411215, 411228
- Atlantic Ocean NW
 - physical properties, 160499
 - regional aspects, 110957, 110960, 110970
 - sedimentary evolution, 430794, 430797, 430811, 430815
- Atlantic Ocean S
 - hiatuses, 391101, 391103
 - magnetic anomaly, 391113
 - Malvinas Outer Basin, 391112
 - Paleogene, 720983, 720985
 - Rio Grande Rise, 391125
- Atlantic Ocean W, sediment chemistry, 511522
- Australia SW, 280929
- Bahama Islands, geology, 110890
- Baja California, tectonics, 641102
- Baja California S, 630954
 - unconformity, angular, 630957
- Barremian to Recent, Mid-Pacific Mountains, 620637
- basalt
 - California, Gulf of, 650585
 - geochronology, 411115
 - liquid variation, 650556
 - petrology, 580850
- Bauer Basin, metal, 340575
- bedding attitude variations, 780357
- Bermuda Rise, geochemistry, 511522, 511523
- biostratigraphy, chemostratigraphy
 - correlation, 850765
- bioturbation, 901197
- Biscay, Bay of, margin, 801137
- Black Sea
 - geophysical framework, 42B1043
 - sediment, 42B0489
- Blake Basin, 760777, 760926, 760927
- Brunhes/Matuyama boundary, 800785
- hiatus, 800786
- CaCO₃, 730614
- calcareous nannofossils
 - nannoplankton, 220726
 - ooze, nannofossil, 220726
- Quaternary and Pliocene sediments, 220726
- calcareous sediment, Miocene, 330869
- calcite
 - deposition, 920600
 - recrystallization, 850817
- calcium carbonate, sedimentation, 920313, 920314
- California
 - continental margin, 630757
 - offshore, 630960
 - California Borderland S, 630949

- California Borderland S (Cont.)
 basement, 630951
 benthic foraminiferal stages, 630949
 borderland topography, 630951
 Channel Islands, 630950
 coccolith zones, time-transgressive, 630949
 continental sediment source cut-off, 630951
 continental source areas, isolation, 630950
 diatomaceous deposits, undiluted, 630950
 intervening borderland basins formation, 630951
 local benthic foraminiferal stages, 630949
 Los Angeles Basin, 630949
 Miocene silled basins, 630950
 Miocene uniform/variable sedimentation change, 630950
 Miocene-Quaternary, 630949
 mixed marine-terrigenous facies, 630949
 Monterey shale, 630950
 offshore topographic barriers development, 630950
 Oligocene Miocene strata, angular unconformity, 630951
 onshore basins, comparison, 630949
 organic matter, 630949
 Patton Escarpment, 630949, 630950, 630951
 Patton Ridge, 630951
 Pliocene sediment, 630949
 ridge basin, 630949
 San Andreas Fault, 630949
 San Miguel Gap, 630950, 630951
 sedimentation rate, 630949, 630950
 Sespe Creek, 630950
 Soledad Basin, 630949
 subsidence, 630949
 Sulphur Mountain, 630950
 tectonic influence, sedimentation, 630950
 temperate latitudes coccolith zones, 630949
 terrigenous contribution reduction, cause, 630951
 terrigenous contribution reduction, time, 630950
 terrigenous material, 630949
 turbidite, sandstone, 630950
 Ventura Basin, 630949
 California, Gulf of, 650471
 sediment distribution, 650471
 carbon, organic, 720834, 780388, 870878
 fluctuations, 680361
 geochemistry, 750833, 750834
 preservation, 711054
 carbonate, 850722, 860515, 860522
 carbon, organic, 711054
 diagenesis, 850816
 Lord Howe Rise, 901201
 noncarbonate sediment, 850722
 stratigraphy, 920312
 variation, 850719, 850720, 850721, 850722
 carbonate nodule, authigenic, 870663
 carbonate-free sediment fraction, results changes, 901446
 eolian dust, 901447
 Cenozoic sediments, lithology, mineralogy, geochemistry, 450330
 Cenozoic-Cretaceous sediments, 800980
 chemical composition, metal, 571264, 571265, 571266
 chert, redeposited calcareous, 330862
 clay, 220743
 eolian, 860563
 clay minerals, Panama, Isthmus of, 680392
 clay, red, 040670
 coarse fraction variation, 901211
 coccolith abundance fluctuations, 800786
 consolidation
 permeability, 870844, 870845, 960808, 960809
 tectonic dewatering, 870839
 continental margin, 801047
 Costa Rica, continental margin, 840923
 Cretaceous to Eocene, 740621
 anomalies, 740625
 Cretaceous/Tertiary boundary, 740624
 magnetic polarity reversal, 740623
 nanofossil datums, 740623
 Cretaceous/Tertiary boundary, carbonate, 860522
 crust, fracture zone, 920308
 currents, Miocene-Pleistocene, 901234
 cycle description, 750909
 CaCO₃, 750909
 carbon, organic, 750909
 clay, 750910
 influx rates, bulk sediment, 750909
 nonbiogenic SiO₂, 750911
 silica, biogenic, 750909
 SiO₂/Al₂O₃, 750911
 Daito Basin, 580993, 580994
 Daito Ridge, 580993, 580994
 datums, ages, 800784
 deposition
 calcareous sediment, 220769
 Goban Spur, 800876
 models, 750838
 spatial pattern, 960599
 deposition, eolian, Pacific Ocean SE, 920336
 diagenesis, Miocene to present, 690367, 690373, 690375
 diagenesis, burial, ooze, carbonate, 790399
 East Pacific Rise
 crest, 340575
 hydrothermal precipitate, 920384
 sediments, 920355
 East Pacific Rise C, biostratigraphy, 920255
 eolian record, 920337
 Pacific Ocean E, 920337
 eolian sedimentation, 860589, 860591, 860592, 860595, 860602
 bulk density, 680412, 680413
 glaciation, 860598
 South America, 680409
 transport, 860601
 equatorial high-productivity belt, 850974
 carbonate/noncarbonate, 850974
 silica, biogenic, 850974
 transect, 850977
 equatorial sediment bulge, 850976, 850978
 chalk, 850976
 change, 850976
 Pliocene-Pleistocene, 850976
 faults, fractures, healed fracture, 870816
 Feni Ridge, sediments, 941077
 fish tooth accumulation, 740633
 foraminifers, 740630
 carbonate, 740633
 dissolution, 740633
 fossils, minerals, rare and unusual, 340621
 Galapagos Fracture Zone, East Pacific Rise, 540400
 Galapagos Spreading Center, interstitial water, 540388
 gas hydrate, Quaternary, 670611
 geochemical history, sedimentation, 710436, 710437
 geochemistry, 340561, 340573
 Al, 340561
 B, 340561
 Ba, 340561
 Co, 340561
 copper, 340561
 Fe-Mn, 340561
 Mid-Atlantic Ridge, 340561
 nickel, 340561
 phosphorus, 340561
 SiO₂, 340561
 terrigenous matter, 720429
 titanium, 340561
 V, 340561
 yttrium, 340561
 zinc, 340561
 zirconium, 340561
 geochemistry, partition, 700300
 geologic setting, 840922
 mudstone, 800983
 siltstone, 800983
 geotechnical properties, 960823
 Gulf of Mexico, 960824
 glaciation
 calcareous phytoplankton, 800786
 effects, 800786
 Pleistocene, 800786
 Pliocene, 850723
 glass, volcanic, petrology, 870711
 Goban Spur
 Cenomanian-Turonian, 800979
 glaciation, 800786
 nanofossil, 800783
 Pendragon Escarpment, 800695
 graphic correlation plots
 Miocene, 850923
 Miocene-Quaternary, 850925
 Greenland Sea, 38S0243, 38S0246
 biogenic siliceous sediment, 38S0246
 Miocene, 38S0245
 Oligocene, 38S0246
 ooze, nanofossil, 38S0246
 Pliocene to Pleistocene, 38S0245
 Hess Rise, 621039, 621046, 621056, 621058
 Barremian to Recent, 620637
 nonauthigenic inorganic crystalline, 620661
 post-Jurassic sedimentation, 620825, 620826, 620827, 620831
 Hess Rise N, post-Jurassic, 620810, 620812, 620813, 620816, 620817
 hiatus, 800786
 hydrocarbon generation potential, organic matter, 670595
 hydrothermal accumulation, change, 920609, 920610, 920612
 hydrothermal activity, Neogene, 920616
 hydrothermal alteration, sediments, 650420
 hydrothermal anomaly, 920592
 manganese, 920592, 920594
 hydrothermal sediment, composition, 920606
 ice rafting, Atlantic Ocean SW, 710313, 710314
 ichthyolith accumulation, 740633
 Indian Ocean NE
 sediment history, 220763
 terrigenous sediment, 720743
 interstitial water, 430672, 870870, 920425
 Patton Escarpment, 630623
 San Miguel Gap, 630623
 interstitial water chemistry, 850807
 interstitial water, chemistry, Baja California, 640681
 intraslope basin, sediments, 960819
 isotope stratigraphy, 810871
 isotope variability, 680455
 Japan, fore-arc area, 560531, 560551
 Japan Trench, 870845, 870846
 carbonate, authigenic, 870922, 870923
 change, 870776

4 Accumulation rate

- Japan Trench (Cont.)
geology, 870706, 870707
inner slope, 571259
metal, 561259
sediments, 271229, 571254, 571255, 571256
tectonism, 870777
- Kapingamarangi Rise, carbonate, 901201
Kings Trough, sediments, 941148
Lesser Antilles, 780357
island arc, 780357
- lithology, 070078, 070329, 070491, 070613, 070731, 070825, 080037, 090217, 090330, 090455, 090619, 110056, 110080, 110109, 110226, 110318, 270027, 270101, 270208, 270293, 280089, 280377, 280378, 330059, 330123, 330185, 330317, 350042, 400061, 400063, 400226, 400380, 400388, 410039, 410181, 410249, 410340, 410434, 430053, 430102, 430126, 430161, 430163, 430173, 430210, 430211, 430334, 440033, 440041, 440086, 440102, 440194, 440353, 490037, 490115, 490168, 490245, 870811, 870836
- Atlantic Ocean S, 400390
Braarudosphaera ooze, 400389
carbonate compensation depth, 400389
Cenozoic, 500074
chalk, 901480
Cretaceous/Tertiary boundary, 400389
disconformity, 400380
dissolution, 400389
Mesozoic, 500071
ooze, calcareous, 901480
paleoenvironment, 410045, 490319, 490347
physical properties, 400061
sediment history, 400365
sedimentation rate, 500166
shelf or platform deposits, 400389
unconformity, angular, 400380
- Lord Howe Rise, isotope stratigraphy, 901385
Lord Howe Rise C, Neogene evolution, 901448, 901449, 901452
Magnetic Anomaly, 24, 810880
magnetostratigraphy, 730612, 730614, 730615, 730616
Brunhes to Jaramillo, 730612
CaCO₃, 730614
Chron, 5, 730612
Messinian salinity crisis, 730612, 730614
Olduvai Subchron, 730612
subsidence, 730614
viscous remanent magnetization, 730613
major element, plagioclase, 650561, 650564, 650570
- Manihiki Plateau
deposition, 330886
Tertiary to Recent, 330888
- Mariana Basin, history, 890378
Mariana Trough, 600483
thermal conductivity, 600822
- Mazagan Plateau, 790825
- Mediterranean Sea, lithostratigraphy, 131039
- Melanesian Basin, 610549, 610550, 610552
sedimentation rate, 610553
- Mellish Seamount, post-Jurassic
sedimentation, 620839, 620840, 620841, 620843
- Mendoza Rise, East Pacific Rise, 920590
- Mesozoic and Cenozoic, Melanesian Basin, 610549
- metal, 340575
Japan Trench, 561259
metalliferous sediment, 340575, 340576, 340577, 340580, 340581, 340582, 340583, 340584
Pacific Ocean, 340575
metalliferous sediment, 340621
- Mexico, Gulf of, regional aspects, 010625
micropaleontologic events, spacing, 800786
- Mid-Atlantic Ridge, 750834, 750909, 750910, 750913, 750916, 750931
- Mid-Pacific Mountains, 621081, 621084, 621100, 621115
Barremian to Recent, 620637
nonauthigenic inorganic crystalline, 620653
- Middle America Trench
Costa Rica, 840551
geotechnical properties, 660491
transect, 670611
- mineralogy
Goban Spur, 801032
variability, 801021
- Miocene changes, Monterey Formation, 850943
- Mississippi Delta, 040670
- Mississippi Fan, 960425, 960434, 960589
calculated rates, accuracy, 960597, 960598
Ericson Zone, 960596
sediments, 960595, 960596
stratigraphy, 960596, 960597
- Mn, hydrothermal, accumulation, 920586, 920587, 920589, 920590
- Moroccan Basin, margin, 500814, 500815, 500816, 500817
- Nankai Trough, 870763, 870915, 870927
accumulation reduction, 870915
acoustic coherence decrease, 870928
active trench system, 870927
anoxic sediment, 870915
ash, 870696
axis, 870915
Brunhes/Matuyama boundary, 870915
carbon, organic, 870915
decollement location, 870928
deformation, 870927, 870928
deformation, cumulative, 870928
fault, thrust, 870927
geochemistry, 870646
heat flow, 870742
hemipelagite, 870927
Japan Trench, 870866
magnetic polarity reversal, 870915
multiple sediment sources, 870915
nannofossil, radiolarian, 870915
oxygen, 870915
plate boundary, 870927
protothrust zone, 870927, 870928
sediments, 870858
Shikoku Basin, 870927
slope, 870927
structural terrace formation, 870928
structural terrace, linearity, 870928
structural terrace, parallelism, 870928
subduction, 870927
trench fill sediment, 870927
turbidites, 870927
uplifting, 870927
- nannofossil, calcareous, 810880
magnetic anomaly, 810880
nannofossils, 740630
- Nazca Plate, metal, 340575
- New Jersey Transect, 950811
- New Zealand, tectonics, 901234
noncarbonate, 740628
- Norwegian Sea, 38S0243, 38S0246
biogenic siliceous sediment, 38S0246
Miocene, 38S0245
Oligocene, 38S0246
ooze, nannofossil, 38S0246
Pliocene to Pleistocene, 38S0245
Oligocene to Recent, 740621
Oligocene-Pleistocene sediments, East Pacific Rise, 920296
- ooze, nannofossil, 440504
organic geochemistry, 800962
carbon, organic, 800962
carbonate, 800961, 800962
diagenesis, microbial, 800962
highest rates, 800962
intense microbial activity zone, 800962
paleoenvironment, 800963
organic matter, Eocene, 950655
organic matter richness, slowing degradation, 801000
oxygen isotope, Miocene, 901399
- Pacific Ocean, metal, 340575
Pacific Ocean C, paleoceanography, 850981
Pacific Ocean E
modified sediments, 540331
tectonic and depositional history, 160942
Pacific Ocean EC, geologic history, 090915, 090924, 090928
Pacific Ocean N
Aleutian Plain, 190897
Meiji Guyot, 190900
plate movement, 190902
sedimentation, 190908
Pacific Ocean NE, metal-rich basal sediments, 630675
Pacific Ocean NW, 860459
clay, 860563
eolian sedimentation, 860589, 860591, 860592, 860595, 860598, 860601, 860602
geochemical history, 620789, 620792, 620793, 620797, 620798, 620800, 620801, 620802
quartz, 860581, 860584, 860585, 860586
- Pacific Ocean SE
eolian input, 920414, 920415
rare earth elements, 920387, 920388
trade winds, 920332
- Pacific Ocean SW
Cenozoic, 901513
Eastern Marginal Basin Province, 210904
modern sediment distribution, 901439
Pacific Plate, 210904
Western Marginal Basin Province, 210903, 210904, 210905
- Pacific Ocean W, guyot, 200659
paleoenvironment, Pendragon Escarpment, 800759
paleomagnetic results, changes, 870780
paleotemperature, cold-water diatoms, 850942
- Panama Basin, sediments, 690391
- Pendragon Escarpment, uncertainty, 800979
- Peter I Island, geology, 350343
- petroleum generating potential, organic matter, 640872
- Philippine Sea, 870646
physical properties, 330695, 870811
regional correlation, 330702
- Plantagenet Formation, lithology, 760766
- Pliocene-Miocene sediment, 870670
- Porcupine Plain, Albian-Cenomanian, 800975, 800977, 800978
- porosity, 780357
- potassium, argon, 411115
- preservation, 920296
- quartz, 860581, 860584
climate change, 860586
source regions influence, 860584
transport, 860585
westerlies influence, 860585
- Quaternary, Pleistocene, 801181
- Quaternary isotopic record
Matuyama hiatus, 680461
oxygen isotope, 680461
- Quaternary paleoenvironmental history, 710461

- radiocarbon dating, 640758
 California, Gulf of, 640757
 Guaymas Basin, 640758
 gulf mouth, 640758
 rare earth elements, 920404
 rate differences among sites, 780365
 deposition, 780366
 foraminiferal gravity flows, 780366
 tectonic thickening, 780366
 regional problems, sedimentation history, 170919
 regional sedimentation, 920599, 920600
 Rockall Plateau, sediments, 810833
 Ross Sea, 280927, 280930
 sea floor spreading, 020426
 magnetic anomaly, 740621
 Santonian-Eocene sediment, 020426
 sea level, fluctuations, 960598, 960599
 sediment, 700336
 Oligocene-Quaternary, 840947
 sediment accumulation, 800786, 960599
 axial midfan region, 960599
 Holocene, 960599
 Mississippi Fan, 960599
 Wisconsin interstadial, 960599
 Zone Y, 960599
 Zone Z, 960599
 sediment history, 280787
 biogenic components distribution, 280785
 sediment record, ice rafting, 710469
 sediment synthesis, 580993
 sedimentary evolution, Paleocene, 430815
 sediments, Blake Ridge, 760364
 seismic section, tectonics, 870746
 shallower, reworked sediment, 800786
 Shikoku Basin, 580993, 580994, 870759
 basalt, 580896
 slumping, detection, 950661
 southwest regional unconformities, increased, 210904
 stratigraphy
 carbonate, 680347
 seismostratigraphy, 801123
 Suiko Seamount, evolution at site, 433, 550493
 synthesis element
 calcium carbonate, 850980
 carbonate, 850979
 carbonate/noncarbonate, 850979
 noncarbonate, 850979, 850980
 sedimentation rate, 850979
 silica, biogenic, 850978
 tectonic
 clay, 430811
 clay, black, 430797
 limestone, 430794
 Paleocene, 430815
 tectonic history
 clay, 430811
 depositional environment, 430797
 limestone, 430794
 terrigenous material, 390461, 780366
 Tertiary, Miocene, 801180
 tetrapyrrole, diagenetic, pigment, 410825
 thermohaline flow, Quaternary, 720989
 tholeiite
 geochemistry, 590682
 petrology, 590682
 Tohoku Arc, volcanism, 870703
 trace elements, plagioclase, 650570
 turbidite, mud, Pliocene, Quaternary, 640513
 turbidites, deposition, 250454
 unconformity, Polar Front Zone, 710469
 upper ridge hiatus, 800786
 upper slope, 801047
 Vema Fracture Zone, 040670
 volcanogenic sediment, 440504
 Walvis Ridge, 740621
 geologic evolution, 750533, 750534, 750535
 history, 740873, 740886, 740887, 740889, 740890, 740892
 warm/glacial periods, alternation, 800786
 West Mariana Basin, metallogenesis, 590651
 wet-bulk density, 780357
 winnowing, 740632, 800786
 see also sediment accumulation rate; sedimentation rate
 acetate
 microbiologic activity, ^{14}C , 950638
 New Jersey Transect
 midslope, 950638
 seaward end, 950638
 Acicastello, Sicily, 120368
 acid, acyclic isoprenoid, limestone, Albian, 620926
 acid clay catalysis, lipid, diagenesis, 640916
 acid hydrolysis
 amino acid, 090903
 Caribbean Sea W, sediments, 680479
 acid rock
 $^{39}\text{Ar}/^{40}\text{Ar}$ age, boulders, 571281, 571282
 dacite, conglomerate, 571286, 571288
 Ganges Fan, sand, 220711
 geochemistry, Cenozoic sediments, 42B0559, 42B0563, 42B0594, 42B0602
 Japan Trench, sediments, 271220
 mineralogy, Rockall Rise, 801033
 organic geochemistry, boulders, 571299
 rhyolite, conglomerate, 571286, 571288
 Rockall Plateau, Tertiary deposits, 810669
 Wharton Basin, sand, 220711
 acid sediments, muramic acid, microbial biomass, sediments, 42B0767
 acid volcanics
 conglomerate, clast, gravel, 300431
 diagenesis, slope sediments, 840573
 Indian Ocean NW, volcanic components, 241061
 lithology, ash, 240129
 Sanriku, sandstone, 561156
 acids, terrigenous, fatty acid, bound fractions, 720837
 Acklins Island, Bahama Islands, geology, 110886
 acoustic basement, 751191, 751193, 751198
 accretionary complex, Lesser Antilles, 780040
 Africa, 751192
 Africa E, continental rise, 250519
 Angola Basin, 751192
 Atlantic Ocean C
 Argentine Basin, 391115
 magnetic anomaly, 391113
 Santos Plateau, 391106
 Sierra Leone Rise, 391121, 391123
 Atlantic Ocean N, 801116, 801119, 801192
 Atlantic Ocean NE, evolution, 411219, 411220, 411221
 Atlantic Ocean NW, regional aspects, 110951
 Atlantic Ocean SW, basin, evolution, 360994, 361003
 Barbados Ridge, accretionary prism, 780040
 basalt
 geochemistry, 590754
 petrology, 460181
 Biscay, Bay of N, continental margin, 481028, 481041
 clay, terrigenous, Campbell Plateau, 291147
 continental slope, Guatemala, 840900
 crust, oceanic, sediment boundary, 751192
 Galicia, continental margin, 47B0639, 47B0646
 Gardar Ridge, 941222
 geochemistry, Mid-Atlantic Ridge, 460181
 geological, geophysical setting
 rifting, 42A0889
 sedimentary cover, 42A0891
 Guatemala, continental slope, 840852, 840857, 840859, 840900
 Hatton-Rockall Basin, Reflector, 5, 121188
 Hess Rise, 621049, 621051
 Iberian margin W, evolution, 47B0761, 47B0770
 igneous rocks, Middle America Trench, 840947
 impedance contrast, 751193
 Indian Ocean W, 240672
 regional aspects, 250753, 250756, 250758
 island arc, structure, 190799
 Japan Trench, geology, 870706
 Lesser Antilles, accretionary complex, 780040
 lithology, 210345, 250295, 47B0086
 low abyssal hills, 020414
 magnetics and seismic reflection data, 140341
 Mexico, Gulf of, regional aspects, 010631
 Mid-Pacific Mountains, 621081
 Middle America Trench, 840900
 Moroccan Basin, evolution, 500803
 Pacific Ocean, equatorial high
 productivity, 850826
 Pacific Ocean N
 Umnak Plateau, 190905
 uplifting, 190905
 Pacific Ocean SE, basement, 350275
 Pacific Ocean SW, 210897
 Pacific Plate, tectonic evolution, 320931, 320932
 petrography, Alboran Basin W, 130759
 petrology, Alboran Basin W, 130759
 Philippine Basin, genesis, 310859
 ridges and troughs, 751193
 Rio Grande Rise, regional setting, 390958
 Rockall Rise SW, structure, 481075
 sea floor spreading, 020426
 depth, 020426
 seismic reflection, 751192
 seismic section characteristics, 850950
 seismic stratigraphy, rise crest seismic stratigraphy, 901332
 silt, terrigenous, Campbell Plateau, 291147
 Southeast Pacific Basin, sediment distribution, 350201, 350203, 350204, 350220, 350225
 southwest regional unconformities, 210897
 stratigraphy, crust, oceanic, 481075
 surface structure origins, 751198
 Tasman Basin S, borderland, 291140
 tholeiite, basalt, 180940
 turbidites, 751201
 volcanic cones, possible, 751193
 volcanics, basalt, 180941
 volcanism, Madagascar Plateau, 250539
 Walvis Ridge, 751192
 history, 740875
 acridine, preliminary organic analyses, 111017
 actinolite, 670557, 670558, 670561, 670563, 670569
 alteration, remnant arc debris, 590737, 590739
 basalt, 830336, 830337
 Costa Rica Rift Zone, 830145, 830147, 830150, 830166
 crust, oceanic, 670563
 petrology, 580846, 580848
 basalt, altered
 geochemistry, 580792
 petrochemistry, 580792
 Black Sea, sediments, 42B0378

- California, Gulf of
basalt, 650643
gulf mouth, 650401
- Costa Rica Rift Zone
basalt, 830219, 830221, 830222, 830232,
830233, 830235, 830250, 830257, 830284,
830307, 830311
stockwork-like zone, 830268, 830272,
830276
- crust, oceanic, Costa Rica Rift Zone, 830184
- diagenesis, slope sediments, 840575
- gabbro
mineralogy, 600591
petrography, 600591
- hydrothermal activity, 670569
- Iceland, hydrothermal system, 830235
- lithology, 670557
basalt, 670558
development, 670558
greenschist facies, 670558
major element, composition, 670558
- Melanesian Basin, ash, 610635
- Middle America Trench, 840794, 840805
- mineral, associations, 670558
- mineral, heavy
Cuvier Plain, 270524
Timor Trough, 270524
- mineral, secondary, 670551
East Pacific Rise, 650648
- mineralogy
crust, oceanic, 670563
mineral, metamorphic, 670561
- Pacific Ocean SE, clay-sized minerals,
350485
- petrography, minor lithologies, 600583
- polymict breccia, clast, 600648
- Rockall Plateau, Paleogene sediments, 810659
- volcanics, 670563
- actinolite-tremolite
basalt, oceanic, Melanesian Basin, 610654,
610658
Guatemala, trench, 670515
Madagascar Plateau, volcanic sediment,
250524
- active margin, 590141
ash, 870707
Barbados, margin, 840913
basalt, 670559, 670561
basement, geochemistry, 590743, 590746,
590747, 590750, 590751
Central America, 840921
western continental slope, 840921
compressive stress, 840911, 840913
continental slope, Guatemala, 840846
convergent-extensional, 840912, 840913
Middle America Trench, 840846
subsidence, 840912
deformation, 870809
deposition, 780320
feldspar, basalt, 670561
geologic setting, 840922
geophysical data, Guatemala, 840895
Guatemala, 670603, 670772
continental slope, 840846
geophysical data, 840895
interstitial water, diagenesis, 870865
Japan Trench, sedimentology, 870909, 870910
Lesser Antilles, 780086
Lias, 42A0956
Mexico S, 660643, 660815
evolution, bathymetric, 660815
evolution, tectonic, 660815
radiolarians, 660643
Middle America Trench,
convergent-extensional, 840845, 840912
mineralogy
clinopyroxene, 670561
magmatic, 670561
magmatic, 670559
Nankai Trough, geologic setting, 870910
Neogene formations, paleogeography, 42A0921
Nias Island, Sumatra, 660815
organic geochemistry, Japan Trench, 571291
plate tectonics, passive margin, 840911
sediment, Oligocene-Quaternary, 840944
sedimentology, 670759
Southeast Pacific Basin, evolution,
geologic, 350736
volcanism, explosive, Neogene, 870718
X-ray mineralogy, 600437
- Adak Island, 190005, 190019, 190218, 190737,
550009, 550099
fracture zones, 190570
island, 190005, 190019, 190218, 190737
Pacific Ocean N, plate movement, 190902
adamellite, clay mineralogy, stratigraphic
evolution, 750863
- Adana Basin, 42A0903, 42A0921
Neogene formations, paleogeography,
42A0903, 42A0921
Rio Grande Rise N, regional setting, 250691
salt, 42A1037
slate, 42A1037
- Adare Peninsula, 280369, 280374, 280377,
280586, 280644, 280835, 280896, 291120
- Adelaide Canyon, 350284
Pacific continental margin, geomorphology,
350284
- Adelaide Channel, 350283
Pacific continental margin, geomorphology,
350283
- Adelaide Island, 350279
Pacific continental margin, geomorphology,
350279
- South Tasman Basin, borderland, 2901143
- Adelie Coast, 710468
general synthesis, nearshore environment,
280934
- Aden, Gulf of, 200342, 230005, 230292,
230392, 230522, 230531, 230678, 230759,
230766, 230768, 230813, 230913, 231121,
240003, 240006, 240017, 240127, 240128,
240138, 240139, 240197, 240204, 240205,
240484, 240591, 240592, 240651, 240656,
240662, 240664, 240697, 240707, 240715,
240716, 240720, 240721, 240722, 240781,
240787, 240789, 240827, 240828, 240841,
240969, 240976, 240979, 240995, 241047,
241051, 241053, 241055, 241056, 241060,
241061, 241065, 241068, 241069, 241112,
241129, 241136, 241139, 241140, 241146,
241157, 241165, 250481, 250496, 250498,
250664, 250743, 250746, 260987, 260999,
350736, 38S0649, 380807, 400033, 400069,
400741, 401029, 490848, 540408, 540410,
540413, 540416, 600866, 640525, 641089,
641104, 641169, 641285, 641286, 690530,
700211, 700317, 700325, 700472, 820515
- Arabian Sea
history, 231121
paleomagnetism, 230522
- basalt
compressional wave velocity, 240787
trace elements, 240781, 240871
broadening, 240662
calcareous fossil preservation, 240707
carbon, 241155
carbonate, 241155
clay, green, Galapagos Spreading Center,
700211
clay minerals, 241056
coarse fraction sediment, 240651
- deposition
chalk, nannofossil, 250496
depositional paleoenvironment, 250498
ooze, nannofossil, 250496
diabase, trace elements, 240871
grain size, 241153
sand-silt-clay distribution, 241153
hydrocarbon, 241165
hydrocarbon, gaseous, 241157
hydrocarbon, heavy, 241157
hydrothermal deposits, origin, 540417
Indian Ocean, geophysical measurements,
240591, 240592
- Indian Ocean W
ash, 240721, 241047, 241049
authigenic minerals, 240719
basement, 240719
biogenic components, 240720
bitumen, 241047
calcareous fossil preservation, 240707,
240719
carbon, organic, 240719
chalk, nannofossil, 241047
clay minerals, 241056
fossiliferous sediments, 240720
gypsum, 240721
H₂S, 241047
hemipelagic sediments, 241068, 241069
lithology, 241047
ooze, nannofossil, 241047, 241049
paleoclimatological evidence, 240721
quartz, 240720
reef, 241047
regional aspects, 250743, 250746
salinities, 240721
sand, quartzose, 241047, 241049
sandstone, quartzose, 241047
sedimentary structure, 240719
sedimentation rate, 240719, 241047, 241049
shallow-water derivation, 240719, 240720
shallow-water fossils, 240720, 241047
sill, 241049
siltstone, quartzose, 241047
slumping, 241047
terrigenous components, 240662, 240720
wind/water terrigenous components, 240716
interstitial water, chemistry, 240799
kerogen, 241165
lead isotope, 700325
nontronite, 700317
paleomagnetism, 230522
petroleum, potential source, 240791
petroleum generating potential,
geochemistry, 240791
proto-Gulf of Aden, 230392, 230393
Red Sea, geology, 230813
sea floor spreading, history, 250664
sediment, 241047
Sierra Leone Rise, geophysical
measurements, 240591, 240592
sorting, 241153
Southeast Pacific Basin, evolution,
geologic, 350736
Zr/Nb ratio, 490848
see also Arabian Sea; Indian Ocean W; Red
Sea
- Aden Threshold, 42A1040
- adipocere, preliminary organic analyses,
160585
- Adirondack Mountains, 950766
- Adour River, basin, 930914
- Adria, 760887, 760889, 760890, 760894
rifting
Atlantic Ocean, 760888
Tethys, 760888
- Adriasola Bank, Pacific continental margin,

- geomorphology, 350281
 Adriasola Island, 350281
 Adriatic Orogeny, 110805
 Adriatic Sea, 110813, 110814, 130980,
 42B0518, 42A0858, 740557
 coast, 42A0338
 continental margin, 760885
 foredeep, 42A0934
 heat flow, 42A0857, 42A0858
 Messinian environments, Lago Mare, 42A1022
 temperature, heat flow, 42A0858
 adularia
 Atlantic Ocean SE, Cretaceous, 740781
 Indian Ocean W, mineralogy, 260573
 lithology, 260237, 260238
 ash, 260161
 tholeiite, geochemistry, 800946
 advection
 Barbados Ridge, 780384
 Colon Ridge, interstitial water, 680467,
 680472, 680474
 convection, interstitial water, 920612,
 920613
 Costa Rica Rift, carbonate, 690461, 690468
 deposition, models, 750837
 gas hydrate, 670611, 670612
 geochemistry, Pacific Ocean SE, 920560,
 920561
 geothermal measurements, discussion, 901322
 interstitial water
 Barbados Ridge, 780384
 hydrothermal fluid, 650441
 mineralogical studies, 410914
 Pacific Ocean SE, 920423, 920426
 sediment relationship, 870872
 Kings Trough, sediments, 941145, 941146
 limestone, Cretaceous, 620888
 Middle America Trench, transect, 670612
 natural gamma radiation, radionuclide,
 071074
 pore water, 680467, 680470
 study objective, pore water, 920599
 advection current, Nankai Trough, heat flow,
 870741
 Adzhar Trialet, 42B1079
 Aegean Basin, 130005, 42B0517, 42A0657,
 42A0805, 42B1017
 biostratigraphy
 heat flow, 42A1140
 Mediterranean Sea, 42A1139
 central, 42A0321
 ebridians, Pleistocene, 42A0805
 ebridians, Pliocene, 42A0805
 lithostratigraphy
 heat flow, 42A1140
 Mediterranean Sea, 42A1139
 Messinian
 isotopes, 42A0659
 sulfate, 42A0659
 northern, 42A0321
 silicoflagellates, Pleistocene, 42A0805
 silicoflagellates, Pliocene, 42A0805
 stable isotope, 42A0659, 42A0660
 sulfate
 Messinian, 42A0659
 stable isotope, 42A0659, 42A0660
 Tethys, 42A0947 Aegean Basin, Tethys,
 Mediterranean Sea, 42A0947, 42A0948
 Aegean Sea, 110806, 130273, 130669, 42A0003,
 42A0338, 42A0396, 42B0643, 42A0870
 evaporites, 42A1040
 margin, 760874
 Mediterranean Ridge, 42A0975
 Messinian environments, Lago Mare, 42A1031
 temperature, 42A0857
 Tethys, Mediterranean Sea, 42A0947
 Aegean subplate, 130005, 130275, 130372,
 131017, 42A0979, 42A0988
 compression, compressional tectonics, 131017
 Mediterranean Sea, extension, 131017
 tectonics, 131017
 Aegir Plateau, 481102
 plateaus, 481102
 aegirine
 phonolite, 130751
 Gorringer Ridge, 130751
 aegirine-augite
 Costa Rica Rift, 690593
 basalt, 690522
 Aegis Ridge, 480289, 480290, 480291
 Aeolian Islands, 42A0515
 Afar, 240591, 750538
 northern, 230754
 Rift Lake, 790879
 Afar Depression, 230813, 230814, 240017
see also Indian Ocean W; Red Sea
 Afghan, 42A0944
 Tethys, Mediterranean Sea, 42A0944
 Afghan ophiolite, Tethys, Mediterranean Sea,
 42A0945
 Afghanistan, 42A0944
 Afq Canyon, 42B1202
 formations, 42B1208, 42B1214
 Mediterranean Sea E, history, 42B1202,
 42B1206
 Afq Formation, 42B1208, 42B1214
 Mediterranean Sea E, history, 42B1206,
 42B1208, 42B1210, 42B1214
 Africa, 110883, 110947, 42B1141, 42B1195,
 42B1216, 480548, 510904, 540575, 620991,
 621098, 710288, 710289, 710319, 710337,
 710379, 710387, 710448, 710495, 710497,
 710754, 710756, 710880, 710884, 710886,
 710888, 710910, 710911, 711011, 711157,
 720810, 720960, 720974, 720990, 730620,
 740003, 740042, 740475, 740645, 740713,
 740755, 740795, 750003, 750037, 750463,
 750469, 750472, 750478, 750509, 750514,
 750519, 750539, 750846, 750863, 750864,
 750866, 750903, 750914, 751040, 751083,
 751091, 751191, 751193, 751205, 760142,
 760447, 760705, 760870, 760871, 760874,
 760878, 760887, 760888, 760889, 760890,
 760892, 760894, 760904, 760924, 780330,
 790201, 790559, 790915, 801161, 931088,
 950023
 acoustic basement, 751192
 alkaline marginal basins, 790395
 Angola Basin, Cretaceous, 751009
 Antarctica W, 250187
 Atlantic continental margin NW, evolution,
 440957
 Atlantic Ocean C, basin, 511501, 511506,
 511507
 Atlantic Ocean N
 paleogeography, 121173, 121177
 Paleozoic, 801109
 Atlantic Ocean NE, evolution,, 41124,
 411215, 411229, 411230, 411233, 411234,
 411237
 Atlantic Ocean SW, basin, evolution,
 360996, 360998, 360999, 361003, 361004
 Bahama Islands, geology, 110883
 Belem Ridge, South America NE, 040661
 biostratigraphy, 440941
 Biscay, Bay of N, continental margin, 481025
 Black Sea, evolution, 42B1141
 Cape Bojador, continental margin, 47A0802
 Cenozoic sediments, 450330
 clay, kaolinitic, 020418
 clay mineralogy, stratigraphic evolution,
 750863
 clay minerals, shield, 500720
 climate, 411033, 411042, 950511
 Africa NW, 411045
 benthic/plankton ratio, 411041
 desertification, 47A0802
 dissolution, 411042, 411043
 foraminifers, 411041
 Miocene, 411033
 planktonic foraminifers, 411040, 411041
 Pliocene-Pleistocene, 411033
 pyrite, 411033
 sand, 411034, 411035, 411037, 411039
 sea level, 411045
 volcanism, 411045
 coast, 240249, 241056, 640869, 740048,
 740874, 750479, 760842
 Cretaceous, 250687
 stratigraphy, 250687
 continental margin, 500005, 620675, 710339,
 720980, 730795, 740004, 750030, 750061,
 750062, 750118, 750450, 750457, 750469,
 750473, 750474, 750477, 750492, 750504,
 750522, 750534, 750537, 750555, 750772,
 750779, 750823, 750864, 750865, 750866,
 750903, 750905, 750969, 751014, 751017,
 751069, 751092, 751191, 751202, 751207,
 760861, 760866, 790502, 800703, 800725,
 810793, 810896
 Jurassic diagenesis, 790437
 Jurassic facies, 790437
 Jurassic limestone, 790449
 Jurassic sedimentation, 760865
 Jurassic stratigraphy, 790437
 structural evolution, 481058
 tectonics, 790502
 continental margin NW, cyclic
 sedimentation, 410965, 410967, 410968,
 410969, 410970, 410971, 410972, 410973,
 410974, 410975, 410977, 410979, 410980,
 410981, 410982, 410983, 410984
 continental rise, 240592, 411075
see also Indian Ocean W
 continental rise SW, 390906
 continental shelf, onshore geology, 400965,
 400967, 400968, 400970, 400971, 400972,
 400973
 continental slope, 240249, 391064, 710361,
 751009
 continental slope NW, 790916
 Cretaceous, stratigraphy, 250687
 diagenesis
 continental shelf, 020422
 continental slope, 020422
 palygorskite, 020422
 reconstruction, 020422
 diapir, continental margin, 390928, 390940
 East Mariana Basin, Albian transition,
 890425
 Europe, boundary, 760887
 Europe W, basins, 42A0939
 Falkland Plateau, geochemical
 relationships, 711011
 Falkland Plateau E, sedimentation, 360886
 geologic history, 751205
 Germany SW, 790889
 Goban Spur, continental margin, 801161
 Gondwana, dispersal, 260948, 260949, 260950
 Guinea Nose, 760831
 highlands, 760842
 hydrocarbon generation potential, organic
 facies, 640869
 Iberian margin W, evolution, 47B0766
 Indian Ocean S, geologic history, 260918,
 260940
 Indian Ocean W
 regional aspects, 250743, 250752, 250753,

- Indian Ocean W (Cont.)
 250754, 250755, 250756, 250758
 terrigenous sediment, 241056
 volcanic sediment, 250541
 introduction, explanatory notes
 plate tectonics, 460004
 sea floor spreading, 460004
 Israel, history, 42B1212
 Jurassic, 760890
 calcisphaerulids, 440912
 lithostratigraphy, 440941
 marginal basins, 890664
 Mediterranean Sea E, history, 42B1212
 Messinian environments, pre-evaporitic
 setting, 42A1004
 mineralogy, Goban Spur, 801027
 Moroccan Basin
 evolution, 500801
 margin, 500805, 500809, 500811, 500817,
 500818
 mud, terrigenous, source areas, 250457
 Natal Basin, sand, 250727
 North America
 Europe, 490007
 separation, 460004
 North America E, 130005
 rifting, 47B0028
 separation, 440941
 Pacific Ocean SE, trade winds, 920332
 Paratethys, paleogeography, 42A0985
 plate motion, 730619
 pole, 230913, 801109
 range, 620889
 Red Sea, geology, 230813, 230815, 230817,
 230818
 regional tectonics, magnetic anomaly, 720959
 rift zone, 330915, 640525, 641089
 rifting, 481048
 western, 330749
 Rio Grande Rise N, regional setting,
 250689, 250691, 250692, 250693, 250697
 Santos Plateau, origin, 390928, 390941,
 390943
 sea floor spreading, history, 250663, 250664
 sedimentation rate, Pliocene, 901378
 seismic reflection, continental margin,
 390940
 shelf, 241056
 Somali Basin, sand, 250727
 South America, 730796
 South America NE, 360007, 400741
 rifting, 360884, 360996
 separation, 400006
 stratigraphy, Paleocene, 250687
 Sundays River, 710885
 tectonics, continental margin, 790502
 Tethys, 720981
 Mediterranean Sea, 42A0944, 42A0946,
 42A0948
 Tethys N, margin, 440957
 volcanism, 411033, 411042, 411045
 Africa NW, 411044, 411045
 ash, 411045
 benthic/plankton ratio, 411041
 dissolution, 411042, 411043
 foraminifers, 411041
 glass, volcanic, 411045
 Miocene, 411033, 411045
 planktonic foraminifers, 411040, 411041
 Pliocene-Pleistocene, 411033
 pyrite, 411033
 sand, 411034, 411035, 411037, 411039
 sea level, 411045
 Walvis Ridge, 38S0657
 sediments, 751083
 Africa C, 740713, 740729, 901438
 Line Islands, tectonics, 330742
 rifts, 330742
 Africa E, 110611, 210909, 260007, 260021,
 260034, 260910, 260913, 260918, 260939,
 790510
 coast, stratigraphy, 250679, 250680,
 250681, 250682, 250683, 250684
 continental margin, structural evolution,
 481048
 continental rise, 250725, 250764
 Eocene/Paleocene boundary, 250725
 mineral, terrigenous, 250431
 Pliocene, lower/upper boundary, 250725
 Senonian/Campanian boundary, 250725
 terrigenous minerals, 250431
 volcanic sediment, 250519, 250520
 continental shelf, onshore geology, 400967
 Davie Ridge, volcanism, 250539
 deposition, bottom water, 250501
 equatorial mountains, 130977
 flysch, Cretaceous, 250737
 geophysical profiling, continental rise,
 250764
 Great Rift Valley, 810801
 Iberian margin W, evolution, 47B0768
 Indian Ocean, coast, 250679
 Indian Ocean S, geologic history, 260910,
 260913, 260918, 260939
 Indian Ocean W
 lithology, 250738
 regional aspects, 250743, 250752, 250753,
 250755, 250756
 volcanic sediment, 250541
 lithology, 250484
 continental margin, 250484
 provenance, 130392
 regional implications, 250107
 magma, tectonic affinities, 810801
 Mozambique Ridge, volcanic sediment, 250529
 northern coast, 260938
 Paleogene stratigraphy, 250687
 pelagic components, distribution
 Indian Ocean WC, 250490
 volcanic components, 250491
 Red Sea, geology, 230813, 230818
 rift propagation model, 230813, 481143
 rift system, 480169
 rifting, 250737
 continental, 230818
 rifts, 330749, 330762
 Rio Grande Rise N, regional setting,
 250693, 250695, 250698
 Somali Basin, volcanism, 250539
 terrigenous minerals, mineralogy, 250438
 tropical, 130392
 Africa EC, continental shelf, onshore
 geology, 400965
 Africa, Horn, 230393, 230814, 240017, 250693
 Red Sea, geology, 230814
 Rio Grande Rise N, regional setting, 250693
 Africa N, 120974, 130357, 130691, 130735,
 130742, 130973, 131203, 131221, 131227,
 131235, 131257, 131258, 131409, 200107,
 38S0955, 42A0363, 430813, 47B0764,
 750518, 760627, 760743, 760785, 780330,
 790393, 790551, 790559, 790653, 800614,
 800736, 820612
 Arabian Sea N, sediment history, 230506
 Atlantic Ocean NE, evolution, 411233,
 411234, 411237, 411240, 411241, 411242,
 411243
 basins, 42A0938
 block, 131422
 Callovian, 760788
 Jurassic-Berriasian, 760627
 clay minerals, sources, 241058
 continental margin, 760870, 790868
 Jurassic nannofossils, 790657
 continental slope, 750657
 deserts, 130979
 environment, clay minerals, 42A0461
 foreland, 130231
 lithology, provenance, 130392
 Mediterranean Sea, evaporites, 131221
 Messinian environments, Lago Mare, 42A1023
 Moroccan Basin, margin, 500815, 500817,
 500818
 sapropel, sedimentology, 42A0461
 Sicily, orogenic belt, 42A0937
 western, 130392
 Africa NE, 131246, 750780, 750801
 continental margin, 760865
 Indian Ocean S, geologic history, 260938,
 260940
 Jurassic sedimentation, Atlantic
 continental margin, 760865
 Mediterranean Sea, sea level, 131246,
 131247, 131248, 131249
 Red Sea, geology, 230813
 Africa NW, 38S0817, 38S0939, 38S0961, 621044,
 670772, 720762, 721021, 750510, 750834,
 750920, 750980, 760538, 760841, 760914,
 770352, 780463, 790025, 790046, 790081,
 790179, 790223, 790560, 790561, 790893,
 800595, 810439, 930830, 930914, 930918,
 931112, 931118, 931121, 931129, 931132,
 931174, 950756, 950757
 Al-Jadida
 carbonate platform, 790449
 granodiorite, 790543
 Atlantic Ocean
 margin, 481104
 Paleocene sediments, 770358
 Brazil Basin, minor sediment components,
 721003
 carbon, organic, geochemistry, 750828
 carbonate, dissolution, 411033
 carbonate platform, continental margin,
 790450
 chalk, clay-rich, acoustic properties,
 790853
 claystone, calcareous, acoustic properties,
 790853
 climate, 411033, 411044, 411045, 47A0641,
 47A0644, 790502
 clay, 47A0643
 Miocene to Pleistocene, 47A0641
 coal, Triassic, 790493
 coast, 931107
 continental margin, 38S0987, 410965,
 411121, 411124, 411126, 411128, 411131,
 710047, 711027, 740649, 790226, 790437,
 790449, 790497, 790582, 790671, 790775,
 790796, 790803, 790880, 790895, 890425,
 920332, 930913, 950763
 Al-Jadida, 790449, 790543
 ash, 411133
 barite, 411128
 carbonate platform, 790450
 chalk, clay-rich, 790853
 claystone, calcareous, 790853
 coal, 790493
 Cretaceous nannofossils, 790563
 Cretaceous sediments, 47A0481
 current, thermohaline, 790916
 cyclic sedimentation, 410965, 411123
 deposition, 790775, 790803
 diagenesis, 411123, 411124, 411126,
 411128, 790437
 Eocene, Miocene and Oligocene sediment,
 41S0987
 evaporites, 411128

- continental margin (Cont.)
 evolution, 790863
 faulting, 790915
 granodiorite, 790543
 inertinite, 790493
 interstitial water, 790825
 Jurassic, 411131
 Jurassic sediment, 790437, 790543
 K/Ar age, 790543
 limestone, 790449, 790837
 magnetic fabric studies, 47A0481, 47A0482
 maturation, 790257
 metagranite, 790551
 Neogene to Neocomian, 411131, 411133
 organic matter, 790775, 790803
 organic supply, relation to redox conditions, 411131
 paleomagnetic stratigraphy, 41S0987
 paleomagnetism, 47A0463, 47A0464, 47A0470, 47A0475, 490034, 170365, 180843, 270405, 270415, 270418, 340533, 340535, 340537, 340538, 340539
 passive margin, 790551
 pelagic facies, 411133
 physical properties, 790835
 physiography, 790894
 redox conditions, 411131
 salt, 790907
 shale, black, 411129
 spreading rate, 790914
 stratigraphy, 790437
 subsidence, 790907, 790915
 tectonics, 790907
 Tethys, 790437
 topography, 790896
 unconformities, 411133
 continental margin NW, 410983
 Cretaceous nannofossils, continental margin, 790563
 cyclic sedimentation, continental margin, 410965
 diagenesis
 Jurassic sediments, 790437
 silica, 410879
 dinoflagellate cysts, 790621
 eolian sedimentation
 continental margin, 680409
 paleoclimatic setting, 680410
 granodiorite
 K/Ar age, 790543
 petrography, 790543
 Great Rift Valley
 formation, 790524
 Permian formation, 790524
 hydrocarbon, extractable, organic
 petrology, 640850
 inertinite, coal, 790493
 interstitial water, chemistry, 790825
 Jurassic nannofossils, continental margin, 790657
 Jurassic sediment, continental margin, 790437
 K/Ar age, Mazagan granodiorite, 790543
 limestone
 Cretaceous, 620889
 Jurassic, 790449
 magnetization, 790837
 lipid, continental margin, 571387
 lithology, Atlantic Ocean, 721021
 margin, 411121
 maturation, continental margin, 790257
 Moroccan Basin, margin, 500809, 500819
 organic matter, continental margin, 790775, 790803
 oxygen isotope, 860600
 Paleocene sediments, Atlantic Ocean, 770358
 paleomagnetic results, continental margin, 47A0463, 47A0464, 47A0465, 47A0470, 47A0471, 47A0472, 47A0475
 palygorskite, 411091
 sepiolite, 411091
 passive margin, 47A0603
 continental margin, 790551
 depositional history, 950763
 physical properties, continental margin, 790835
 sand
 41S0939
 Neogene, 410497
 sea level, change, 411033
 sepiolite, 411091
 palygorskite, 411091
 shale, black, thermal history, 711027
 slumping, Miocene, 790257
 stratigraphy, 140959
 Jurassic, 790437
 Tethys, Jurassic sediment compared, 790437
 upper slope, bottom water, 800736
 volcanism, 411033, 411044, 411045
 Walvis Ridge, transect, 740649
 Africa S, 260949, 270288, 270290, 270397, 270697, 38S0681, 400226, 710287, 710331, 711030, 720933, 740726, 751208, 780507
 Atlantic Ocean C
 hiatuses, 391101
 Santos Plateau, 391106
 Atlantic Ocean SW, basin, evolution, 360993, 360994, 360996
 coast, 750916
 continental margin, 260034
 continental shelf, onshore geology, 400965, 400969, 400970, 400971
 Durban, 260669, 260675
 lithology
 sandstone, 400069
 shale, 400069
 Port Elizabeth, 360227
 Walvis Ridge, climatic, oceanographic evolution, 740679
 Africa SE, 640679, 760907
 Atlantic Ocean SW, basin, evolution, 360996, 361000, 361002
 calcareous nannofossils, Eocene, 711141
 calcareous nannofossils, Paleocene, 711141
 continental shelf, onshore geology, 400971
 deposition, depositional paleoenvironment, 250499
 Indian Ocean S, geologic history, 260918
 volcanism, 250531
 Cretaceous, 250532
 Cretaceous-Recent, 250532
 Jurassic, 250532
 Jurassic-Cretaceous, 250532
 Karroo, 250531, 250532
 Lebombo Range, 250532
 Precambrian, 250531
 Tertiary, 250532
 Africa SW, 38S0627, 38S0735, 640979, 710755, 711156, 740728, 750003, 750035, 750118, 750296, 750500, 750516, 750530, 750535, 750782, 750833, 750838, 750926, 750979, 751091, 751209, 810035, 810111
 Atlantic Ocean SW, basin, evolution, 361001
 coast, 620623, 750461
 continental margin, 750826, 751055
 petrology, 400470, 400471, 400472, 400474, 400475, 400476, 400477, 400478, 400479
 continental shelf
 geology, 400965
 onshore geology, 400965, 400967, 400970, 400971, 400972, 400973, 400974
 Cretaceous clastic sediment, continental rise, 400025
 euxinic sediment, Cenozoic organic sediments, 750853
 geochemistry, California, Gulf of, 640698
 geology, continental shelf, 400965
 Hess Rise, pyrite-marcasite, 620857
 organic geochemistry, continental rise, 400557
 shale, black, deposition, 750826
 Walvis Ridge, sediments, 751069
 Africa W, 020001, 020422, 030459, 030464, 110222, 110563, 120070, 130372, 130606, 140003, 151098, 151103, 151105, 170378, 220003, 220503, 230292, 230522, 230531, 230552, 230813, 230913, 260021, 260242, 260523, 260918, 260940, 260948, 260949, 260987, 270397, 270985, 360531, 360845, 360887, 360960, 38S0841, 38S0845, 38S0847, 38S0933, 390423, 390429, 391062, 400475, 410243, 411097, 411230, 411233, 42B0633, 42B1101, 430802, 481025, 481058, 481143, 710888, 720981, 750879, 770503, 770645, 790027, 800745, 810620, 900985, 930998, 950453
 Albian series, 47B0293
 Alps, 130005
 arid, 230426
 Atlantic Ocean NE, evolution, 411219
 basalt, compressional wave velocities, 140773
 basins off coast, 260007
 Berriasian, 500747
 Cape Basin, 440651
 coast, 730111, 750766
 continental margin, 140962, 260417, 260951, 360226, 411129, 730783, 801206
 continental rise, 140773, 38S0952
 continental shelf, 38S0983
 onshore geology, 400969
 continental slope, 020422, 38S0772
 diagenesis, coast, 020422
 equatorial, 390887, 430867
 Falkland Plateau, 360043, 360101, 361003
 Goban Spur
 benthic foraminifers, 800726
 evolution, 801206
 Guinea-Bissau, 38S0841
 hiatuses, 140962, 140964
 insoluble organic matter, bitumen, 47B0543
 interstitial water, 47B0577
 Jurassic shallow seas, 500747
 Kalahari Desert, 360909
 lithostratigraphy, 140959
 Madagascar, 250754
 magnetic anomaly, 47B0639
 margin, 130357, 361004, 390927
 mineral, 500074
 Miocene phytoplankton, 500507
 North America, 130005
 separation, 440941
 northeast coast, 230505
 northern, 110613, 130667
 pan-African terranes, 770502
 petroleum generating potential, 47B0547
 planktonic foraminifers, 770347
 plate movement, 42A1004
 plate tectonics, 42A0952
 Quaternary calcareous benthic foraminifers
 Goban Spur, 800745
 Pendragon Escarpment, 800746
 radiometric age, Permian rift, 790524
 rifting, North America, 47B0028
 rivers, 410234
 Santos Plateau, origin, 390928, 390940
 shield, 360996

- siliceous productivity, 47B0031
 south, 360923, 400741
 South America, 360007, 38S0846, 400741
 South America NE, 38S0846
 rifting, 360884, 360996
 separation, 400006
 southwest margin, 38S0671
 stratigraphy, foraminiferal, 450322
 sub-Saharan, 400967
 transition to desert-type climate, 500717
 Triassic continent, 42A0944
 upwelling, 690317
 Valanginian, 500747
 western continental margin. 40; especially
 Volume
 Africa WC, 740725, 950461, 950511
 Africa/South America Rotational Pole,
 Gondwana, dispersal, 260949
 African Craton, 42A0968, 790894, 801111
 Atlantic Ocean N, Paleozoic, 801111
 Natal Basin, sand, 250727
 Rio Grande Rise N, regional setting, 250689
 Somali Basin, sand, 250727
 African Plate, 130005, 130033, 130245,
 130275, 130356, 130372, 130691, 131430,
 220815, 230528, 231119, 260007, 260417,
 260523, 260910, 260947, 370332, 391123,
 400741, 411239, 411241, 42A0953,
 42A0955, 42B1077, 430112, 430852,
 430854, 47B0658, 47B0761, 490007,
 720006, 720008, 720959, 720962, 720965,
 730009, 730209, 730337, 730599, 730791,
 750783, 750864, 751099, 790181, 790711,
 790894, 790899, 820494
 American Plate, 360027
 Arabian Sea
 geology, 231119
 history, 231119
 Atlantic Ocean C
 basin, 511505, 511506
 Sierra Leone Rise, 391123
 Atlantic Ocean N, paleogeography, 121177
 Atlantic Ocean NE, evolution, 411239, 411241
 Atlantic Ocean S, Sierra Leone Rise, 391123
 Black Sea, geophysical framework, 42B1077
 Eurasian Plate, 720957
 Gondwana, dispersal, 260947
 Iberian margin W, evolution, 47B0761
 Indian Ocean S, geologic history, 260910
 motion, 42A0985
 Paratethys, paleogeography, 42A0988
 regional summary, 220815
 transform fault, theory, 490391
 volcanics, Eocene, 720957
 Afro-Arabian dome, 230814
 Red Sea, geology, 230814
 Ag
 Arabian Sea, history, 231123
 Bahama Islands, geology, 110883
 California, Gulf of, gulf mouth, 650406,
 650407, 650410, 650415
 chemistry, 650419
 clay minerals, microelements, 560987
 geochemistry, Cenozoic sediments, 42B0543
 Hess Rise, iridium, 620847
 hydrothermal alteration, sediments, 650420
 Japan Trench
 clay minerals, 560987
 sediments, 271223, 271227, 571213
 major element, geochemistry, 42B0532
 mineralogy, 650419
 minor element, geochemistry, 42B0532
 Pacific Ocean N, plate movement, 190897
 Red Sea, sediments, 230923
 Red Sea S, heavy metals, 231123
 see also Red Sea
 Agadir, 410421, 790377, 790923
 Atlas tectonic zone, 410421
 Moroccan Basin, margin, 500813, 500816
 Morocco, Triassic history, 140964
 Agadir Basin see Essaouria Basin
 Agadir Canyon, 411179, 500008, 500031,
 500070, 500071, 500766, 500813, 500816,
 510032, 510033, 790030, 790377, 790729,
 790732, 790735, 790775
 Cape Bojador, physical properties, 500047,
 500053, 500054, 500056, 500057
 carbon, organic, 790803
 CCD, shoaling, 500008
 Cenomanian and Albian sediments, 790256
 Cretaceous stratigraphy, 500008
 depositional environment, 790733
 heat flow, 790377
 "liquid window", 790380
 Moroccan Basin, margin, 500816, 500818
 organic matter, 790732, 790803
 oxygen index, 790729
 sediments, 790729
 depositional environment, 790733
 organic matter, 790732
 oxygen index, 790729
 seismic stratigraphy, 500068
 brown reflector, 500069
 Reflector Orange, 500070
 Reflector Red, 500069
 shearing, 500008
 shearing and folding, 500008
 slump structure, 790803
 temperature gradient, 790377
 Tertiary sediments, 790803
 thermal conductivity, 790377
 Agadir Trough, Moroccan Basin, margin, 500815
 Agana, 600078
 aggrading neomorphism
 carbonate, Jurassic, 790421
 limestone, petrography, 510756
 aggregate
 alteration, remnant arc debris, 590739
 Atlantic Ocean N, Mediterranean Sea, 110814
 Atlantic Ocean NW, microfacies, 440485,
 440488, 440489
 barite, 410915
 basalt, altered
 geochemistry, 580792
 petrochemistry, 580792
 beef-in-shale, conical, 360866
 Biscay, Bay of, evolution, 480801
 burrow mottling, silt, 291053
 Cenozoic sediments, lithology, mineralogy,
 geochemistry, 450326
 chert
 geochemistry, 620724
 petrology, 620724
 clay, pyrite, 291053
 cone-in-cone texture, conical, 360866
 diagenesis
 Mesozoic, 271014
 slope sediments, 840575
 dolerite, clay minerals, 630713
 East Pacific Rise, 920372
 Emperor Seamounts, mineralogy, 550466,
 550468, 550473
 ferromanganese nodules, iron oxide, 280751
 gabbro, phase chemistry, 370841
 Hess Rise, pyrite-marcasite, 620855
 Hess Rise N, sedimentary sequences, 620762,
 620766
 hyaloclastite, 460342
 lithology, 410239
 ferromanganese, 160237
 iron, 220016
 Mesozoic deposits, 47B0052
 mud, 400194, 400195
 magma, calc-alkaline, undetermined
 mineralogical composition, 660700
 Mariana Trough, basalt, 600650
 Melanesian Basin, ash, 610635
 metalliferous sediment, petrography,
 340786, 340787
 Pacific Ocean, iron-rich sediment, 080831
 palynological residue, mineral matter,
 size, 640740
 Patton Escarpment, alteration, 630713
 peridotite, phase chemistry, 370841
 physical properties, clay, 061134
 polymict breccia, clast, 600648, 600649
 sandstone, pyroxene, 320541
 silica, diagenesis, 410881, 410883, 410890,
 410893, 410895
 tholeiite, major element, 590707
 volcanic rocks, Geisha Guyots, 200682
 volcaniclastic matter, 550504
 aggregate, calcareous, gas, natural,
 zonation, 110795
 aggregate, calcic plagioclase, basalt,
 plagioclase, 660717
 aggregate, carbonate mud, lithology, 400043
 aggregate, clay
 ice rafting, 280738
 mineral, chemical composition, sediments,
 mineral distribution, 38S0032
 aggregate, cryptocrystalline, Valencia
 Trough, basalt, vesicular, 130767
 aggregate, crystalline
 diagenesis, organic matter, 870877
 mineral, heavy, Timor Trough, 270524
 aggregate, ferruginous
 lithology, 160269, 160305, 160369, 160370,
 160414, 160415, 260301, 260330, 260364,
 270093
 metalliferous sediment, 340786
 Panama Basin, physical properties, 160505,
 160506
 aggregate, glomeroporphyritic
 basalt, phyrlic
 clinopyroxene, 650636
 plagioclase, 650638
 petrography, 650635
 aggregate, granoblastic, polymict breccia,
 clast, 600648
 aggregate, microspherulitic
 Assemblage IIA(+), 710395
 sedimentation, geochemical aspects, 710432
 aggregate, mixed-layer
 dolerite, 630713
 Patton Escarpment, alteration, 630713
 aggregate polarization
 diagenesis, mineral, 47A0748
 siliceous sediment, silicified sediments,
 500728
 aggregate, siliceous, Cenozoic sediments,
 lithology, mineralogy, geochemistry,
 450326
 aggregate, spherulitic, Atlantic Ocean N,
 Mediterranean Sea, 110813
 aggregate, zeolitic, Valencia Trough, basalt,
 vesicular, 130767
 Agios Sostis Island, 42A0934
 island, 42A0934
 Agouti, 780088
 Agrigan, 600585
 andesite, 590725
 basalt, 590725
 chemistry
 gabbro, 600585
 lavas, 600585
 igneous rocks, chemical composition, 590725
 mineralogy, gabbro, olivine, 600587

- Sr isotope, andesite, 590725
 Agrigento, 131236
 Sicily, 131238
 Agrio Formation, Ortiz Formation, 710885
 Agua Fresca shale, Magallanes, 710821
 Agulhas Bank, 250139, 250177, 250691, 250693,
 400032, 400035, 400071, 400867, 400972,
 710288, 710302, 710459, 710802
 continental shelf, onshore geology, 400972
 Rio Grande Rise N, regional setting, 250693
 Agulhas Current, 730743, 730746
 deposition, depositional paleoenvironment,
 250499
 Agulhas Fracture Zone, 360027, 360887,
 360999, 391063, 391065, 391106, 400525,
 401026, 401045, 730791, 750477, 750479
 Atlantic Ocean S, Mesozoic, 751040, 751041
 Atlantic Ocean SW, basin, evolution, 360999
 Falkland Plateau E, sedimentation, 360887
 Mid-Atlantic Ridge, Falkland Fracture Zone,
 361002
 Agulhas Plateau, 250187, 250237, 250287,
 250664, 260949, 360888, 361004, 430697,
 430710, 620386, 710302, 750478
 Atlantic Ocean SW, basin, evolution,
 361003, 361004
 Falkland Plateau E, sedimentation, 360888
 Gondwana, dispersal, 260949
 sea floor spreading, history, 250664
 Agulhas-Mozambique system, deposition, bottom
 water, 250501
 Ahe Atoll, 330302, 330318, 330571
 Aiguillon Bay, 42B0744
 Ailinglapalap Atolls, 610774
 Aira
 detrital modal analysis, turbidites, 870624
 geochemistry, volcanism, 870699
 volcanics, 870624
 Akaishi Mountains, 870046, 870613, 870762
 origins, 870762
 Akimoto stage, Neogene, 870762
 Akistero Formation, Philippine Sea,
 Paleogene-Neogene, 310848
 Akita
 Japan, volcanic arc, 180700
 Paleogene-Neogene, 310850
 Philippine Sea, Paleogene-Neogene, 310850
 Akita oil field
 alteration, diagenetic, organic matter,
 571306
 Tohoku Arc, geology, 870716
 Al, 020347, 030584, 860605, 860657, 860658
 abyssal plain, inorganic geochemistry,
 801074
 accumulation rate, metal, 340577, 340580
 alteration, products, 450616, 810734,
 810735, 810738, 810739
 alteration minerals, trace elements, 920496
 amphiboles, chemical studies, 150963
 Angola Basin
 clay mineralogy, 750847
 geochemistry, 750847
 Atlantic Ocean S, history, 740715, 740718,
 740727
 Atlantic Ocean SE, paleoenvironmental
 evolution, 740665
 Baja California Seamount Province, basalt,
 630718
 basalt
 alteration, low-temperature, 511306
 basement, 240774
 celadonite, 511269
 chemical variation, 340303, 340305, 340306
 chemistry, 540676, 540682, 540684, 920473
 chromium, spinel, 450582
 clinopyroxene, calcic, 820472
 Costa Rica Rift Zone, 830147, 830151,
 830157, 830162, 830202
 Fe-Ti oxide, 550644
 geochemistry, 490601, 490618, 590766,
 590774
 major element, 511009
 Middle America Trench, 670581
 mineral chemistry, 550608, 550621,
 550633, 550635
 mineral, opaque, 450561
 mineral, secondary, 340408, 340422
 mineralogy, 370825
 petrochemistry, 670581
 petrology, 160626, 580852, 590678
 sill-pillow complex, 610675
 smectite, 511268
 basalt, altered
 classification, 540686
 geochemistry, 540689, 580808
 petrology, 540689
 basement
 chemistry, 600622
 petrology, 370695
 Bauer Basin
 basalt, 340227
 sediment, 850794
 Bermuda Rise
 geochemistry, 511516
 mineral, secondary, 511258, 511261
 plagioclase, 511055, 511056
 boninite
 crystallization, 600701
 geothermometry, 600695
 mineralogy, 600691
 bulk-rock compositions, 540742
 California, Gulf of, gulf mouth, 650404,
 650415
 carbonate, diagenesis, 320525
 chemical composition
 major element, 600461
 metal, 571259, 571262, 571263, 571264,
 571265
 chemistry, 550685, 650418
 zeolite, 370825
 chemistry, bulk, clinopyroxene, 630705
 chert
 geochemistry, 620725
 petrology, 620725
 clay, 860605
 substitution, 960580
 clay, authigenic, Mariana Trough, 600471
 clay, green
 clay minerals, 700216
 Galapagos Spreading center, 700213, 700216
 clay minerals
 celadonite, 511269
 smectite, 511268
 Tertiary, 291077
 claystone, red, 730688
 clinopyroxene, crystallization, 540663
 Cocos Plate, geochemistry, 660683
 Costa Rica Rift Zone
 basalt, 830221, 830223, 830230, 830236,
 830238, 830250, 830257, 830261
 stockwork-like zone, 830265
 crust, oceanic, aging, 511570
 diagenesis, slope sediments, 840576
 dolerite, 540663
 East Pacific Rise
 carbonate-free material, 920373
 sediments, 650380, 650426, 850793
 silicate, hydrothermal, 920375
 factor analysis, sediment, 920368
 Falkland Plateau, basement, 360896
 Fe/Al ratio, 920364
 Galapagos Hydrothermal Mounds, sediments,
 850791
 Galapagos Spreading center, 540378
 basal sediments, origin, 540382
 normative composition, 540380
 geochemical component grouping, 801077
 geochemical history, sedimentation, 710436,
 710437, 710438
 geochemical partitioning, 650428, 650429
 partitioning pattern, 650429
 geochemistry, 660683, 810708
 accumulation rate, 340561
 chemical analyses, 340560
 chemistry, 340220
 Cretaceous and Cenozoic sediments, 480708
 Hatton Drift, 810734
 Hatton Ridge, 810739
 interelement correlations, 810713
 major oxides, 540347
 mineral chemistry, 160626
 mineral, secondary, 450616
 origins, basal sediments, 340564
 petrology chemistry, 370695
 principal component, 810710
 Rockall Plateau, 810735, 810738
 geochemistry, partition, 700297, 700299,
 700301, 700302
 glass
 basalt, 650479, 650482
 chemical variation, 510982
 Goban Spur
 copper, native, 800851
 geochemistry, 801033
 Guatemala
 slope sediment, 840626
 trench, 670525
³He/⁴He ratio, 870863
 heavy metals, Cenozoic sediments, 450349
 Hess Rise, rocks, 620863, 620864
 Hess Rise N, sedimentary sequences, 620762,
 620763
 hyaloclastite, 650479
 ash, 650479
 glass, 650482
 hydrothermal deposits, Galapagos Spreading
 center, 700247, 700248
 hydrothermal mounds, 700280, 700281
 igneous rocks, 840948
 geochemistry, 370678
 Indian Ocean SW, iron-rich sediment,
 250396, 250401
 inorganic chemistry, 440576, 750951
 inorganic geochemistry, sediments, rocks
 Angola Basin, 750924, 750933
 Hess Rise, 620692
 Mid-Pacific Mountains W, 620685
 iron-rich sediment, spreading, 330835
 Japan Trench, sediments, 271224, 271225,
 271228, 271229, 271230, 271234, 571213,
 571251, 571253, 571254, 571255, 571256
 Jingu Seamount, volcanics, 550685
 K/Ar age, celadonite, 920511
 Magdalena Bay, dolerite, 630727
 magma, parental, evolution trends, 670582
 magnetic oxides, petrology, 511411, 511422,
 511426
 major element, 850784, 850789
 argillaceous sediments, 580724
 distribution, 500678
 magnesium, 850785
 silica, 850785
 manganese, 291083
 marcasite, geochemistry, 38S0767
 Mariana Islands, fore arc, 600659
 Meiji Guyot, K/Ar age, 550679
 metalliferous trends, 430693
 Mid-Atlantic Ridge, basalt, 460316

- mineral, chemical composition, 660713
 mineral, primary, pyroxene, 810786
 mineral, secondary, elemental composition, 920510
 mineralogic facies comparison
 clay, green, 810708
 lithogenous material, 810708
 manganese oxide, 810708
 mineralogy, 650418, 850795
 clinopyroxene, 540743, 540762
 Cretaceous and Cenozoic sediments, 480708
 gabbro, olivine, 600587
 hornblende, 660723
 plagioclase, 800942
 spinel, 800940
 Mounds, nontronite, 540384
 Mounds Hydrothermal Field
 chemistry, 540408
 origin, 540413
 Nazca Plate, basalt, 340227
 Pacific Ocean E, modified sediments, 540329, 540331
 Pacific Ocean NE, metal-rich basal sediments, 630667, 630669, 630671
 Pacific Ocean NW, 860657, 860658
 clay, 860605
 Pacific Ocean SE, 920555
 basalt, 340220
 mobilization, 920558
 peridotite, spinel, 370883, 370887
 petrology, geochemical variation, 740757
 phenocryst, clinopyroxene, 540657
 pyrite, geochemistry, 38S0767
 pyroxene, chemical studies, 150963
 Red Sea, geochemistry, 230977
 Rockall Plateau, concretion, fossil polymetallic, 810705, 810706
 sediment chemistry, 350427, 350434, 550457
 trace elements, 350451
 sediment comparison, 920353
 sedimentation, geochemical aspects, 710428, 710430
 silicate, ferruginous coating, 291065
 Siqueiros Fracture Zone, basalt, 540706
 sulfur isotope, major element, 500678
 thermomagnetic analysis, oxidation, 920485
 tholeiite
 geochemistry, 590681
 petrology, 590681
 titanium, spreading, 330835
 trace elements
 distribution, 42A0504
 distribution correspondence, 850789
 geochemistry, 370575
 partitioning, 850796
 Walvis Ridge, basalt, 740757
 zeolite, formation, 830257
 zoning, 370883, 370887, 450582
 see also aluminum
 Al Jaghub Formation, 131245, 131247, 131249
 Al-beidellite, East Pacific Rise, sediments, 650377, 650381
 Al-Cr, basalt, mineral chemistry, 550633
 Al-Fe montmorillonite, California, Gulf of, gulf mouth, 650413
 Al-Fe smectite
 Cretaceous/Tertiary boundary, paleoenvironmental history, 740690
 Emperor Seamounts, mineralogy, 550466
 hydrothermal alteration, sediments, 650420
 Al-Jadida, 790115, 790195, 790200, 790544, 790547, 790802, 790858, 790893, 790895, 790896, 790906, 790914, 790915, 790916
 Africa NW, continental margin, 790449, 790543
 carbonate
 Jurassic, 790411
 Schizosphaerella, 790411
 carbonate platform, 790465, 790474, 790476, 790867, 790889
 continental margin, 790439
 Jurassic cenozoic fossils, 790452
 limestone, 790449, 790479
 claystone, Cretaceous, 790115
 continental margin, 790711, 790880, 790893, 790895, 790907, 790914
 carbonate, 790411
 carbonate platform, 790439, 790896, 790902, 790903, 790914, 790917
 crust, oceanic, 790914
 current, thermohaline, 790916
 diagenesis, burial, 790399
 faulting, 790897, 790899, 790907, 790914, 790915, 790917
 formation, 790899
 geologic evolution, 790906
 Jurassic *Schizosphaerella*, 790411
 physiography, 790894
 salt, 790907
 spreading rate, 790914
 subsidence, 790899, 790907, 790914, 790915, 790917
 tectonics, 790907
 topography, 790896
 continental margin segment, 790899
 dominant topographic feature, 790895
 continental slope, 790373, 790712, 790894, 790899, 790902, 790906, 790915
 Cretaceous beds, 790903
 Cretaceous sediments, 790114
 current, thermohaline, 790916
 deposition, 790903, 790905, 790906, 790915, 790916
 erosion, 790916
 evolution, 790906
 faulting, 790915
 Jurassic Ammonoidea, 790711
 lithology, 790899
 post-Cenomanian evolution, 790916
 slumping, 790915
 stratigraphy, 790899
 subsidence, 790915
 unconformities, 790916
 Cretaceous beds, continental slope, 790903
 Cretaceous sediments, continental slope, 790114
 crust, oceanic, continental margin, 790914
 crustal block, 790915, 790917
 current, thermohaline, continental margin, 790916
 deep-sea basin, 790894
 diapir, 790914
 erosion, continental slope, 790916
 evolution, continental margin, 790893
 faulting, continental slope, 790915
 granodiorite, petrography, 790543
 halokinesis, continental slope, 790915
 Jurassic Ammonoidea, continental slope, 790711
 Jurassic cenozoic fossils, carbonate platform, 790452
 metagranite, 790552, 790553
 Moroccan Basin, margin, 500811
 seismic sequences, 790044, 790263
 spreading rate, continental margin, 790914
 Al-Jadida Canyon, 790896
 Al-Jadida Plateau, bathymetry, 790365
 Al-montmorillonite, California, Gulf of, gulf mouth, 650400
 Al-phosphate, paragenetic assemblages, Assemblage IIB (-), 710425
 Al-silicate
 geochemical partitioning, aluminum, 650428
 stable isotope, carbonate, 650384
 Al-smectite, East Pacific Rise, sediments, 650380
 Al-Ti
 basalt, geochemistry, 590766
 chemical composition, metal, 571266
 Japan Trench, sediments, 271219
 Al/Fe ratio, Indian Ocean SW, iron-rich sediment, 250401
 Al/K ratio, Indian Ocean SW, iron-rich sediment, 250401
 Al/Si ratio
 chert
 mineralogy, 320443
 petrography, 320443
 Pacific Ocean, sediments, 920381
 porcellanite
 mineralogy, 320443
 petrography, 320443
 Al/Ti ratio
 California, Gulf of, gulf mouth, 650401, 650409, 650415
 Indian Ocean SW, iron-rich sediment, 250401
 inorganic geochemistry, 430681
 Japan Trench, sediments, 271219, 271229, 271230
 sediment, chemical composition, 700271, 700273
 sediment geochemistry, 550461
 laterite, 550461
 nondepositional environment, 550460
 ooze, siliceous calcareous, 550457, 550458
 volcaniclastics, volcaniclastic matter, 550503, 550504
 Alabama, 110545, 120433, 121019, 430604, 440521, 740469
 Braggs, 430604, 430606
 Little Stave Creek, 38S0687
 Alabama River, Mississippi Fan, sand, 960533
 alabaster
 Cyprus, evaporites, 42B1189
 isotopic composition, Messinian sediments, 42A0648
 Alae lava lake, 550583
 Alagoas, 750472, 751475
 Alagoas Basin, 400915
 Alamagan Island, 600035, 600057, 600061, 600072, 600255, 600256, 600257, 600914
 Pagan Island, 600203, 600207, 600216
 Alarcon Seamount, 640643
 Alaska, 600475, 660428, 660834, 670792, 710340
 ash, Alaska, Gulf of, 180833
 gyre, 620363
 mudstone, petrology, 180907
 organic matter, North Slope wells, 960758
 Pacific Ocean N
 clay, 190908
 ooze, diatomaceous, 190909
 plate movement, 190897, 190898, 190899, 190900
 sedimentation, 190908
 shelf, 190891
 Siberia, landmass, 190727
 trench, 590793
 Alaska, Bay of, 380939
 Alaska, Gulf of, 050590, 190005, 190019, 190615, 190643, 190741, 190746, 190807, 190857, 190899, 280729, 280731, 390440, 430401, 620008, 660435, 780577, 810879, 840767, 860648
 ash, 180833
 Miocene to Recent, 180833
 volcanism, 180833
 composition, 190650, 190651, 190652, 190653, 190654

- glacial advances, 180835
glaciation, 180835, 180836
age determinations, 180836
erratics, 180835
fluctuations, 180836
granite, 180835
granodiorite, 180835
graywacke, 180835
ice rafting, 180835
Malaspina Glacier, 180835
measurements, abundance, 180835
metavolcanic rock, 180835
mica, 180835
Pleistocene, 180836
rafted origins, pebbles, 180836
sand, 180835
slate, 180835
ice rafting, 180835
erratics, 180835, 180836
glaciation, 080041, 180005, 180288,
180295, 180407, 180556, 180592, 180835,
180897, 180904, 180961, 180974, 190005,
190019, 190414, 190569, 190731, 190831,
190887, 190898, 190899, 190908, 260709,
291163, 360849, 38S0235
Indian Ocean W, mineralogy, 181018
lithology, 180295
mineralogy, sediment, 181015
mudstone, petrology, 180911, 180912, 180913
Pacific Ocean N
chalk, 190908
plate movement, 190899, 190900
sedimentation, 190897
sand, mineral, heavy, 180882
seamount province, 430746
tectonic history, 180965
Alaska Range, 180968
Aleutian Trench, 180966
Chugach-St. Elias Mountains, 180968
Kenai Mountains, 180968
Kodiak, 180965
land history, 180968
lithostratigraphy, 180966
Miocene-Pleistocene events, 180969
Pacific Plate, 180968
Poul Creek Formation, 180968
sedimentation rate, 180966
uplifting, 180968
Yakataga Formation, 180968
temperature, 190643, 190647, 190649
turbidite, silt, 180847
sedimentology, 180847, 180848, 180851,
180853, 180855, 180857, 180858, 180859,
180861
X-ray mineralogy, 181015
Alaska Peninsula, 180295, 180833, 180968,
180969, 180973
Pacific Ocean N, ash, 190909
Alaska Plain, 180006, 180287, 180295, 180377,
180553, 180569, 180889, 180925, 180935,
190569
continental margin, porosity, 180889
lithology, 180295, 180381
Magnetic Anomaly, 25, 190569
porosity, 180889
reflection profiles, 190569
sand, quartzose, 180925
seismic reflection, 190569
tectonic history, lower continental slope,
180970, 180973
topography, 190569
Alaska Range, 180968, 190900
Pacific Ocean N, plate movement, 190900
tectonic history, 180968
Alaska, Gulf of, 180968
Alba Basin, Messinian environments, salinity
crisis, 42A1005
Albania, Somali Basin, volcanism, 250539
Albatross Cordillera, 290038, 291157, 300698,
300700
Pacific Ocean SW, island arcs, 300698,
300700
Albatross Knoll, 630910, 630917
Miocene rocks, 630912
albedo, offshore environments, 280935
albedo change, 280938
Cenozoic paleoceanography, 901493
Pacific Ocean SW, oxygen isotope, 901347
paleoceanography, 850749
Alberta, 230823, 730343, 790929
Albian/Aptian boundary
Cape Basin, shale, black, 711030
lithology, Mesozoic units, 480049
albite, 670557, 670558, 670561, 670569
ash, geochemistry, 660691
basalt
Costa Rica Rift Zone, 830145, 830147,
830150, 830151, 830166
mineralogy, 42A0517, 540697
petrography, 540697
basalt, altered
geochemistry, 580798
petrochemistry, 580798
basement
basalt, 42A0517
petrology, 370698
Bauer Basin, basalt, 340239
clay minerals, mineralogy, 140737
Costa Rica Rift Zone
basalt, 830221, 830222, 830232, 830233,
830234, 830235, 830237, 830239, 830250,
830254, 830257, 830258, 830284, 830307,
830308, 830311
stockwork-like zone, 830265, 830267,
830268, 830272, 830276
crust, oceanic, Costa Rica Rift Zone, 830184
diagenesis
Mediterranean Sea, 130721, 130723, 130724
slope sediments, 840573, 840582, 840583
East Mariana Basin, sedimentary history,
890668, 890669
Falkland Plateau, basement, 360906
Geisha Guyots, 200683
geochemistry, 370698
Guaymas Basin, 640712
lithology, 210375, 290275, 670557, 670558,
800940
basalt, 140090, 670558
greenschist facies, 670558
sandstone, 120050
major element, geochemistry, 42B0530
Mariana Trough, 600614
Middle America Trench, ash, 660691
mineral, associations, 670557, 670562
mineral composition, ocean basin, 42A0517
mineralogy, 38S0111, 660691
lithology, 810784
minor element, geochemistry, 42B0530
mud, 870916
Nankai Trough, turbidites, 870916
Nazca Plate, basalt, 340239
ocean basin, mineralogy, 42A0517
organic geochemistry, 640819
Peter I Island, geology, 350347
polymict breccia, clast, 600648
secondary mineralogy, 830257
sediment, lithology, 38S0111
Shikoku Basin, basalt, 580899
silica, mineralogy, 140737
tholeiite, depleted, geochemistry, 810784
albite-chlorite, chemistry, assemblage, 600585
albite-chlorite-epidote, petrography,
assemblage, 600583
albite-epidote-hornfels
chalk, calcite, 260598
garnet, metasomatic, 260598
albite-oligoclase
California, Gulf of, gulf mouth, 650401
Guatemala, trench, 670515
albitization, 670563
plagioclase, 670561
albitophyre, quartz, polymict breccia, clast,
600648
Alboran Basin, 130581, 130762, 640524
basement
isotopic dating, 130762
trace elements, 130762
Betic-Rif, basement, 130759
clay minerals, 130670
compression, Mediterranean Sea W, 131012
geologic setting, 130763
plutonic complex, 130763
geophysical data, 130581
geophysical surveys, 130581
Gorringe Ridge, 130581
lithified rocks, 130726
lithology, ooze, marl, 130064
Mediterranean Sea
extension, 131012
lithified sediments, 130726
lithostratigraphy, 131021, 131026, 131028
Sardinia, slope, 130762
significance, geological, 130763
tectonics, 131011, 131012
Alboran Basin W, 130007, 130183, 130253,
130581, 130726, 130806, 131011, 131012,
131021, 131026, 131028, 131046, 131341,
131343, 42A0998
acoustic basement
petrography, 130759
petrology, 130759
basement, 130753, 130759, 130762, 130763
Bético-Riffian, 130759
breccia, 130759, 130760
geological significance, 130763
gneiss, 130753, 130755
granodiorite, 130755
hornfels, 130753
petrography, 130753
trace elements, 130762
breccia, 130759
gneiss, labradorite, 130760
granite, 130760
kinzigite, 130759
leptynites, cordierite, 130759
marble, 130760
minerals, 130760
petrography, 130759
clay minerals, 130670
alteration, diagenetic, 130670, 130671
compression, Mediterranean Sea, 131011
geological setting, 130763
geological significance, 130763
geophysical profiling, 130581
gneiss
biotite-plagioclase, 130755
muscovite-granodiorite, 130755
quartz-feldspar, 130753
Gorringe Ridge, 130581
granodiorite, 130755
interstitial water, 130807
barium, 130807
brine, 130807
halite, 130807
isotopic dating, 130762
Mediterranean Sea, extension, 131011
metamorphic rocks
basement, 130753, 130755, 130759, 130760,

- metamorphic rocks (Cont.)
 130762, 130763
 petrography, 130753, 130755, 130759
 mineralogy, 130606, 130666, 130670
 alteration, diagenetic, 130670
 calcite, 130607, 130666
 chlorite, 130607, 130671
 clinoptilolite, 130607
 cristobalite, 130607, 130667
 diagenesis, 130666
 dolomite, 130607
 halite, 130607
 illite, 130670
 illite-montmorillonite, 130670
 Kaolinite, 130607
 marl, 130607
 marl ooze, 130607
 mica, 130607, 130666
 montmorillonite, 130607, 130666, 130670
 plagioclase, 130607, 130666
 quartz, 130607, 130666
 sedimentation rate, 130607
 silicate, 130670
 stratigraphic breaks, 130671
 petrology, igneous rocks, 130753, 130755,
 130759, 130762, 130763
 schist, diopside-biotite-quartz, 130755
 Tyrrhenian Basin, 130581
 western, 130043, 130581, 130606, 130670
 Alboran Ridge, 130043, 131417, 131420
 lithology, breccia, 120260
 Alboran Sea, 130043, 130517, 130606, 130666,
 130691, 130760, 130829, 131021, 131026,
 131038, 131257, 131417, 131422, 131424,
 131426, 131427, 131439, 42A0396,
 42A0936, 42B1181
 Algeria, continental shelf, 42B1181
 basement, 131417
 basins, 131420
 ridges and shoals, 131420
 trenches, 131420
 basins, 131420
 continental slope, 131420
 eastern basin, 131420
 magnetic anomaly, 131422
 Mediterranean Basin, 131422
 northern marginal basin, 131420
 Rif, 131422
 lithology, 130068
 marginal basins, 131427
 Mediterranean Sea, 130666
 lithostratigraphy, 131038
 ooze, 130666
 Messinian environments, Lago Mare, 42A1025
 Messinian episode, 131426
 mineralogy, 130666
 Miocene, 131426
 Pliocene-Quaternary episode, 131427
 sedimentary fill, 131423
 marl, 131424
 marl ooze, 131424
 Pliocene, 131424
 Quaternary, 131424
 sand, 131424
 sand, turbidite, 131424
 Tortonian, 131424
 sedimentation rate, 42A0044
 trenches, 131420
 Alboran Strait, 131420
 Alboran Strait, 131417, 131420, 131423
 alboranite, Valencia Trough, 130770
 Alcatraz Fault, 630958
 Baja California SW, tectonics, 630958
 Alcedo Volcano, 850821
 Alcoy, formations drilled, exposed land,
 42A0899
 Aldabra Island, *see also* Indian Ocean W
 Alderney-Ushant Fault, 480038
 Alektora section, Neogene formations,
 paleogeography, 42A0918
 aleurite
 geochemistry, Cenozoic sediments, 42B0561
 mineralogy, 350301, 350303, 350305
 aleurolite, Black Sea, mineral, terrigenous,
 42B0656
 Aleutian Abyssal Plain. *See* Aleutian Plain
 Aleutian Basin, 190003, 190009, 190010,
 190413, 190571, 190573, 190751, 190812,
 190828, 190859, 190891, 190903, 580003
 Pacific Ocean N
 basalt, 190903
 Bering Sea, 190909
 ooze, diatomaceous, 190911
 reflection profiles, 190573
 southwestern, 190371
 Aleutian Islands, 190019, 190556, 190737,
 190859, 190871, 190902, 190909, 200736,
 381101, 550005, 550851, 600475, 600698,
 600731, 670581, 780301, 840913, 870792,
 901156
 active island arc, 561008
 basalt, island arc, 670581
 central, 190801
 deformation, framework, 870938
 ice rafting, 561095
 Japan, 880129
 Komandorskiye Ridge, segment, 190859
 Kuril Islands, 880020
 arc, 860647
 cusp, 550853
 Kamchatka, 860649
 Lord Howe Rise, pale green laminae, 901156
 subduction rate, trench wedge geometry,
 870792
 subduction zone, 660841
see also Pacific Ocean N
 Aleutian Plain, 180518, 180903, 180912,
 190003, 190005, 190019, 190807, 190857,
 190897, 190900, 190906, 190909, 200736
 ferromanganese, 190629
 ferromanganese sediment, 190629
 mudstone, petrology, 180912
 Pacific Ocean N, 190897
 accumulation rate, 190897
 basalt, alkali olivine, 190897
 clay, 190897, 190908
 conifer pollen assemblage, 190897
 Cook Inlet, 190897
 deposition, 190897
 Derickson Seamount, 190897
 Holocene diatomaceous debris, 190897
 ice rafting, 190897
 microflora, high northern latitude, 190897
 mineralization, contact, 190906
 ooze, diatomaceous, 190897, 190909
 ooze, nannofossil, 190897
 plate movement, 190897, 190898, 190899,
 190900
 Seamount Seachannel, 190897
 sedimentation, 190908
 Sirius Seamount, 190897
 terrigenous sediments, 190897
 turbidites, 190897
 Aleutian Ridge, 190003, 190005, 190008,
 190093, 190217, 190291, 190463, 190571,
 190808, 190812, 190831, 190887, 190897,
 190902, 190903, 190905, 190909
 Bering Sea, tectonics, 190903
 geologic evolution, 190897
 geologic synthesis, 190897, 190906
 Bering Sea, 190909
 Pacific Ocean N, 190906
 tectonics, 190903, 190987
 north flank, 190325
 ridges, Komandorskiye Islands, 190859
 tectonics, 190903
see also Pacific Ocean N
 Aleutian Terrace, 190003, 190005, 190008,
 190217, 190279, 190569, 190570, 190571,
 190799
 anticlinal structure, 190570
 faulting, 190571
 island arc, structure, 190799
 reflection profiles, 190570
 southern edge, 190799
 topography, 190570
see also Pacific Ocean N
 Aleutian Trench, 180006, 180287, 180295,
 180407, 180449, 180454, 180518, 180553,
 180558, 180592, 180806, 180889, 180897,
 180925, 180961, 180966, 180969, 180970,
 180973, 180974, 190008, 190020, 190218,
 190279, 190464, 190569, 190616, 190782,
 190799, 190860, 190889, 190899, 190902,
 200736, 230971, 550660, 550677, 621067,
 641115, 660005, 660023, 660024, 660059,
 660491, 660678, 660838, 670691, 670775,
 670778, 840955
 continental margin, porosity, 180889
 convergence rate, 870790
 deformed sediments, physical properties,
 180897
 fan, submarine, continental margin, 180889,
 180891
 Japan Trench, Kuril Trench, 860023
 Kuril Trench, 880005
 lithology, 180295, 180454
 Middle America Trench, 840955
 overconsolidation, 870843
 Pacific Ocean N
 clay, 190908
 plate movement, 190899, 190902, 190903
 permeability, sediment, 870843
 porosity, 180889
 sand, quartzose, 180925
 sediments, overconsolidation, 870843
 slope, 670051
 subduction rate, 870790
 tectonic history, 180966, 180970
 Alaska, Gulf of, 180966
 glaciation, 180970
 sedimentation rate, 180970
 seismic reflection, 180970
see also Pacific Ocean N
 Alevolina limestone, Rio Grande Rise N,
 regional setting, 250697
 Alexander Bank, Pacific continental margin,
 geomorphology, 350281
 Alexander Canyon, 131221
 Alexander Formation, 270581, 271051
 Australia W, continental margin, 270581
 Alexander Island, 150816, 350266, 350279,
 350281, 350378, 350737
 Pacific continental margin, geomorphology,
 350279
 Southeast Pacific Basin, evolution,
 geologic, 350737, 350738
 Alexandria Formation, 400973
 continental shelf, onshore geology, 400973
 algae
 Barremian-Albian sediment
 biosedimentary environments, 800918
 paleoecology, 800916
 calciturbidites, carbonate, 500740
 continental margin, preservation,
 paleoenvironment, 630946
 environment, sapropel, 42A0457
 hydrocarbon, aliphatic, 720834

- hydrocarbon, extractable, organic petrology, 640850
- Japan Trench, lipid, 660569
- limestone, 320537
- Hellenic Trough, 131115
- red coralline, 320538
- lipid, paleoenvironment, 660567
- lithologies, minor, sand, skeletal, 901481
- lithology, 390240, 430117, 430205, 440345, 480133
- Neogene formations, paleogeography, 42A0919
- organic geochemistry, 720824
- paleoenvironment, 800963
- organic matter, geochemistry, 640862
- Pacific Ocean SE, hydrocarbon, aliphatic, 920412
- Patton Escarpment, 630944
- pebbles, petrography, 801040
- Red Sea, dolomite, 230876
- San Miguel Island, 630944
- sandstone, fossils, 320539
- sapropel, sedimentology, 42A0457
- synrift sediments, Barremian-Hauterivian, 801175
- algae, blue-green
- Ionian Abyssal Plain, 42A0661
- stromatolite, 42A0661
- algae, calcareous
- Angola Basin, biostratigraphy, 750450
- Atlantic Ocean
- Cenozoic sediments, 140800
- Cretaceous sediment, 140800
- Atlantic Ocean N, Mediterranean Sea, 110818
- Bahama Islands, geology, 110884
- clay, 300432
- lithology, 400207
- Ninetyeast Ridge, dolomite, 220479
- Philippine Sea, Paleogene-Neogene, 310841
- synrift sediments, Barremian-Hauterivian, 801175
- algae, calcitized endolithic, Pacific Ocean W, guyot, 200664
- algae, codiacian
- limestone, 320537
- calcite-filled, 320537
- micrite, 320537
- microspar-filled, 320537
- pyrite-filled, 320537
- lithology, 440345
- algae, coralline
- carbonate, gravity-flow deposit, 960542
- diagenesis, Ita Mai Tai oolite, 200367
- provenance, 960545
- Rio Grande Rise, Mesozoic, 721015
- algae, dasycladacean
- calcuturbitides, carbonate, 500740
- lithology, 440345
- algae, degraded, Brazil Basin, 720821
- algae, marine unicellular, Brazil Basin, 720822
- algae, molluscan coralline, Mediterranean Sea E, history, 42B1201
- algae, red
- Atlantic Ocean C, Rio Grande Rise, 391125
- sandstone, fossils, 320539
- algae, unicellular, Rio Grande Rise, 720823
- algal crusts
- Indian Ocean C, biogenic components, 240682, 240686
- Indian Ocean W, biogenic components, 240664, 241051
- algal crusts, calcareous, Indian Ocean W, shallow-water biogenic components, 240704
- algal mats
- evaporites
- Mediterranean Sea, 130705
- Messinian, 42A0592, 42A0607
- Israel, history, 42B1206
- lipid, hydrocarbon, aliphatic, 571372
- lithology, 130159, 480081
- evaporites, 130425
- Mediterranean Sea, Messinian, 130680, 130689
- Mediterranean Sea E, history, 42B1206
- stromatolite, coccoid, blue-green algae, 42A0665, 42A0666
- Algarve Basin, 131079, 131081, 760870
- Alger 1 Well, Algeria, continental shelf, 42B1181, 42B1182, 42B1183
- Algeria, 130763, 131063, 131353, 400746, 42A0029, 430577, 790510
- Black Sea, continental shelf, 42B0413
- continental margin, 130691, 131422, 42A0029, 42B1181
- continental shelf, 42A0362, 42B1181, 42B1182
- Alboran Sea, 42B1181
- Alger 1 Well, 42B1181, 42B1182, 42B1183
- Algero-Provencal Basin, 42B1181, 42B1182
- Arzew 1 Well, 42B1181, 42B1183, 42B1193
- Atlas Mountains, 42B1181, 42B1182
- basement, 42B1182
- basins, 42B1181
- Chelif Basin, 42B1181
- chert, 42B1181
- clay, 42B1181
- composition, 42B1181
- continental rise, 42B1181
- deposition, 42B1181
- depressions, emergent highs, 42B1181
- dolomite, 42B1181
- Eocene-Miocene formation, 42B1181
- erosion, 42B1181
- evaporites, 42B1181, 42B1182
- folding, 42B1182
- folding Miocene-Pliocene series, 42B1182
- gravitational movements, 42B1181
- gypsum, 42B1181
- layers, 42B1182, 42B1183
- limestone, 42B1182
- lithology, 42B1182, 42B1183
- local subsidence, 42B1181
- major unconformity surfaces, 42B1182
- marl, 42B1181
- Mediterranean Sea, 42B1181, 42B1182
- Miocene orogeny, 42B1181
- Miocene post-orogenic deposits, 42B1181
- Miocene sedimentation, 42B1182
- Mitidja Basin, 42B1181
- narrow shelf, embayments, 42B1181
- pre-evaporite beds, 42B1181
- salt, 42B1182
- sand, 42B1182
- sand, calcareous, 42B1182
- sandstone, 42B1181, 42B1182
- seismic data, 42B1181
- southward thrusting nappes, 42B1181
- sulferous formation, 42B1181
- tectonic events, 42B1181, 42B1182
- topography, 42B1181
- transgression, 42B1181
- unconformity, 42B1181
- uplifted substrata, 42B1181
- vertical movement, 42B1181
- Villafranchian tectonic phase, 42B1182
- volcanic material, 42B1181
- continental slope, 42B1182
- foraminifers, continental shelf, 42B1182, 42B1183
- Mediterranean Sea E, continental shelf, 42B1181
- Messinian environments, Lago Mare, 42A1026
- Oran, 210843
- sediment, continental shelf, 42B1181, 42B1182, 42B1183
- Algerian Basin, 130091, 130105, 130134, 130142, 130183, 130407, 130465, 130607, 130608, 130667, 130680, 130689, 130780, 130944, 131002, 131015, 131021, 131026, 131029, 131035, 131214, 131221, 131412, 131417, 170561, 400384, 401045, 42A0003, 42A0004, 42A0380, 42B0517, 42A0522, 42A0651, 42A0956, 42A1042, 42A1091, Balearic Islands, southern prolongation, 131446
- biostratigraphy, heat flow, 42A1140
- Black Sea, geophysical framework, 42B1100
- carbonate, isotopes, 42A0650
- geological, geophysical setting
- rifting, 42A0889
- structure, 42A0890
- lithology, reconstruction, 130491
- lithostratigraphy, heat flow, 42A1140
- Mediterranean Sea, Messinian, 130690
- Messinian environments
- Lago Mare, 42A1025
- salinity crisis, 42A1008, 42A1010, 42A1026
- south, 42A0333
- temperature, magnetic anomaly, 42A0686
- Tethys, 42A0947
- see also Provencal Basin
- Algerian Basin S
- Messinian environments, salinity crisis, 42A1027
- sedimentation rate, 42A0044
- alginite
- Brazil Basin, 720821
- maceral, 870880, 870881
- Mazagan Escarpment, 790781, 790821
- organic chemistry, 870887
- organic matter, petrology, 40S0663
- Rio Grande Rise, 720824
- alginite-thallomite, sapropel, Cretaceous, 620891, 620892, 620895, 620896
- Algir Ridge, Atlantic Ocean, margin, 481102
- Algoa Basin, 250689, 250691, 290026, 360887, 480348, 740658, 800726, 810439
- Atlantic Ocean NW, regional aspects, 110964, 110971
- Falkland Plateau E, sedimentation, 360887
- Kirkwood Formation, 710040, 710448
- lithology, 310419
- Rio Grande Rise N, regional setting, 250689, 250691
- Sundays River, 710040
- Algoa Bay, 38S0681
- Alambata, Timor, limestone, 270567
- Alicante Basin
- formations drilled, exposed land, 42A0899, 42A0901
- Murcia Basin, 42A0901
- Alisitos Formation, 670750
- alkadiene, hydrocarbon, aliphatic, cyclic components, 660558
- alkadiene, C₂H₄ bicyclic, hydrocarbon, aliphatic, cyclic components, 660558
- alkali metal, 670564, 670566, 670567, 670569
- basalt, 810757, 810767
- beryllium, 810756
- boron, 810757, 810761
- chemistry, 920472
- chromium, 810757, 810767
- Co, 810759, 810767
- copper, 810756, 810761
- depletion, 670567
- gallium, 810757, 810761
- Li, 810755, 810760, 810761
- molybdenum, 810757, 810767
- nickel, 810759, 810767
- niobium, 810757, 810767

- basalt (Cont.)
 Pb, 810761
 Rb, 810755, 810760, 810761
 strontium, 810756, 810761
 tin, 810761
 yttrium, 810757, 810761
 zinc, 810757, 810761
 zirconium, 810757, 810766
 leaching, 670567
 loss on ignition, 670566
 tholeiite, 670564, 670566
 variations, 670564
 trace elements, alteration, 670564, 670567
 transport, 670567
 alkalies, 060849
 basalt
 chemistry, 540682
 Middle America Trench, 670581
 basalt, altered
 geochemistry, 580802
 petrochemistry, 580802
 geochemistry, 540757
 Indian Ocean E, abyssal plain sediment, 271007
 magma, 901164
 major element, chemistry, 920493
 microtektite, Eocene, 151031
 mineralogy, interstitial, intersertal material, 540744
 tephra, chemistry, 901164
 alkalies, bound rare, geochemical history, sedimentation, 710405
 alkaline earths
 Nankai Trough
 minor element, 870645
 trace elements, 870645
 silica, opaline, transformation, 480760
 alkanal
 Pacific Ocean SE
 fatty alcohols, 920414
 faty alcohols, 920413
 alkane, 960787, 960788
 alcohol, acyclic components, 660561
 algal vs higher land plant source, indicator, 960787
 amino acid, lipid, 42B0697
 Angola Basin
 Cretaceous, 751014, 751017
 organic geochemistry, 750990
 Atlantic Ocean N, lipid, 38S0659, 480967
 Bengal Basin, organic geochemistry, 220681
 bitumen
 composition, 571332
 geochemistry, 42B0693
 Black Sea, organic geochemistry, 42B0757, 42B0763
 Brazil Basin, derivation, 720822
 C₁₇ enrichment, 960788
 C₄-C₇, 380807
 Cape Bojador
 carbon, 47B0554
 hydrocarbon, extractable, 47A0515, 47A0516
 carbon
 distributions, 630945
 geochemistry, 410853, 42B0717, 42B0718, 42B0721, 430651, 440606, 440611, 440612, 440614, 440615, 480947, 571319, 571322, 571324, 590641, 590642, 610621, 610622, 610623
 molecular analysis, 711048
 carbon, organic, 950667
 distribution, 740735
 hydrocarbon, aliphatic, 740732
 carbon preference index, odd/even preference, 960787
 Cariaco Trench, organic geochemistry, 200929, 38S0633
 chemical characterization
 kerogen, 711048
 molecular analysis, 711048
 contact metamorphism, kerogen, 410821, 410822
 deposition, reducing environment, 960788
 diagenesis, distribution, 660569
 distribution, 960787
 extractable organic matter, 800985
 C₂₁-C₂₅ Cenomanian, 800986
 Gulf of Mexico, nonvolatile organic matter, 960747, 960748
 heptadecane/nonacosane, 960787
 Hess Rise, Albian sediment, 620939, 620941
 humic acid, 711048
 carbon preference index, 711049
 humic substances, sources, 440588
 hydrocarbon, 241165
 higher weight, 090861, 090866, 090879, 090887, 090888, 090900
 land plant, 960787
 low molecular weight, 711034, 711035
 hydrocarbon, aliphatic, 720835, 720837
 acyclic components, 660557
 aquatic character, 720836
 dominance, latitudinal variations, 720835
 short-chain, 720834
 Vema Channel, 720834
 hydrocarbon, aromatic
 carbon preference index, 711048
 hydrocarbon, C₁₇-C₂₄, 711048
 kerogen, 711049
 hydrocarbon, C₁-C₇, 42B0673
 volatile organic compounds, 571349, 571350, 571351
 hydrocarbon, C₁-C₈, 640777
 Baja California, 630781
 Patton Escarpment, 630779
 San Miguel Gap, 630775
 hydrocarbon, C₁₅-C₂₆
 distribution, 800974
 maximum, 800974
 nC₁₇-nC₂₃, 800974
 hydrocarbon, extractable, organic
 petrology, 580759, 630820, 630821, 630827, 630832, 630833, 640838, 640841, 640846, 640850
 hydrocarbon, nonaromatic, 870882
 bimodal distribution, 870882
 composition, 950655
 distribution, 870882
 intraslope basin organic matter, 960753
 isoprenoid, 960787
 distribution, 960787
 kerogen, 241165, 711048
 organic geochemistry, 640887, 640890, 640894, 640895
 laminated/nonlaminated sediments, organic
 geochemistry, 640921, 640922
 limestone
 Albian, 620923, 620924, 620926, 620929, 620930, 620934
 Cretaceous, 620883
 lipid, 571387, 610613, 630771, 660564, 860671
 acyclic components, 610614, 610615
 diagenesis, 630770, 640916
 enrichment, 960788
 geochemistry, 610627
 hydrocarbon, acyclic, 630763
 hydrocarbon, aliphatic, 571369, 640913
 indication, 630768, 630769
 Japan Trench, 571386
 Melanesian Basin, 610617
 organic geochemistry, 640887, 640890, 640894, 640895
 paleoenvironment, 640915, 640916, 660564
 shale, black, 41080032alkane
 underlying volcanic complex, influence, 610616
 lipid, terrigenous, carbonate-rich samples, 390497
 lower fan, organic matter, 960749
 maturation, carbon preference index, 870884
 Mazagan Escarpment, 790745, 790784, 790790, 790793, 790794
 Mazagan Plateau, 790747, 790749, 790752
 Mesozoic sediments, organic geochemistry, 500639
 Mississippi Fan, organic matter, 960752, 960755
 mud, terrigenous, organic geochemistry, 400557, 42B0749, 42B0752
 mudstone, Eocene, 480936, 480937
 Neogene cores, organic geochemistry, 42A0469
 Norwegian Sea, Greenland Sea, 380807
 Orca Basin, 960788
 carbon preference index, 960787
 organic contribution, 960788
 organic geochemistry, 571296, 590648, 640820
 Angola Basin, 750461, 750464
 Baja California, 640941, 640942
 Cabo San Lucas, 640879
 distribution, 380783, 571299, 640823
 Guaymas Basin, 640942, 640944, 640946, 640948
 high molecular weight, 640827
 hydrocarbon, nonaromatic, 271293
 isoprenoid, 640820
 lipid, 630839, 630851
 low molecular weight, 640880
 short-chain, 720824
 unresolved complex mixture, 590647
 Walvis Ridge, 750465
 organic matter, 500578, 500590, 500596
 Aptian-Jurassic, 711018
 distribution, 720837
 source, 380805
 organic petrography, 800987
 organic petrology, hydrocarbon, 47A0515, 47A0516
 organic source variations influence, 960788
 Pacific Ocean NW, lipid, 860671
 Pacific Ocean SE
 eolian input, 920415
 fatty alcohols, 920414
 hydrocarbon, aliphatic, 920410, 920412
 parametric ratios, 960787
 Pigmy Basin
 carbon preference index, 960787
 sediment, 960788
 preliminary organic analyses, 100625, 100627, 111015, 111018, 111022, 160576, 160581, 160585, 170562, 170563, 170568, 170577, 42B0724, 42B0727
 abundance, 170577
 distribution, 100636, 111021, 160585, 170577
 pristane/phytane ratio, 960788, 960789
 pyrolysis-GCMS results, discussion
 alkene pairs, 950665
 peaks, cause, 950663
 resolved component, 960787
 Rio Grande Gap, geochemistry, 720841
 Rio Grande Rise, distribution, 720824
 sediments, Blake Ridge, 760383
 shale
 geochemistry, 430644
 organic geochemistry, 400557, 42B0749, 42B0752
 shale, black, Cretaceous, 410866, 480936,

- shale (Cont.)
 480937, 751019, 751020, 751023, 751024, 751026
 Sigsbee Basin, organic analyses, 100625
 Sigsbee Escarpment, organic analyses, 100627
 sources, characterization, 960787
 sugar, lipid, 42B0697
 terrigenous source contribution indicators, 960788
 total extractable material, 960787
 Vigo Seamount
 carbon, 47B0554
 Cretaceous sediments, 47B0565
 Walvis Ridge, 751076, 751091, 751094
 alkanoic acid, 751093
 Angola Basin, 751091
 Atlantic Ocean SW, 751091
 bottom water, aerobic, 751091
 California, 751091
 deposition, anoxic, 751091
 distribution, 751089, 751091
 hydrocarbon, 751091
 Japan Trench, 751091
 microbial contributions, 751091
 Middle America Trench, 751091
 Philippine Sea N, 751091
 pristane/phytane ratio, 751091
 transport, 751091
 unresolved complex mixture, 751091
 alkane, acid
 Patton Escarpment, land plant wax derivation, 630944
 San Miguel Island, land plant wax derivation, 630944
 alkane, acyclic isoprenoid
 limestone, Albian, 620930, 620934
 lipid
 absence, 610615
 hydrocarbon, aliphatic, 571369, 640913
 shale, black, Cretaceous, 751024
 alkane, branched
 Atlantic continental margin, 950665
 Atlantic Ocean N, lipid, 480967
 Gulf of Mexico, nonvolatile organic matter, 960748
 hydrocarbon, C_1 - C_8 , Baja California, 630781
 Japan Trench, lipid, 660569
 lipid
 acyclic components, 610614
 hydrocarbon, acyclic, 630763
 hydrocarbon, aliphatic, 640913
 paleoenvironment, 660565
 alkane, C_{17} - C_{19}
 Patton Escarpment, 630944
 San Miguel Island, 630944
 alkane, C_2 - C_5
 Japan Trench, 571343
 midslope, 571343
 source, 571344
 alkane, C_4 - C_7
 age, 380807
 diagenesis, low-temperature, 380807
 hydrocarbon, 380807
 removal, 380807
 yield, 380807
 hydrocarbon generation potential, 380807
 hydrocarbon ratio, 380807
 hydrogen, 310903
 mud, carbonate, 380807
 mudstone, 380807
 petroleum province, 380807
 terrigenous sediment, 380807
 volcanics, 380807
 alkane, C_{25} - C_{35} , hydrocarbon, aliphatic, acyclic components, 660557
 alkane, diterpenoid, limestone, Albian, 620924
 alkane, free
 hydrocarbon, aliphatic
 Brazil Basin, 720834
 Rio Grande Rise, 720834
 alkane, gem dimethyl
 hydrocarbon, C_1 - C_7 , 42B0673
 hydrocarbon, C_1 - C_8
 Baja California, 630781, 630783
 Guaymas Basin, 640770
 Patton Escarpment, 630780
 tetrapyrrole, geochemistry, 630805, 640810
 alkane, iso-anteiso, shale, black, Cretaceous, 751023
 alkane, isomeric, Cape Bojador, hydrocarbon C, N C_7 , 47A0534
 alkane, isoprenoid
 hydrocarbon, aliphatic, acyclic components, 660557
 lipid
 hydrocarbon, acyclic, 630763
 hydrocarbon, aliphatic, 571369
 organic geochemistry, 640820
 preliminary organic analyses, 111022
 alkane, long-chain
 Atlantic Ocean N, lipid, 500654
 Brazil Basin, derivation, 720823
 diagenesis, thermally controlled, 630947
 extractable organic matter, C_{23} - C_{29} , 800985
 Gulf of Mexico, nonvolatile organic matter, 960747
 hydrocarbon, extractable, organic petrology, 640846
 lipid, 610617
 indication, 630769
 organic geochemistry, 720827
 Angola Basin, 750463
 Baja California, 640941
 Patton Escarpment, plant wax derivation, 630944
 petrology, 630821, 630827, 630832, 640838, 640841
 Rio Grande Rise, odd-over-even predominance, 720824
 San Miguel Island, plant wax derivation, 630944
 shale, black
 thermal history, 711024
 thermal maturation, 711024, 711025
 alkane, long-chain wax
 hydrocarbon, extractable, organic petrology, 640851
 hydrocarbon, nonaromatic, composition, 950655
 organic matter
 Aptian-Jurassic, 711018
 terrigenous higher plants, 950655
 Tertiary-Albian, 711021
 Rio Grande Rise, 720824
 shale, Aptian-Barremian, 711018, 711021
 alkane, microbial, Pacific Ocean SE, hydrocarbon, aliphatic, 920412
 alkane, odd-number
 hydrocarbon, extractable, organic petrology, 630832
 hydrocarbon, nonaromatic, predominance, 870882
 lipid, hydrocarbon, aliphatic, 571369
 alkane, polycyclic
 lipid, 610617
 shale, black, Cretaceous, 751019
 alkane, saturated
 hydrocarbon, C_1 - C_7 , volatile organic compounds, 571349
 lower continental rise hills, organic analyses, 101016
 organic geochemistry, preservation, 571299
 preliminary organic analyses, 111016
 Providence Channel NE, organic analyses, 101015
 alkane, short-chain
 extractable organic matter, predominance, 800985
 hydrocarbon, extractable, organic petrology, 640850
 lipid
 acyclic components, 610615
 diagenesis, 630770
 hydrocarbon, acyclic, 630763
 paleoenvironment, 660564
 Pacific Ocean SE, hydrocarbon, aliphatic, 920412
 alkane, tetracyclic, hydrocarbon, aliphatic, cyclic components, 660558
 alkanoic acid
 Angola Basin, Cretaceous, 751014, 751017
 Atlantic Ocean N, lipid, 480969
 carbon, organic
 distribution, 740736
 fatty acid, 740734, 740735
 carboxylic acid, acyclic components, 660563
 distribution, 720837
 fatty acid, distribution, 720837
 limestone, Albian, 620930, 620932
 lipid
 diagenesis, 640916
 paleoenvironment, 640915, 640916, 660564, 660565
 organic analyses, 440618
 organic geochemistry
 Angola Basin, 750460, 750464
 Baja California, 640941, 640942
 organic matter, distribution, 720837
 Pacific Ocean SE, eolian input, 920415
 shale, black, Cretaceous, 751023
 Walvis Ridge, 751091, 751094
 algal, bacterial inputs, 751092
 alkane, 751093
 Brazil Basin, 751092
 California Borderland, 751092
 distributions, 751089, 751091
 free acid subfraction, 751091
 Japan Trench, 751091
 land-plant acids, 751092
 Middle America Trench, 751092
 Namibian Shelf, 751092
 ocean margin Quaternary sediments, 751092
 Rio Grande Rise, 751092
 transport, 751093
 alkanoic acid, branched
 lipid, comparisons, 660569
 Middle America Trench, oceanic plate, 660569
 alkanoic acid, C_{22} - C_{34} , lipid, paleoenvironment, 660564
 alkanoic acid, C_{35} , C_{36} , carboxylic acid, acyclic components, 660563
 alkanol
 alcohol, acyclic components, 660561, 660562
 Angola Basin, Cretaceous, 751011, 751016, 751017
 fatty alcohol, 720837
 source, 720837
 limestone, Albian, 620925, 620927
 lipid, 630768
 alcohol, acyclic components, 640914
 Angola Basin, 750464
 diagenesis, 640916
 distribution, 571387
 Japan Trench, 571386
 Melanesian Basin, 610617
 paleoenvironment, 640915, 640916, 660564, 660567
 paleoenvironmental assessment, 660564

- organic geochemistry, Angola Basin, 750460
 organic matter, distribution, 720837
 Pacific Ocean SE, eolian input, 920415
 Walvis Ridge, 751094
 distribution, 751089
 stenols, 751093, 751094
- alkanone
 Japan Trench, lipid, 660569
 kerogen, organic geochemistry, 640887
 ketone, acyclic components, 660560, 660561
 lipid, 660564
 diagenesis, 630770
 ketone, acyclic, 630766
 Melanesian Basin, 610617
 organic geochemistry, 640887
 paleoenvironment, 660564, 660565
 paleoenvironmental assessment, 660565
 organic geochemistry, Cabo San Lucas, 640879
 shale, black, Cretaceous, 751023
 alkanone, C₃₇-C₃₉
 lipid
 paleoenvironment, 660564
 paleoenvironmental assessment, 660564
 alkanone, hopanoid, limestone, Albian, 620932
 alkanone ratio, lipid, paleoenvironmental assessment, 660565
 alkatriene, lipid, paleoenvironmental assessment, 660565
 alkatriene, C₃₀H₅₂ bicyclic
 hydrocarbon, aliphatic, cyclic components, 660558
 lipid, paleoenvironment, 660565
 alkatrienones
 ketone, acyclic components, 660561
 lipid, paleoenvironmental assessment, 660565
 alkene
 Costa Rica, continental margin, 840924
 diagenesis, 660568
 Gulf of Mexico, nonvolatile organic matter, 960748
 hydrocarbon, C₁-C₇, volatile organic compounds, 571351, 571353, 571354
 hydrocarbon, C₁-C₈
 Baja California, 640763
 Guaymas Basin, 640765
 San Miguel Gap, 630775, 630779, 640777
 kerogen, organic geochemistry, 640895
 limestone, Albian, 620930
 lipid
 alcohols, acyclic, 630767
 hydrocarbon, aliphatic, 571369, 640913
 Japan Trench, 571386
 ketone, acyclic, 630767
 Melanesian Basin, 610617
 organic geochemistry, 640895
 paleoenvironmental assessment, 660565
 Pigmy Basin, biological markers, 960785
 sediments, Blake Ridge, 760383
 shale, black, Cretaceous, 751019, 751029
 alkene, acyclic isoprenoid
 lipid, hydrocarbon, aliphatic, 571369
 shale, black, Cretaceous, 751020
 alkene, C₂₅-C₃₀
 C₂₅ subbottom concentration variations, 960789
 diagenesis, formation, 960789
 hydrocarbon, 960789
 hydrocarbon, C₂₅-multibranched, 960789
 hydrocarbon, total, 960789
 hydrocarbon, unsaturated, liability, 960789
 microbial activity, 960789
 Pigmy Basin, biological markers, 960785
 sulfate, pore water, 960789
 alkene, C₂₅-C₃₀ unknown, lipid, paleoenvironment, 660565, 660566
 alkene, diterpenoid, limestone, Albian, 620924
 alkene, hopanoid, limestone, Albian, 620932
 alkene, isoprenoid
 humic acid, ¹⁴C, 711048
 kerogen, ¹⁴C, 711048
 limestone, Albian, 620924
 alkene pairs, pyrolysis-GCMS results, discussion, alkane, 950665
 alkene, steroidal, limestone, Albian, 620931
 alkene/alkane doublet
 kerogen, organic geochemistry, 640895, 640897
 lipid, organic geochemistry, 640895, 640897
 alkenoic acid
 Atlantic Ocean N, lipid, 480969
 carboxylic acid, acyclic components, 660563
 limestone, Albian, 620926, 620930, 620934
 lipid, paleoenvironment, 660564
 shale, black, Cretaceous, 751026
 alkenoid, lipid, paleoenvironmental assessment, 660564
 alkenol
 alcohol, acyclic components, 660562
 alcohols, results, acyclic components, 660562
 lipid
 alcohol, acyclic components, 640914
 paleoenvironment, 660564
 paleoenvironmental assessment, 660564
 alkenol, C₂₂, alcohols, results, acyclic components, 660562
 alkyl perylene
 Patton Escarpment, 630945
 San Miguel Island, 630945
 tetrapyrrole, geochemistry, 630807
 alkyl thiophenes, continental margin, preservation, paleoenvironment, 630946
 alkylcyclohexane
 Hess Rise, Albian sediment, 620941
 lipid, geochemistry, 610627
 organic geochemistry, molecular markers, 630840
 allanite, 340612
 fossils, minerals, rare and unusual, 340612
 Rockall Plateau, Paleogene sediments, 810653
 Alleghenian-Acadian Orogeny, Moroccan Basin, margin, 500805
 alleverdite
 Indian Ocean W, mineralogy, 42A0373
 Mazagan Plateau, 790501
 allivalite
 gabbro, phase chemistry, 370844
 peridotite, phase chemistry, 370844
 allochems
 carbonate, shallow-water, 430422
 lithology, 360215
 sandstone, 320538
 Timor Trough, limestone, dolomitic, 271012
 allophane, interstitial water, 080865
 alluvial fanglomerates, 130489
 lithology, 130489
 Almada Basin, 750472, 750475
 almandine, Falkland Plateau, basement, 360902, 360905
 Almeria, 130770
 Spain, 130494
 Almeria, Gulf of, 131420
 Almpias subzone, 42A0945
 Tethys, Mediterranean Sea, 42A0945
 Alpha Glacial Stage, 42B0135
 alteration, products, 450615
 Black Sea, sediment, 42B0493
 Emperor Seamounts, petrology, 550575, 550579
 Japan Trench, sediments, 271234
 Alpine Fault Zone, 290191, 350271, 350273, 900660, 901327
 Chatham Rise, seismic stratigraphy, 901327
 Iberian margin W, evolution, 47B0766
 lithologies, major
 chalk, 901481
 ooze, calcareous, 901481
 Mesozoic evolution, Tethys N, 440960
 Pacific Ocean SW, Cenozoic, 300679
 Alpine flysch, 130005
 Brazil Basin, 040659
 Alpine fold belts, 42B1141, 760885
 Black Sea, evolution, 42B1141
 Moroccan Basin, margin, 500812, 500819
 Alpine orogeny
 Atlantic Ocean N, Mediterranean Sea, 110802, 110806
 Atlantic Ocean NE
 evolution, 411239
 stable isotope, 480484
 Barremian-Aptian, ⁸⁶Sr/⁸⁷Sr ratio, 620782
 Black Sea, evolution, 42B1147
 lithology, 120694
 Tethys, Mediterranean Sea, 42A0946, 42A0947, 42A0948
 Alpine series, 440567
 Alpine-Carpathian foredeep, 42A0985
 Paratethys, paleogeography, 42A0985
 Alpine-Himalaya trend, 42A0948
 Tethys, Mediterranean Sea, 42A0948
 Alpine-Mediterranean system, 110222, 110607, 110616, 400696, 410499, 410502, 410505, 410991
 geological history, 42A0951
 Tethys, Mediterranean Sea, 42A0948
 Alpine-Mesogean domain, Iberian margin W, evolution, 47B0766
 Alps, 010232, 110570, 110617, 110802, 110805, 110806, 110810, 110817, 120958, 120962, 130005, 130763, 130981, 131258, 131430, 150773, 230005, 260626, 290804, 410181, 410567, 410991, 42B0359, 42B0451, 42A0944, 42A0955, 440571, 510904, 640588, 760870, 760873, 760878, 760879, 760885, 760887, 760888, 760891, 760892, 901085, 901325, 901327
 Africa W, 130005
 Atlantic Ocean N, Mediterranean Sea, 110806
 Austria, 110614, 110616, 410504, 410506
 Bavaria, 410505
 biostratigraphy, Messinian salinity crisis, 42A1139
 central, 110806
 eastern, 110811, 42A0945
 Europe W, 130005
 flysch basins, 410439
 Guatemala, continental slope, 670602
 Lake Bolsena, 110617
 limestone, 110616
 lithostratigraphy, Messinian salinity crisis, 42A1139
 Lombardian, 410503
Lutkevichinella keupera, 790703
 Mesozoic evolution, 440958
 Messinian environments, Lago Mare, 42A1023
 peripheral basins, 131257
 seismic stratigraphy, erosion, 901334
 Swiss, 410504, 410505
 Tethys, Mediterranean Sea, 42A0954
 Venetian, 110813
 western, 110805, 130673, 440953
 Alps, Austrian, Haselgebirge, Permian-Triassic, 790523
 Alps E, Tethys, Mediterranean Sea, 42A0944, 42A0945
 Alps, French, 480081, 870951
 Moroccan Basin, margin, 500815
 Alps, Italian, 760871
 Moroccan Basin, margin, 500815

- Alps, Swiss, 110613, 131228, 42A1060, 640568, 760871
- Alps W, 480080
- Atlantic Ocean, margin, 481103
- Mesozoic evolution, 440953
- Alsea River, 050536
- alteration, 300483, 300485, 300487, 340433, 460300, 650329, 650717, 650734, 670564, 690779, 690791, 690793, 690797, 810638, 820466
- aging
- basalt, 511159, 511163, 511165
- basalt, altered, 511160
- breccia, 511165
- ^{13}C , 511160, 511161, 511162, 511163, 511164, 511165
- calcite, 511162
- carbonate, 511160, 511161, 511162, 511164, 511165
- CO_2 , 511160
- flow margins, 511165
- hyaloclastite, 511161, 511164
- K_2O , 511161
- ^{18}O , 511159, 511160, 511161, 511162, 511164, 511165
- ^{18}O -rich, 511164
- plagioclase, 511162
- potassium, 511161
- pyroxene, 511162
- seawater, 511164
- seismic properties, 511165
- silicate, 511160
- strontium isotope, 511165
- timing, 511164, 511165
- water, 511160, 511161
- water content, 511162
- alteration minerals, trace elements, 920495, 920496
- andesine, 300485
- microlite, 300485
- montmorillonite, 300486
- phenocrysts, 300485
- andesite, alkaline, 180937
- petrology, 180937
- Angola Basin, geochemistry, 751101
- $^{39}\text{Ar}/^{40}\text{Ar}$ age, fracturation exposure, 600744
- ash
- distribution, 660692
- effects, 870684
- glass, 050531
- glass, basalt, 650477, 650479, 650480, 650482
- hyaloclastite, 650477, 650479, 650480, 650482
- Pacific Ocean N, 620559
- tuff, palagonitic, 020418
- Atlantic continental margin, mineralogy, 010354, 010355, 110784
- Atlantic Ocean
- basalt, 370563
- Cenozoic sediments, 140809
- Cretaceous sediment, 140809
- petrology, 370811
- serpentine, 370563
- Atlantic Ocean N
- Precambrian features, 801106
- trace elements, 511087
- Atlantic Ocean NE
- evolution, 411226, 411242
- stable isotope, 480477, 480478, 480482, 480483
- Atlantic Ocean S
- Malvinas Outer Basin, 391110
- Malvinas Outer Basin, 391111
- mineralogy, 030510, 040326
- Quaternary sediments, 720833
- Atlantic Ocean SE, Cretaceous, 740771, 740780
- Atlantic Ocean SW, basin, evolution, 360996
- Atlantic Ocean W, mineralogy, 040326
- authigenic minerals, 600463
- diagenesis, 600462, 600463
- hydrothermal, 600463
- low-temperature, 600463
- B, trace elements, 920491
- Bahama Islands, geology, 110885
- Baja California Seamount Province, basalt, 630716, 630717, 630718
- Barbados Ridge
- basalt, 780391, 780393, 780401
- basalt, pillow, 780393
- crust, oceanic, 780399, 780405
- Baron, mineral, 950491
- Bermuda Rise
- basalt, 340463, 340467, 511122, 511124, 511149, 511219, 511358, 511399, 511400
- basement, 510389
- crust, oceanic, 511243, 511483
- crystallization, 511040
- mineral, secondary, 511253, 511254, 511261
- oxygen, 511177
- sea floor, 511163, 511164, 511165
- trace elements, 511141, 511143
- bitumen, 450651
- Black Sea, evolution, 42B1141, 42B1142
- boninite, geothermometry, 600697
- breccia
- Line Islands, 330754
- Rio Grande Rise, 390538, 390539, 390541
- breccia, volcanic
- Neogene, 630640, 630652, 630653, 630655
- Rio Grande Rise, 390538, 390539, 390541
- bulk chemical changes, 650648, 650650, 650652, 650654
- alteration index, 650653
- basalt-seawater interaction, 650654
- California, Gulf of, 650654
- CaO , 650653
- circulation, 650654
- crystallization, fractional, 650651
- detrital material index, 650654
- East Pacific Rise, 650654
- Fe-enriched basal sediments, evidence, 650654
- fractionation effects, 650648
- glass, 650650
- glass, basalt, 650648, 650649
- greenschist facies, 650654
- immobile elements, 650652
- K_2O , 650653
- MgO , 650653
- mobile elements, 650651
- Ni/Zr ratio, 650652
- olivine, 650652
- sedimentation rate, 650654
- $\text{Sr}/\text{K}_2\text{O}$, correlation lack, 650651
- sulfide, hydrothermal, 650654
- TiO_2 , 650651
- yttrium, 650651
- zirconium, 650651
- bulk chemical composition, 660712
- bulk-rock compositions, effect, 540743
- burrow mottling, silt, 291053
- CaCO_3 , 870662
- calcarene, Cretaceous, 010523
- calcisiltite, Cretaceous, 010523
- calcite, 300486, 300487
- calciturbidites
- diagenesis, 500741
- limestone, micritic, 500745
- calcium, interstitial water, 780383
- California, Gulf of, 650329, 650477
- basalt, 650530, 650559, 650560, 650643, 650661, 650667
- glass, 650477
- gulf mouth, 650365
- carbon, geochemistry, 610624
- carbon isotope, 720412
- carbon isotope, stable, 410941
- carbon, organic, 740731
- diagenesis, 670610
- carbonate
- diagenesis, 320525, 320526
- stable isotope, 42A0652
- carbonate, diagenetic, isotopic survey, 630598
- carbonate mineral, stable isotopes, 550653, 550655
- carbonate nodule, authigenic, masses, 870662
- carbonate, secondary, vein, 580905, 580906, 580907, 580908, 580909, 580910
- Caribbean Sea W, sediments, 680479
- Cenozoic sediments, lithology, mineralogy, geochemistry, 450327
- Chatham Rise, Quaternary, 901425
- chemical fluxes, Costa Rica Rift Zone, 830259, 830261
- chemistry, 370825, 550685, 550687
- glass, palagonite, 370825
- K/Ar age, 550688
- sea floor, 370827
- volcanic layer, 370825
- chert
- ash, 300437
- oxygen isotope, 620754
- chlorite, 300485, 300486
- augite, 300486
- hornblende, 300486
- chlorophyll, diagenesis, 571395
- clay
- deposition, 710357
- glauconite, 291053
- Jurassic, 710357
- Pacific Ocean N, 620559
- stratigraphy, 870639
- clay, authigenic, Mariana Trough, 600471
- clay mineralogy
- montmorillonite-illite-chlorite assemblage, 650368
- stratigraphic evolution, 750863
- clay minerals
- authigenic origin, 560988
- chemical analysis, 960695
- mineralogy, 140734
- Miocene-Pleistocene, 630619
- stratigraphy, 720387
- Tertiary, 291082
- clay, red, Miocene, 730519, 730525
- claystone, basalt, 550707
- clinoptilolite, 300485
- clinoptilolite-heulandite, 300486
- Colon Ridge, interstitial water, 680472, 680473
- conglomerate, volcanic, siltstone, vitric, 300483
- consolidation, permeability, 870846
- convection, interstitial water, 920613
- cooling unit, petrography, 511022, 511025
- Costa Rica Rift, 690565, 690570
- alkali, 690487
- basalt, 690497, 690498, 690500, 690501, 690502, 690509, 690511, 690512, 690514, 690515, 690516, 690517, 690518, 690520, 690522, 690524, 690525, 690526, 690527, 690528, 690529, 690532, 690534, 690565, 830276, 830331
- carbonate, 690468
- crust, 920563

Costa Rica Rift (Cont.)

crust, oceanic, 830217, 830297, 830443
 Layer, 2, 690509
 mineral, 690551
 mineral composition, 690566, 690567, 690568, 690569
 near-vein zonation characteristics, 690565
 stockwork-like zone, 830276
 Costa Rica Rift Zone
 alteration, low-temperature, 830264
 basalt, 830217, 830219, 830220, 830221, 830222, 830223, 830224, 830225, 830226, 830228, 830230, 830232, 830233, 830234, 830235, 830236, 830237, 830238, 830239, 830240, 830249, 830250, 830252, 830253, 830254, 830257, 830258, 830259, 830260, 830261, 830262, 830283, 830284, 830285, 830286, 830307, 830308, 830309, 830310, 830311
 relationships, 830239, 830240
 stockwork-like zone, 830272, 830273
 Cretaceous volcanoclastic rocks, East Mariana Basin, 890529
 Cretaceous/Tertiary boundary
 mineralogy, 620851
 paleoenvironmental history, 740687, 740690, 740691
 cristobalite, 300485
 crust, 490709, 511087, 511092
 chemistry, 511563
 mineralogy, 370825, 370826, 511563
 thermal history, 690471
 crust, oceanic, 340344, 340433, 340434, 780405, 830217, 830443
 aging, 511573, 511576, 511577
 Barbados Ridge, 780399, 780405
 basalt, 340399
 Costa Rica Rift, 830443
 Costa Rica Rift Zone, 830184, 830187, 930194
 geology, 920572
 hydrothermal dating, 830297
 mineralogy, 830217
 Pacific Ocean, 340433
 rate, 340433
 regulating factors, 340433
 seawater interaction, 511175
 Daito Basin, clay, 580687, 580688
 Daito Ridge, clay, 580687, 580688
 deposition
 Coniacian-Santonian, 720395
 Goban Spur, 800868
 origin, 600450
 diabase, petrology, 630701, 630706
 dolerite, 630711, 630721
 age determination difficulties, 630711
 alteration, secondary, 630711
 Baja California, 630711
 basalt, 630711, 630713
 California, 630711
 Cretaceous, 450532
 degree, 630716
 dike, 630711
 formation, 630711
 glass, interstitial, 630713
 hydrothermal process, 630711
 igneous rocks, 630711
 mineral, primary, 630716
 Miocene, 630711
 olivine, alkali, 630711
 petrochemistry, 630711
 plagioclase, 630712
 pyroxene, 630712
 sill, 630711
 tholeiite, 630711
 volcanics, 630711

dolomite

isotope geochemistry, 42A0549
 tuff, palagonitic, 020419
 drilling, basement, 490837, 490838
 East Mariana Basin
 Cretaceous volcanoclastic rocks, 890529
 sedimentary history, 890668, 890669
 volcanoclastics, 890529
 East Pacific Rise
 basalt, 540405, 540406, 920463, 920471
 crest, 540812
 sediments, 650381, 650382
 effect, 820466
 elastic wave velocity, 920568
 pillows, 920568
 Emperor Seamounts
 diagenesis, 550425
 mineralogy, 550466, 550469, 550470, 550474
 petrology, 550511, 550516, 550522, 550534, 550571, 550572, 550576, 550578, 550579, 550580, 550581, 550582
 environment, sapropel, 42A0462
 Eocene, 300483
 Falkland Plateau, 711003
 kerogen, 711008
 FAMOUS area, paleomagnetic field intensity, 370461
 ferromanganese sediment, volcanics, 190634, 190635
 flow
 chemical composition, 411107, 411109
 rhyolite, 210538
 flow unit, petrography, 511022
 formation, accumulation, 700229
 formation water, origin, 690492
 fractures, mineralogy, 340385, 340386, 340389, 340390
 fusion, geochronology, 411115
 gabbro, 300411, 300483
 intrusion, 300487
 mineralogy, 600591
 petrography, 600591
 phase chemistry, 370841, 370844
 Galapagos Fracture Zone
 basalt, 540415
 basalt, altered, 700398, 700400
 Galapagos Islands, hydrothermal field, 540812
 Galapagos Spreading center, 700384
 basalt, 540773
 crust, oceanic, 700473
 halo, 700377
 interstitial water, 540388, 540392
 geochemical variation, effect, 810801
 geochemistry, 160618, 160638, 160639, 260563, 370701, 810740
 basalt, 160618, 380719, 380720
 Cenozoic sediments, 42B0587
 Coniacian-Santonian sediments, 720829
 effects, 220461, 540776
 Guaymas Basin, 640698, 640711, 640712
 Hatton Ridge, 810739
 hydrothermal deposits, 540375
 igneous rocks, 370741
 major oxides, 540371
 mineral, secondary, 450615, 450616
 Pacific Ocean SE, 920560
 petrology, 340216
 products, 450613, 810740
 Rockall Plateau, 810735, 810738, 810739, 810740
 shallow depths, 640713
 volcanic material, 620851
 geophysical logging, basalt, 650334
 glass, 110873, 110874, 300487, 490601, 490605, 490710, 511021

basalt, 050531, 650477, 650479, 650480, 650482
 basement, 110874
 heterogeneity, 630735, 630736
 palagonite, 490710
 pillow lava, 511022, 511025
 plagioclase, 830302
 glass, basalt, 650477
 California, Gulf of, 650477
 glass, volcanic, 810637, 810639, 941112, 941114
 chemical composition, 870713
 Goban Spur, seaward edge, 801197
 Guadalupe Island, basalt, 630714, 630715, 630716
 Guatemala
 slope sediment, 840931
 trench, 670515
 Hess Rise
 basalt, 620967
 post-Jurassic sedimentation, 620820, 620821
 pyrite-marcasite, 620857, 620861
 Hess Rise N, post-Jurassic, 620809, 620817
 hyaloclastite
 ash, 650477
 glass, 650479, 650480, 650482
 hydrocarbon
 biogenic organic matter, 220675
 hydrocarbon, C₁₅, 220673
 kerogen, 220673
 hydrocarbon, C₁₅-C₂₆, transport, 800974
 hydrocarbon, C₁-C₈, sill, 640778
 hydrocarbon, extractable, organic
 petrology, 640837, 640851
 hydrocarbon generation potential, organic
 facies, 640869
 hydrothermal activity, 300483
 Guaymas Basin, 641166
 Neogene, 920616
 hydrothermal sediment
 composition, 920606
 origin, 540418, 540419
 hydrothermal sulfide, silicate phase, 540325
 hygromagmatophile (HYG) elements, effect, 540727
 igneous rocks
 chemistry, 370653, 590720, 590721, 630733
 geochemistry, 370656
 Hess Rise, 620953
 Mariana Islands, 600769
 secondary processes, 580659
 Indian Ocean S, basalt, 260529
 intensity, 670566
 interstitial water, 111005, 38S0131, 590628
 Barbados Ridge, 780381
 basalt, 610603, 650443, 740701
 California, Gulf of, 630627, 640934
 Daito Ridge, 610607
 diagenesis, 650446
 Guaymas Basin, 640934
 Lesser Antilles, 780383
 Patton Escarpment, 630624
 San Miguel Gap, 630623
 Shikoku Basin, 610607
 volcanic matter, 590627, 610603, 650446, 740701, 850807, 870869
 Walvis Ridge, 740703
 interstitial water, geochemistry
 Baja California, 640676, 640679
 Guaymas Basin, 640683, 640687, 640689
 iron, 300487
 isotope ratios, chemical effects, 630737
 isotopic composition, oxygen isotope, 370607
 isotopic study, interstitial water, 590637
 Japan Trench

- Japan Trench (Cont.)
 clay minerals, 560988
 interstitial water, 870853
 siliceous rocks, 561137
 Jingu Seamount, volcanics, 550685, 550687, 550688
 K-feldspar, diagenetic, 330799, 330800
 basalt, 330800
 diagenesis, 330799
 leaching, 330799
 microcline, 330800
 phyllosilicate, 330800
 K/Ar age
 celadonite, 920511
 Goban Spur, 800944, 800945
 kerogen, 220673
 biogenic organic matter, 220675
 hydrocarbon, C₁₅, 220673
 organic geochemistry, 640895, 640900, 640902
 Kyushu-Palau Ridge, remnant arc, 590737
 lava, isotope geochemistry, 810775
 lava flows, 370811
 major element, 370817
 mineral chemistry, 370815
 minor element, 370817
 petrography, 370811, 370812
 Layer 2
 basalt, 690509
 crust, oceanic, 340766, 340767, 370995
 lead isotope, isotopic composition, 370613
 least-altered rocks, chemistry, 630735, 630736
 Lesser Antilles, basalt, 780377, 780383
 Li, trace elements, 920491
 limestone
 stable isotope, 150795, 150799
 stable isotope ratios, 510763
 volcanic grains, 320537
 lipid
 organic geochemistry, 640895, 640900, 640902
 shale, black, 410856
 underlying volcanic complex, influence, 610617
 lithium, mineral, 950491
 lithology, 540757, 660731, 800939, 800940
 Mounds Hydrothermal Field, 540757
 mud, 960478
 Lord Howe Rise, pale green laminae, 901157
 Magdalena Bay
 dolerite, 630722
 sulfide, 630702
 magma
 fractionation, 690796
 tectonic affinities, 810801
 magnesium
 interstitial water, 780383
 volcanic material, 801060
 magnetic oxides, petrology, 511411, 511427
 magnetic properties, basalt, 460371
 magnetism, 650734
 magnetostratigraphy, magnetic carriers, 850858, 850863
 major element, 650560
 characteristics, 920438
 chemistry, 920492
 composition, 660731, 800940
 geochemistry, 930693
 manganese, 300486, 300487
 disseminated, 300487
 nodule, 300486, 510772
 manganese-iron oxides, 300485
 marcasite, 340410
 margin, basalt, 810893
 Mariana Islands, fore-arc, 600651, 600652, 600653, 600709, 600743, 600769
 Mariana Trough
 basalt, 600602, 600649
 Mariana Trough W, 600484
 Mediterranean Sea, oxygen isotope, 42A0473
 Meiji Guyot, K/Ar age, 550678, 550679, 550681
 Melanesian Basin
 basalt, 610832
 geological evaluation, 610848
 igneous complex, 890672
 opal, 610529
 paleomagnetism, 610728
 silica, authigenic, 610529
 Mellish Seamount, post-Jurassic
 sedimentation, 620835, 620837, 620840, 620843
 melting, tholeiite, olivine, 450513
 Mendoza Rise
 East Pacific Rise, 920592
 lithology, 920436, 920438
 petrology, 920613
 Mid-Atlantic Ridge
 basalt, 450494, 460299, 460300, 460316, 460317, 511219, 511261, 540596, 540598
 crust, oceanic, 511243, 511261
 petrography, 490178
 Mid-Pacific Mountains W, Aptian sediments, 620905
 Middle America Trench, transect, 670610
 mineral
 chemistry, 690551
 trace elements, 950491
 mineral chemistry, other phases, 920440
 mineral, ferromagnetic, basalt, 830335
 mineral, magnetic, 830355
 mineral, opaque, petrology, 340358, 340359
 mineral, secondary, 340399
 abundance, 920509
 basalt, 650644, 650646
 Ceara Rise, 390550
 East Pacific Rise, 650646, 650647
 elemental composition, 920510, 920511
 formation sites, 540807
 petrography, 920506
 Tamayo Fracture Zone, 650646
 mineral, transparent, petrography, 460300
 mineralization, secondary, hydrothermal
 mineral, 540809
 mineralogy, 340385, 340386, 350465, 370775, 370785, 370788, 370795, 370799, 370800, 370801, 460299, 460304, 540775, 600717, 690791, 690793, 690797
 aragonite, 460306
 basalt, 370795, 370797, 370798, 370799, 370800, 370801, 370802, 370823, 38S0138, 540775, 540776
 calcite, 340389, 460305
 carbonate, 540775
 chemical changes, 370783, 370788
 chrome spinel, 460310
 clay, 460304
 clay minerals, 540775
 conditions, 340390
 electron microprobe, 370795
 Fe-Mn oxide, 460305
 geochemistry, 600714
 ilmenite, 460306
 interstitial, intersertal material, 540744
 iron hydroxide, 460310
 magnetite, 460306
 mica, 340389
 mineral, secondary, 370775, 370776, 370778, 370779, 370781, 370782, 370783, 370788, 370797, 370798, 600711, 600718
 phillipsite, 460305
 pyrite, 340389
 seawater exposure, 540775
 smectite, 340386
 spinel, 800940
 sulfide, 460309
 surface coatings, 540775
 todorokite, 460310
 trace elements, 370800, 370802
 vein filling, 370799, 370801, 370802
 weathering, 540775
 zonation, 540775
 minerals, crust, oceanic, 830438
 minor element, East Pacific Rise, 650606, 650611
 Miocene sediments, Rockall Rise, 941114
 mixed layer clay, hydrolysis, 580673
 montmorillonite, 300485, 300487
 montmorillonite-beidellite, 300485
 nontronite-beidellite, 300485
 Moroccan Basin, margin, 500809
 natural remanent magnetization, Magdalena Bay, 630739
 Nazca Plate, basalt, 511261
 New Hebrides Basin, 300483
 New Jersey Transect, stratigraphy, 950772
 normative mineralogy, devitrification, 370729
 ocean basin, 42A0509, 42A0511, 42A0512
 ash, 050531
 basalt, 050533
 petrogenesis, 42A0521
 olivine, 180941, 190618, 270552, 300402, 300411, 340190
 phenocryst, 340196
 opaque mineralogy, 450412
 temperature, 450407
 opaque oxides, 670561
 ophiolite, Middle America Trench, 840791
 organic geochemistry
 Baja California, 640941, 640942
 black-colored sediments, depositional model, 800965
 Guaymas Basin, 640942, 640943, 640944, 640945, 640946, 640947, 640948, 640949
 kerogen, 630850, 630851
 organic matter, 630948, 640939
 organic matter, 711006
 vertical distribution, 711008
 origin, basalt, carbonate-cemented, 42A0549
 oxidation, 630734
 adsorption-exchange, seawater, 630734
 alkali, 630734
 alkali ions, seawater exchange, 630734
 Ba, 630734
 basalt, 630734
 cesium, 630734
 chemical differences, 630734
 K₂O, 630734
 K, 630734
 K/cesium ratio, 630734
 K/Rb ratio, 630734
 magnetic properties, 630734
 oxidation effect, 630734
 Rb, 630734
⁸⁶Sr/⁸⁷Sr ratio, 630734
 strontium, 630734
 oxygen isotope, 42A0473
 geochemistry, 370617, 370618
 interstitial water, 780383
 Mediterranean Sea, 42A0473
¹⁸O, 720412
 Pacific Ocean SE, 920559
 oxygen isotope, stable, 410941
 Pacific Ocean
 basalt, 340385
 crust, oceanic, 340433

- Pacific Ocean E, crust, 540602
 Pacific Ocean EC, geologic history, 090910
 Pacific Ocean N
 ash, 620559
 clay, 620559
 ooze, diatomaceous, 190909, 190911
 Pacific Ocean NE, regional aspects, 050629
 Pacific Ocean NW
 basement, 200047
 geochemical history, 620786, 620789, 620798
 Pacific Ocean SE
 basalt, 340216
 contamination, 920551
 convective fluid flow, 920419
 strontium isotope, 920559
 Pacific Ocean SW, 300483
 paleoceanography, 901507
 sediments, 300483
 tephra, vitric, 901161
 palagonitization, 630734
 Ba, 630734
 cesium, 630734
 element variation, 630734
 glass, 630734
 K, 630734
 K/cesium ratio, 630734
 palagonite, 630734
 Rb, 630734
 seawater mixing effects, 630734
⁸⁶Sr/⁸⁷Sr ratio, 630734
 strontium, 630734
 paleotemperature, cold-water diatoms, 850943
 palygorskite, 300485
 formation, 600786
 Panama Basin, sediments, 690392
 particle, origin, 901227
 Patton Escarpment
 basalt, 630712, 630713, 630714
 petrography, 630688, 630701
 pebbles, petrography, 801039
 Pendragon Escarpment, climate, 801197
 peridotite, phase chemistry, 370841, 370844
 Peter I Island, geology, 350354
 petrogenesis, basement, 42A0521
 petrography
 gabbro, olivine, 600582
 olivine, 540598, 660711
 petrology, 180937, 180939, 180940, 180941, 180943, 370811, 370812, 370815, 370817, 740755
 Atlantic Ocean, 370811
 flow thickness, 810796
 igneous rocks, 270552, 270553, 270555, 270556, 291104, 42A0509, 450533
 iron oxide, 540801
 lavas, 370811, 370812, 370815, 370817
 Walvis Ridge, 740757
 phenocryst, olivine, 340196
 Philippine Sea, 590735
 remnant arc debris, 590737
 Philippine Sea S
 chlorophyllous material, 600497
 petrology, 600890
 phillipsite, 300486, 340414
 physical properties
 effect, 920539
 product, 920542
 pillow lava
 chemical composition, 411109
 petrography, 511022, 511025
 plagioclase, 110874, 180939, 180943, 270552, 300487, 810770
 basalt, 411113
 postdepositional, volcanic, 300483
 products, 511273, 810733, 810740
 basalt, 511274, 511275
 Bermuda Rise, 511275, 511277, 511278, 511279, 511280, 511281
 chemistry, 511281, 511282, 511283, 511284, 511285
 mineralogy, 450613, 450615, 450616, 450617, 450618, 810733, 810734, 810735, 810736, 810737, 810738, 810739, 810740
 Rockall Plateau, 810733
 pyroclastics, geochemistry, 260563
 pyroxene, 270552
 basalt, 411113
 quartz, 300485
 rare earth elements, 920403
 basalt, 511105, 511107
 geochemistry, 600737, 600739
 glass, volcanic, 590667
 remnant arc debris, 590737, 590738, 590739
 Iceland E, 590739
 Kyushu-Palau Ridge, 590737, 590739
 Mariana Ridge W, 590737, 590741
 Palau, 590741
 Philippine Sea, 590737
 Reykjanes Ridge, basement, 490834
 rhyolite, temperature, 210538
 Rio Grande Rise
 basement, volcanic, 720955
 Cretaceous/Tertiary boundary, 721014
 Eocene sedimentation, 721007
 mineralogy, 720997
 Rivera Plate
 basalt, 630719, 630720, 630721, 630722
 petrography, 630690
 Rockall Plateau, sediments, 810830, 810832, 810833
 San Jose Canyon, glass, volcanic, 840930
 sand, 300483
 andesine, 300485
 augite, 300485
 clay, 300483
 diagenesis, 660510
 glass, 300485
 montmorillonite, 300483
 trench slope, 660429
 volcanic debris, 300483
 sandstone
 basalt, 320541
 bedding, parallel, 320541
 cross-bedding, 320541
 montmorillonite, 320541
 petrology, 660429
 pyroxene, 320541
 volcanic grains, 320539
 sandstone, vitric, 300483
 andesite, 300483
 clast, 300483
 hornblende, 300483
 microphyric fragments, 300483
 pelagic organisms, 300483
 plagioclase, 300483
 porphyritic fragments, 300483
 vitrophyric fragments, 300483
 sandstone, volcanic, 300485
 andesine, 300485
 augite, 300485
 clinoptilolite, 300485
 cristobalite, 300485
 glass, volcanic, 300485
 iron-rich grains, 300485
 montmorillonite, 300485
 oxidation, 300485
 pyroxene, 300485
 quartz, 300485
 sapropel
 Cretaceous, 620892, 620897
 sedimentology, 42A0462
 sediment geochemistry, laterite, 550461
 sedimentary structure, 300483
 deformation, 840950
 seekreide, sapropel, 42B0507
 serpentine, Atlantic Ocean, 370563
 serpentinite, 370563
 geochemical effects, 370563
 groundmass, 370563
 Shikoku Basin, clay minerals, 580673, 580674
 silica, mineralogy, 140734
 siliceous rock
 chert, 561137
 porcellanite, 561137
 sill
 chemical composition, 411109, 411111
 petrography, 270553, 270556
 petrology, 180939, 180940
 siltstone, 300483, 300485
 andesine, 300485
 augite, 300485
 clay, 300483
 glass, 300485
 montmorillonite, 300483
 volcanic debris, 300483
 Siqueiros Fracture Zone, basalt, 540705
 smectite, 370835
 mechanisms of formation, 590600
 origin, 580674, 580686, 580688
 Southeast Pacific Basin, evolution,
 geologic, 350724, 350730, 350734, 350736
⁸⁶Sr/⁸⁷Sr ratio, 511143
 age, 920502
 crust, oceanic, 920502
 duration, 920502
 hydrothermal solution, 920502
 late stages, 920502
 metal, alkali, 511141
 sea floor, 920502
 temperature, 920502
 Sr isotope, 590721
 stable isotope, carbonate, 650383, 650384
 stable isotope ratio
 basalt, 511153
 ¹⁸O, 511154
 water, 511157
 Suiko Seamount, trace elements, 550560, 550561
 sulfide
 chemistry, 630680
 pyrite, 370880, 370881
 smectite, 370875
 sulfur, basalt, 370561
 temperature, 511183, 920499, 920500
 tephra
 petrography, 901163
 source, 901149
 tetrapyrrole
 geochemistry, 630792, 640791, 640794, 640804, 640807
 pigment, 580737
 tholeiite, 42A0509, 42A0511, 42A0512, 511104, 670564, 820440
 ash, 050531
 basalt, 050533
 cesium, 820440
 geochemistry, 590682, 590687, 590688
 major element, 511104
 ocean, 690796
 petrology, 180939, 180940, 180941, 590682, 590687, 590688
 rare earth elements, 511105
 transition metals, 511105
 titanomagnetite, 411107, 690705, 690707, 690708, 830338, 830345
 petrography, 340353, 340358
 trace elements, 370569, 670564, 670566,

- trace elements (Cont.)
 690748, 690753
 alkali metal, 670567
 basalt, 511087, 511092, 810788
 boron, 920493
 calcium depletion, 670567
 chemistry, 950491
 classification, 370567
 Cretaceous, 511087, 511088, 511091, 511092
 East Pacific Rise, 650594, 650606, 650611
 effect, 660732
 element, alkaline, 670566
 geochemistry, 370574, 930693
 Goban Spur, 800943, 800944
 high temperature seawater interaction, 670567
 highest loss of volatiles, 670567
 hydrothermal fields, 670567
 lithium, 920494
 low levels concentration, 670564
 magma, 670564
 manganese, 670567
 mid ocean ridges, temperatures, 670567
 Rb, 920495
 strontium, 920495
 Tamayo Fracture Zone, 650594
 tholeiite, 670564, 670567
 transition elements, 920494
 yttrium, 920495
 zinc, 670567
 transition metals, basalt, 511105
 tuff, Neogene, 630640, 630652, 630653, 630655
 tuff, altered, tuff, palagonitic, 020418
 turbidite, mineral composition, 670540
 uranium, distribution, 370547, 370548, 370551, 370552, 370554, 370555
 vein, mineralogy, 340385, 340386, 340389, 340390
 vermiculite, origin, 580673
 volcanic deposit, low-temperature, 901185
 volcanic matter, 780382
 effects on interstitial water chemistry, 780383
 volcanic rocks
 ages, 550664
 Mid-Pacific Mountains, 200671
 volcanic sediment
 diagenesis, 330801
 petrography, 901176
 primary volcanic material, 901180
 volcanoclastics, 550503, 550504, 810636
 Cretaceous, 890529
 volcanics, 180937, 190619, 190621, 190634
 fore arc, 600722
 Pacific Ocean C, 170437, 291104
 petrology, 180937, 180939, 180940, 180941, 180943, 190619, 190621
 temperature, 210538
 trace elements, 670564
 volcanism
 ash, 050531
 basalt, 050533, 050534
 mineral evolution, 600450
 Neogene, 47A0713
 volcanism, pyroclastic, Paleogene, 810639
 Walvis Ridge
 basalt, 740740, 740744, 740748, 740755, 740757
 geotechnical properties, 751117
 transect, 740648
 zeolite, phillipsite, 801089
 zones, 690796, 690797
 see also basalt: alteration; basement: alteration; diagenesis; hydrothermal alteration
 alteration, anoxic, Costa Rica Rift Zone, basalt, 830219
 alteration, burial, Southeast Pacific Basin, evolution, geologic, 350736
 alteration, catagenic, tetrapyrrole, geochemistry, 630808, 630812, 630814
 alteration, chemical
 Atlantic Ocean S, Quaternary sediments, 720833
 basement, magnetic properties, 370489
 Biscay Plain, 121189
 Caribbean Sea, sediments, 150939
 crust, oceanic, Costa Rica Rift Zone, 830187, 830190, 830196, 930192
 Falkland Plateau, organic matter, 711015
 major element, argillaceous sediments, 580724, 580725
 organic matter, thermal evolution, 711015
 palynological residue, Guaymas Basin, 640743
 tetrapyrrole, geochemistry, 630791
 alteration, closed-system, carbonate, secondary, vein, 580909, 580910
 alteration, cyclic
 geochemistry, igneous rocks, 370743
 Messinian environments, Lago Mare, 42A1024
 Mid-Pacific Mountains W, Aptian sediments, 620903
 Neogene formations, paleogeography, 42A0915
 alteration, deuteric
 basalt
 geochemistry, 920450
 K/Ar age, 160651
 petrology, 580846, 580847
 basement, calcite, 920502
 Mendoza Rise
 lithology, 920436
 petrology, 920613
 Mid-Pacific Mountains W, Aptian sediments, 620905
 mineral, secondary, 340395
 elemental composition, 920511
 petrology
 iron oxide, 540801
 mineralogy, 540800
 $^{86}\text{Sr}/^{87}\text{Sr}$ ratio, 920502
 temperature, 920499
 alteration, diagenetic
 acoustic velocity, Pliocene, 901242
 Alboran Basin W
 clay minerals, 130670, 130671
 mineralogy, 130670
 amino acid, lipid, 42B0698
 Bermuda Rise, geochemistry, 511518
 Black Sea, evolution, 42B1147
 California, offshore, 630960
 Caribbean Sea W, sediments, 680477
 Costa Rica Rift, Pliocene record, 690439
 deposition, origin, 600448
 diagenesis, biogenic sediment, 850805, 850819
 diagenesis, burial, chalk, 800857
 East Pacific Rise, hydrothermal precipitate, 920384
 geologic setting, organic matter, 800983
 glass, basalt, 650482
 Guatemala, trench, 670525
 hyaloclastite, glass, 650482
 hydrocarbon, organic matter, 220673
 Indian Ocean NW, grain size, 250446
 Indian Ocean SW, iron-rich sediment, 250402
 interstitial water chemistry, intervals, 850807
 interstitial water geochemistry, California, Gulf of, 640934
 Japan Trench, 561305
 minor element, 870649
 organic matter, 561305
 trace elements, 870649
 kerogen, organic matter, 220673
 limestone
 dolomitization, 42A0625
 stable isotope, 150799, 150801, 150802
 lipid, 640913
 indication, 630769
 paleoenvironment, 640916
 lithology, 410041
 Melanesian Basin, 610523
 opal, 610523, 610525, 610526, 610527, 610528, 610529
 mineralogy, 650395
 opal, biogenic, Melanesian Basin, 610523
 organic geochemistry
 Angola Basin, 750461
 Baja California, 640941
 Guaymas Basin, 640943
 organic matter, 571305, 571306, 571308
 Akita oil field, 571306
 aromatic condensation, 571308
 breccia, 571305
 carbon, 571306
 carbon, organic, 571305, 571306
 carbonaceous materials, 571308
 catagenesis, 571305
 chlorophyll derivatives, 571308
 claystone, diatom, 571305
 claystone, siliceous, 571305
 coal, 571308
 coalification, 571308
 deposition, 571308
 diagenesis, 571305, 571308
 free radicals, 571308
 heat flow, 571307
 humic acid, 571305, 571306, 571308, 571310
 Japan, 571306
 Japan Sea, 571306
 Japan Trench, 571305
 kerogen, 571305
 N/C ratio, 571308
 Nugata, 571306
 O/C ratio, 571308
 organic matter, extractable, 571305, 571306
 organic matter, immature, 571308
 oxygen, 571308
 petroleum, 571306
 protokerogen, 571305
 sandstone, 571305, 571306
 semiquinone, 571308
 solvent-soluble fraction, 571308
 spin concentrations, 571308
 thermal gradient, 571308
 turbidite, 571305
 Pacific Ocean NE, metal-rich basal sediments, 630673, 630675
 Pacific Ocean SE
 hydrocarbon, aliphatic, 920412
 hydrothermal component, 920386
 rare earth elements, 920388
 Panama Basin, sediments, 690392
 petroleum generating potential, organic matter, 640872
 shale, black, thermal history, 711021
 stratigraphy and evolution, Porcupine Plain, 801183
 sugar, lipid, 42B0698
 tetrapyrrole, geochemistry, 630816
 volcanic material, 38S0044
 volcanoclastics, Eocene, 720957
 volcanics
 Pacific Ocean C, 170434, 170436, 170437, 170438, 170443
 petrochemistry, 170434, 170437

- Walvis Ridge, sediments, 751069
 alteration, epigenetic
 Hess Rise, post-Jurassic sedimentation, 620825
 Mellish Seamount, post-Jurassic sedimentation, 620834, 620837
 paragenetic assemblages, Assemblages IIIA(+), 710428
 alteration, epimigmatic, California, Gulf of, basalt, 650667
 alteration, high-temperature
 altered rocks, 590735, 590736
 alteration, low-temperature, 590735
 hydrothermal emanation, 590736
 Costa Rica Rift Zone, spreading axis, 830238, 830239
 Galapagos Fracture Zone, basalt, 540415
 interstitial water, products flux, 920425
 mineral, secondary
 East Pacific Rise, 650647
 Tamayo Fracture Zone, 650647
 opaque mineralogy, 450412
 thermomagnetic curve, Curie temperature, 630749
 alteration, low-pressure, 370775, 370785, 370788
 basalt, 370775, 370785, 370788
 carbonate, 370778
 chemical changes, 370783, 370788
 clay minerals, 370776
 iron hydroxide, 370782
 leucoxene, 370781
 manganese, 370781
 mineral, secondary, 370775, 370776, 370778, 370779, 370781, 370782, 370783, 370788
 mineralogy, 460300, 460304
 petrography, 460300
 pillow, 460301
 pyrite, 370778
 silica minerals, 370782
 sulfate mineral, 370782
 zeolite, 370778
 chemical changes, 370783, 370788
 cooling unit, 460301
 mineral, secondary, basalt, 370775, 370776, 370778, 370781, 370782, 370783, 370788
 sulfide, 460306, 460309
 tholeiite, 460300
 geochemistry, 460310
 mineral, secondary, 460304
 mineral, transparent, 460300
 oxidation and hydration stages, 460316
 alteration, low-temperature, 140770, 180935, 180936, 180938, 180939, 180940, 180942, 180943, 190615, 260466, 260470, 260471, 300409, 330578, 330580, 330589, 340190, 340216, 340239, 340393, 340405, 340417, 340433, 370821, 370825, 411107, 411109, 411113, 42A0509, 42A0521, 450407, 450532, 450609, 460165, 460181, 460227, 460299, 490709, 511021, 511104, 650705, 650707
 aging, 511165
 alkali elements, 820466
 alteration minerals, trace elements, 920495, 920496
 altered rocks, 590735, 590736
 alteration, high-temperature, 590735
 amygdale, 340407
 formation, 340407
 aragonite, 340409, 340423
 Atlantic Ocean, basalt, 370775
 B, trace elements, 920491
 basalt, 140770, 330578, 330580, 330582, 370821, 370823, 411109, 460299, 460317, 460371, 490709, 490710, 490712, 490713, 690770
 Atlantic Ocean, 370775
 calcium, 490710
 carbonate, 490710
 chemistry, 920478
 clay minerals, 490712
 Fe, total, 490710
 Fe-Ti oxide, 550639
 geochemistry, 370821, 590772
 geochronology, 411113
 iron, 490710
 K, 490710
 K/Ar age, 160651
 manganese, 490710
 mineralogy, 370821, 460371, 490710, 490711, 511299
 palagonite, 490710
 petrochemistry, 270553, 270555, 270556, 270558
 petrology, 160633, 490709, 590670, 590673, 590678
 secondary phase mineralogy, 511299, 511300, 511301, 511302, 511304, 511305, 511306, 511307, 511309, 511310, 511311
 silica, 490710
 sodium, 490710
 titanium, 490710
 volume, 490710
 zeolite, 490710
 basalt, alkali olivine, 190619, 190621
 basalt, altered
 carbonate, 580914
 geochemistry, 580810, 580823, 580833
 weathering, 540780
 basalt, oceanic, 450407, 450412, 490709, 490712
 glass, 490710
 mineralogy, 490709, 490710
 opaque mineralogy, 450407, 450412
 petrography, 490709
 basement
 basalt, 260466, 260470, 260471, 42A0509, 42A0511, 42A0512, 42A0521, 460228, 511087, 511091, 511092
 geochemistry, 590747
 petrochemistry, 270553, 270554, 270556, 270558
 Bermuda Rise
 basalt, 460371
 basement, 510087
 oxygen, 511177, 511178, 511179
 sea floor, 511165
 birnessite, 340415, 340423
 Brazil Basin, basement, 390514, 390517, 390519
 bulk chemical changes, 650654
 bulk rock geochemistry, 460310
 calcite, 340409, 340419, 340423
 California, Gulf of
 basalt, 650661
 gulf mouth, 650399
 carbonate, secondary, vein, 580905, 580907, 580910
 chemistry, 340239
 basalt, 270553, 270555, 270556, 270558
 chemistry, bulk, 630705
 chlorite, 340408
 chlorite-smectite, random-mixed-layer, 340408, 340412
 clay minerals, 180937
 Colon Ridge, interstitial water, 680473, 680474
 Costa Rica Rift
 alkali, 690492
 waters, 690485
 Costa Rica Rift Zone, 830239
 alteration, 830264
 basalt, 830293
 crust, 370825, 490709
 mineral, secondary, 370825
 crust, oceanic, 340433, 340434
 Bermuda Rise, 511243
 rate, 340433
 regulating factors, 340433
 dolerite, 450532
 dolomite, isotope geochemistry, 42A0557
 East Pacific Rise, sediments, 650382
 effects, 630735
 Ba, 630735
 basalt, 630735
 basalt, crystalline, 630735
 basalt, submarine, 630735
 cesium, 630735
 K, 630735
 Rb, 630735
⁸⁶Sr/⁸⁷Sr ratio, 630735
 strontium, 630735
 flow unit, 511022
 gabbro, 300411
 geochemistry, 160633, 460310
 aluminum, 460316
 calcium, 460316
 iron, 460316
 magnesium, 460316
 manganese, 460316
 oxide contents, 460311
 phosphorus, 460316
 potassium, 460316
 silica, 460316
 sodium, 460316
 tholeiite, 810740
 titanium, 460316
 geothermometry, 450610
 goethite, 340423
 groundmass, 340216
 hematite, 340423
 interstitial water, geochemistry, Guaymas Basin, 640690
 isotope ratios, 630737
⁴⁰K/⁴⁰Ar age, Goban Spur, 800945
 K/Ar age, celadonite, 920511
 Li, trace elements, 920491
 lithologies, minor, turbidite, volcanic, 901483
 lithology, basalt, 800939
 magnetic oxides, petrology, 511425
 magnetic properties, basalt, 460371
 major element, 511104
 composition, 800940
 manganese oxide, 340423
 marcasite, 340410
 Mariana Islands, fore arc, 600620
 Mariana Trench, 600620
 Mendoza Rise, petrology, 920613
 mica, 340411
 mica-smectite
 mixed-layer, 340412
 random-mixed-layer, 340412
 Mid-Atlantic Ridge, basalt, 460299, 460300, 460301, 460304, 460305, 460306, 460309, 460310, 460311, 460316, 460317
 mineral, opaque, petrology, 340358
 mineral, secondary, 460304
 aragonite, 460306
 calcite, 460305
 chrome spinel, 460310
 clay, 460304
 East Pacific Rise, 650648
 Fe-Mn oxide, 460305
 ilmenite, 460306
 iron hydroxide, 460310

- mineral (Cont.)
 magnetite, 460306
 mineral, opaque, 460306
 phillipsite, 460305
 sulfide, 460306, 460309
 todorokite, 460310
 mineral, transparent, petrography, 460300, 460301, 460304
 mineralogy, 050531, 050532, 110873, 260533, 260534, 270551, 270552, 340385, 340386, 370795, 370833, 411109, 450609, 490710, 511183, 511185
 basalt, 370795, 370798, 370799, 370800, 370801, 370802, 370825, 370826, 370834, 411109
 calcite, 340389, 450609, 490710, 511183
 carbonate, 110874, 450610, 511186
 celadonite, 511183
 chlorite, 110874, 450609, 511186
 clay, 270552, 511185
 clay minerals, 490710
 conditions, 340390
 feldspar, 511187
 glass, 050531, 110874
 gypsum, 450609
 hematite, 260533, 511183
 ilmenite, 260533
 iron oxyhydroxide, 511188
 isotope, 340385, 340386
 K-feldspar, 511183
 maghemite, 260533
 magnetite, 260533
 mica, 340389
 opal, 450609
 opaques, 511187
 palagonite, 110874
 pyrite, 340389
 saponite, 450609, 490710
 silica, 511188
 smectite, 270552, 340386, 490710, 511183
 zeolite, 490710, 511183, 511187
 olivine, 180937, 180941
 clay, 180941
 iron oxide, hydrated, 180941
 serpentine, 180941
 origin, effects, 42A0557
 oxidation and hydration stages, 460316
 oxides, 411107
 titanomagnetite, 411107
 Pacific Ocean SE, paleoceanography, 920597
 Patton Escarpment, petrography, 630702
 petrography, 650635
 petrology, 370811, 370812, 370817, 810796
 lavas, 370811, 370812, 370815, 370817
 phillipsite, 340411, 340414, 340422
 phyllosilicate, assemblage, 340411
 pillow lava, 511022, 511025
 plagioclase, 180939, 180941
 Porcupine Plain, brownstone facies, 801197
 preburial seawater, 340399
 olivine, 340402
 oxygen supply, 340402
 palagonite, 340399
 products, 810740
 protokrogen, hydrothermal effects, 640912
 pyrite, 340410
 quartz, 340414
 rare earth elements, 511105, 511107
 tuff, 590657, 590659
 remnant arc debris, 590739
 Rio Grande Rise, 390537
 breccia, volcanic, 390538, 390539, 390541
 Santos Plateau, basalt, 390515, 390518
 sill, petrochemistry, 270553, 270556, 270558
 smectite, 340190, 340407, 340418, 411107
 stable isotope, carbonate, 650384
 Suiko Seamount, trace elements, 550565, 550568
 talc, 340409
 tholeiite, geochemistry, 800946
 todorokite, 340415
 trace elements
 boron, 920493
 Goban Spur, 800944
 transition metals, 511105
 vein, formation, 340407
 alteration, microbial
 carbon
 deep-sea sediments, 580751
 geochemistry, 571319
 mud, terrigenous, organic geochemistry, 42B0751
 nitrogen, deep-sea sediments, 580751
 Pacific Ocean SE
 fatty alcohols, 920414
 hydrocarbon, aliphatic, 920412
 petroleum generating potential, organic matter, 640872
 shale, organic geochemistry, 42B0751
 alteration, mineralogical
 diagenesis, siliceous sediments, 500725, 500727
 siliceous sediment, 500725
 conglomerate, 500727
 diatoms, 500725, 500727
 discoasters, 500727
 opal-A, biogenic, 500725
 radiolarian/sponge spicule ratio, 500727
 silicification, 500727
 silicoflagellates, 500725, 500727
 sponge spicules, 500725, 500727
 zeolite, 500727
 alteration minerals
 B, trace elements, 920491
 basalt, 300401, 300403
 California, Gulf of, basalt, 650661
 chemistry, 920491
 trace elements, 920491
 Costa Rica Rift
 alkali, 690492
 basalt, 690511
 chemistry, 690551, 690552, 690555, 690556, 690557, 690558, 690560
 Costa Rica Rift Zone, basalt, 830230, 830235, 830238, 830239
 crust, oceanic, 830438, 830479, 830486
 Costa Rica Rift Zone, 930194
 East Pacific Rise, basalt, 540405
 Emperor Seamounts, petrology, 550522
 formation water, origin, 690493
 Galapagos Fracture Zone, basalt, 540415
 Hess Rise N, sedimentary sequences, 620765
 igneous rocks, chemistry, 630733
 Li, trace elements, 920491
 sill, 300401, 300403
 trace elements, chemistry, 920495, 920496, 920497
 turbidite, mineral composition, 670538
 alteration, nonoxidative, 340405, 340407
 amygdale, formation, 340407
³⁹Ar/⁴⁰Ar age, 600744
 aragonite, 340409, 340423
 basalt
 alteration, 920512
 chemistry, 920473
 Bermuda Rise, mineral, secondary, 511262
 birnessite, 340415
 calcite, 340409, 340423
 chlorite, 340407, 340408
 chlorite-smectite, random-mixed-layer, 340408
 marcasite, 340410
 mica, 340411
 mica-smectite, mixed-layer, 340412
 phillipsite, 340414
 phyllosilicate, 340411
 pyrite, 340410
 quartz, 340414
 smectite, 340407
 talc, 340409
 todorokite, 340415
 vein, formation, 340407
 alteration, oxidative, 260533, 340417, 460299
 alteration minerals, trace elements, 920495
 basalt
 alteration, 920512, 920513
 chemistry, 920473
 geochemistry, 920450
 mineral, secondary, 340405
 birnessite, 340423
 calcite, 340419
 carbonate, secondary, vein, 580906
 geochemistry
 environment, 810740
 Rockall Plateau, 810737
 lithologic, chemical stratigraphy, 510956
 manganese oxide, 340423
 Mendoza Rise, lithology, 920436
 mineral, secondary, elemental composition, 920511
 mineralogy, 260533, 260534
 gabbro, olivine, 600587
 hematite, 260533
 ilmenite, 260533
 maghemite, 260533
 magnetite, 260533
 organic geochemistry, kerogen, 630848
 phillipsite, 340422
 products, 810737, 810740
 smectite, 340418
 stages, 460316
 titanomagnetite, 260533
 volcanic sediment, primary volcanic material, 901180
 alteration, oxidative low-temperature
 basalt
 chemistry, 920472
 geochemistry, 590780
 basement, geochemistry, 920480
 K/Ar age, celadonite, 920511
 alteration, postdepositional
 middle fan, 960712
 silt, mineralogy, 960579
 alteration, postextrusive, basalt, petrology, 160633
 alteration, postmagmatic
 East Pacific Rise, basalt, 920471
 hydrothermal activity, 670569
 oxygen isotope, geochemistry, 370605
 alteration, postsedimentary
 hydrothermal deposits, Galapagos Spreading center, 700250
 Pacific Ocean NW, geochemical history, 620801
 sedimentation, geochemical aspects, 710432
 alteration product
 Atlantic Ocean NE
 basalt, 810733
 mineralogy, 810733
 basalt
 geochemistry, 810733
 mineralogy, 810733
 Bermuda Rise, 511273
 geochemistry, Atlantic Ocean NE, 810733
 mineralogy, Atlantic Ocean NE, 810733
 Peter I Island, geology, 350352
 alteration, reducing
 basalt, geochemistry, 920450

- geochemistry, mineral assemblage, 810740
Mendoza Rise, lithology, 920436
products, 810740
alteration, seawater
basalt, mineral, secondary, 340399, 340401, 340402
Indian Ocean W, regional aspects, 250754, 250756, 250757
alteration, secondary, 810767, 810771
anhysteretic remanent magnetization, 630744
Baja California, 630711
Baja California Seamount Province, basalt, 630718
basalt
basement, 690779
Fe-Ti oxide, 550640
mineral assemblage, 511229
petrochemistry, 630711, 630727
yttrium, 370567
basement, 690779, 690781
geochemistry, 590749, 600654
halmyrolysis, 690779
mineral composition, 690779, 690781
oxidation, 690779, 690781
calcite, 810769
California, Gulf of, basalt, 650667
California S, 630711
celadonite, 810768
chlorophyll derivatives, 600499
Daito Ridge, 580659
dolerite, 630712, 630713, 810770, 810771
alteration, 630711
East Pacific Rise, sediments, 650381
Emperor Seamounts, petrology, 550522, 550579
flows, vesicular, 810768
isotopic study, interstitial water, 590636
Magdalena Bay, dolerite, 630727
magma, fractionation, 690779, 690781
mineralization, secondary, mineralogy, 540809
mineralogy, geochemistry, 600712, 600719
Patton Escarpment, 630712, 630713
petrology, 810796
mineralogy, 540800
polymict breccia, clast, 600648
rare earth elements, tuff, 590661
saponite, 810768
smectite, 810767
trace elements, yttrium, 370567
alteration, subaerial
Atlantic Ocean SE, paleoenvironmental evolution, 740664
Cretaceous/Tertiary boundary, paleoenvironmental history, 740688
geochemistry, Rockall Plateau, 810737
products, 810737
volcanism, influence, 750850
alteration, submarine, Middle America Trench, ash, 660689
alteration, thermal, 410839, 660544, 750994, 800974
age, no correlation, 660544
alkali elements, basalt, 780403
Angola Basin
Cretaceous sediments, 751052
organic geochemistry, 750994
area coolness, 660544
Atlantic Ocean NE, evolution, 411220, 411221
basalt, altered, geochemistry, 580820, 580826
Biscay Plain, 121189
Brazil Basin, 720823
burial depth, 660544
butane, 660544
California, continental margin, 630757, 630758
Cape Bojador, sediments, 410817
chlorophyll, diagenesis, 571407
chlorophyll derivatives, geochemistry, 610619
clay minerals, chemical analysis, 960695
Costa Rica Rift, 690446
deposition, models, 750837
diagenesis, thermally controlled, 630947
ethane, 660544
gas, 660544
yield, 660544
gas, interstitial, sediments, 410861
Goban Spur, thermal immaturity, 800974
Guatemala, Pacific margin sediments, 670595
hydrocarbon
migration, 660544
potential, 670598
hydrocarbon, C₁-C₈
Guaymas Basin, 640764
kerogen, 640778
hydrocarbon generation potential, 660541
organic facies, 640865, 640867, 640868, 640869, 640870
organic matter, 660541, 670595, 670598
thermal immaturity, 800974
hydrothermal activity, Guaymas Basin, 641162
immature range values, 800974
index, 660544
age, 660544
burial depth, 660544
intrusion, sill, 410839
kerogen, 410839
electron paramagnetic resonance, 410839
organic geochemistry, 640899, 640902
sediments, 410839, 410843, 410845
lipid
organic geochemistry, 640899, 640902
underlying volcanic complex, influence, 610616
maturation, index, 870884
maturation lack, 660543
methane, 660544
methane, biologic, 660544
Mid-Pacific Mountains W, Aptian sediments, 620910
mineral, secondary, Guaymas Basin, 650644
organic geochemistry, 410815, 640823, 720827
Angola Basin, 750461, 750464
Atlantic Ocean E, 630837
Baja California, 640941
bitumen, 640823
Guaymas Basin, 640944, 640945, 640948
hydrocarbon, 640823
kerogen, 630849, 630851
organic matter, 750459
organic matter
40S0663
geochemistry, 640859, 640860, 640862
index, 40S0665
palynological residue
Guaymas Basin, 640739, 640744, 640750
organic matter, maturation index, 640747
petroleum generating potential
organic matter, 571327, 640872
sediments, 42B0729
physical properties, shear strength, 680368
porphyrin, nickel, 500645
protokerogen, hydrothermal effects, 640908, 640909, 640911
Quaternary spores, pollen, 660544
Rio Grande Rise, 720824
sediment, kerogen, 410839
sediment burial lack, 660544
sediment immaturity, 800974
sediment maturation lack, 660544
spores, pollen, 660544
stable isotope, carbonate, 650384
TAI, 660544, 800974
tectonic uplift, 660544
tetrapyrrole, geochemistry, 630811
uplifting, tectonic, 660544
Vigo Seamount, sediments, 410817
wet gas areas, 660544
alteration, volcanic, diagenesis, biogenic sediment, 850818
Aluk Plate, 350270, 350285
Aluk Ridge, 350157, 350197, 350222, 350224, 350271, 350274, 350276
Southeast Pacific Basin
evolution, geologic, 350728
sediment distribution, 350197, 350222, 350223, 350224
Alula-Fartak Trench, 230292, 230531, 230533, 240006, 240017, 240128, 240137, 240138, 240197, 240203, 240204, 240205, 240591, 240592, 240651, 240664, 240696, 240720, 240721, 240784, 240789, 240827, 240979, 241047, 241049, 241053, 241112, 241157
Arabian Sea, plate tectonics, 230533
Indian Ocean, geophysical measurements, 240591
Indian Ocean W, 240651, 240664
fault, transform, 240664
Sheba Ridge, 240664
terrigenous components, 241053
lithology, 240204
movement, 241053
ocean sediment, sedimentary structure, 240672
see also Indian Ocean W
alumina
basalt
California, Gulf of, 650580
petrology, 590671, 590675, 590678, 590679
pyroclastics, 260560, 260563
basalt, altered, weathering, 540778, 540782
bastite, 820525, 820526
chalk, calcite, paragenesis, 260595
clinopyroxene, 820525, 820526
dacite, conglomerate, 571285
Falkland Plateau, basement, 360905
garnet, metasomatic, paragenesis, 260595
geochemistry, 260560, 260563
igneous rocks, 370746, 370748
igneous rocks, chemical composition, 590721
Mariana Islands, fore arc, 600659
Melanesian Basin, ash, 610640
orthopyroxene, 820525, 820526, 820528
Pacific Ocean NW, geochemical history, 620786
peridotite, 820525
pyroclastics, geochemistry, 260560, 260563
pyroxene, 820526
rhyolite, conglomerate, 571285
serpentinite, 820526
Sr isotope, major element, 590721
tholeiite
geochemistry, 590685
petrology, 590685
ultramafic rocks, major element, 820526
aluminophosphate, Hess Rise N, post-Jurassic, 620806, 620807
aluminosilicate
Atlantic Ocean
Cenozoic sediments, 140809
Cretaceous sediment, 140809
Cenozoic sediments, lithology, mineralogy, geochemistry, 450330
factor analysis, sediment, 920368
geochemistry
interelement correlations, 810713
major oxides, 540359

- Gulf of Mexico, interstitial water chemistry, 100623
heavy metals, Cenozoic sediments, 450350
Hess Rise, post-Jurassic sedimentation, 620820
Hess Rise N, post-Jurassic, 620806, 620810, 620813
hydrothermal precipitate, SiO₂, distribution, 920376, 920377
interstitial water, diagenesis, 100623
interstitial water, geochemistry, Guaymas Basin, 640689
major element, 850784, 920369
geochemistry, 42B0528, 42B0531, 42B0536
Mellish Seamount, post-Jurassic sedimentation, 620839
mineralogy, 850796
minor element, geochemistry, 42B0528, 42B0531, 42B0536
Mn, hydrothermal, accumulation, 920587
Pacific Ocean NW, geochemical history, 620792, 620802
sediment geochemistry, 550460
nondepositional environment, 550460
ooze, siliceous calcareous, 550458
sedimentation, detritus, 42B0608
Si/Al ratio, 920364
strontium, detritus, 42B0608
trace elements, 850785, 850786, 850790
aluminosilicate, terrigenous
major element, geochemistry, 42B0531
Mid-Pacific Mountains W, Aptian sediments, 620910
minor element, geochemistry, 42B0531
aluminum, 460316
alteration, low-temperature, geochemistry, 460316
Atlantic Ocean SW, paleoenvironment, 710320
basalt
Blake Basin, 760714
geochemistry, 590778, 590788
petrology, 450466
Bermuda Rise, geochemistry, 511515, 511520
Blake Basin, 760433, 760446, 760772
Blake Ridge, 760420
chemical and mineral composition, interstitial water chemistry, 350477
chemistry, replacement, 650416
Colon Ridge, interstitial water, 680467
Cretaceous/Tertiary boundary, 860537
density, 330942, 330943
diagenesis, slope sediments, 840575
East Mariana Basin, geochemistry, 890422
Emperor Seamounts, mineralogy, 550470, 550472
Fe/Al ratio, 920364
geochemical partitioning, 650428
Al-silicate, 650428
partitioning pattern, 650428
geochemistry
claystone, red variegated, 440507, 440508, 440509
limestone, red, 440505, 440509
glauconite, 291094
Hess Rise, rocks, 620864
Indian Ocean SE, sediments, 260542, 260547
inorganic geochemistry, sediments, 430680
Japan Trench, sediments, 271219, 271220, 571219
major element, chemistry, 330557
Mazagan Plateau, 790498, 790500
metagranite, Mazagan Escarpment, 790552
mineral chemistry, basalt, porphyritic, 450466
mineralogy, replacement, 650416
neutron activation analysis, 010368
Pacific Ocean NE, metal-rich basal sediments, 630669
polymetallic crusts, diagenesis, 800828
preliminary organic analyses, 111021
rare earth elements, tuff, 590660
sediment geochemistry
laterite, 550461
nondepositional environment, 550460
Si/Al ratio, 920364
West Mariana Basin, metallogenesis, 590649
see also Al
aluminum, detrital, Pacific Ocean NE, metal-rich basal sediments, 630674
aluminum-titanium, geochemistry, 060839
Alutom Formation, lithology, 060301
alvite, normative, chemistry, 600584
Amadeus Basin. See Indian Ocean E
Amakusa, 061289
coalfield, *Nummulites amakusensis*, 580665
Amami Plateau, 580004, 580283, 580284, 580291, 580312, 580402, 580643, 580970, 600928
Amami Ridge
basin genesis, 310868
Philippine Basin, genesis, 310868
Amanuban coastal range, 270851
Amatitlan Lake, 670494
Amazon, 391049
Brazil, 401045
Brazil Basin, 040660
coast, 401045
Orinoco River, 780084
Amazon Basin, 140974, 840533, 840538
general synthesis, 280939
Amazon Canyons, 140859
Amazon Delta, 040084, 140382, 140788, 140842
Bahama Islands, geology, 110883
Belem Ridge, 040661
lithology, 040084
Amazon Fan, 040077, 140261, 140345, 140859, 140972, 140973, 38S0498, 390027, 390033, 390040, 390403, 391066, 430235, 430816, 960016
depositional packets, comparison, 960426
lithology, 390040, 390055
magnetic data, 140345
sedimentary evolution, 430816
magnetics and seismic reflection data, 140345
sedimentary evolution, Eocene sediments, 430816
Vema Fracture Zone, source, 040662
Amazon Ridge, 140377, 38S0491, 390045, 390547, 410041, 410045, 430618, 500073, 720891
Atlantic Ocean C, 391121
crest, 391099
hiatuses, 391104, 391105
Malvinas Outer Basin, 391110
Rio Grande Rise, 391125
Sierra Leone Rise, 391121, 391123, 391124
basalt, K/Ar age, 390547
calcareous deposits, marly, 390454
lipid, terrigenous, 390497
lithology, 390397, 390403
clay minerals, 390397
Cretaceous, 390397
Tertiary, 390397
magnetic and seismic reflection data, 140345
Rio Grande Rise, regional setting, 390965
sediment dispersal, 390403
sedimentary structure, 390407, 390409
chalk, 390409
sand, 390407
United States, 801003
zeolite, 390427
Amazon River, 040006, 040059, 040660, 140008, 140249, 140261, 140377, 140382, 140430, 140727, 140729, 140859, 140871, 140973, 150224, 151103, 280939, 370329, 390033, 390403, 390453, 390477, 391062, 391065, 391068, 620886, 780345, 780346, 780506, 780507
Atlantic Ocean C, Sierra Leone Rise, 391123
estuary, 140795
fan, submarine, 760785
limestone, Cretaceous, 620886
lipid, terrigenous, carbonate-rich samples, 390498
lithology, 390033, 390070
terrigenous sediment, 390453
amber, organic matter, carbon isotope, 500582
America, 130973, 340618, 400860, 621098, 680276, 711011, 720589, 760447, 800415, 801109, 801111
Atlantic Ocean NE, evolution, 411230
Atlantic Ocean SW, basin, evolution, 360993, 360996, 361002, 361009
bank, 780088
continental margin, 47B0674, 660544, 670737, 790654, 790889, 810793, 810896
Eurasia, continent, 47B0766
Falkland Plateau, geochemical relationships, 711011
Gulf Coast, 110501
Iberian margin W, evolution, 47B0764, 47B0766
Moroccan Basin
evolution, 500801
margin, 500811
organic facies origin, continental margin, 660544
organic geochemistry, continental margin, 931333
organic matter, upwelling, 670598
Pacific coast, 130950, 670792
platform, 670754
quartz, source, 860583
Southeast Pacific Basin, evolution, geologic, 350739
Thulean Land Bridge, 380025
tropical, subtropical, 400764
see also Central America; North America; South America
America W, 670754
coasts, 670598
hydrocarbon generation potential, organic matter, 670598
organic matter, oxygen, 670598
American Cordilleras, basalt, origin, 660708
American Plate, 110947, 121173, 121177, 131012, 151020, 151047, 180005, 180170, 180233, 180549, 180588, 180912, 180915, 180974, 190020, 190464, 190897, 260947, 350724, 350739, 370332, 370341, 370342, 370426, 381210, 430012, 430032, 430176, 430734, 430746, 430780, 430792, 430847, 430852, 47B0658, 47B0761, 481042, 490005, 490007, 600924, 600927, 630024, 630114, 630115, 630955, 640596, 640597, 641089, 641103, 641108, 641109, 641115, 641279, 641280, 641281, 641284, 641285, 641292, 641293, 650739, 660019, 660671, 660703, 660752, 660794, 660826, 660847, 670580, 670750, 760903, 770300, 780025, 780086, 780347, 780370, 780566, 780567, 780583, 790711, 790894, 790899, 820493, 840879, 850972
African Plate, 360027
American Plate S, decoupling, 780086
Atlantic Ocean C, basin, 511505, 511506
Atlantic Ocean N, paleogeography, 121173,

- Atlantic Ocean N (Cont.)
121174, 121177
Bahama Islands, geology, 110888
basalt, Middle America Trench, 660703
Caribbean Plate, boundary, 660787
continental margin, structural evolution, 481042
convergence, 780614
Cretaceous paleolatitudes, 510086
Eurasian Plate, 190901, 190903, 190906
faulting, 370341
fracture zone, 370341
geologic, oceanographic setting, 850972
Gondwana, dispersal, 260947
Greenland, Rockall Rise, 480167, 480212
Iberian margin W, evolution, 47B0761
Line Islands, tectonics, 330739
magnetic anomaly, 370341
Pacific Ocean EC, geologic history, 090921
Pacific Ocean N
ash, 190909
plate movement, 190897, 190898, 190899, 190900, 190901, 190903
Pacific Ocean NE, metal-rich basal sediments, 630669
regional tectonics, hot spot, 720960
sediments, 370341, 370342
Southeast Pacific Basin, evolution, geologic, 350739
Southern California Borderland, volcanic rocks, 630951
spreading, 370341
American Plate E, Pacific Ocean N, Aleutian Ridge, 190906
American Plate N, 430792
Atlantic Ocean NW, sedimentary evolution, 430792
basalt, magnetism, 430780
Bermuda Triangle, basalt, 511373
mudstone, petrology, 180912
tectonic history, 430792
American Plate S, 600924, 710285, 720006, 720008, 720729, 720962, 720965, 730791, 751099, 780086
regional tectonics, 720960
Eocene activity, 720962
Southeast Pacific Basin, evolution, geologic, 350739, 350740
Ameskhoud Formation
age, 790867
Essaouira Basin, 790867
Moroccan Basin, margin, 500809
amino acid, 090903, 200941, 200947, 200948, 42B0697, 42B0698, 42B0699, 42B0700, 42B0703, 42B0704, 680475, 680477
abundance, 090903
abundance order, 42B0699
acid hydrolysate, 680475
Colombian Basin, 680475
lithostratigraphy, 680475
acid hydrolysis, 090903
alanine, 090903
alanine, beta, 42B0699
allo-isoleucine/isoleucine ratio, 090903, 42B0700
amino acid carbon, 42B0699, 42B0704
amino acid, free, 200947
ammonia, 090904, 200941
aspartic acid, 090903, 090904, 680479
aspartic/glutamic ratio, 090903
Atlantic Ocean N, epimerization, 940879, 950879
biological activity, 42B0703
Black Sea
sediment, 42B0697
sediments, 42B0697
burial, sediment-water interface, 42B0703
C/N ratio, sugar, 42B0703
CaCO₃, deposition, 42B0704
calcareous matrices, 090904
calcium carbonate, 680479
California, Gulf of, 640934
carbon, organic, 42B0704
correlations, 42B0703
carbonate, 090903
Cariaco Basin, 200941
sediments, 200941
Cariaco Trench, interstitial water, 200941
Caribbean Sea W, sediments, 680475, 680476, 680477, 680479
clam shells, 680479
Colombian Basin, sediments, 680475
content, Pacific Ocean C, 090903
D-alloisoleucine, 090903
decrease, 680477
nitrogen, 680477
Shikoku Basin, 680477
degradation, biological, 42B0700, 42B0704
depositional environment, 42B0697, 42B0699
diagenesis, 42B0703, 680477
Ita Mai Tai oolite, 200366
diagenetic effects, 42B0697, 42B0699
diagenetic interconversion, 42B0700
distribution, uniform, 42B0699
epimerization, 680475
Atlantic Ocean N, 940879, 950879
ethanolamine, 090904
ethylamine, 090904
foraminifer tests, isoleucine, 370633, 42A0489, 42A0490
foraminiferal fraction, 200948
foraminifers, 090904
fossils, 680475
glucose-ribose ratio, 42B0703
glutamic acid, 090903
glycine, 090903
glycine/alanine ratio, 090903
Guaymas Basin, 640936
hydrocarbon, profile, 42B0704
hydrocarbon, aromatic, 42B0699
hydrolyzed fraction, 200947
input composition, 42B0703
interstitial water, organic geochemistry, 640933, 640936, 640937
California, Gulf of, 640934
Guaymas Basin, 640934
kerogen-like material, 090904
land plant debris, 42B0703
limestone, Albian, 620934
lipid, 42B0697, 42B0698
alkane, 42B0697
metal-associated fraction, organic matter, 42B0704
methylamine, 090904
minor plankton source, 42B0704
Mohole, 680475
muramic acid, microbial biomass, sediments, 42B0766
neutral fraction, order, 42B0699
nonprotein, 680477
Atlantic Ocean W, 680477
decarboxylation, 680477
decrease, 680477
diagenesis, 680477, 680479
increase, 680477
organic constituents, 42B0697
organic geochemistry, 200905, 640720
organic input, 42B0703, 42B0704
ornithine, 42B0699
oxic, fresh water, 42B0697
oxidation potential, 42B0704
oxidizing, 42B0699
Pacific Ocean C, content, 090903
Pacific Ocean E, sediments, 680475
Panama, Isthmus of, 680479
peptide bonds, 090904
plankton, indigenous, 42B0703
preliminary organic analyses, 42B0724, 42B0727
decarboxylation, 42B0727
sediments, 42B0723
racemization, 680475, 680477
aspartic acid, 680475
kinetics, 680478
metamorphic rocks, 680475
reducing, 42B0699
reducing environment, 42B0697
residue fraction, 200947
San Diego Trough, 680475
Santa Barbara Basin, 680475
sapropel, 42B0699, 42B0704
sediment, oxic, 42B0700
serine, 090903, 42B0699
silicate, 090903
source, 42B0703
stable metal ion associations, 42B0700
sugar, 42B0698, 42B0699, 42B0700, 42B0701, 42B0702, 42B0703, 42B0704
abundance order, 42B0699
acidic, 42B0699
alanine, beta, 42B0699
algal polysaccharides, 42B0702
allo-isoleucine/isoleucine ratio, 42B0700
amino acid carbon, 42B0699
arabinose, 42B0703
biological consumption, 42B0703
carbon, organic, 42B0703
cellulose, 42B0702
degradation, biological, 42B0700
depositional environment, 42B0699
desoxysugars, 42B0701
diagenetic control, 42B0703
diagenetic effects, 42B0699
diagenetic incorporation, 42B0703
diagenetic interconversion, 42B0700
distribution, uniform, 42B0699
fluctuation, 42B0702
fructose, 42B0703
galactose, 42B0703
glucose-ribose ratio, 42B0702
glycosidic bonds, 42B0701
gulose, 42B0703
H₂SO₄, 42B0701
hexoses, 42B0702
hydrocarbon, 42B0702
hydrocarbon, aromatic, 42B0699
hydrolysis methods, 42B0702
limestone, reworked, 42B0702
marine plankton input, 42B0702
metal association, 42B0704
metal ion-organic associations, 42B0703
neutral fraction, order, 42B0699
older freshwater sediments, 42B0702
organic input, 42B0703
ornithine, 42B0699
oxic sediment, 42B0703
oxidizing, 42B0699
pentases, 42B0701
polysaccharide, hexose-containing, 42B0701
proportion, 42B0703
reducing, 42B0699
reducing sediment, 42B0703
sapropel, 42B0699, 42B0702
sediment, oxic, 42B0700
serine, 42B0699
source, 42B0703
stable metal ion associations, 42B0700
sugar, labile, 42B0701

- terrigenous input, 42B0703
 terrigenous material, 42B0700
 threonine, 090903, 42B0699
 tyrosine, 42B0699
 tyrosine-phenylalanine region, 090904
 valine, 42B0699
 water content, 090903
 Amirante Bank, 250667
 sea floor spreading, history, 250667
 Amirante Basin, *see also* Indian Ocean W
 Amirante Passage
 Indian Ocean, 760680
 sediments, deposition, 760680
 Amirante Ridge, 220413, 220430, 240784
 Amirante Trench, 250764
see also Indian Ocean W
 Amlia Fracture Zone, 190570
 Amman, Red Sea, geology, 230816
 ammonia, 200941
 amino acid, 090904, 200941
 Angola Basin, 750820
 Antarctica, geochemistry, 350404
 Atlantic continental margin, interstitial
 water chemistry, 100613, 101011, 111009,
 130810, 140763, 160573, 160891, 170515,
 230953
 Balearic Rise, interstitial water
 chemistry, 130810
 Black Sea, interstitial water, 42B0640,
 42B0649
 Blake Ridge, 760455
 bromine, chlorine, 42B0633, 42B0635
 Cape Bojador, interstitial water, 47B0577
 carbon, geochemistry, 410852, 42B0718
 carbon, organic, diagenesis, 670610
 Cariaco Basin, 200941
 sediments, 200941
 Cariaco Trench, interstitial water, 200941
 Cocos Plate, sediments, 670609
 Costa Rica Rift, carbonate, 690463
 depositional history, 960660
 dolomite, diagenetic, mud, anoxic
 diatomaceous, 640563
 East Pacific Rise, sediments, 920355
 gas hydrate, trench slope, 670605
 gas, interstitial, stable isotopes, 640815
 Gulf of Mexico, interstitial water
 chemistry, 100613
 Hellenic Trough, interstitial water
 chemistry, 130810
 Indian Ocean N, interstitial water
 chemistry, 220864
 Indian Ocean W, interstitial water, 250363,
 250366, 250367, 250368, 250373
 interstitial water, 200816, 350425,
 38S0121, 38S0128, 38S0130, 38S0132,
 430670, 650443
 Barbados Ridge, 780377
 Daito Basin, 610608
 diffusive behavior, 42A0564
 inorganic constituents, 071753
 interstitial water chemistry, 350408,
 350412, 350418, 350420
 major ions, 200809
 mineralogical studies, 410907, 410912,
 410913
 Patton Escarpment, 630624
 interstitial water chemistry, 640933,
 670605, 730539
 Baja California, 640676, 640679
 Brazil Basin, 720391
 Rio Grande Rise, 720391
 interstitial water, geochemistry, Guaymas
 Basin, 640682, 640687, 640689
 iodine, interstitial water, 42B0633, 42B0635
 Mazagan Plateau, 790825
 Mediterranean Ridge, interstitial water
 chemistry, 130810
 Middle America Trench, transect, 670605,
 670609, 670610
 Mississippi Fan, production, 960703
 nitrate, dissolved, Pacific Ocean SE, 920424
 nitrogen, inorganic, 800994, 800996
 nitrogen, organic, 800994, 800996
 Pacific Ocean SE, 920424
 bottom water, 920424
 carbon, organic, 920424
 contamination, 920551
in situ metabolic activity, 920424
 metabolic process, 920424
 nitrate, dissolved, 920424
 nitrate distribution, 920424
 pelagic sediment reactions, generation,
 670610
 protokrogen, hydrothermal effects, 640908
 sediment-interstitial water interaction,
 571269
 alkalinity, 571270
 stable isotope, carbonate, 350502
 Vigo Seamount, interstitial water, 47B0577
 water chemistry, 670609
 ammonia, dissolved
 carbon, organic, diagenesis, 670610
 interstitial water, 650443
 Angola Basin, 750959
 California, Gulf of, 630626
 increase, 650446
 Walvis Ridge, 740701, 750961
 interstitial water, geochemistry
 diagenesis, 640691
 Guaymas Basin, 640688
 interstitial water, mineralogical studies,
 410913
 Middle America Trench, transect, 670610
 ammonia, exchangeable
 carbon, nitrogen, 42A1221
 interstitial water, geochemistry,
 diagenesis, 640691
 nitrogen, 42A1221
 ammonia, nonexchangeable, interstitial water,
 geochemistry, diagenesis, 640691
 Ammonitico Rosso, 110806, 110810, 110813,
 360294, 790885
 Africa, continental margin NW, 410972
 Atlantic continental margin NW, evolution,
 440957
 Atlantic Ocean N, Mediterranean Sea,
 100812, 110801, 110806, 110810, 110811,
 110812, 110813, 110820
 Atlantic Ocean NE, evolution, 411223
 Moroccan Basin, margin, 500812
 Neogene formations, paleogeography, 42A0914
 Tethys N, margin, 440957
 ammonium
 Cape Bojador, carbon, 47B0553
 carbon, geochemistry, 430655, 571322
 carbon, organic, 720834
 interstitial water, geochemistry,
 diagenesis, 640690
 nitrogen, inorganic
 clay minerals, 800996
 ion, 800994
 nitrogen, organic
 clay minerals, 800996
 ion, 800994
 Vigo Seamount, carbon, 47B0553
 ammonium, inorganic
 Angola Basin, Cretaceous, 751010
 carbon, organic, C/N ratio, 740732
 ammonium nitrogen
 nitrogen, inorganic, clay, 800996
 nitrogen, organic, clay, 800996
 amorphous bituminite, Walvis Ridge,
 sediments, 751081
 amorphous clay minerals, silica, diagenesis,
 410891
 amorphous iron
 Atlantic continental margin, mineralogy,
 090752
 clay minerals, Tertiary, 291077
 Mounds, nontronite, 540384
 amorphous iron oxide, 050541, 050543
 amorphous iron-manganese oxide, 050543
 amorphous precipitates, iron oxide, 050541
 East Pacific Rise, sediments, 540396
 hydrothermal activity, 050543
 Japan Trench, breccia, 561136
 lithology, 220016, 660683
 mud, 050541
 Pacific Ocean, 561137
 iron-rich sediment, 080831
 Pacific Ocean EC, stratigraphy, 090934
 Pacific Ocean N, 050541, 050545
 Pacific Ocean NE
 metal-rich basal sediments, 630667
 regional aspects, 050623, 050626, 050629,
 050635
 petrology, 540801
 primary precipitate, 050543
 sedimentation, Line Islands, 090934
 siliceous rock, mineralogy, 561136
 stratigraphy, 050541, 050543
 amorphous iron-manganese oxide, 050541
 amorphous manganese oxide, 050541
 amorphous iron oxide, hydrothermal, Galapagos
 Fracture Zone, East Pacific Rise, 540403
 amorphous iron-manganese oxide
 amorphous iron oxide, 050543
 stratigraphy, 050541
 mineralization, secondary, mineralogy,
 540810
 amorphous kerogen
 Atlantic Ocean S, Mesozoic, 751035, 751037,
 751039
 chemical characterization, 711049
 contact metamorphism, kerogen, 410821
 Falkland Plateau, basin, 711049
 hydrocarbon, extractable, organic
 petrology, 640844
 kerogen, 870898
 sediments, 410845
 organic geochemistry, Baja California,
 640942
 organic matter
 Pendragon Escarpment, 800970
 petrology, 500610, 500612
 petroleum generating potential
 organic matter, 640872
 sediments, 42B0732, 430665
 amorphous liptinite, hydrocarbon,
 extractable, organic petrology, 640850
 amorphous manganese oxide
 amorphous iron oxide, stratigraphy, 050541
 amorphous precipitates, iron oxide, 050541
 Atlantic continental margin, mineralogy,
 090752, 090773
 Pacific Ocean EC, stratigraphy, 090934
 sedimentation, Line Islands, 090934
 amorphous opal
 Atlantic continental margin, mineralogy,
 070914
 mineralogy, Atlantic Ocean, 140731
 silica, mineralogy, 140731
 amorphous palygorskite
 clay minerals, mineralogy, 140731
 silica, mineralogy, 140731
 amorphous phosphate, Pacific Ocean W, guyot,
 200658, 200661

- amorphous siderite
beef-in-shale, petrology, 360865
cone-in-cone texture, petrology, 360865
- amorphous silica
Aaia Basin, lithology, 061172
Atlantic continental margin
interstitial water chemistry, 140765,
170515
mineralogy, 121141
Atlantic Ocean S, mineralogy, 030509, 030510
chert
mineralogy, 320441
petrography, 320441
clay minerals, Tertiary, 291077
diagenesis, 410893
biogenic sediment, 850818
slope sediments, 840576, 840583
geochemistry, 060840, 540375
biogenic material, 060838
Goban Spur, silicified sediment, 801081
Guatemala, trench, 670524
Hess Rise N, sedimentary sequences, 620759,
620766
hydrothermal deposits, origin, 540416
interstitial water, 080865, 090845
Japan Trench, sediments, 271229, 571213
lithology, 390241, 390333, 390334, 480177,
480220
Mid-Pacific Mountains W, Aptian sediments,
620915
mineralogy, 540343, 600438
Mounds Hydrothermal Field, chemistry, 540408
offshore environments, 280934
Pacific Ocean E, modified sediments, 540335
physical properties, ooze, carbonate, 061172
porcellanite
mineralogy, 320441
petrography, 320441
Rockall Plateau, concretion, fossil
polymetallic, 810703
X-ray mineralogy, Rockall Rise, 480666
- Ampere Bank, 47B0659
Ampere Ridge, 130033
Ampere Seamount, 411239
Atlantic Ocean NE, evolution, 411239
- amphibole, actinolitic, mineralogy,
metabasalt, 600589
amphibole, alkaline, detrital modal analysis,
sand, 870623
amphibole, aluminous
gabbro
mineralogy, 600590
petrography, 600590
amphibole, calc-alkaline
amphiboles, chemical studies, 150967
pyroxene, chemical studies, 150967
amphibole, calcic, mineralogy, mineral,
metamorphic, 670561
amphibole, green
gabbro, phase chemistry, 370841, 370844
peridotite, phase chemistry, 370841, 370844
amphibole, kaersutite, basalt, altered,
geochemistry, 580820
amphibole, magnesiohornblende, mineralogy,
metabasalt, 600589
amphibole, pleochroic, terrigenous minerals,
mineralogy, 250436
amphibole-biotite
pyroxene, 130750
Gorringe Ridge, 130750
amphibole-epidote, volcanic sediment, 480771
amphibole-epidote-kyanite, Mediterranean Sea
E, history, 42B1212
amphiboles, 340612, 580670, 580671, 580672,
580685
Aaia Basin, lithology, 061135
- Abukuma, 580663
Antarctica
glaciation, 291041, 291042
mineralogy, 350748, 350749, 350750,
350751, 350752
Argentine Basin, mineralogy, 361018,
361019, 361020, 361022, 361023, 361025,
361026, 361027, 361028
ash, geochemistry, 660691
Atlantic continental margin, mineralogy,
100763, 110763, 110772, 121127, 121130,
121131
Atlantic Ocean
geochemistry, 47B0434, 47B0435
mineralogy, 47B0434, 47B0435
Atlantic Ocean N, Paleozoic, 801109
Atlantic Ocean NW, regional aspects, 110960
Atlantic Ocean SE, Cretaceous, 740773,
740775
basalt
chemical composition, 320565, 320567,
320568
Costa Rica Rift Zone, 830147
geochemistry, 590784, 590786
glass, 600604
midocean ridge, 820400
petrochemistry, 630712
petrography, 260470
petrology, 320565, 320567, 320568
basalt, altered, geochemistry, 580792,
580800, 580802, 580803
Black Sea, sediments, 42B0378
California, Gulf of, gulf mouth, 650367,
650399
Caribbean Sea, sediments, 150937
Cenozoic sediments
lithology, mineralogy, geochemistry,
450327
mineral composition, 42B0418, 42B0422
chemical and mineral composition,
mineralogy, 070965
chemical studies, 150963, 150967
Al, 150963
amphibole, calc-alkaline, 150967
calcium, 150963
hornblende, 150963
iron, 150963
magma, calc-alkalic, 150963
magma, subalkaline, 150963
magnesium, 150963
metamorphic derivation, 150963
polygenetic, 150963
pyroxene, 150963, 150966, 150967
pyroxene, Fe-rich, 150967
regional variations, chemical
compositions, 150967
silica, 150963
TiO₂, 150963
titanium, 150963, 150967
tremolite, 150963
turbidite, 150963
chemistry, Caribbean Sea C, 150963
clay, stratigraphy, 870639
clay minerals
Cretaceous and Cenozoic, 480705, 480711
Nankai Trough, 870634
silt, 680388
Costa Rica Rift Zone, basalt, 830219
crystal morphology, 600683
Daito Ridge, 580985
detrital sediment, origin, 670509, 670511
diagenesis, slope sediments, 840575,
840582, 840589
dispersal patterns, 350292, 350293, 350294,
350295
FAMOUS area, mineralogy, 370896, 370899
- fossils, minerals, rare and unusual, 340612
gabbro
mineralogy, 600590
petrography, 600590
geochemistry, 060832, 060833
Greenland Sea, other mineral components,
38S0237
Guatemala, offshore sediment, 840620
igneous rocks, 840948
geochemistry, 370674
Indian Ocean C, noncarbonate sediment,
220492
Indian Ocean NW, grain size, 250418, 250423
Indian Ocean W, 240658
mineralogy, 130608, 130611, 140679,
150847, 150848, 160529, 181016, 181017,
181018, 440516, 440517, 440519
minerals, 240675
regional aspects, 250754
terrigenous components, 240672
Japan NE, 580663
Japan Trench, silt, 561005
Labrador Sea, mineralogy, 101127
lithology, 060173, 060197, 060296, 060350,
060559, 060587, 100301, 190096, 190417,
210060, 210106, 210107, 210336, 210372,
210374, 220017, 250071, 250072, 280123,
310030, 310051, 310136, 310138, 310139,
310443, 330030, 330109, 360148, 380163,
380164, 42A0226, 42A0229, 42A0231,
42A0236, 42A0238, 430043, 430045,
500126,
San Blas Oceanic Formation, 090617
sand, 190221
sandstone, 240128
silt, 190221
turbidites, 120260
Magdalena Bay, sulfide, 630702
Mariana Islands, 600615
fore arc, 600621
Mariana Trench, 600621
petrography, 600720
Middle America Trench, 840609
ash, 660691
mineral, heavy, 580661
characteristics, 350292, 350293, 350294,
350295
Indian Ocean S, 270526
mineral, secondary, 670551
mineralogy, 210727, 330541
gabbro, olivine, 600587
gabbro, spinel-bearing, 600587
K/Ar age, 660725
metabasalt, 600588
mineral, 660691
Mississippi Fan, sediment, 960432
mud, 870916
mudstone, petrology, 180907, 180913
Nankai Trough
clay minerals, 870635
turbidites, 870916
Neogene formations, paleogeography,
42A0910, 42A0912, 42A0914
Nile Fan, mineralogy, 130611
Norwegian Sea
Greenland Sea, 38S0440
other mineral components, 38S0237
Pacific Ocean, mineralogy, 310886, 310887,
310888, 310892, 310894
Pacific Ocean C, mineralogy, 330541
Panama Basin, sediments, 690386, 690392
Patton Escarpment, petrography, 630701
pebbles, petrography, 801040
peridotite, 820524
Peter I Island, geology, 350353
petrography, 600583, 660723

- petrography (Cont.)
gabbro, amphibole, 600582
gabbro, spinel-bearing, 600583
petrology
basalt, 220416, 220419, 220432
sand, 960499
Philippine Sea NE, 580661
mineral, heavy, 580661
physical properties, clay, 061135
polymict breccia, clast, 600649
pyroxene, chemical studies, 150963
Rockall Plateau, Paleogene sediments, 810655, 810659, 810661
sand, mineral, heavy, 180878, 180880
sandstone, petrology, 180916
sediment composition
sand, 960479
silt, 960479
sedimentary sequence, lithology, 200727
sedimentation, 42B0607
sediments, Blake Ridge, 760414
Shikoku Basin, 580671, 580672
silt, mineral, heavy, 561005
Southeast Pacific Basin, evolution, geologic, 350730
strontium, 42B0607
Tasman Sea, mineralogy, 300605
terrigenous minerals, mineralogy, 250436, 250437
volcanic sediment, mineral, heavy, 480778
Wake Guyots, 200678, 200682
amphibolite, 220449
Atlantic Ocean SW, basin, evolution, 360996
basalt
chemical variation, 340301
geochemistry, 590783, 590786
basement, petrology, 220413, 220416, 220429, 220432
Cenozoic sediments, mineral composition, 42B0413
Cyprus, evaporites, 42B1186
Falkland Plateau, basement, 360900
geochemistry, 600627
igneous rocks, 840947
paragenesis, 840948
Kings Trough, 941249
lithology, 180288, 220017, 480175
metamorphic rocks
Gorringe Ridge, 130749, 130750
petrography, 130749, 130750
metamorphism, 130750
Gorringe Ridge, 130750
Middle America Trench, 840799
veining, 840800
mineralization, iron oxide, 220471
mineralogy, 220416
calcite, 220418
hornblende, 220418
iddingsite, 220418
olivine, 220418
oxyhornblende, 220418
plagioclase, 220418
petrology, 220416, 220419, 220432
Ross Sea, basement, 280864
trace elements, stabilization, 220449
Wake Guyts, 200679
Amsitene dolomite, Moroccan Basin, margin, 500809
Amsitene Reef, Moroccan Basin, margin, 500808
Amsterdam Island, 220214, 220826, 250187, 250664, 250746, 260567, 260571, 260816, 260924, 260925, 430734
Indian Ocean S, geologic history, 260924
Indian Ocean W, regional aspects, 250746
regional summary, Indian Ocean E, 220826
sea floor spreading, history, 250664
Amundsen Sea, 280789, 290020, 290027, 290135, 290330, 290366, 290731, 290759, 291117, 291120, 291162, 291164, 291166
Amuri limestone, 291062
amygdale, 050533, 050534, 180935, 180936, 180937, 180938, 300402, 340407, 411103
alteration, low-temperature, 340407
formation, 340407
alteration, nonoxidative, formation, 340407
andesite, alkalic, 180937
petrology, 180937
Angola Basin, petrochemistry, 751101
basalt, 180939
alteration, 920512, 920513
K/Ar age, 380758, 390547
mineral, secondary, 340407, 340408, 340409, 340410, 340411, 340413, 340414, 340415, 340416
petrology, 180937, 180939, 390547, 580846
basalt, altered, geochemistry, 580815
basement, 180937
petrology, 180937, 220425, 220427, 220428, 220431
chemistry, 340377
diagenesis, nonoxidative, 340407
formation, 340407
hydrothermal vein, mineralogy, 340377
mineral, secondary
elemental composition, 920509
petrography, 920506
petrology, 180937, 180939, 411103
sill, petrology, 180939
tholeiite, 180939
petrology, 180939
volcanics, 180937, 180939
petrology, 180937
An
basalt
major element, 510997, 511008, 511017
mineral chemistry, 550633
petrology, 160630, 160631, 450462, 450463, 590670, 590672
trace elements, 510997
Bauer Basin, basalt, 340227
Bermuda Rise
crystallization, 511041
trace elements, 511139
Falkland Plateau, basement, 360894, 360895
geochemistry, mineral chemistry, 160630, 160631
Horizon Tablemount, 200668
igneous rocks, geochemistry, 370655
mineral chemistry
basalt, aphyric, 450462
basalt, porphyritic, 450463
Nazca Plate, basalt, 340227
Peter I Island, geology, 350352
⁸⁶Sr/⁸⁷Sr ratio, rare earth elements, 511139
An₂₀-An₅₀, Middle America Trench, ash, 660691
An₃₃-An₇₅, mineralogy, plagioclase, 800942
An₆₅-An₉₀, basalt, plagioclase, 660713
An₇₀-An₉₀, mineralogy, plagioclase, 800942
An₇₇, basalt, plagioclase, 660716
Anadyr, Gulf of, 190891
Anadyr River, 190822, 190887
Anadyr Trough, 190887
Anahita Fracture Zone, 230529
Anahuac Formation, 110545
formations, 110545
analcime, 810638
Argentine Basin, mineralogy, 361019
Atlantic Ocean N
clay, 481095
mineralogy, 431023
basalt
mineral assemblage, 511227, 511232
petrology, 330577, 330589
pyroclastics, 260555, 260557, 260558, 260559
basalt, altered, chemistry, 511320
basalt, oceanic, Melanesian Basin, 610647, 610648
California, Gulf of, gulf mouth, 650412, 650415
carbonate, diagenetic, isotopic survey, 630597
chemistry, 650418
Costa Rica, continental margin, 840924
crust, oceanic, aging, 511569
diagenesis, slope sediments, 840577, 840588, 840589
East Mariana Basin, sedimentary history, 890668, 890669
FAMOUS area, mineralogy, 370897, 370898, 370899, 370900, 370901, 370902, 370903
hydrothermal alteration, sediments, 650419, 650420
Iceland, 810638
Indian Ocean, mineralogy, 220696
Indian Ocean W, mineralogy, 130608
lithology, 170288, 210035, 430205
ash, altered, 170106
volcanogenic sediment, 170267
mineral, secondary, basalt, 260555, 260557, 260558, 260559
mineralogy, 38S0139, 650418
zeolite, 600438
Pacific Ocean, mineralogy, 310885, 310887
Pacific Ocean C, mineralogy, 330542, 330543
Pacific Ocean NW, mineralogy, 320550
petrology, igneous rocks, 260555, 260557, 260558, 260559
Philippine Sea
Daito Basin, 600425
Daito Ridge, 600425
Mariana Trough, 600432
West Mariana Ridge, 600530
plagioclase, phenocryst, 810636
pyroclastic, 810634
pyroclastics, mineral, secondary, 260555, 260557, 260558, 260559
Rockall Plateau, Tertiary deposits, 810670
San Jose Canyon, 840930
sandstone, zeolite, 320541
Sanriku
diagenesis, 561145, 561151
silica, 561145, 561151
turbidites, Guatemala, 840925
volcanism, pyroclastic, Paleogene, 810638
Wake Guyots, 200682
analcite
alteration, products, 810734, 810739, 810740
altered rocks, 590735
Atlantic continental margin, mineralogy, 121130
basalt
alteration, low-temperature, 511302, 511309
Cretaceous, 511087
mineral, secondary, 511244, 511245
petrology, 580848, 580849, 580853
Bermuda Rise, mineral, secondary, 511256, 511258, 511260
clay, authigenic, 600470
Mariana Trough, 600471
clay minerals, silt, 680388
clinoptilolite, Atlantic Ocean NW, 430470, 430472
Costa Rica Rift, stockwork-like zone, 830277
Costa Rica Rift Zone
basalt, 830220, 830221, 830234, 830236, 830237, 830239

- Costa Rica Rift Zone (Cont.)
 stockwork-like zone, 830266, 830269,
 830271, 830274, 830275
 crust, oceanic, Costa Rica Rift Zone, 830184
 East Pacific Rise, sediments, 650380
 geochemistry, 810740
 Hatton Drift, 810734
 Hatton Ridge, 810739
 Indian Ocean C, minerals, 240682
 Indian Ocean NE, Cretaceous, 220735
 Indian Ocean W, mineralogy, 170518
 lithology, 260237, 260299, 330112, 330169,
 330308, 430044
 ash, 260161
 Madagascar Plateau, volcanic sediment,
 250524
 Manihiki Plateau, 330880
 mineral, secondary, zeolite, 511187
 mineralogy, 330542, 330543
 lithology, 810784
 phillipsite, Atlantic Ocean NW, 430470,
 430472
 Red Sea
 evaporites, 230823, 230824
 sediment history, 230854, 230855, 230861
 Shikoku Basin, basalt, 580895
 tholeiite, depleted, geochemistry, 810784
 trace elements, Cretaceous, 511087
 volcanoclastics, 330876
 zeolite, 220735
 analcite-chabazite, geochemistry, Hatton
 Drift, 810734
 analcite-dolerite, basalt, petrology, 580856
 Ananai Formation, 870606
 Anapa, 42B0469
 anatase
 Argentine Basin, mineralogy, 361025
 Atlantic continental margin, mineralogy,
 121132
 basalt, petrology, 330575, 330579
 California, Gulf of, gulf mouth, 650401,
 650415
 Caribbean Sea, sediments, 150929
 Cenozoic sediments, mineral composition,
 42B0422
 FAMOUS area, mineralogy, 370897
 Ganges Fan, sand, 220711
 Guatemala, trench, 670515
 Indian Ocean W, mineralogy, 140677, 140678,
 140679
 Japan Trench, silt, 561005
 lithology, 150021, 260162, 260237, 440032,
 510044
 ash, 260161
 magnetic oxides, petrology, 511427
 Norwegian Sea, Greenland Sea, 38S0272,
 38S0273
 red beds, 38S0272, 38S0273
 Rockall Plateau, Paleogene sediments, 810653
 silt
 mineral, heavy, 561005
 mineralogy, 960579
 Wharton Basin, sand, 220711
 anatase-brookite, Cenozoic sediments,
 lithology, mineralogy, geochemistry,
 450326
 Anatolia, 150773, 42B0389, 42A0945, 760870
 Messinian environments, Lago Mare, 42A1026,
 42A1031
 Paratethys, paleogeography, 42A0987, 42A0989
 Tethys, Mediterranean Sea, 42A0945
 Anatolia ophiolite, Neogene formations,
 paleogeography, 42A0906
 Anatolia Range, 42A0956
 Anatolian Fault, 42A0321
 Anatolian subplate, 42A0979
 Anaximander Ridge, 130323, 130742, 42A0903
 Neogene formations, paleogeography, 42A0903
 Anaximander Seamount, 42A0969
 Anchor Cay
 biostratigraphy, 300664
 Great Barrier Reef, 300664
 regional unconformity, 300664
 Anchor-Dickinson well, 950782, 950797, 950805
 Andalusia, 130667
 andalusite
 Cenozoic sediments, mineral composition,
 42B0419
 lithology, 290275, 440032
 mineral, heavy, Arabian Sea, 230498
 Rockall Plateau, Paleogene sediments, 810653
 terrigenous minerals, mineralogy, 250436
 Andaman Islands, 220407, 220408, 220411,
 230055, 260816
 Ganges Fan, history, 220407
 Andaman Sea, 261002, 42A0838, 641089
 Andaman-Nicobar Ridge, 660787
 Andean Intrusive Series, 350279, 350379
 Pacific continental margin, geomorphology,
 350279
 Southeast Pacific Basin, evolution,
 geologic, 350730
 Andean orogeny, Southeast Pacific Basin,
 evolution, geologic, 350737
 Andes Mountains, 340618, 340788, 340795,
 350005, 350025, 350739, 360532, 360873,
 360875, 360998, 361000, 361004, 391112,
 670754, 870606, 901509
 Atlantic Ocean SW, basin, evolution,
 360994, 360998, 361004, 361005
 deposition, eolian, orographic
 precipitation, 920338
 eolian sedimentation, paleoclimatic
 setting, 680410
 lithology, 340116, 360101
 Pacific Ocean S, eolian sedimentation
 history, 920601
 sedimentology
 South America, 340779
 volcanism, 340793
 Southeast Pacific Basin, evolution,
 geologic, 350738, 350739
 volcano, 160615
 Andes Mountains N, volcano, magnetic arc,
 690355
 Andes Mountains S, 360532, 710339
 Atlantic Ocean SW, basin, evolution,
 360998, 361000
 mineralogy, 350309
 andesine
 alteration, 300485
 microlite, 300485
 montmorillonite, 300486
 phenocrysts, 300485
 sand, 300485
 sandstone, volcanic, 300485
 siltstone, 300485
 basalt
 K/Ar age, 390549
 mineral chemistry, 550608
 mineralogy, 540697
 petrography, 540697
 petrology, 390549
 chemistry, chemistry, petrography, 550687
 diagenesis, slope sediments, 840573, 840583
 feldspar, 600705
 geochemistry, magma, 870699
 Guatemala
 slope sediment, 840931
 trench, 670515
 igneous rocks, chemical composition, 590720
 Jingu Seamount, volcanics, 550687
 lithology, 210374, 210375, 480177
 Lord Howe Rise, rhyolite, 210530
 Mariana Trough, Mariana Trough W, 600487
 Mid-Pacific Mountains, 200674
 Necker Ridge, 200674
 pyroxene, 600705
 Shatskiy Plateau S, 200683
 Sr isotope, 590720
 turbidites, Guatemala, 840925
 Wake Guyots, 200679
 andesine, calcic
 basalt, mineral chemistry, 550611
 chemistry, 550687
 Geisha Guyots, 200682
 igneous rocks, chemical composition, 590720
 Jingu Seamount, volcanics, 550687
 Mid-Pacific Mountains, 200669
 Sr isotope, 590720
 andesine-labradorite, Guatemala, trench,
 670518
 andesite, 070913, 561090, 580644
 Agrigan, 590725
 alteration
 conglomerate, volcanic, 300483
 remnant arc debris, 590739
 sandstone, vitric, 300483
³⁹Ar/⁴⁰Ar age, boulders, 571281
 ash, mud, vitric, 600474
 Atlantic Ocean, rift zone, 790523
 Atlantic Ocean S, history, 740723
 authigenic minerals, alteration, 600463
 basalt
 basement, 240767, 240772, 240775
 chemical variation, 340301
 geochemistry, 260567, 260570, 590754,
 590779, 590781, 590784, 590787, 590788,
 590789, 590794, 590795
 glass, 360871, 360873
 petrology, 220463
 pyroxene, 590694, 590699
 Sr isotope, 450537
 basalt, altered, geochemistry, 580807
 basement, geochemistry, 590750
 Bermuda Rise, geochemistry, 511518
 Black Sea, sediments, 42B0378
 boninite
 Bonin Islands, 600741
 Cape Vogel, 600741
 classification, 600698
 Mariana Trench, 600741
 breccia, volcanic, Neogene, 630643
 carbonate mineral, stable isotopes, 550653
 chemistry, 180936, 180937, 180938, 600585
 Mariana Islands, 600585
 conglomerate, clast, gravel, 300431
 crystal morphology, 600683
 crystals, 180936
 hypersthene, 180937
 plagioclase, 180937
 pyroxene, 180937
 dacite, conglomerate, 571286, 571287, 571288
 diagenesis, slope sediments, 840582, 840589
 exotic pebbles, 561090
 gabbro
 mineralogy, 600589
 petrography, 600589
 Geisha Guyots, 200683
 geochemistry, 220463, 600657
 Al₂O₃, 220463
 alkalinity, 220463
 B, 220463
 Ba, 220463
 calcite, 220463
 calcium, 220463
 CaO, 220463
 chromium, 220463

- geochemistry (Cont.)
 chronological evolution, 840615
 Co, 220463
 copper, 220463
 FeO, 220463
 glass, 870698
 iron, 220463
 K₂O, 220463
 Li, 220463
 magma, 870698
 magnesium, 220463
 Mariana Trough, 600657
 MgO, 220463
 mineralogy, special features, 060831
 Na₂O, 220463
 nickel, 220463
 Philippine Sea, 600657
 potassium, 220463
 rare earth elements, 220463
 SiO₂, 220463
 sodium, 220463
 strontium, 220463
 TiO, 220463
 titanium, 220463
 V, 220463
 volcanism, 840617, 870700
 yttrium, 220463
 zirconium, 220463
 geologic setting, 840923
 glass, 360871, 360873
 basalt, 180936, 180937, 650477
 glass, volcanic, 360871, 360873
 hyaloclastite, ash, 650477
 igneous rocks
 chemical composition, 590721, 590724, 590725
 geochemistry, 600611
 Japan Trench, 561090
 Kyushu-Palau Ridge, pyroxene, 590693
 Lesser Antilles, 780093
 lithology, 130068, 180033, 180040, 280022, 300073, 380178
 low partition coefficient elements, 600661
 tholeiite, 600661
 magma, 050531
 magma, calc-alkaline, 660701, 660702
 Paricutin Volcano, 660701
 major element
 composition, 670558
 mineralogy, 600665
 Mariana Islands, 600615
 basement, 600619
 fore arc, 600620, 600653, 600658, 600659, 600660
 Mariana Ridge, pyroxene, 590693
 Mariana Trench, 600620
 Mariana Trough, 600484
 gabbro, 600579
 Mariana Trough E, fore arc, 600660
 melting, partial, experiments, 600732
 microcline, 180937
 olivine, 180937
 plagioclase, 180937
 zoning, 180937
 microphyric, 38S0114
 Mid-Pacific Mountains, 200674
 Middle America Trench
 Baja California E, 660687
 Pliocene-Quaternary, 660687
 Sierra Madre del Sur, 660687
 Sierra Madre Occidental, 660687
 tephra, 660687
 mineralogy, 600657, 600716
 geochemistry, 600719
 Mariana Islands, 600657
 microphyric, 38S0116
 Philippine Sea, 600657
 New Zealand, 590656
 ore, deposit, 540802
 Pacific Ocean NE, metal-rich basal
 sediments, 630669
 paleomagnetism, Philippine Sea, 590533
 Peter I Island, geology, 350347, 350354, 350356
 petrography, 600583
 phenocryst, 180936
 feldspar, 180936
 hypersthene, 180937
 olivine, 180937
 plagioclase, 180937
 zoning, 180937
 Philippine Basin, genesis, 310857
 Philippine Sea, 600657
 paleomagnetism, 590533, 590535, 590539
 pyroxene, 590693
 West Mariana Ridge, 600431
 pyroxene, geothermometry, 590693
 rare earth elements
 geochemistry, 600737, 600738
 tuff, 590655, 590656, 590657
 regional, tectonic setting, 600613
 rhyolite, conglomerate, 571286, 571287, 571288
 Saint Vincent, 780303
 sediment, lithology, 38S0116
 South Fiji Basin, geology, 300625
 Sr isotope, 600679
 Agrigan, 590725
 major element, 590721
 ratio, 450537
 ratios, 450537
 trace elements, 590724
 tephra, source, 901153
 Tethys, Mediterranean Sea, 42A0944
 tholeiite
 geochemistry, 590681, 590687
 petrology, 590681, 590687
 Tohoku Arc, geology, 870715
 trace elements, 180937, 180938, 600657
 tuff, Neogene, 630643
 turbidite
 Guatemala, 840925
 mineral composition, 670538
 vein, 180936, 180937
 clay minerals, 180937
 phillipsite, 180937
 volcanic rock, 580644
 volcanic rocks, 580644
 ages, 550660
 petrology, 180937
 volcanics, 300407
 fore arc, 600721, 600722
 petrography, 300407
 andesite, acid, rare earth elements, tuff, 590655
 andesite, alkalic, 050531, 050532, 180936, 180937, 180938, 220450, 300407, 330766, 360871
 alteration, 180937
 amygdale, 180937
 ash, 050531
 augite, 180937
 Geisha Guyots, 200682
 glass, 180937
 hypersthene, 180937
 K/Ar age, 360871, 360873
 microcrystalline matrix, 180937
 olivine, 180937
 petrography, 300407
 petrology, 180936
 alteration, 180937
 amygdale, 180937
 crystal, 180937
 eruption, 180937
 glass, 180936, 180937
 inclusions, 180937
 microcline, 180937
 microphenocryst, 180937
 phenocryst, 180936, 180937
 vesicle, 180937
 xenocrysts, 180937
 zoning, 180937
 plagioclase, 180937
 refractive index, 360871, 360873
 source, 360871, 360874
 trace elements, 180937, 180938
 stabilization, 220449, 220450
 transport, modes, 360873
 vesicle, 180937
 volcanics
 petrography, 330766
 petrology, 330758, 330766
 andesite, aphyric, Mariana Islands, fore arc, 600653, 600658
 andesite, boninitic, boninite,
 classification, 600698
 andesite, bronzite, 600731
 boninite, classification, 600698
 boninite, nonglassy, 600698
 major element, mineralogy, 600665
 Mariana Islands, fore arc, 600658, 600659, 600660
 Mariana Trench
 boninite, 600731
 petrology, 600731
 mineralogy
 geochemistry, 600712
 primary textures, 600710
 petrography, 600731
 petrology, Mariana Trench, 600731
 andesite, calc-alkalic
 basalt
 geochemistry, 590785
 pyroxene, 590693, 590705
 boninite, geothermometry, 600695
 major element, 590707
 andesite, clinopyroxene, rare earth elements,
 geochemistry, 600736
 andesite, high-Mg
 boninite, 600741
 geochemistry
 major element, 600624
 source, 600626
 trace elements, 600624
 igneous rocks, chemical composition, 590721, 590724
 Mariana Trench, 600619
 boninite, 600731
 Sr isotope, 600679
 alteration, 590721
 major element, 590721
 trace elements, 590724
 andesite, high-Mg bronzite
 boninite, 600741
 classification, 600697
 Mariana Islands, fore arc, 600735, 600743
 rare earth elements, geochemistry, 600737, 600739, 600742
 andesite, high-MgO
 basement, chemistry, 600622
 boninite
 classification, 600698
 geothermometry, 600697
 igneous rocks, geochemistry, 600611
 Mariana Islands, fore arc, 600619
 andesite, hypersthene
 boninite, mineralogy, 600694, 600695
 Geisha Guyots, 200683

- volcanic rocks, petrography, Geisha Guyots, 200684
- andesite, hypersthene-augite, volcanics, fore arc, 600721
- andesite, oligoclase, Mid-Pacific Mountains, 200674
- andesite, porphyritic
- lithology, 150218, 310203
 - mineralogy, primary textures, 600717
- andesite, pyroxene
- lead isotope, 310602
 - strontium isotope, 310602
- andesite, rhyolitic, glaciation, detritus, 360858
- andesite, two-pyroxene
- basalt, 590698
 - basement, geochemistry, 590744
 - volcanics, fore arc, 600722
- andesite-dacite
- basalt, basement, 240774
 - clay mineralogy, volcanism, 650372
- andesitic belt
- Guatemala, trench, 670518, 670520, 670523
 - Japan Trench, silt, 561005
 - sediment geochemistry, ooze, siliceous calcareous, 550458
 - silt, mineral, heavy, 561005
 - volcaniclastic assemblage, 561008
- Andirin, Neogene formations, paleogeography, 42A0903
- andosol, claystone, basalt, 550709
- andradite
- chalk, calcite, 260593
 - garnet, 260594
 - garnet, metasomatic, 260593
 - garnet, 260594
- Andravadoaka, 250697
- Andros Island, 010179, 110009, 110475, 110729, 110819, 110891
- Bahama Islands, geology, 110877, 110878, 110879, 110882, 110883, 110884, 110885, 110886, 110891
- islands, 110009, 110475, 110729, 110819
- lithology, 110016
- Andros Well, Bahama Islands, geology, 110891
- Androy Massif
- volcanism
 - Madagascar, 250532
 - Mascarene Basin, 250536
- Anegada Passage, 780083, 780090, 780093
- Angel de la Guarda, 640577
- Angles-Gergons, Cretaceous cyclic sedimentation, 770339
- Anglia, 800764
- Anglo-Paris Basin, 950365, 950369, 950370
- Angola, 020422, 38S0714, 38S0773, 750477, 751009
- Brazil, 720979
- continental, 390927, 720959
 - margin, 390927
- Cocoa Beach, 400746
- continental margin, 390940, 400981, 750487, 750491, 750501, 750504, 750505, 750536
- evolution, 390940
- lithology, 390940
- Santos Plateau, 390927
- continental margin W, 750494
- continental shelf, onshore geology, 400965, 400968, 400969, 400970, 400971, 400972, 400975
- diagenesis, 020422
- dissolution, carbonate, 400996, 400997, 400998
- margin, 390927, 390940, 750657
- plateaus, 400549
- Rio Grande Rise, subsidence, 720974
- salt, 720974
- continental slope
- Santos Plateau
- geologic history, 390927
 - origin, 390928, 390940, 390943
 - Zambezi River, 250184
- Angola Basin, 140839, 360888, 38S0647, 38S0659, 38S0703, 38S0709, 38S0714, 38S0735, 38S0761, 390009, 390906, 390977, 391049, 400525, 400526, 400536, 400537, 400953, 400999, 401044, 401063, 411002, 411123, 430657, 440651, 47B0575, 47B0735, 480933, 710320, 710331, 711054, 720387, 720980, 720981, 720990, 730324, 730429, 730459, 730701, 730713, 730740, 730743, 730744, 730791, 740003, 740004, 740005, 740006, 740042, 740069, 740163, 740237, 740238, 740243, 740252, 740257, 740309, 740328, 740419, 740475, 740501, 740519, 740543, 740645, 740679, 740680, 740729, 740734, 740795, 740873, 740875, 740889, 740891, 750003, 750007, 750029, 750030, 750031, 750032, 750034, 750035, 750037, 750060, 750062, 750065, 750073, 750111, 750115, 750116, 750118, 750119, 750288, 750449, 750450, 750457, 750460, 750461, 750463, 750466, 750469, 750483, 750485, 750488, 750489, 750490, 750497, 750499, 750506, 750509, 750510, 750511, 750512, 750513, 750516, 750517, 750518, 750519, 750520, 750522, 750527, 750528, 750529, 750530, 750534, 750537, 750547, 750554, 750564, 750566, 750568, 750569, 750590, 750591, 750592, 750651, 750671, 750771, 750776, 750779, 750780, 750783, 750785, 750801, 750809, 750811, 750813, 750814, 750819, 750826, 750845, 750847, 750857, 750863, 750864, 750875, 750879, 750893, 750902, 750903, 750923, 750959, 750967, 750968, 750969, 750971, 750973, 750977, 750978, 750980, 750983, 751001, 751006, 751010, 751017, 751019, 751031, 751032, 751033, 751034, 751040, 751041, 751052, 751053, 751055, 751069, 751076, 751077, 751089, 751094, 751099, 751103, 751137, 751179, 751180, 751191, 751192, 751193, 751195, 751196, 751197, 751199, 751200, 751202, 751205, 751207, 751209, 751211, 751212, 751213, 751217, 751219, 751273, 751301, 790822, 931249
- acoustic basement, 751192
- acoustic velocity, 751179, 751180
- definition, 751179
- Africa SW, continental margin, 400471, 400472, 400474
- age, 751211
- ammonia, 750820
- Atlantic Ocean, 751051
- carbon, organic, 750819
 - Cretaceous, 750823
 - margin, 481104
- Atlantic Ocean C
- hiatuses, 391104
 - Santos Plateau, 391106, 391108
- Atlantic Ocean S
- Cretaceous, 720979, 720980, 720981
 - hiatuses, 391104
 - history, 740725
 - Mesozoic, 751037, 751038, 751041
 - Santos Plateau, 391106, 391108
- Atlantic Ocean SE, Cretaceous, 751001
- Atlantic Ocean SW, basin, evolution, 361000
- basalt, 751179
- basin stagnation, 751033
- bedding structure, 400526
- bioturbation, 400536
- concretion, 400536
- external form, 400526
- internal structure, 400526
- penecontemporaneous deformation, 400536
- primary inclusions, 400536
- stylolites, 400536
- bicarbonate, 750820
- biogenic sediment, geolipid comparison, 751089
- biostratigraphic correlations, 751212
- biostratigraphy, 750449, 751212
- Albian, 750456
- Campanian, 750454
- Cenozoic calcareous nannofossils, 750452, 750453, 750454
- Cretaceous calcareous nannofossils, 750454, 750455
- Cretaceous foraminifers, 750455, 750456
- diatoms, 750456
- lithostratigraphy, 750449, 750450
- Maestrichtian, 750454
- Santonian-Coniacian, 750454
- bitumen, 751031, 751033
- carbon, organic, 751033
 - nonhydrocarbon compounds, 751033
 - organic matter immaturity, 751033
 - saturate/aromatic ratio, 751033
- Brazil Basin, 481104
- Campanian sediments, 751211
- Campanian/Santonian boundary, 751216
- canyon, 400549
- Cape Basin, 400536
- clay, 400537
 - Cretaceous to Pliocene, 400495
 - turbidity, 400537
- carbon dioxide, 750820
- carbon, organic, 751003, 751031
- Cretaceous, 750819
- decrease, 751006
 - fatty acid, 740734
 - geochemistry, 750828, 750967
 - isotopic composition, 751051
 - preservation, 711054
 - supply, 750820
- carbonate, dissolution, 750853
- clastic sediment, Cretaceous, 401044
- clay, 400537
- clay mineralogy, 750845, 750847
- claystone, 400537
- Cretaceous, 750819, 751009
 - geochemistry, 750819
 - origin, 750819
- claystone, green, 751019
- concretion, 400536
- continental margin, 750538
- continental shelf, onshore geology, 400969, 400971, 400972, 400973, 400974
- copper, native, 38S0761
- Cretaceous
- claystone, 751009, 751010, 751011, 751014, 751016, 751017, 751018, 751019
 - shale, black, 750983, 751019
- Cretaceous and Cenozoic sediments, magnetostratigraphy, 751211
- Cretaceous, Lower/Upper boundary, 751217
- Cretaceous nannofossils, 751212
- Cretaceous Quiet Interval, 751214, 751217
- Cretaceous sediments, 751051, 751054
- anoxic condition, cause, 751054
- Cretaceous/Tertiary boundary, 751212, 751213
- cross-lamination, 400537
- crust, age, 730791
- crust, oceanic, age, 751217
- debris flow, 750801
- density, 751137
- deposition, terrigenous plant, 751033

- deposition, oxic, 751033
depositional environment, 750820
diagenesis, 750820, 750857
sediments, 750857
dolomite, Cretaceous, 400478
enrichment factor, 751001
Eocene to Maestrichtian sediments, 751211
ethane, 751001
fan, submarine, 400537
Cretaceous to Recent, 750771
field demagnetization experiments, 751212
geochemistry, 750819, 750845, 750847,
750849, 751099, 751100
Al, 750847, 750924
anoxic conditions, 750849
attapulgite, 750846
B, 750924
Ba, 750924
basalt, 750847, 750923
CaCO₃, 750847
calcareous biogenic debris, 750924
calcite, 750923
CaO, 750850
carbon, organic, 750847
carbonate, 750847
carbonate compensation depth, 750512
CCD, 750850
chlorite, 750846
chromium, 750847, 750924
clay, 750846, 750925
clay minerals, 750924
claystone, 750923
claystone, red, 750933, 750934
climate, 750846
Co, 750847, 750924
copper, 750847, 750924
Cretaceous, 750927, 750929, 750931,
750932, 750933
diagenesis, burial, 750845
diagenetic redox conditions, 750924
dissolution, 750849
erbium, 750925
Fe₂O₃, 750847
glauconite, 750850
illite, 750846
iron, 750846, 750847, 750850, 750924
kaolinite, 750846
lanthanum, 750924
magnesium, 750850, 750925
manganese, 750846, 750849, 750924
MgO, 750847
mixed layer minerals, 750846
molybdenum, 750924
neodymium, 750925
nickel, 750847, 750924
oxidizing currents, 750847
Pb, 750924
phosphorus, 750925
potassium, 750924
relationship, 750846
samarium, 750925
scandium, 750924
silica, 750847, 750849, 750924
siliceous biogenic debris, 750925
SiO₂, 750850
smectite, 750846
sodium, 750925
Sr/CaO ratio, 750847
SrCO₃, 750847
strontium, 750847, 750849
subsidence, 750850
terrigenous components, 750850
titanium, 750925
V, 750847, 750924
Walvis Ridge, 750849
yttrium, 750924
zinc, 750847, 750924
zirconium, 750924
geologic evolution
Antarctic Bottom Water, 750510
basement, 750512
Benguela Current, 750510
CaCO₃, 750513, 750515
carbon, 750510
carbonate compensation depth, 750515,
750527, 750528, 750529, 750530
CCD, 750512
claystone, 750514
claystone, green, 750513, 750514, 750515
claystone, red, 750513, 750514, 750515
Cretaceous/Tertiary boundary, 750524,
750526, 750527
crust, oceanic, 750511
debris-flow deposits, 750515
depositional history, 750513
Eocene-Oligocene unconformity, 750515
fan, submarine, 750518, 750519, 750520,
750522
homogeneity of sediments, 750515
igneous rock, 750516, 750517, 750518
Inoceramus fragments, 750515
oxygen minimum zone, 750510
paleoceanography, 750537
paleoenvironment, 750512
pyrite, 750513
restricted basins, 750510
shale, black, 750513, 750519, 750522,
750523, 750524
siltstone, 750514
siltstone, green, 750514
siltstone, red, 750514
spreading center, 750510
subsidence history, 750511
turbidites, 750515
turbidites, sandstone, 750514
volcanogenic components, 750513
Walvis Ridge, 750510
geologic history, 751205
geophysical data, 751137, 751138
acoustic anisotropy, 751137
compressional velocity, 751138
compressional wave velocity, 751137
electrical conductivity, 751139
electrical resistivity, 751139
formation factor, 751139
interstitial water, 751139, 751140
lithologic summary, 751145
lithology, 751138
mineral grain textures and resistivity,
751139
porosity, 751138
shear strength, 751138, 751141
sheared sediment effects, 751141
sound velocity, 751140
water content, 750138
wet-bulk density, 751138
Globotruncanifera, 751212
grading, 400537
grain-size analyses, 751301
H/C ratio, 751033
heat conductivity, 751179
hiatuses, 751217
hydrocarbon, 751001
index, 751032
migration, 751003
potential source, 751034
hydrocarbon, aliphatic, shale, black, 751019
hydrocarbon, aromatic, 750795
hydrocarbon, C₁-C₈, migration, 751001
hydrocarbon, C₂-C₈, 751055
hydrocarbon, light, 440651, 751001
sorption, 751007
hydrocarbon, total, 751032
inclusion, 400536
inorganic geochemistry, sediments, rocks,
750924
interstitial water, 400549, 750959
alkalinity, 750959
ammonia, dissolved, 750959
calcium, dissolved, 750959
carbon, organic, 750959
carbonate, 750959
clay minerals, 750959
dolomite, 750959
lithium, dissolved, 750959
magnesium, 750959
opaline silica, 750959
potassium, dissolved, 750959
silica, dissolved, 750959
strontium, 750959
sulfate, 750959
sulfate, dissolved, 750959
interstitial water, alkalinity, 750820
kerogen, 751031, 751032
marine origin, 751033
laminae, parallel, 400537
limestone, nodular, 400526
lipid, 38S0659
biogenic sediments, 751089
lithology, 750847
calcite, 750847
claystone, 750847
limestone, 750847
marlstone, 750847
shale, black, 750847
lithostratigraphy, 751211
Maestrichtian mixed polarity sequence,
751216
Maestrichtian sediments, 751211
magnetic anomaly, 751211
sequence, 751217
magnetic polarity reversal, Cenozoic, 751213
magnetostratigraphic correlations, 751213
magnetostratigraphy, 750449, 751211
Cenozoic, 750457
Cretaceous, 750457, 750458
tectonics, 751217
marginal plateau, 400549
marine material, oxidation, 751033
Mesozoic and Cenozoic sediments, 751211
methane, 751001
migration model, 751003
migration, volatile organic compounds,
751001, 751007
migrational changes, influence, 751001
mineralogy, 750857
mud, terrigenous, organic geochemistry,
400566
mudstone, carbonaceous, bedding features,
400537, 400538
nannofossils, 751212
O/C ratio, 751033
oil generating potential, 751031, 751034
Oligocene sediments, 751211
organic geochemistry, 400566, 750459,
750983, 750990, 751031, 751069
alkane, 750990
carbon dioxide, 750990
carbon, organic, 750987, 750990
carbonate, 750987
Cretaceous organic matter, 750997
Holocene-Pleistocene, 750459, 750460,
750461
hydrocarbon, 750990
hydrocarbon, diaromatic, 750990
mineral carbon, 750987
Miocene-Santonian, 750461, 750462, 750463
monoaromatics, 750990

- organic geochemistry (Cont.)
 NSO compounds, 750990
 organic matter, 750466, 750983, 750990, 750991, 750992, 750993, 750994
 petroleum generating potential, 750990
 Pleistocene-Miocene, 750461
 polycyclics, 750990
 pristane, 750990
 Santonian-Albian, 750463, 750464
 shale, black, 750983, 750997, 750998
 sterane/sterene ratio, 750990
 triterpane, 750990
 organic input, 751033
 organic matter, 751031, 751033
 geochemistry, 751069
 petrography, 751069
 oxidation-reduction reactions, 750820
 oxygen isotope, 750893
 paleotemperatures, 750893
 oxygen minimum zone, 751033
 paleoceanographic evolution, 751031
 paleoenvironment, 750509
 paleoinclinations, 751213
 paleolatitude, 751216
 penecontemporaneous deformation, 400536
 load cast, 400536
 slumping, 400536
 petrochemistry
 chemistry, 751101, 751102, 751103
 petrography, 751101
 petroleum, generation, 751001
 petrology, 400469, 750857, 751099
 sedimentary, 400469
 phosphate, 750820
 polarity sequence, 751211, 751213
 porosity-derived reflection coefficients, 751137
 pyrite, framboidal, 750875
 reaction by-products, 750820
 redox conditions, cause, 750819
 reduced metal species, 750820
 reflection coefficients, 751137
 ridge, 740748
 ridge jump, 751211, 751217
 rock remagnetization, 751219
 sand, 400537
 Santonian-Tertiary strata, 751034
 Santos Plateau, origin, 390941
 sedimentary structure, 400525, 400526, 400536
 barite, 400536
 bedding, graded, 400536
 bedding, laminated, 400536
 chalk, nannofossil, 400536
 distribution, 400536
 foreset bedding, 400536
 inclusion, 400536
 limestone, stylolitic, 400536
 microfaulting, 400536
 nodular structures, 400536
 primary structures, 400525
 sand, 400536
 sedimentary structure, secondary, 400526
 silt, 400536
 slump fold, 400536
 slumping, 400536
 turbidites, 400536
 sedimentation, 750509
 shale, 430643, 751006
 Cretaceous, 750819
 organic geochemistry, 38S0659, 38S0761, 400566, 430643
 shale, black, 400537, 750510, 751006, 751033
 Cretaceous, 750809, 750811, 751031
 deposition, 750823, 750825, 750826
 geochemistry, 750819
 hydrocarbon, aliphatic, 751019
 mudstone, 400537
 organic matter, 751001
 origin, 750819, 751033
 sandstone, 400537
 sandstone, carbonaceous, 400538
 shale, green, 751006
 shear strength, 751137
 definition, 751180
 slumping, extinction, oblique, 751103
 sound velocity, 751137
 stylolites, 400536
 sulfide, 750820
 tectonic fabric, 730791
 tetrapyrrole, geochemistry, 630812, 630813
 thermohaline flow, Quaternary, 720990
 transformation ratios, 751033
 turbidites, 400537, 750785, 751214
 turbidity current, transport, 751034
 velocity, 751137
 volatile organic compounds, migration, 751001
 volcanism, 751103
 weathering, 751100
 wet-bulk density, 751182
see also Walvis Ridge
 Angola Plain, 730629, 730653, 730738
 Anguilla, 780083, 780089, 780090, 780303
 geologic structure, 780089
 Miocene deposits, 780089
 sea troughs, 780091
 anhydrite, 130675, 130676, 130695, 830283
 absence, Scotian Basin, 790521
 Arabian Sea, history, 231122
 Atlantic continental margin, interstitial water chemistry, 130809
 Atlantic Ocean C, Santos Plateau, 391106
 Bahama Islands, geology, 110884, 110893
 Balearic Islands, southern prolongation, 131442
 Balearic Plain
 halite, 130709
 mineralogy, 130678
 Balearic Rise
 compressional wave velocities, 130596
 mineralogy, 130675, 130676
 barite, authigenic, origin, 410923
 basalt, Costa Rica Rift Zone, 830145
 basalt, hydrothermally altered, Costa Rica Rift, 830283
 basalt, oceanic, mineral, secondary, 610649
 beef-in-shale, 360866
 Black Sea, interstitial water, 42B0648
 carbon, stable isotopes, 42A0484
 carbonate, 42A1211
 chert
 geochemistry, 620725
 petrology, 620725
 compressional wave velocities, 130595
 evaporites, 130596, 130597
 gabbro, 130595
 limestone, 130596
 schist, 130595
 compressional wave velocity, Mediterranean Sea, 130595
 cone-in-cone texture, 360866
 continental shelf, onshore geology, 400967
 Costa Rica Rift, 690547
 alteration, hydrothermal, 830283
 basalt, 690501, 690520
 basalt, hydrothermally altered, 830249, 830283
 origin, 690547
 Costa Rica Rift Zone
 basalt, 830219, 830220, 830222, 830230, 830234, 830235, 830237, 830238, 830239, 830257, 830283, 830284, 830285, 830286
 stockwork-like zone, 830271
 crust, oceanic, Costa Rica Rift Zone, 830184
 Cyprus, evaporites, 42B1189
 density, Red Sea, 230909
 diagenesis, 020422
 evaporites
 Mediterranean Sea, 130695, 130698, 130699, 130700, 130703, 130705, 130706
 Messinian, 42A0505, 42A0573, 42A0574, 42A0575, 42A0587, 42A0591, 42A0593, 42A0594, 42A0595, 42A0600
 Miocene, 131237
 Red Sea, 230917
 geochemistry, Guaymas Basin, 640708, 640712
 halite, chemistry, 42A0619
 hydrocarbon, gas, residual, 42B0679
 hydrothermal activity, petrology, 641129, 641132
 inclusion, 42A0587
 Indian Ocean W, mineralogy, 130605, 130608, 130609, 150847, 150848, 150849, 150850, 160529, 160530, 181016, 181017, 240811, 42A0362, 42A0370
 interstitial water, 010406, 100620
 basement, 100621
 diffusive behavior, 42A0565
 interstitial water chemistry, 240803
 isotopes, stable oxygen, dolomite, 42A0484
 isotopic composition, Messinian sediments, 42A0640, 42A0647, 42A0648
 limestone, compressional wave velocities, 130596
 lithology, 130153, 130154, 130200, 42A0036, 42A0235, 500044
 Balatino, 130153
 bedding, 130153
 chicken-wire structure, 130154
 clay minerals, 130153
 evaporites, 130196
 lamination, 130153, 130154
 marl, dolomitic, 130487, 130488
 marl, pyritic, 130487, 130488
 matrix, microcrystalline, 130153
 mud, 130153
 nodular, 130159, 130161, 42A0182, 42A0236
 nodules, 130153, 130154
 lueneburgite, Miocene sediments, 42A0663
 Mazagan Escarpment, 790511, 790520, 790521, 790524, 790904
 Mediterranean Ridge, interstitial water chemistry, 130809
 Mediterranean Sea
 evaporites, 131205, 131212
 lithostratigraphy, 131036
 Messinian, 130675, 130676, 130679, 130680, 130689, 130690
 mineralogy, 130605, 42A1163
 Neogene, 131258
 Mediterranean Sea E, history, 42B1197, 42B1204, 42B1206, 42B1208, 42B1212, 42B1214, 42B1216
 Mexico, Gulf of
 interstitial water chemistry, 10620
 regional aspects, 010626
 mineralogy, Goban Spur, 801020
 Moroccan Basin, margin, 500813
 Neogene formations, paleogeography, 42A0908, 42A0909
 organic geochemistry, 640819
 origin, Costa Rica Rift, 690547
 Pacific Ocean SE, 920556
 major-ion correlations, 920552
 mud, 920558
 rare earth elements, 920554
 palynological residue, 640753

- palynological residue (Cont.)
 Guaymas Basin, 640743
 physical properties, 230909
 potash, chemistry, 42A0619
 pyrite, hydrothermal, 641140
 Red Sea, 230909, 230910
 density, 230909, 230910
 dolomite, 230870, 230875
 evaporites, 230823, 230824, 230830,
 230835, 230841, 230947, 230949
 geochemistry, 230982, 230988, 230992,
 230994, 230997
 sediment history, 230857, 230860
 sediments, 230923
 sonic velocity, 230909, 230910
 thermal conductivity, 230909
 sandstone, petrology, 180919
 Scotian Basin, absence, 790521
 sonic velocity, Red Sea, 230909
 sulfate, 010564
 sulfur isotope, anhydrite, hydrothermal,
 641140
 system, hydrothermal experimental,
 formation, 830283
 thermal conductivity, Red Sea, 230909
 trace elements, distribution, 42A0506
 Tyrrhenian Rise
 interstitial water, 130807
 mineralogy, 130608
 anhydrite, diachronous, Mediterranean Sea E,
 history, 42B1210
 anhydrite, hydrothermal
 California, Gulf of, sulfur isotope, 641137
 Guaymas Basin, sulfur isotope, 641137
 sulfur isotope, 641137, 641138, 641140,
 641411
 bacterial-hydrothermal source, 641141
 California, Gulf of, 641137
 high temperature zone, 641140
 homogeneous isotope values, 641141
 hydrothermal activity, 641137
 intrusion, 641140
 pyrite, 641140, 641141
 pyrrhotite, 641138
 reduction, 641141
 sulfate, 641140
 sulfide, bacterial, 641141
 sulfide mineral, 641138
 anhydrite, nodular
 evaporites, Mediterranean Sea, 130699,
 130700
 Mediterranean Sea E, history, 42B1206,
 42B1220
 Messinian environments, Lago Mare, 42A1024
 anhydrite, primary
 evaporites, Miocene, 131238
 lithology, evaporites, 130425
 anhydrite-calcite-dolomite, geochemistry,
 Guaymas Basin, 640698
 Ankaizina, 250532
 volcanism, Madagascar, 250532
 Ankaratra, 250532
 ankaratrite, volcanism, Madagascar, 250533
 ankarenite
 Emperor Seamounts, trace elements, 550585
 volcanic rocks, petrography, 200691
 ankerite
 Atlantic continental margin, mineralogy,
 100783, 110783
 Atlantic Ocean NE, evolution, 411227
 Atlantic Ocean NW, regional aspects, 110966
 basalt
 chemical composition, 320563, 320565,
 320567
 K/Ar age, 390549
 petrology, 320563, 320565, 320567, 390549
 Black Sea, sediments, 42B0382
 California, Gulf of, gulf mouth, 650399,
 650407, 650409, 650415
 chemistry, 650418
 gas, natural, zonation, 110795, 110797
 geochemistry, Cenozoic sediments, 42B0558,
 42B0562, 42B0569, 42B0588
 Honshu NE, diagenesis, 561123
 hydrothermal alteration, sediments, 650420
 Indian Ocean W, mineralogy, 42B0462
 lithology, 410171
 Miocene sediment, 110141
 mineralogy, 650418
 Mossbauer spectroscopy study, 950644
 Pacific Ocean NW, geochemical history,
 620799
 sediments, 760411
 Valencia Trough, ash, 130769
 ankerite, calcium, Africa SW, continental
 margin, 400476, 400477
 ankerite, secondary
 sediment-interstitial water interaction,
 571270
 ankerite, 571270, 571272
 calcite, 571272
 carbon, organic, 571272
 carbonate mineral, 571270
 coal, 571270
 Fe²⁺ activity, 571272
 Fe²⁺-Mg²⁺ diagenetic reaction, 571272
 FeS, 571272
 hydrogen sulfide, 571272
 iron, 571270
 pyrite-bearing marine sedimentary rocks,
 571270
 reducing environment, 571270
 sea floor depth, 571272
 sulfate, 571273
 temperature, 571272
 ankerite-dolomite, geochemistry, Cenozoic
 sediments, 42B0562
 Ankloot Formation, Moroccan Basin, margin,
 500811, 500813
 Ankole, 330750
 Anna interglacial stage, 42B0124, 42B0130
 Black Sea, sediment, 42B0495
 anorthite
 ash, geochemistry, 660691
 basalt
 Blake Basin, 760714
 Costa Rica Rift Zone, 830162
 geochemistry, 590761
 Hess Rise, 620967
 mineral chemistry, 550632
 mineral composition, 050533
 mineralogy, 540697
 petrography, 540697
 petrology, 160630
 pyroxene, 590698
 phenocryst composition, 830137
 plagioclase, 650639
 Bauer Basin, basalt, 340234, 340240
 Cocos Plate, basalt, 660704
 diagenesis, slope sediments, 840574
 East Pacific Rise, petrology, 540821
 gabbro
 mineralogy, 600589
 petrography, 600589
 geochemistry, mineral chemistry, 160630
 glass, chemical variation, 510984
 Hess Rise, basalt, 620967
 Mariana Trough, 600487
 Mid-Atlantic Ridge, isotopes, 450545
 Middle America Trench, ash, 660691
 mineral chemistry, plagioclase, 630691
 mineral composition, basalt, 050533
 mineral, primary, feldspar, 810787
 mineralogy
 gabbro, olivine, 600586
 mineral, 660691
 plagioclase, 540759, 660731, 800942
 Nazca Plate, basalt, 340234, 340240
 Peter I Island, geology, 350351, 350352
 phenocryst, 540654
 plagioclase, 540656
 water influence, phenocryst compositions,
 540662, 540663
 trace elements, plagioclase, 450545
 volcanics, sea floor, 540819
 volcanism, basalt, 050533
 anorthite, normative
 basalt
 fracture zone, 540719
 geochemistry, 550601
 anorthoclase
 basalt
 mineral chemistry, 550611
 petrology, 580848, 580849, 580853
 feldspar, 600705
 Geisha Guyots, 200682, 200683
 Indian Ocean W, mineralogy, 260573
 lithology, 210202, 290195, 330309
 Melanesian Basin, ash, 610634
 Peter I Island, geology, 350348
 pyroxene, 600705
 anorthosite
 basalt, 240785
 basement, 240772
 geochemistry, 590757, 590763, 590768,
 590778, 590779
 petrology, 590671
 diabase, trace elements, 240785
 lithology, 490233
 ore, deposit, 540803
 polymict breccia, clast, 600648
 anoxia
 abyssal plain, cyclic sedimentation, 801078
 Atlantic Ocean N
 Cretaceous, 800999
 Goban Spur, 801007, 801008
 oxygen, 801010
 Atlantic Ocean NE, 800999
 Atlantic Ocean S, Mesozoic, 751042
 carbon, organic, preservation, 711054
 continental slope basins, Orca Basin, 960708
 deposition, models, 750841
 Goban Spur
 Cenomanian-Turonian, 800979, 800980
 evolution, 801207
 hydrocarbon, deposition, 960787
 inorganic geochemistry, 801079
 oceanic anoxic event, Atlantic Ocean N,
 801003, 801004, 801005
 organic geochemistry
 black-colored sediments, depositional
 model, 800966, 800967
 Guaymas Basin, 640943, 640949, 640950
 organic matter richness
 bottom water, 801001
 induction, 801001
 organic richness, 800999
 accumulation rate, 801011
 Atlantic Ocean, 801011
 Atlantic Ocean N, 800999, 801011
 CCD, 801011
 circulation, 801011, 801012
 circulation, sluggish, 801011
 continental drift, 801011
 contributing factors, 801012
 Cretaceous, 801011
 deep basins, anoxia occurrence, 801011

- organic richness (Cont.)
 deposition, 801011
 high productivity effects, 801012
 local anoxia, 801011
 organic matter enrichment, 801011
 oxidation promotion, sediments, 801012
 oxygen, 801011, 801012
 oxygen minimum zone, 801011
 Pacific Ocean, 801011
 Tethys, 801011
 topography influence, 801011
 upwelling, 801012
 volcanism, submarine, 801011
 paleoenvironmental models, 47B0735
 Pendragon Escarpment, 801197
 bottom water, 800979
 regional implications, 800980
 perylene
 Orca Basin, 960789
 sedimentary, 960789
 Pigmy Basin, biological markers, 960785
 shale, black, organic matter, 47B0724,
 47B0729
 tetrapyrrole, geochemistry, 630814, 640800
 Walvis Ridge, Angola Basin, 750980
 anoxia, global
 evidence against, 801001
 alternative hypothesis, 801003
 anoxia, 801001, 801003
 anoxic sediment, 801003
 Atlantic Ocean S, 801002, 801003
 bituminous facies, 801001
 bottom water, 801003
 Cretaceous oceans, 801003
 deposition, 801001, 801003
 deposition, anoxic, 801003
 high productivity, 801003
 Indian Ocean, 801002
 local anoxic events, 801001
 marginal basins, anoxia pattern, 801003
 marginal basins, creation, 801003
 marginal settings, epeiric seas, 801002
 oceanic anoxic event, 801001
 organic matter enrichment, 801001
 organic-rich rock, 801001
 oxygen minimum zone, 801001, 801003
 Pacific Ocean, 801001
 restricted circulation, 801003
 rifting, 801003
 shale, black, 801001, 801003
 tectonic framework, marginal basins
 linkage, 801003
 Tethys, 801002
 transgression, 801003
 turbidity current, 801003
 inorganic geochemistry, Cenomanian/Turonian
 boundary, 801079
 organic richness, 801011
 Ansei, 870947
 accretionary prism, thrust types, 870947
 Ansu, Shiono-Misaki Canyon, earthquake, 870941
 Antalya, 840638
 nappes, 42A0968
 Neogene formations, paleogeography,
 42A0904, 42A0921
 Antalya Basin, 42A0005, 42A0220, 42A0407,
 42A0657, 42A0659, 42A0660, 42A0903,
 42A0921
 carbonate, isotopes, 42A0650
 Kyrenia, Gediz Mountain, 42A0975
 Messinian
 isotopes, 42A0659
 sulfate, 42A0659
 Messinian environments
 Lago Mare, 42A1025
 Mediterranean Sea, 42A1031
 Neogene formations, paleogeography,
 42A0903, 42A0908, 42A0920, 42A0921
 sulfate
 Messinian, 42A0659
 stable isotope, 42A0659, 42A0660
 Antalya Complex, 760875, 760876
 Antalya, Gulf of, igneous rocks, ophiolite,
 840948
 Antalya Plain, 131223, 42A0995, 42A1019
 Antalya Salt Lake, 42B1216
 Antarctic Bottom Water, 040660, 070077,
 241111, 241140, 241146, 241147, 260918,
 260937, 280378, 280939, 300680, 390432,
 430817, 480116, 710212, 710307, 710315,
 710340, 710341, 710363, 710409, 710410,
 710468, 710469, 710470, 710475, 710476,
 711105, 720015, 720016, 720017, 720020,
 720022, 720024, 720025, 720027, 720029,
 720030, 720031, 720032, 720033, 720054,
 720055, 720070, 720071, 720073, 720074,
 720339, 720343, 720357, 720358, 720362,
 720364, 720383, 720384, 720385, 720388,
 720481, 720485, 720491, 720495, 720496,
 720515, 720516, 720601, 720805, 720809,
 720810, 720849, 720858, 720861, 720875,
 720878, 720885, 720887, 720890, 720891,
 720892, 720893, 720907, 720908, 720911,
 720913, 720914, 720915, 720917, 720977,
 720978, 720984, 720985, 720986, 720987,
 720988, 720989, 720991, 720995, 720996,
 720997, 721000, 721001, 721020, 721021,
 721022, 730009, 730036, 730049, 730111,
 730152, 730153, 730188, 730197, 730206,
 730207, 730272, 730278, 730279, 730282,
 730485, 730489, 730702, 730713, 730721,
 730722, 730723, 730775, 730778, 730782,
 730783, 730784, 740003, 740042, 740249,
 740645, 740664, 740875, 750035, 750510,
 750518, 750530, 750846, 750903, 780345,
 800553, 800727, 800745, 800808, 800811,
 800813, 800814, 810695, 820621, 840363,
 840365, 840366, 840367, 840371, 840376,
 840377, 840378, 840379, 840383, 840385,
 840386, 840387, 840388, 840555, 840950,
 850236, 850569, 850602, 850672, 850943,
 850944, 850947, 850963, 850964, 850968,
 900986, 901089, 901213, 901509, 920341
 abyssal plain, benthic microfauna, 800745
 Angola Basin
 evolution, geologic, 750530
 geologic evolution, 750510, 750518
 Argentine Basin, 720383
 Atlantic Ocean, 901057
 circulation, 720977
 margin, 481107
 Atlantic Ocean C
 Argentine Basin, 391120, 391121
 basin, 511507
 hiatuses, 391104, 391105
 Atlantic Ocean NE, stable isotope, 480477,
 480483
 Atlantic Ocean S
 Argentine Basin, 391120, 391121
 hiatuses, 391104, 391105
 Paleogene, 720984, 720985
 Atlantic Ocean SW, basin, evolution, 360996
 Atlantic Ocean W, Brazil Basin, 040660
 biostratigraphy, paleoenvironment, 840950
 Blake Basin, Bermuda Rise, 440153
 Brazil Basin, 040660
 history, 721000
 Recent-Eocene sedimentation, 721001
 calcite, deposition, 920601
 calcite corrosion
 Rio Grande Gap, 721020
 Rio Grande Rise, 721020
 carbon isotope, benthic foraminifers, 800814
 carbonate, isotopic events, 850732
 clay minerals, 390402, 390403
 turbidity, 390402
 coarse fraction variation, Rio Grande Gap,
 901213
 continental shelf, onshore geology, 400972
 cooling, Miocene, 850936
 deposition, bottom water, 250500, 250501,
 250503
 diatom paleoceanography, paleoclimatology,
 increased production, 850944
 Feni Ridge, 941220
 flow path, 720481, 720495, 720496
 general synthesis
 generation, 280938
 influence, 280938
 nearshore environment, 280933
 production rate, 280939
 geologic history, 720495, 720496
 geological, geophysical setting, 390948,
 390953
 erosion, 390953
 morphology, 390948
 glacial cycles, deep-sea environment,
 800811, 800813
 glaciation, Pliocene, 850731
 Goban Spur, benthic foraminifers, 800727
 Indian Ocean S, geologic history, 260918,
 260937
 Indian Ocean W, regional aspects, 250754
 isotopes, present hydrological features,
 faunal assemblages, 800808
 lithology, 360102, 360262, 360263, 390350,
 400363
 Brazil Basin, 721022
 Cenozoic, 500074
 Vema Channel, 721021, 721022
 microfacies, sediments, Gulf Stream, 440492
 micronodule, 291084
 Middle America Trench, Costa Rica, 840555
 Miocene
 Antarctica, 720986
 Messinian salinity crisis, 720987
 Miocene changes, 850943
 increased production, 850943
 Moroccan Basin, margin, 500817, 500818
 Northern Hemisphere, glaciation, 720988
 oxygen isotope
 flow reduction, 800814
 poorly oxygenated, cold, major inflow,
 800814
 Pacific Ocean C, paleoceanography, 850981
 Pacific Ocean SW
 Cenozoic, 300680
 Pacific Plate, 210902
 paleoceanography, 901509
 paleoceanography, Reflector Lavender, 850963
 reworked pelagic sediment, 920341
 Rio Grande Gap, 720481, 720496
 voluminous northward flow, 721020
 Rio Grande Rise
 displacement, 720515
 mineralogy, 720995, 720996, 720997
 voluminous northward flow, 721020
 Rockall Trough, 941241
 Santos Plateau, 390948, 390951
 sediment record, Southern Ocean, 710476
 seismic modeling, paleoceanography,
 conclusions
 circulation, 850968
 corrosion, 850968
 intensification, 850968
 silica, 850968
 Southeast Pacific Basin, evolution,
 geologic, 350739

- thermohaline flow, Quaternary, 720989, 720990, 720991
 Walvis Ridge, history, 740875
 Antarctic Circle, 350341
 Peter I Island, geology, 350341
 Antarctic Circumpolar Current, 300380, 710118, 720496, 850959, 850967, 900498, 901500
 Atlantic Ocean NE, stable isotope, 480484
 Atlantic Ocean SW, basin, evolution, 361007, 361008, 361009
 detrital to biogenic sediment trends, 291076
 lithology, 290275, 350073
 Miocene, 720496
 Messinian salinity crisis, 720986
 Northern Hemisphere, glaciation, 720988
 Pacific Ocean SW, Cenozoic, 300680
 Southeast Pacific Basin
 evolution, geologic, 350724, 350727, 350730, 350734, 350738, 350739
 sediment distribution, 350219, 350220
 unconformity, Pliocene-Pleistocene periods, 710465
 Antarctic Convergence, 260709, 280049, 280050, 280051, 280121, 280625, 280650, 280910, 280922, 280936, 280946, 350734, 350757, 360019, 360537, 360588, 680308, 690317, 710033, 710687, 710746, 710759, 720023
 Antarctica, glaciation, 291040, 291041
 Atlantic Ocean S, Malvinas Outer Basin, 391112
 Atlantic Ocean SW, basin, evolution, 361007
 biogeography, development, 901358
 Cenozoic paleoceanography, oceanographic setting, 901495
 general synthesis
 biostratigraphy, 280922
 climate, 280936
 lithology, 280922
 oceanography, 280937
 offshore environments, 280934
 lithology, 290125, 290134
 ooze, siliceous, 291150
 paleoclimate, diachronous biogenic facies, 280917
 Polar Front Zone, 710836
 Southeast Pacific Basin, evolution, geologic, 350734
 temperature, ice rafting, 901356
 Antarctic Cordillera W, 361004, 391112
 Atlantic Ocean SW, basin, evolution, 361004
 Antarctic Deep Water, 740892
 mud, terrigenous, source areas, 250458
 Antarctic Divergence, 280936, 280939, 350758, 350760, 350762, 360499, 360588
 general synthesis, 280938
 climate, 280936
 intensification, 280939
 geochemistry, shift, 720429
 Lord Howe Rise, pale green laminae, 901156
 Miocene changes, North Atlantic Deep Water, 850943
 Antarctic Intermediate Water, 241140, 690317, 720023, 720024, 720025, 720028, 720033, 720601, 720855, 720861, 720897, 720903, 720905, 720907, 720909, 720911, 720912, 720977, 720978, 720986, 720987, 740003, 740602, 740645, 740875, 750035, 750296, 750657, 750658, 900558, 901156, 901161, 901413, 901414, 901423, 901452, 901481, 901486, 901495
 Atlantic Ocean circulation, 720977
 Cenozoic paleoceanography, oceanographic setting, 901495
 Challenger Plateau, Quaternary, 901414, 901423
 deposition
 chalk, nannofossil, 250496
 depositional paleoenvironment, 250498
 ooze, nannofossil, 250496
 diagenesis, aspects, 901486
 lithologies, major
 chalk, 901481
 ooze, calcareous, 901481
 Lord Howe Rise, pale green laminae, 901156
 Lord Howe Rise C, Neogene evolution, 901452
 Miocene
 Antarctica, 720986
 Messinian salinity crisis, 720987
 Neogene oceanography, cooling, 901380
 Pacific Ocean SW, tephra, vitric, 901161
 sedimentation rate, calcareous biogenic productivity, 901485
 Walvis Ridge, history, 740875
 Antarctic Peninsula, 350279, 580839, 600897, 640633, 640636, 710284, 710339
 Atlantic Ocean SW, basin, evolution, 360994, 360998, 361002, 361004, 361008
 Falkland Plateau E, sedimentation, 360888
 geomorphology, 260949, 350005, 350009, 350011, 350025, 350157, 350197, 350263, 350266, 350273, 350291, 350378, 350381, 350484, 350724, 350728, 350730, 350734, 350738, 360009, 360087, 360101, 360519, 360532, 360537, 360766, 360849, 360858, 360871, 360888, 360989, 361002, 361004, 361008, 380391
 age, 350279
 Pacific continental margin, 350279, 350280, 350281, 350283, 350285
 South America NE, 360019
 Gondwana, dispersal, 260949
 Pacific continental margin, geomorphology, 350279, 350285, 350286
 Pacific Ocean SW, island arcs, 300699
 South America NE, separation, 360019
 Southeast Pacific Basin
 evolution, geologic, 350725, 350728, 350730, 350735, 350736, 350738
 sediment distribution, 350197
 Antarctic Plate, 220214, 220826, 260007, 260417, 260910, 260922, 260947, 280876, 291117, 330744, 350005, 350010, 350025, 350063, 350263, 350724, 350839, 610681, 710285
 general synthesis
 biostratigraphy, 280922
 ice rafting, 280927
 lithology, 280922
 magnetic properties, age, 280920
 offshore environments, 280935
 Gondwana, dispersal, 260947
 Indian Ocean S, geologic history, 260910, 260922
 Line Islands, tectonics, 330744
 Mid-Atlantic Ridge, basalt, 280874, 280876
 Pacific Ocean SW
 Indo-Australian Plate, 210906
 island arcs, 300699, 300700
 sea floor spreading, history, 250664
 Southeast Pacific Basin, evolution, geologic, 350739
 Antarctic Polar Front, 300681
 Pacific Ocean SW, Cenozoic, 300681
 Southeast Pacific Basin, evolution, geologic, 350731
 Antarctic Ridge, 250187, 250664, 250746, 910471
 Antarctic Surface Water, 280910
 Atlantic Ocean NE, stable isotope, 480477
 Antarctic-Australia Ridge, 220827
 regional summary, reconstruction, 220827
 Antarctic-Indian Ridge, 360538
 Antarctica, 131293, 180534, 260815, 280876, 291120, 291162, 330561, 330744, 350127, 350206, 350263, 350266, 350271, 350273, 350276, 350286, 350291, 350297, 350309, 350359, 350373, 350724, 350736, 360581, 360701, 360860, 360998, 361051, 361053, 361054, 361055, 361056, 361057, 380019, 38S0501, 390460, 390487, 400819, 411233, 42A0829, 47B0440, 480348, 480475, 481106, 580689, 580971, 590601, 610826, 620361, 620364, 620520, 620601, 620602, 620802, 640616, 650619, 660420, 710009, 710024, 710050, 710111, 710145, 710164, 710212, 710214, 710219, 710288, 710292, 710313, 710314, 710315, 710337, 710345, 710341, 710342, 710379, 710380, 710387, 710391, 710409, 710415, 710417, 710418, 710419, 710425, 710436, 710437, 710438, 710452, 710466, 710471, 710474, 710475, 710596, 710597, 710741, 710747, 710755, 710757, 710802, 710836, 710837, 710863, 710910, 710911, 710954, 711156, 711157, 720023, 720025, 720787, 720809, 720824, 720880, 720891, 720905, 720908, 720915, 720986, 720989, 720991, 720997, 730188, 730285, 730442, 730710, 730711, 730722, 730740, 730741, 730742, 730744, 730745, 730746, 730780, 730782, 730783, 740604, 740658, 740679, 740697, 740699, 740886, 740889, 740891, 740892, 750527, 750530, 750533, 750537, 750853, 750879, 751208, 751245, 751248, 751250, 751254, 751255, 760502, 760887, 800669, 800670, 800746, 801180, 801210, 801213, 810035, 810111, 810520, 810535, 810536, 810608, 810696, 810871, 820579, 820613, 820621, 820624, 850410, 850735, 850745, 850749, 850944, 850964, 850966, 860602, 870437, 870484, 890214, 900003, 900020, 900795, 900844, 900874, 900928, 900980, 900987, 901037, 901081, 901082, 901085, 901089, 901325, 901327, 901334, 901347, 901356, 901358, 901372, 901374, 901384, 901398, 901437, 901451, 901467, 901486, 901502, 901503, 901512, 920302, 920338, 931390, 931402, 931412, 950562
 age, geology, 350296
 Angola Basin, evolution, geologic, 750530
 Arctic Ocean, 050572
 Argentine Basin, 361051
 Atlantic Ocean, margin, 481106, 481113
 Atlantic Ocean C
 Argentine Basin, 391120, 391121
 hiatuses, 391104, 391105
 Sierra Leone Rise, 391123
 Atlantic Ocean NE
 evolution, 411233
 stable isotope, 480477, 480482, 480484, 480486
 Atlantic Ocean S
 Argentine Basin, 391120, 391121
 hiatuses, 391104, 391105
 Sierra Leone Rise, 391123
 Atlantic Ocean SW, basin, evolution, 360993, 360998, 361006, 361008, 361009
 Australia, 250187, 250664, 38S0687
 continent, 900005, 901333
 passage, 610555
 separation, 210903, 360036, 360096, 361009, 391062, 400388
 Australia W, 250664, 38S0687
 separation, 210903, 360036, 360096, 361009, 391062, 400388
 basalt

- basalt (Cont.)
 Balleny Basin, 280835
 Indian Ocean E, 280835
 paleomagnetism, 270403, 291109, 291110, 291111, 291112, 291113
 Blake Basin, glaciation, 440202
 bottom water, formation, 47B0511
 Brazil Basin, deposition, 720890
 calcium carbonate, stable isotope, 850735
 carbon isotope, ice sheet, 290806
 carbonate nodule, authigenic, ikaite, 870664
 CCD, history, 920302
 Cenozoic paleoceanography
 ice, 901493
 thermal isolation, 901493
 water mass development, 901493
 Cenozoic paleotemperatures, bottom water, 47B0511
 Chatham Rise, seismic stratigraphy, 901327
 circulation, oceanic, 590601
 Circum-antarctic Current, development, 291155
 clay
 major element, 350427
 minor element, 350427
 oceans, 291049
 clay minerals
 continental rise, 350479
 kaolinite, 280747
 Tertiary, 291081, 291082
 clay, terrigenous, sea floor spreading, 291062
 clay-rich sediment
 major element, 350427
 minor element, 350427
 climate, continental, 580689
 coarse fraction variation
 ice sheet, 901212
 radiolarians, 901213
 coast, 710340, 850600, 850749
 continental margin, 280727, 280931, 720985, 750501, 930613, 930679
 sedimentation, 280727
 continental margin sedimentation
 progradation, 280754
 turbidity current, 280754
 continental rise, 280437, 280625, 280644, 350241, 350247
 clay minerals, 350479
 lithology, 350241, 350244
 physical properties, 350237, 350238, 350241
 velocity anisotropy, 350239
 continental shelf, 260937, 280890, 280904, 280910, 870916
 onshore geology, 400972, 400973
 continental slope, 350253
 cooling
 glaciation, 710417
 Miocene, 850936
 deformation, oceans, 280977
 deposition, bottom water, 250500, 250501, 250503
 detrital to biogenic sediment trends, source, 291075
 diatom paleoceanography, paleoclimatology
 glaciation, 850944
 North Atlantic Deep Water, 850944
 precipitation increase, 850944
 dispersal patterns, geology, 350296
 Drake Passage, 361051
 east, 350008, 350028, 350064, 350273, 350277, 350381, 350395, 350736, 360858, 360998
 craton, 360998
 embayment, 291164
 eolian record, ice cap, 920337
 euxinic sediment, Cenozoic organic sediments, 750852
 Falkland Outer Basin, 361051
 Falkland Plateau, 361051
 geochemistry, 711011
 Fe-Mn nodules, geochemistry, 280795
 ferromanganese nodules,
 Miocene-Pleistocene, 280895
 general synthesis, 280919, 280940
 accumulation rate, 280930
 biostratigraphy, 280922
 Cenozoic, 280919
 climate, 280935, 280936
 environment changes, 280939
 glaciation, 280938, 280939
 high latitude, 280940
 hydrocarbon, 280938
 ice cap, 280939
 ice rafting, 280927
 latitudinal position, 280938
 lithology, 280922
 magnetic properties, age, 280921
 ocean environs, 280919
 oceanography, 280937
 offshore environments, 280935
 Oligocene, 280939
 paleoceanography, 280931, 280933
 seasonal variations theory, 280938
 unconformity, 280931
 unglaciated, 280939
 geochemical history, sedimentation, 710405, 710436
 geochemical objectives, climate, 710391
 geochemistry, 350403, 350405
 authigenesis, 350405
 barium, 350406
 basalt, 350403
 calcite, 350405
 calcium, 350405
 carbon, 350405
 celadonite, 350405
 clinoptilolite, 350405
 Fe/Mn ratio, 350406
 glaciation, 720438
 goethite, 350405
 interstitial water chemistry, 350404, 350405
 K-feldspar, 350405
 K/Al ratio, 350405
 magnesium, 350405
 oxygen isotope, 350403, 350405
 phillipsite, 350405
 plagioclase, 350405
 potassium, 350405
 sediment chemistry, 350403, 350404
 sediment mineralogy, 350403, 350404
 sediments, 350403, 350405
 silicate, 350405
 smectite, 350405
 volcanic debris, 350405
 geochronology, 360926
 geology, 350296
 geophysical measurements, 360945, 360957, 411135, 411178
 acoustic stratigraphy, 411178
 bathymetry, 360945, 370945
 Drake Passage, 360957
 magnetic anomaly, 360965
 magnetism, 411135, 411140
 Saint Paul Fracture Zone, 411178
 glacial sedimentation, 280757
 glaciation, 290743, 291039, 291040, 291042, 350390, 360156, 391060, 480746
 amphiboles, 291042
Antarctissa strelkovi, 291041
 ash, 291040
 bottom current, 291039, 291040, 291042
 bottom water, 291041
 breccia, 291042
 carbonate, 291040
 Cenozoic, 290743, 290745, 290750, 290751, 290752, 290754
 continental slope, 291042
 Cretaceous, 291039
 Emerald Basin, 291042
 feldspar, 291040
 fluorescence, 291040
 fracture, 291042
 glass, 291040, 291042
 history, 290801, 291039, 291040, 291041, 291042, 291043, 291084, 291161, 291164
 hornblende, 291042
 ice rafting, 291041, 291042
 iceberg, 291039
 manganese nodules, 291039
 mineralogy, 291041
 Miocene, 291040, 291042
 ooze, diatomaceous, 291040
 ooze, nannofossil, 291040
 plagioclase, 291040, 291042
 Pleistocene, 291040, 291042
 Pliocene, 291040, 291042
 quartz, 291039, 291040, 291042
 Recent to Pleistocene, 291039
 Ross Sea, 291039
 sand, quartzose, 291040, 291042
 sanidine, 291040, 291042
 Southern Ocean, 291039, 291041, 291155
 unconformity, 291039, 291040, 291041, 291042
 glaciation, continental, 280081, 360156
 history, 350008
 Goban Spur
 benthic foraminifers, 800727
 evolution, 801210, 801213
 Gondwana, 291119
 dispersal, 260945, 260948, 260950
 ice, land, 390249
 ice cap, 350535, 400972, 480477, 500717, 660545
 ice rafting, 280738
 ice sheet, 280752
 ice sheet, 390343, 391071
 continental, 480746, 480816
 formation, 931415
 oxygen isotope, 780499
 ice sheet E, 290743, 290750, 290752, 410957
 ice sheet W, 42A0829, 280651, 290780, 290801, 291167, 350008, 350028, 350064, 350360, 350392, 350738
 ice-volume increase, 860596
 Indian Ocean E, basalt, 280835
 Indian Ocean S, geologic history, 260910, 260918, 260925, 260929, 260932, 260937, 260940
 Indian Ocean W, regional aspects, 250743
 interstitial water, oceans, 280805
 isotopic paleotemperature estimates
 glaciation, 710415
 glaciation, continental, 710415
 ice sheet, 710415
 Lassiter Coast, 330511
 latitudinal thermal gradients, 901359
 lithology, 350042, 350086, 350140
 Australia, 290276
 continental rise, 350073
 deposition, 47A0036
 glaciation, 360156
 Lord Howe Rise, isotope stratigraphy, 901384
 Lord Howe Rise C, Neogene evolution, 901451, 901452

- lost time-elements, 361056
 magnetic data, oceans, 280945
 major boundaries, hiatuses, 901467
 Mesozoic, Cenozoic, 710452
 micronodule, glaciation, 291084
 Mid-Atlantic Ridge, basalt, 280876
 mineral, heavy, characteristics, 350296
 mineralogy, 350309, 350747, 350748, 350749, 350750, 350751, 350752
 amphiboles, 350748, 350749, 350750, 350751, 350752
 calcite, 350749, 350752
 chlorite, 350748, 350749, 350750, 350751, 350752
 clinoptilolite, 350748, 350749, 350750, 350751, 350752
 continental shelf, 350309
 cristobalite, 350749, 350750, 350752
 dolomite, 350749
 gibbsite, 350749, 350752
 goethite, 350749, 350750
 K-feldspar, 350748, 350749, 350750, 350751, 350752
 kaolinite, 350748, 350749, 350750, 350751, 350752
 mica, 350748, 350749, 350750, 350751, 350752
 montmorillonite, 350748, 350749, 350750, 350751, 350752
 plagioclase, 350748, 350749, 350750, 350751, 350752
 pyrite, 350748
 quartz, 350748, 350749, 350750, 350751, 350752
 tridymite, 350749, 350750, 350752
 Miocene
 ice, 720985, 720986
 Messinian salinity crisis, 720986
 Miocene changes
 glaciation, 850943
 ice cap, 850943
 Miocene ocean, isotopic change, evidence
 ice sheet, 740697, 740699
 isotopes, 740697
 Miocene-Pleistocene, ferromanganese, 280795, 280796, 280797, 280798
 mountains, 350287
 mud, continental shelf, 870916
 Nankai Trough, turbidites, 870916
 Neogene oceanography, ice, 901380
 nodule
 ferromanganese, 280795
 Miocene-Pleistocene, 280795
 oceans, 050573, 091079, 280795, 280919, 280945, 280999, 291039, 350392, 350605, 430697, 490540, 710005, 710038, 710455, 730737
 Circum-antarctic Current, 291155
 clay, 291049
 deformation, 280977
 Fe-Mn nodules, 280795
 interstitial water, 280805
 magnetic data, 280345
 seismic reflection data, 280945
 silt, terrigenous, 291049
 X-ray mineralogy, 280981
 organic facies origin, ice cap, 660545
 organic sediments, origin, 660545
 origin, 720025
 oxygen, Paleogene, 710409
 oxygen isotope
 ice sheet, 290806
 Miocene, 901398
 Pliocene, 901399
 thermal gradients, 901401
 Pacific continental margin, geomorphology, 350279, 350280, 350284, 350285, 350286, 350287
 Pacific Ocean, 38S0509
 clay, 350427
 clay-rich sediment, 350427
 major element, 350427
 Pacific Ocean NW, geochemical history, 620802
 Pacific Ocean S, eolian sedimentation history, 920601
 Pacific Ocean SW
 Australia, 210906
 Cenozoic, 300667, 300679, 300680, 300681, 901513, 901514
 island arcs, 300698, 300700, 300702
 oxygen isotope, 901347
 paleoceanography, 901495, 901502, 901503, 901506, 901512
 Western Marginal Basin Province, 210898, 210903, 210904
 paleoceanography, 291164
 ice, 850749
 surface water, 850749
 paleoglacial history, 291039
 paragenetic assemblages, Assemblage IIA(+), 710425
 pebble characteristics, climate change, 280769
 Philippine Sea, Paleogene-Neogene, 310848
 Quaternary calcareous benthic foraminifers, North Atlantic Deep Water, 800746
 regional summary, 220815
 India, 220818
 Ninetyeast Ridge, 220824
 reconstruction, 220826
 ridges
 Australia, 220827
 Pacific Ocean, 250187, 250664, 250746, 350025, 350063, 350127, 350222, 350263, 350266, 350268, 350276, 350724, 350728, 350736
 Rio Grande Rise N, regional setting, 250699
 Ross Sea
 continental shelf, 280940
 glaciation, 291039
 sea floor spreading, history, 250663, 250664
 sea ice, formation, 391120
 sediment record, Southern Ocean, 710471, 710475, 710476
 sedimentation, geochemical aspects, 710430
 seismic modeling, paleoceanography, conclusions, ice, 850968
 seismic reflection, oceans, 280945
 seismic stratigraphy, erosion, 901334
 silt, terrigenous
 oceans, 291049
 sea floor spreading, 291062
 South America, 391062
 South America NE, separation, 361009, 391062
 South Fiji Basin, history, 300631
 South Tasman Basin, borderland, 291135, 291142, 291143, 291144
 Southeast Pacific Basin
 evolution, geologic, 350724, 350725, 350729, 350730, 350732, 350734, 350735, 350736, 350738, 350739
 sediment distribution, 350197, 350198, 350199, 350200, 350220, 350222, 350223, 350224
 Southern Ocean, 900927
 glaciation, 291039, 291155
 southwest regional unconformities, Australia, 210903, 210906
 stable isotope, Miocene paleoceanography, 850745
 Tasmania, 730784
 temperature, ice rafting, 901356
 Tertiary, Miocene, 801180
 thermohaline flow, Quaternary, 720989, 720991
 Victoria Land, dry valleys, 280933
 water, 280936, 800726
 Weddell Sea, 810620
 west, coastal zone, 350005, 350301
 Wright Valley, 730709
 X-ray mineralogy, oceans, 280891
 zirconium, distribution, 710403
 Antarctica E, 260951, 280936, 300631, 710152, 720985, 730779, 801032, 850600, 901355, 901383, 901397, 901401, 901402, 901403, 901506, 901514
 Antarctica, glaciation, 291041, 291043
 Atlantic Ocean, margin, 481107
 Atlantic Ocean C, hiatuses, 391105
 Atlantic Ocean S, hiatuses, 391105
 Atlantic Ocean SW, basin, evolution, 360998, 361009
 carbon isotope, Neogene, 901402
 Cenozoic paleoceanography, ice, 901493
 general synthesis
 biostratigraphy, 280927
 climate, 280936
 lithology, 280927
 nearshore environment, 280933
 oceanography, 280937
 Gondwana, dispersal, 260951
 ice cap, 481107
 ice sheet, 750763
 Lord Howe Rise, isotope stratigraphy, 901383
 mineralogy, Goban Spur, 801032
 Miocene, Antarctica, 720985
 Miocene-Pliocene isotope stratigraphy, ice sheet, 901403
 oxygen isotope
 Miocene, 901397
 thermal gradients, 901401
 Pacific continental margin, geomorphology, 350287
 Pacific Ocean SW
 Cenozoic, 300680, 901513, 901514
 paleoceanography, 901503
 South Fiji Basin, history, 300631
 Antarctica N, Southeast Pacific Basin, evolution, geologic, 350739
 Antarctica S, Pacific Ocean SW, paleoceanography, 901495
 Antarctica W, 080041, 130799, 150816, 151000, 170920, 190737, 210204, 210341, 210455, 210900, 220003, 220119, 220214, 220369, 220403, 220771, 220824, 220826, 230005, 250743, 260009, 260135, 260281, 260283, 260295, 260815, 260910, 260918, 260928, 260929, 260937, 260940, 260945, 260948, 260949, 260950, 260951, 270397, 270403, 271017, 271020, 271051, 280005, 280007, 280227, 280378, 280589, 280599, 280602, 280727, 280728, 280769, 280828, 280831, 280835, 280849, 280876, 280879, 280887, 280905, 280922, 280927, 280930, 280931, 280933, 280935, 280938, 290541, 291042, 291075, 291081, 300008, 300153, 300631, 300667, 300698, 300700, 350042, 350073, 350086, 350197, 350263, 350285, 350296, 350379, 360226, 360887, 360923, 38S0681, 380805, 391049, 391104, 400007, 411043, 430101, 430697, 710418, 710474, 710476, 901212, 901215, 901493, 901507, 901509, 930661
 Africa, 250187
 Atlantic Ocean SW, basin, evolution, 360998, 361000
 carbonate, stratigraphy, 901215

- coarse fraction variation, ice sheet, 901212
 continental margin, 350270
 general synthesis
 climate, 280936
 nearshore environment, 280933
 glaciation, 291041, 291043
 ice sheet, 720918
 lithology, cordillera, 360101
¹⁸O, trends, 901372
 Pacific Ocean SW
 island arcs, 300699
 paleoceanography, 901507
 Peter I Island, geology, 350341, 350354
 South Fiji Basin, history, 300631
 Southeast Pacific Basin
 evolution, geologic, 350724, 350731,
 350735, 350736, 350738, 350739
 sediment distribution, 350197, 350206,
 350216
 anteiso alkanes, C₁₇-C₂₃, hydrocarbon,
 aliphatic, acyclic components, 660557
 anthracene
 bitumen, geochemistry, 42B0684, 42B0693
 tetrapyrrole, geochemistry, 630808
 anthracite
 lithology, Orphan Knoll, 120051
 palynological residue, organic matter,
 maturation index, 640746
 Anti-Atlas Mountains, 430746
 flysch, source area, 500753
 Antialtair Seamount, 941258
 topography, 941246
 anticline, hanging-wall, Nankai Trough,
 subduction rate, 870795
 antidune cross-stratification, turbidites,
 sedimentary structure, 300425
 Antigonish Highlands, volcanism, 801109
 antigorite
 basalt, mineralogy, 291103, 291104
 mineralogy, 291103, 291104
 volcanics, Pacific Ocean C, 291103, 291104
 Antigua, 780030, 780083, 780089, 780090,
 780091, 780097
 geologic structure, 780088
 Guatemala, rift valley, 670752, 670754
 sea troughs, 780093
 Antigua Formation, limestone, ice sheet,
 780088
 Antilles, 040665, 130243, 150989, 151104,
 190801, 190887, 760234, 780079, 931385,
 950766
 Belem Ridge, spreading rate, 040661
 islands, 150989, 151104, 190801, 190887,
 430817, 440492
 microfacies, sediments, 440492
 Caribbean Sea, 440493
 ridges, 510028
 subduction zone, 670792
 Venezuelan Basin, 040665, 040666
 see also Lesser Antilles
 Antilles, Greater, 150018, 150034, 150331,
 150769, 150971, 150974, 151002, 151096,
 151100, 151101, 151105, 230529
 Antilles Outer Ridge, 510028, 510030, 680357,
 760169
 Bermuda Rise, 510028, 510030
 see also Puerto Rico Ridge
 Antipodes Fracture Zone, 290038
 Antongil Bay, 250532
 volcanism, Madagascar, 250532
 Antonibe, Rio Grande Rise N, regional
 setting, 250697
 Antrim, Ireland N, 380741
 Antrim Plateau, 380751, 810787, 810793
 mineral, primary, pyroxene, 810787
 trace elements, Thulean Volcanic Province,
 810793
 Anvers Island, 350279, 350281
 Pacific continental margin, geomorphology,
 350279, 350281
 Aomori Prefecture, 620773, 620774
 Japan, volcanic arc, 180700
 Pacific Ocean, guyots, 620774
 Apalachicola River, Mississippi Fan, sand,
 960533
 apatite, 010564, 340615, 810725, 810726,
 810727
 Aaian Basin, lithology, 061135, 061136
 age, 810725, 810726, 810727, 810728
 Atlantic Ocean NE, 810725
 Argentine Basin, mineralogy, 361025
 Atlantic continental margin, mineralogy,
 090707, 100337, 100729, 110783, 121132
 Atlantic Ocean
 Cenozoic sediments, 140813
 Cretaceous sediment, 140813
 Atlantic Ocean N, mineralogy, 431023
 Atlantic Ocean NC, Mesozoic sequences,
 411006
 Atlantic Ocean NE
 age, 810725
 Paleogene, 810725
 basalt
 geochemistry, 350333, 590785
 petrology, 350333, 580848
 sill-pillow complex, 610677
 basalt, alkali andesine, mineral
 composition, 180943
 basalt, altered
 geochemistry, 580802, 580820, 580826,
 580833
 major element, 580874, 580876, 580877,
 580881
 petrochemistry, 580802
 trace elements, 580874, 580876, 580877,
 580881
 Bermuda Rise, crystallization, 511040,
 511046, 511047
 Black Sea, sediments, 42B0378
 California, Gulf of, gulf mouth, 650399,
 650407, 650409, 650415
 Caribbean Sea
 sediments, 150937, 150940
 volcanic activity, 150969
 Cenozoic sediments, mineral composition,
 42B0415, 42B0419
 chemistry, 550687
 chert
 geochemistry, 620715, 620721
 petrology, 620715, 620721
 clay minerals, 38S0016
 clinoptilolite, Atlantic Ocean NW, 430472
 Costa Rica, continental margin, 840923
 Costa Rica Rift, chalk, 690398
 crystals, 180943
 diagenesis, slope sediments, 840575
 dispersal patterns, 350292
 East Mariana Basin, sedimentary history,
 890668
 East Pacific Rise, phosphorus, 920378
 Emperor Seamounts
 mineralogy, 550464, 550465
 petrology, 550511, 550516, 550522,
 550572, 550573, 550576
 Falkland Plateau, basement, 360895
 Falkland Plateau E, sedimentation, 360880
 fish remains, 010564
 fossils, minerals, rare and unusual, 340615
 Ganges Fan, sand, 220711
 Greenland Sea, other mineral components,
 38S0237
 Guatemala
 slope sediment, 840931
 trench, 670515, 670522
 Gulf of Mexico, mineralogy, 100337
 Indian Ocean, mineralogy, 220695
 Indian Ocean NW, grain size, 250417, 250422
 Indian Ocean W
 mineralogy, 060755, 150847, 150848,
 150849, 150850, 160529, 160530, 181016,
 181017
 regional aspects, 250755
 terrigenous sediment, 241056
 interstitial water, Walvis Ridge, 750961
 Japan Trench, silt, 561005
 Jingu Seamount, volcanics, 550687
 lithology, 040081, 040098, 150021, 150022,
 150219, 150368, 220122, 220216, 280022,
 360032, 360033, 360093, 38S0016, 400048,
 400049, 430204, 430205, 430213, 440032,
 480179
 clay, zeolitic, 140185
 limestone, 120053
 sand, arkosic, 140185
 turbidites, 120261
 lueneburgite, Miocene sediments, 42A0663
 major element, chemistry, 42B0536, 920493
 Manihiki Plateau, deposition, 330888
 Mediterranean Ridge, mineralogy, 130668
 Mediterranean Sea, lithostratigraphy, 131033
 Melanesian Basin, ash, 610633
 metagranite, Mazagan Escarpment, 790551
 metalliferous sediment, Eocene-Oligocene,
 850798
 mineral composition, basalt, alkali
 andesine, 180943
 mineral, heavy, 580661
 Arabian Sea, 230498
 Argo Plain, 270524
 characteristics, 350292
 Cuvier Plain, 270524
 Indian Ocean S, 270523
 mineralogy, 350309, 550857, 850781, 960578
 primary mineralogy, 600717
 sediment, 680400, 680402
 volcanics, 150969
 minor element, geochemistry, 42B0536
 mud, 870913
 Nankai Trough, turbidite, 870913
 Norwegian Sea, other mineral components,
 38S0237
 Pacific Ocean, sediments, 920381
 Pacific Ocean C, mineralogy, 330543
 Pacific Ocean NW, mineralogy, 320549
 Pacific Ocean SE, mineralogy, 920393
 Paleogene
 geochronology, 810725
 provenance, 810727, 810728
 tectonic setting, 810725
 thermal history, postdepositional, 810728
 Panama Basin, sediments, 690386, 690391
 pebbles, petrography, 801040
 Peter I Island, geology, 350347, 350351,
 350352, 350354
 petrography, 660723
 petrology, sand, 960499
 Philippine Sea NE, 580661
 mineral, heavy, 580661
 phillipsite, Atlantic Ocean NW, 430472
 physical properties, clay, 061135, 061136
 polymict breccia, clast, 600649
 rare earth elements, 920404
 Rockall Plateau, Paleogene sediments,
 810653, 810655
 Rockall Rise, age, 810725
 Ross Sea, basement, 280864, 280866
 sand, texture, 960578
 silt, mineral, heavy, 561005

- sources, 810728
 sphene, Paleogene, 810726
 Tasman Sea, mineralogy, 300606
 terrigenous minerals, mineralogy, 250436, 250437
 thermal history, 810728
 turbidites, volcanoclastic, 430407
 volcanic rock
 Necker Ridge, 200674
 petrology, 180943
 Wake Guyots, 200679
 volcanoclastics, 550504
 volcanics, mineral composition, 180943
 volcanism, Caribbean Sea, 150969
 Wharton Basin, sand, 220711
 apatite, biogenic
 East Pacific Rise, 920372
 metalliferous sediment, Eocene-Oligocene, 850799
 mineralogy, 850796
 Pacific Ocean, sediments, 920381
 Pacific Ocean SE, mineralogy, 920393
 rare earth elements, 850798, 920403
 trace elements, partitioning, 850797
 apatite, hydrothermal, East Pacific Rise, phosphorus, 920378
 Apennines, 130403, 130412, 130691, 131353, 150773, 200105, 430813, 760873, 760885, 760887, 760888, 760889, 760891, 760892, 760893, 790888
 Atlantic Ocean N, Mediterranean Sea, 110806, 110810, 110813, 110817
 Italy, Sicily, 110645
 Messinian environments
 Lago Mare, 42A1023
 pre-evaporitic setting, 42A1004
 strike-slip zone, 760890
 Tethys, Mediterranean Sea, 42A0944, 42A0945, 42A0948
 transform zone, 760893
 Apennines, Ligurian, 410991
 Tethys, Mediterranean Sea, 42A0944
 Apennines S, 110222, 110613, 110802, 131258, 131260, 220124, 330880
 central, 110427
 limestone, 100645, 110805, 110813, 110817, 130982, 131115, 42A0944, 42A0945
 central, 110806, 110811
 northern, 130231, 131257
 San Riffilo, 131006
 Apennines, Umbrian, 391113
 Atlantic Ocean C, magnetic anomaly, 391113
 aphanite
 basalt, geochemistry, 920450
 Mendoza Rise, lithology, 920436
 Peter I Island, geology, 350351
 aplite, Ross Sea, basement, 280865
 apophyllite
 basalt, mineral assemblage, 511221, 511227
 basalt, oceanic
 chemistry, 610640
 Melanesian Basin, 610648, 610654, 610658, 610659
 Costa Rica Rift, basalt, 690522
 crust, oceanic, aging, 511569
 East Mariana Basin, sedimentary history, 890668
 Melanesian Basin, ash, 610635
 Appalachia
 Miocene depositional history, 950798
 previous studies, uplifting, 950766
 Appalachian Mountains, 120036, 121137, 181019, 430032, 430734, 430746, 801111, 801200, 801201, 930945, 931032, 931033, 931367, 931389, 931405, 931412, 950581, 950584, 950766, 950798, 960535
 Atlantic Ocean N, Paleozoic, 801107, 801111
 Atlantic Ocean NW, regional aspects, 110960
 Blake Spur, north rim, 440084
 coastal plain, 960533
 Eastern Gulf Province, sand, 960535
 fold belt, 950726
 magnetic fabric, deformation model, 870619
 Mississippi Fan, sand, 960533, 960535
 Mississippi Province, sand, 960535
 sedimentary environments, 440974, 440976
 Atlantic Ocean W, 440978
 Appalachian Mountains N
 basement, main features, 801111
 Goban Spur, evolution, 801200
 Appalachian orogeny
 Atlantic Ocean N, Paleozoic, 801107
 basement, main features, 801111
 Appalachian sandstone, 930946
 Applegate River, mudstone, petrology, 180909
 Apra, Guam, 060014, 060587, 300539, 310008, 600010, 610771
 Neogene diatoms, 310779
 Aptian/Albian boundary
 organic matter
 Aptian-Jurassic, 711018
 carbon, organic, 711016
 Aptychi Formation, 760642
 Aptychi marl, Atlantic Ocean NE, evolution, 411215
 Aptychus limestone, 150773
 Apulia, 110805, 42A0372, 42A0955, 42A0979
 Atlantic Ocean N, Mediterranean Sea, 110817
 Italy, Sicily, 42A0372
 Apulian-Anatolian block, 42A0955, 42A0974, 42A0975, 42B1077
 Black Sea, geophysical framework, 42B1077
 Aqaba, Gulf of, 230813, 230817, 260987, 261000, 42B1195, 42B1214, 780506
 Mediterranean Sea E, history, 42B1214
 Red Sea, geology, 230813, 230815, 230817
 Aquia Formation, Maryland, 931353
 Brightseat Formation, Maryland, 931350
 aquifer
 interstitial water, geochemistry, Guaymas Basin, 640689
 isotopic composition, Messinian sediments, 42A0648
 Aquitaine, 120433, 120766, 480038, 481042
 Atlantic Ocean N, paleogeography, 121173
 continental margin, structural evolution, 481042
 lithology, 120695
 clay, nannofossil, 120766
 Aquitaine Basin, 120674, 120753, 120778, 47B0026, 47B0028, 47B0093, 480036, 480133, 480431, 480789, 480815, 480816, 481004, 481007, 481025, 481050, 790717
 Biscay, Bay of N, continental margin, 481025
 continental margin, structural evolution, 481050
 Hettangian *Classopollis*, 790716
 Iberian margin W, evolution, 47B0764
 lithology, 480133
 clay, red, 120764
 turbidites, 120764
 Aquitaine, Gulf of, 120683
 lithology
 oozes, 120683
 turbidites, 120683
³⁰Ar/⁴⁰Ar age
 age determinations, 710463
 basalt
 K/Ar age, 160652
 Pacific Ocean, 340449
³⁶Ar/⁴⁰Ar ratio
 basalt
³⁹Ar/⁴⁰Ar age, 340439
 geochronology, 411115
 K/Ar age, 340439
 Bermuda Rise, basalt, 511123
 Hess Rise N, chert, 620779
 lava, isotope geochemistry, 810778, 810779
 Mariana Islands, fore arc, 600743
 volcanic rocks, ages, 550665, 550667
³⁷Ar/³⁹Ar ratio, basalt, ³⁹Ar/⁴⁰Ar age, 340449
³⁷Ar/⁴⁰Ar age, Meiji Guyot, K/Ar age, 550681
³⁹Ar/³⁹Ar age, Atlantic Ocean, basalt, 370629
³⁹Ar/⁴⁰Ar age, 340439, 340442, 600743, 600744, 610701
 acid rock, 571281, 571282
 age spectrum, 600744
 alteration, nonoxidative, 600744
 Atlantic Ocean
 basalt, 370629
 gabbro, 370629
 Atlantic Ocean NE, evolution, 411221
 Atlantic Ocean S, 850932
 basalt, 340439, 340440, 340442, 340449, 590729
 Atlantic Ocean, 370629
 calcium, 340439, 340440, 340449
 feldspar, 340439
 fluorite, 340439
 gabbro, 370629
 gas, 340449
 geochronology, 411115, 411116
 K/Ar age, 340439, 340441, 340442, 340449, 590729, 590730
 kalsilite, 340439
 Melanesian Basin, 890519
 olivine, 340439
 Pacific Ocean, 340439, 340449
 potassium, 340439, 340440
 radiometric age, 430741
 Rio Grande Rise, 720467
 sill, 340442
 smectite, 340439, 340449
 volcanism, 340442
 wollastonite, 340439
 basalt, phryic, 450539
 chemistry, K/Ar age, 550687, 550688
 claystone, basalt, 550709
 Daito Basin, 580917, 580919
 Daito Ridge, 580917, 580919
 faulting, rock fracturing, 600744
 fossil age/radiometric age, time gap, 600744
 gabbro, Atlantic Ocean, 370629
 Japan Trench, 571281, 571282
 geology, 870706
 Jingu Seamount, volcanics, 550686, 550687, 550688
 magma, 571282
 Mariana Islands, fore arc, 600743
 Meiji Guyot, K/Ar age, 550678, 550680
 Melanesian Basin, basalt, 890519
 metamorphism, 600744
 Mid-Atlantic Ridge, basalt, phryic, 450539
 mineral, secondary, high-K content, 600744
 Oligocene sediments, 600744
 Oyashio landmass, 571281, 571282
 Pacific Ocean, basalt, 340439, 340449
 plateau age, 600744
 radiometric age, 600744
 mineral, secondary, 600744
 recrystallization, 600744
 Rio Grande Rise
 basalt, 720467
 basement, volcanic, 720955
 subsidence, 720973
 seawater weathering products, 600744
 sediment age, 600744
 Shikoku Basin, 580917, 580919

- smectite
formation, 600744
Rb-Sr isochron, 600744
tectonic disturbances, 600744
Tohoku Arc, geology, 870716
total fusion age, 600744
total fusion/isochron age similarity, 600744
volcanic rocks, ages, 550663, 550664, 550665, 550667, 550668, 550669, 550674
- ³⁹Ar/⁴⁰Ar dating
⁴⁰Ar, radiogenic, loss, 340440
Atlantic Ocean, gabbro, 370629
basalt, 340439
gabbro, Atlantic Ocean, 370629
isochron age, 340440
low-temperature weathering, 340440
magnetic anomaly, 340442
potassium, 340440
- ³⁹Ar/⁴⁰Ar ratio
basalt
³⁹Ar/⁴⁰Ar age, 340449
K/Ar age, 590729
- ⁴⁰Ar
basalt
gabbro, 370629
geochronology, 411113, 411115
K/Ar age, 340445, 340446, 590730
potassium-argon age, 340443
Bermuda Rise, basalt, 511123, 511125, 511127
Costa Rica Rift Zone, basalt, 830308, 830310, 830311
Hess Rise N, chert, 620779
lava, isotope geochemistry, 810776, 810778
Rb-Sr age, pegmatite, 360926
volcanic rocks, ages, 550668, 550669, 550674
- Ar
Bermuda Rise, basalt, 511121, 511122
chemistry, 550686
Hess Rise N, chert, 620779
isotope, 571281
³⁹Ar, 411115, 511127, 600744
Jingu Seamount, volcanics, 550686
see also argon; K/Ar age
- Ar, atmospheric
³⁹Ar/⁴⁰Ar age, boulders, 571281, 571282
volcanic rocks, ages, 550665
- Ar, nonradiogenic, volcanic rocks, ages, 550665, 550668
- Arabia, 230530, 230814, 621044, 740728
continental margin, 230310
Indian Ocean S, geologic history, 260940
Indian Ocean W, terrigenous sediment, 241056
Owen Fracture Zone, 230530
plate tectonics, Arabian Sea, 230530
shelf, 241056
shield, 130231
see also Indian Ocean W; Red Sea
- Arabia S, 110611, 230005, 230392, 230527, 230552, 230754, 230856, 230885, 230913, 230917, 240017, 240128, 241052, 241056, 241058, 241140, 260940, 260987, 42A0944, 42A0974, 430576
Arabian Sea, history, 231121, 231122
clay minerals, sources, 241058
coast, 230393, 230396, 230426, 230497, 230503
desert, 230504, 230506
Owen Fracture Zone, 230530
plain, 230813
SE coast, 231121
uplifting, 230814
western, 230813
- Arabian Basin, 230212, 230425, 230429, 230503, 230504, 230516
Maldives, 230522
- Owen Fracture Zone, 230522
proto-Arabian Basin, 230514
Arabian Peninsula, 230222, 230497, 230813, 230814, 400069, 401029
plateau, 230815
Red Sea, geology, 230813, 230814
Arabian Plain, 230005, 230118, 230128, 230167, 230168, 230181, 230426, 230471, 230503, 230509, 230517, 230518, 231122
Arabian Sea, history, 231122
magnetic anomaly, 200523, 230178, 320571
Magnetic Quiet Zone, 200526
Arabian Plate, 230291, 230313, 230497, 230754, 230813, 230815, 42A0953, 42A0988, 42B1077, 870910
Arabian Sea, paleomagnetism, 230521
Black Sea, geophysical framework, 42B1077
paleomagnetism, Arabian Sea, 230521
Paratethys, paleogeography, 42A0988
Red Sea, geology, 230813, 230815, 230817, 230818
see also Arabian Sea
Arabian platform, 42A0974, 42B1195, 42B1203, 42B1216
Mediterranean Sea E, history, 42B1199, 42B1201, 42B1203, 42B1214, 42B1216, 42B1217, 42B1218, 42B1220
Neogene formations, paleogeography, 42A0906
Arabian Sea, 23, 150555, 220815, 230035, 230117, 230167, 230211, 230291, 230383, 230471, 230503, 230518, 230521, 231127, 231137, 231159, 240841, 240989, 241056, 241058, 241137, 241140, 241141, 250481, 250496, 250498, 250664, 250746, 260994, 261002, 261013, 261051, 300444, 300445, 42A0839
Arabian Plate, paleomagnetism, 230521
Atlantic Ocean W, water content, 511453
biostratigraphy, 231001
biostratigraphy, Eocene to Pleistocene, 231095
carbon, 231131
carbonate, 231131
Cenozoic history, 231115
deposition
chalk, nannofossil, 250496
depositional paleoenvironment, 250498
ooze, nannofossil, 250496
diagenesis, carbonate, 230421
diagenesis, burial, 230421
carbonate, 230421
pelitic sediment, 230421
fracture zones, 230529
geologic history, 231115
geology, 231115
Cenozoic sedimentary record, 231119
chert, 231119
deposition, 231115
Eocene, 231115
lithologies, 231115
Miocene, 231115
nondeposition causes, 231115
Paleocene, 231115
pre-Oligocene unconformities, 231115
sedimentation rate, 231115, 231119
silica, 231119
upwelling, 231119
grain size, 231127
history, 231115, 231121, 231122
Aden, Gulf of, 231121
age, paleontological, 231122
Arabia S, 231121, 231122
Arabian Plain, 231122
basement, 231121
basins, 231122
bottom sediments, barrier, 231122
- Cenozoic, 231121
Chagos-Laccadive Plateau, 231121
chert, 231122
circulation, oceanic, 231121
collision, 231121
constant paleoaltitude, 231122
crust, continental, 231115
crust, oceanic, 231115
Eocene, 231121
Eocene-Cenozoic history, 231121
evaporites, 231115
fault shearing, 231122
fracture zone, 231121
hot spot, 231121, 231122
igneous petrology, 231122
India, 231121, 231122
India W, 231122
Indo-Australian Plate, 231121
lamprophyre, 231122
magnetic anomaly, 231122
major tectonic events, 231121
Maldives, 231121
Miocene, 231121
Miocene ridge tilting, 231122
Miocene-Cenozoic history, 231121
ocean basin development, 231115
Oman Mountains, 231121
Owen Fracture Zone, 231122
Owen Ridge, 231121, 231122
Paleogene fracture zones, 231122
paleontological age, 231122
Red Sea, 231115, 231122, 231123
regression, 231121
sea floor movement, 231119
sea floor spreading, 231115, 231121, 231122
sediment changes, 231121
sedimentation rate, 231121
silica, biogenic, 231121
spreading, continuous, 231122
spreading rate, 231121
stratigraphy, 231115, 231119
suspension currents, 231122
Swath, the, 231122
trachybasalt, 231122
transport, 231122
turbidity current, 231122
uplifting, 231121
upwelling, 231122
upwelling, monsoonal, 231121
vertical tectonism, 231121
hydrocarbon, C₁-C₈, Patton Escarpment, 630781
Indian Ocean W, regional aspects, 250746
Indo-Australian Plate, paleomagnetism, 230521
magnetic anomaly, 230529
Maldives, 230522
mineral, heavy, 230497, 230498, 230499
andalusite, 230498
apatite, 230498
biotite, 230498
common source, 230499
epidote, 230498
garnet, 230498
geology, adjacent land, 230497
hornblende, 230498
kyanite, 230498
monazite, 230498
muscovite, 230498
opaques, 230497, 230498
origins, 230498
provenance complex, 230499
sillimanite, 230498
sphene, 230498
staurolite, 230498

- mineral (Cont.)
 topaz, 230498
 tourmaline, 230498
 zircon, 230498
- mineral notes
 calcite, magnesium, 231137
 dolomite, 231137
- paleomagnetism, 230521
 Aden, Gulf of, 230522
 Indo-Australian Plate, 230521, 230522
 Owen Fracture Zone, 230521
- plate tectonics, 230527
 fracture zones, 230529, 230530
 Laccadive-Chagos Ridge, 230527, 230528
 magnetic anomaly, 230529
 Owen Fracture Zone, 230530, 230531, 230533
 regional summary, 230515
 salinity and pH, 231157
 sea floor spreading, history, 230664
 sediment history, 230506, 230507, 230508,
 230509, 230510, 230512, 230513, 230514,
 230517, 230518
 aragonite, 230512
 basalt, 230508, 230510, 230514
 calcareous sediments, 230512
 carbon, 230509
 carbonate compensation depth, 230507,
 230510, 230512, 230514
 chalk, 230507
 chalk, nannofossil, 230508
 chert, 230508, 230518
 clay, 230509, 230511, 230513
 clay minerals, 230506, 230508, 230509,
 230510
 clay, nannofossil, 230509
 clay, red, 230517
 crestal ridge, 230517
 crust, 230514
 crust, oceanic, 230518
 deposition, 230509, 230511, 230512,
 230513, 230514, 230518
 deposition rate, 230509
 Eocene, 230507
 Eocene sediment, 230507, 230508
 eolian contribution, 230518
 erosion, 230508
 faunal migration, 230506
 glauconite, 230507
 gravity flow, 230513
 igneous rocks, 230517
 India, 230517
 Indian Ocean W, 230518
 Indus Fan, 230513
 Indus River, 230508, 230518
 lithology, 230510
 location, 230508
 Miocene, 230508
 monsoon system, 230518
 montmorillonite, 230506, 230510
 mud, 230513
 mud, green, 230513
 ooze, 230507
 ooze, biogenic, 230507, 230509, 230518
 ooze, nannofossil, 230509, 230510
 Owen Basin, 230516, 230517
 Owen Ridge Formation, 230515, 230516
 Paleocene sediment, 230506
 Paleocene to Eocene, 230514, 230515
 pelagic sedimentation, 230514
 phosphatic concretions, 230507
 plate movement, 230514
 sand, 230512, 230513
 sediment accumulation, 230507
 sediment source, 230508
 sedimentary pattern, 230518
 sedimentation rate, 230512, 230517
 sediments, siliceous, 230510
 stratigraphy, 230508, 230512
 terrigenous sediment, 230506, 230507
 turbidites, 230512, 230513, 230518
 uplifting, 230518
 volcanic activity, 230517
 volcanic flows, 230511
 water levels, 230517
 winnowing, 230511
 sedimentation, 230471
 seismic reflection, 231159
 see also Arabian Abyssal Plain; Arabian
 Plate; Arabian Sea; Carlsberg Ridge;
 especially Volume; Gulf of Aden;
 India; Indian Ocean; Indian Plate; Indus
 Cone; Laccadive Islands;
 Laccadive-Chagos Ridge; Maldive Islands;
 Oman Basin; Owen Fracture Zone; Sheba
 Ridge
- Arabian Sea N
 clay minerals, sources, 241058
 sediment history
 clay, 230506
 clay minerals, 230506
 climate, 230504
 geographic setting, 230503
 seawater geochemistry, 230505
 sediment source, 230505
 water mass, 230504, 230505
- Aracena, 801109
 volcanics, 801109
- Arad, Romania, 210819
- aragonite, 190632
 Aaiun Basin, lithology, 061171
 Africa, continental margin NW, 410972
 Albian sediment
 geochemistry, 480868
 mineralogy, 480868
 alteration
 mineralogy, 460306
 products, 450617
 alteration, low-temperature, 340409, 340423
 mineral, secondary, 460306
 alteration, nonoxidative, 340409, 340423
 Arabian Sea, sediment history, 230512
 Arabian Sea N, sediment history, 230505
 Atlantic continental margin, mineralogy,
 100753, 100758, 100773, 110758, 110772,
 110773, 121134
 Atlantic Ocean C, Santos Plateau, 391106
 Atlantic Ocean NW, microfacies, 440488
 Bahama Islands, geology, 110879, 110883
 basalt
 calcite, 190632
 chemistry, 920473
 mineral, secondary, 340409, 340420, 340423
 mineralogy, 460306
 basalt, altered, chemistry, 511322
 basement, mineral composition, 180941
 beef-in-shale, 360866
 Biscay, Bay of
 Albian sediments, 480868
 mineralogy, 101134
 Black Sea, 42B0493, 42B0374, 42B0382,
 42B0383, 42B0385, 42B0387
 evolution, 42B1141
 Blake Basin, 760741
- ¹³C
 calcite, 42B0623
 carbonate, 42B0618, 42B0619, 42B0621
 calcarenite, Miocene-Pliocene-Pleistocene,
 010523
 calcisiltite, Miocene-Pliocene-Pleistocene,
 010523
 calciturbidites, limestone, micritic, 500745
 carbon isotope, 230941
 carbonate, 010554, 42A1211
 diagenesis, 320524, 320525, 320527
 Jurassic, 790420
 mineralogy, 870659
¹⁸O, 42B0618, 42B0619, 42B0621, 42B0623
 carbonate mineral, stable isotopes, 550653,
 550654
 carbonate nodule, authigenic, calcite,
 870662
 Caribbean Sea, sediments, 150930
 cementation, 190632
 chemistry, 340377
 cone-in-cone texture, 360866
 Costa Rica Rift, alkali, 690492
 crust, oceanic
 aging, 511569
 basalt, 340423
 deposition, models, 960739
 diagenesis
 Ita Mai Tai oolite, 200366, 200367
 slope sediments, 840574, 840584, 840589
 East Pacific Rise, crest, 540812
 environment, sapropel, 42A0457
 FAMOUS area, mineralogy, 370899
 ferromanganese sediment, 190630, 190632
 limestone, 190632
 Red Sea, 190632
 sediment chemistry, 190631
 Galapagos Islands, hydrothermal field,
 540812
 geochemistry
 biogenic material, 060837
 Cenozoic sediments, 42B0551, 42B0562,
 42B0563, 42B0583, 42B0603
 mineral, secondary, 450617
 geothermal measurements, discussion,
 permeability, 901322
 Goban Spur, evolution, 801205
 Guatemala, trench, 670525
 hydrothermal vein, mineralogy, 340377
 Indian Ocean C, minerals, 240682
 Indian Ocean NW, grain size, 250417
 Indian Ocean W, 240658
 biogenic components, 240696
 geochemistry, 250415
 interstitial water, 250370
 mineralogy, 130610, 150847, 150848,
 150849, 150850, 160529, 160530, 181016,
 181017, 240812, 240813, 240814, 250844,
 42A0372, 42B0451, 42B0462, 440517,
 440518, 440519
 minerals, 240678
 Indus Fan, sedimentation, 230476
 interstitial water, 080867
 interstitial water chemistry, 240804,
 240805
 isochronous lithological changes, 42B0493
 limestone, 320537
 relict, 510760
 stable isotope, 150795
 stable isotope ratios, 510763
 lithology, 060045, 060540, 100026, 210372,
 230170, 260363, 270197, 270198, 330045,
 330307, 42B0034, 42B0035, 42B0130,
 42B0133, 42B0138, 42B0143,
 laminated, 250294, 42B0141
 Miocene, 110012
 needles, 390033, 42B0296, 42B0297
 Oligocene, 110012
 Pleistocene, 110012
 Pleistocene sediments, 110141
 Pliocene, 110012
 Pliocene-Miocene sediment, 110141
 Quaternary-Neogene, 110056
 Recent, 110012
 magnetic anomaly, 190632

- major element, geochemistry, 42B0527, 42B0528, 42B0535
Mediterranean Ridge, mineralogy, 130610
Mediterranean Sea
lithified sediments, 130728
mineralogy, 42A1162, 42A1163, 42A1164
Mid-Atlantic Ridge, basalt, 460306
mineral and chemical composition, bulk
mineral distribution, 38S0039
mineral composition, tholeiite, 180941
mineral, secondary, 460306, 920507
abundance, 920509
diagenesis, nonoxidative, 340409, 340423
mineralization, secondary, mineralogy, 540810
mineralogy, 210727, 330544
Goban Spur, 801020
variability, 801026
minor element, geochemistry, 42B0527, 42B0528, 42B0535
Mississippi Fan, sediment, 960432
Nankai Trough, carbonate nodule, authigenic, 870659
OCP Ridge, basalt, 540811
ooid, precipitation, 200365
ooids, 890403
bioclasts, 890403
ooze, calcareous, ooze, nannofossil, 271008
Pacific Ocean C, mineralogy, 330544
Pacific Ocean NW, mineralogy, 320550
Pacific Ocean W, guyot, 200664
paleoenvironment, calcite compensation depth, 47B0415
pelagic components, distribution, biogenous components, 250489
petrology, needles, 870660
physical properties, ooze, carbonate, 061171
pore waters, oxygen isotope, 230941
precipitation, inorganic, 190632
Red Sea
geochemistry, 230981
sediment history, 230856, 230861
sapropel, sedimentology, 42A0457
sediment composition, clay minerals, 960479
sedimentation, carbonate, 42B0614
sedimentology, Mexico, Gulf of, 100707
sill, mineral composition, 180939
Siqueiros Fracture Zone, basalt, 540810
strontium, carbonate, 42B0614
Tasman Sea, mineralogy, 300605
tholeiite, mineral composition, 180939, 180941
Timor Trough
limestone, dolomitic, 271012
ooze, foraminiferal, 271011
ooze, nannofossil, 271011
volcanic sediment, mineralogy, 330793
volcanics, mineral composition, 180939, 180941
Voring Plateau, bulk mineral distribution (X-ray), 38S0039
Walvis Ridge, transect, 740658
X-ray mineralogy, Biscay, Bay of, 480649
aragonite-calcite
Atlantic Ocean S, cone-in-cone structure, 710349
basalt, mineral, secondary, 340423, 340424, 340425, 340426, 340427, 340428, 340429
relations, 340423
Aral Sea, 38S0290, 38S0301, 42B0518, 42B1017
Aral-Caspian Basin, 131258
Arancena complex, Atlantic Ocean N, Paleozoic, 801109
Aransas Bay, 670588
Aransas River, sterol, sitosterol, beta/stigmasterol ratio, 670588
Arauc Peninsula, 670006
Araya Peninsula, 040597, 131349, 150176, 150554
lithology, 150176
arc sundering, 590621
Mariana Trough, 590607
Philippine Sea, 590621
Arcachon lagoon, Messinian environments, Lago Mare, 42A1022
Arctic, 180534, 360909, 380921, 381101, 620544, 740680, 780818, 800529, 800689, 800700, 810439, 860600, 950810
Atlantic Ocean, margin, 481102
Canada, 710955
Challenger Plateau, Quaternary, 901421
Eurasia, 38S0071
ice, accumulation, 860600
ice cap, 500717
ice sheet, 42A1074
lithology, deposition, 47A0036
mineralogy, Goban Spur
Northern Hemisphere, glaciation, 42A0441
paleoclimatology, analytical process, 800703
Tethys, Mediterranean Sea, 42A0943
Arctic Basin, 710357, 950562
sedimentary environments, 440976
Arctic Bottom Water, 440102, 750035, 800808
Blake Spur, north rim, 440102
currents, 120260
isotopes, present hydrological features, faunal assemblages, 800808
lithology, mudstone, 120260
microfacies, sediments, Gulf Stream, 440492
Moroccan Basin, margin, 500817
stable isotope analysis, oxygen isotope, 800802
Arctic Intermediate Water, 800805, 800808, 800814
Atlantic Ocean NE, climate, 800805
glacial cycles, deep-sea environment, 800814
isotopes, present hydrological features, faunal assemblages, 800808
Arctic Ocean, 040427, 050573, 110971, 120003, 120962, 260505, 38S0305, 381101, 381114, 381120, 381210, 381213, 381221, 430697, 440493, 481099, 481107, 620005, 710302, 710340, 800505, 800507, 800812, 810035, 860375, 901421, 901513, 931359, 950757
Amerasian half, 38S0235
Antarctica, 050572
Atlantic Ocean, 050572
margin, 481099, 481107
Cape Bojador, magnetic polarity reversal, 47A0479
Challenger Plateau, Quaternary, 901421, 901423
glacial cycles, deep-sea environment, 800812
microfacies, sediments, 440493
New Jersey Transect, 950810
Norwegian Sea, 760142
Pacific Ocean SW, paleoceanography, 901513
see also Greenland Sea; Norwegian Sea
Arda Valley, 131361
Ardana-Kalagrea Formation, 42B1186
Ardnamurchan, 380751
Arenazolo Formation, 131236, 131238
evaporites, Miocene, 131238
arene, lipid, hydrocarbon, aromatic, 571372
Arenisca Lutita Samara, 840841
arenite
evaporites, Messinian, 42A0597
feldspathic sediment, 200359
flysch, 500752
Japan Trench, geology, 870706
lithology, 100198, 42A0156, 42A0236, 42A0237, 42A0238
Mediterranean Sea, lithostratigraphy, 131038
Neogene formations, paleogeography, 42A0910
sandstone, 320538, 320540
arenite, arkosic
lithology, evaporites, 130425
Rockall Rise SW, structure, 481075
stratigraphy, Paleocene interval, 481075
arenite, gypsum
Balearic Plain, mineralogy, 130609
evaporites, Miocene, 131236
Indian Ocean W, mineralogy, 130609
arenite, lithic
Japan Trench, geology, 870704
Neogene formations, paleogeography, 42A0908, 42A0912, 42A0914
Argana Basin, 500816
Moroccan Basin, margin, 500811
Argana Valley, 500816, 790523
Moroccan Basin, margin, 500816
Triassic red clastic deposit, 790896
Argentina, 160818, 260951, 350279, 360926, 360961, 38S0681, 390460, 400764, 710287, 710789, 710802, 710829, 710880, 710882, 710884, 710886, 710888, 710907, 710910, 710911, 720810, 901374, 901398, 901509, 950395
Atlantic Ocean SW, basin, evolution, 360993
Bahia Aguirre, 360945
continental margin, 260951
continental shelf, 720495
continental margin, 750476
cordillera, 710957, 710958
cratonic platform, 750475
Gondwana, dispersal, 260951
Neuquen Province, 710885
¹⁸O, trends, 901374
Pampas, 360909
Patagonia, 280651
basin, 710954
Rio Grande Rise, mineralogy, 720996
Santa Cruz Province, 360819
shelf seaway, 360888
Vaca Muerta Formation, 710040, 710448
Argentine Basin, 040017, 040671, 350887, 350889, 361051, 38S0491, 390329, 390414, 390459, 400069, 400359, 400741, 401002, 401045, 430828, 710005, 710008, 710146, 710152, 710302, 710314, 710315, 710377, 710379, 710380, 710382, 710385, 710388, 710430, 710435, 710438, 710445, 710452, 710455, 710457, 710459, 710470, 710502, 710635, 710653, 710687, 710705, 710739, 710746, 710750, 710759, 710821, 710822, 710827, 710830, 710832, 710833, 710834, 710835, 710836, 710935, 711081, 711097, 720017, 720020, 720025, 720027, 720028, 720029, 720064, 720383, 720481, 720485, 720499, 720809, 720984, 720985, 720990, 720996, 721001, 721003, 730110, 730111, 730487, 730702, 750499, 750554, 750555, 750766, 760825
Antarctic Bottom Water, 720383
Antarctica, 361051
Atlantic Ocean
Cretaceous, 750823
margin, 481104
Atlantic Ocean S, 391099, 391108
Cretaceous, 720979
hiatuses, 391103, 391104
Malvinas Outer Basin, 391111
Paleogene, 720984, 720985
seismic reflection, 391115, 391117, 391120, 391121
Sierra Leone Rise, 391123
Atlantic Ocean SW, basin, evolution, 360993, 360994, 360996, 361000, 361005,

- Atlantic Ocean SW (Cont.)
361008
biostratigraphy, 710445
Brazil Basin
 minor sediment components, 721003
 transport, 721001
Cape Basin, 400232, 481104
carbon, organic, preservation, 711054
carbonate, carbon, organic, 711054
circulation, 720383
ice rafting, 710307
lithologic facies, 710377
lithology, 390398
 clay minerals, 390398
 Miocene, 390398
 ridge sites, 390398
magnetism, paleoenvironmental implications,
 711097
Mesozoic
 Miocene, 710455
 Oligocene, 710455
mineral, 390459
 source, 390459
mineralogy, 361017
 amphiboles, 361018, 361019, 361020,
 361022, 361023, 361025, 361026, 361027,
 361028
 analcime, 361019
 anatase, 361025
 apatite, 361025
 barite, 361018, 361026
 calcite, 361019, 361022, 361026, 361027
 chlorite, 361018, 361019, 361020, 361022,
 361023, 361025, 361026, 361027, 361028
 clinoptilolite, 361018, 361019, 361020,
 361022, 361023, 361025, 361026, 361027,
 361028
 cristobalite, 361019, 361020, 361022,
 361023, 361026, 361027
 dolomite, 361019
 gibbsite, 361019, 361020, 361022, 361023
 hematite, 361025
 K-feldspar, 361018, 361019, 361020,
 361022, 361023, 361025, 361026, 361027,
 361028
 kaolinite, 361018, 361019, 361020,
 361022, 361023, 361025, 361026, 361027,
 361028
 mica, 361018, 361019, 361020, 361022,
 361023, 361025, 361026, 361027, 361028
 montmorillonite, 361018, 361019, 361020,
 361022, 361023, 361025, 361026, 361027,
 361028
 palygorskite, 361018, 361019, 361020,
 361022, 361023, 361025
 phillipsite, 361018, 361019, 361020,
 361022, 361023
 plagioclase, 361018, 361019, 361022,
 361023, 361025, 361026, 361027, 361028
 pyrite, 361019, 361020, 361026, 361027
 quartz, 361018, 361019, 361020, 361022,
 361023, 361025, 361026, 361027, 361028
 rhodite, 361019
 tridymite, 361019, 361020, 361022,
 361026, 361027
northeastern, 38S0500
paleoenvironment, 711097
 magnetism, 711097
paleomagnetism, 711077, 711081
 intensity variation, 711081
 magnetic polarity, 711078
 magnetostratigraphy, 711083
 polarity transitions, 711086
 susceptibility, 711081
paleontology, 710445
reflection horizon, Horizon A, 040671
Rio Grande Rise, regional setting, 390955
sedimentation, geochemical aspects, 710430
seismic reflection, 720481
terrigenous material, 390459
thermohaline flow, Quaternary, 720990,
 720991
X-ray mineralogy, 361017
zeolite, distribution, 390433
Argentine Plain, 710309
Argiles de Varengeville, 480789
argillite
 East Mariana Basin, mineralogy, 890414
 Jan Mayen Ridge, 38S0097, 38S0098
 cement, calcareous, 38S0098
 joint system, 38S0097
 massive structure, 38S0098
 lithology, 040130, 360022
 sandstone, 120049
 mineralogy, 38S0117
 sediment history, 38S0119
 pebble characteristics, 280771
 Ross Sea, basement, 280865
 Ross Sea SC, 280771
 sediment, lithology, 38S0117, 38S0119
argillite, siliceous
 Atlantic Ocean N, Mediterranean Sea,
 110810, 110815, 110816
 clay, terrigenous, Whangai Formation, 291062
 silt, terrigenous, Whangai Formation, 291062
argillization, rhyolite, 210530, 210535,
 210538
Argo Formation, 47B0028
 halite, Scotian Shelf, 790717
Argo Fracture Zone, 240008, 240469, 240470,
 240480, 240483, 240606, 240607, 240651,
 240723, 240785, 240788, 240836, 240887,
 241125
 Indian Ocean, geophysical measurements,
 240606
 Indian Ocean W, 240651
 tropical, 240646
 see also Indian Ocean W
Argo Plain, 220003, 220351, 220360, 220362,
 220367, 270129, 270341, 270345, 270380,
 270551, 270584, 270631, 270771, 271001,
 271049, 271051, 390904
 Australia W, continental margin, 270584
 formations, 47B0028
 geophysical, 270341, 270380
 geophysical measurements, 220351
 Jurassic, calcisphaerulids, 440911
 mineral, heavy, 270524
 apatite, 270524
 chlorite, 270524
 clinopyroxene, 270524
 epidote, 270524
 garnet, 270524
 hornblende, 270524
 opaques, 270524
 orthopyroxene, 270524
 tourmaline, 270524
 zircon, 270524
 seismic profiles, 220351
 turbidites, 220351
argon
 Alboran Basin, basement, 130762
 basalt, 330649
 geochronology, 411113
 Philippine Sea, 590719, 590720
 Black Sea, mineral, terrigen 30653
 Costa Rica Rift Zone, basal 1
 gas, inert, interstitial water,
 glass, basalt, 411113
 granodiorite, Mazagan Escarpment, 790544
 Gulf of Mexico, basement, crystalline,
 770497
Hess Rise N, chert, 620779, 620780
Indian Ocean W, basalt, 250553
Japan Trench, boulders, 561281
Jingu Seamount, volcanics, 550686
K/Ar age, pegmatite, 360926
lava, isotope geochemistry, 810778, 810779
Melanesian Basin, 610701
mud, terrigenous, organic geochemistry,
 400557
potassium, accumulation rate, 411115
Rb-Sr age, 360923
 gneiss, 360925
 pegmatite, 360926
retentivity, silicate structures, 830311
Rio Grande Rise, basalt, 720467
shale, organic geochemistry, 400557
 see also Ar
argon, atmospheric, lava, isotope
 geochemistry, 810778
argon, radiogenic
 basalt
 gabbro, 370629
 geochronology, 411113, 411115
 Hess Rise N, chert, 620779
 lava, isotope geochemistry, 810778
 argon/methane, basalt, altered, geochemistry,
 580808
Arguello Terrace, 630910
 Pliocene rocks, 630910
Arica Bight, 670701
Arizona, 641222, 641225, 641291, 641292,
 641293
 Guaymas Basin, palynology, 641230
Arkansas, 950511, 960498
 Blake Spur S, 440345
 climate, 950511
 petrology, sand, 960498
Arkansas River, Guatemala SW, continental
 slope sediments, 670588
Arkhangelsk Ridge, 42B0471, 42B1065
arkose
 clastic sediment, Cretaceous, 401033
 Falkland Plateau, basement, 360894, 360910
 Indian Ocean W, sand, terrigenous, 241053
 lithology, 490233
 palynological residue, 640752
 Guaymas Basin, 640751
 gulf mouth, 640731, 640735, 640739, 640748
 palynological residue, abundance, 640731
 sandstone, diagenesis, 770414
arkose, lithic
 lithology, 180099
 petrology, sand, 960494
Armenia, 200111
Armorica, 480711, 801106, 801108, 801202
 Goban Spur, evolution, 801202
Armorica S
 Atlantic Ocean N
 Paleozoic, 801108, 801110
 Precambrian features, 801106
Armorican Craton, 481015
Armorican margin, 120674, 47B0770, 480036,
 480038, 480704, 480791, 480816, 480995,
 480996, 480997, 480998, 480999, 481000,
 481001, 481002, 481003, 481004, 481005,
 481006, 481007, 481008, 481015, 481017,
 481020, 481028, 481059, 790654, 800005,
 800007, 800010, 800489, 800506, 800629,
 800643, 801106, 801161, 801162, 801200,
 801208
 basin, 481028, 481047, 481053, 801188
 Biscay, Bay of N, continental margin, 481028
 Biscay, Bay of, continental margin, 481028
 continental margin, structural evolution,
 481042, 481047, 481053, 481059
 Goban Spur

- Goban Spur (Cont.)
 continental margin, 801161, 801162
 evolution, 801200
 Iberian margin W, evolution, 47B0766,
 47B0768, 47B0770
 regional geology, physiography, 801188
 shear zone, 481022
 Armorican Massif, 801108
 Armorican orogeny, 801108
 Atlantic Ocean N, Paleozoic, 801108
 aromatization
 Atlantic Ocean N, lipid, 500658
 chlorophyll, diagenesis, 571401
 diagenesis, 660568
 diterpenoid, 660568
 steroid, 660568
 triterpenoid, 660568
 diagenetic assessment
 diterpenoid, 660568
 steroid, 660568
 triterpenoid, 660568
 hydrocarbon, extractable, organic
 petrology, 630832
 limestone, Albian, 620933
 tetrapyrrole
 geochemistry, 630791, 630805, 630808,
 630810, 630815, 640790, 640792, 640793,
 640795, 640796, 640798, 640806, 640807,
 640809
 pigment, 580738
 Arran, 120411, 380751
 arsenic
 chemical and mineral composition,
 chemistry, 070967
 pyrite, framboidal, framboid, 750876
 Red Sea, geochemistry, 230981
see also As
 Artemisia Formation, 110563, 110616
 Aruba, 160663
 Aruba Gap, 151081
 basalt, 150006, 150009, 150301, 150367,
 150493, 150833, 151039, 151047, 151058,
 151081, 151096, 151105, 200107
 fault zone, 151042, 151047
 Aruba Gap Plain, 151039, 151046
 geology, 150929, 150938, 151039, 151042,
 270993, 360152, 370329, 400679, 400687,
 400783, 430446, 430697, 430795, 430813,
 430817, 440492, 440743, 480999, 481100,
 490459
 age, 511525
 development, geologic, 151047
 faulting, 151047
 Flamingo Fault Zone, 151042
 geologic development, 151047
 Pecos Fault Zone, 151042
 seismic correlation, 151039
 structural geology, 151046
 Arundel Formation, 930945
 Arutua Atoll, 330302, 330318, 330571, 330683
 Arzew 1 Well, Algeria, continental shelf,
 42B1181, 42B1183, 42B1193
 As
 Atlantic Ocean S, history, 740715, 740718
 carbon, organic, geochemistry, 750828
 East Pacific Rise, silicate, hydrothermal,
 920375
 geochemistry, Cenozoic sediments, 42B0603
 Hess Rise
 pyrite-marcasite, 620855
 rocks, 620863
 inorganic geochemistry, sediments, rocks,
 Angola Basin, 750933
 major element, geochemistry, 42B0527,
 42B0531
 minor element, geochemistry, 42B0527,
 42B0531
 sulfide, 370875
 pyrite, 370881
 trace elements, distribution, 42A0504
see also arsenic
 Asama volcano
 basalt, altered
 major element, 580875
 trace elements, 580875
 Asbury Park, New Jersey, 930702
 Ascension Island, 130751, 170442, 390531,
 620957
 trachyte, rare earth elements, 620957
 ash, 020417, 050531, 050532, 061218, 100699,
 150368, 150971, 150989, 160615, 180833,
 210481, 260553, 300241, 310138, 310143,
 310280, 320545, 38S0101, 38S0105,
 38S0106, 411116, 490437, 510771, 561027,
 561029, 561031, 600473, 600474, 670520,
 680472, 751208, 810663, 810664, 840609,
 860657, 870681, 870682, 870684, 870685,
 870707, 870709, 870710, 950502
 Aaiun Basin, lithology, 061135, 061138,
 061147, 061218, 061219, 061221, 061242,
 061243, 061246, 061248, 061250
 active margin, 870707
 Africa
 climate, 411039, 411045
 volcanism, 411039, 411045
 Africa E, continental rise, 250520
 Africa NW, continental margin, 411126,
 411133
 age, 050531, 050532, 38S0101, 38S0104,
 38S0105, 38S0106, 870682, 901163
 age determinations, 710463
 air-fall, 780369
 faulting, 780369
 Lesser Antilles, 780369
 lithology, 780369
 tephrochronology, 780370, 780374
 Alaska, Gulf of, 180833
 Miocene to Recent, 180833
 volcanism, 180833
 alteration
 effects, 870684
 Pacific Ocean N, 620559
 amino acid, acid hydrolysate, 680475
 amorphous precipitates, iron oxide, 050541
 andesite, alkalic, 050531
 Antarctica, glaciation, 291040, 291041
 ash, altered, 020417
 ash, rhyolitic, Galapagos Hydrothermal
 Mounds, 690452, 690453, 690456
 ash, vitric, Philippine Sea S, 600473
 ashy block mass, 870709
 Atlantic continental margin
 interstitial water chemistry, 160573
 mineralogy, 110784
 Atlantic Ocean
 Cenozoic sediments, 140791, 140796, 140862
 Cretaceous sediment, 140791, 140796,
 140862
 grain size, 040305
 Atlantic Ocean N, 810666
 mineralogy, 020330
 Atlantic Ocean NE
 Eocene, 800845
 Eocene and Paleocene, 800845
 evolution, 411237
 Paleocene, 800845
 Paleocene sediments, 800845
 Atlantic Ocean S, 850932
 Argentine Basin, 391117, 391121
 history, 740722
 Malvinas Outer Basin, 391111
 mineralogy, 030510, 040325
 Atlantic Ocean SW, basin, evolution, 361008
 Atlantic Ocean W, mineralogy, 040325
 augite, 561029
 augite, crystal, 320545
 Ayarza caldera, 670493
 Baja California, 630631
 Balder Formation, 800849
 Barbados, 780618
 Barbados Ridge, 780115, 780618
 air-fall, 780369
 basalt
 Cretaceous, 150989
 Galapagos Hydrothermal Mounds, 690451
 Hess Rise, 620565
 basalt, sideromelane, 600474
 basement, 050531, 050532
 age, 050531, 050532
 glass, 050531
 mineral composition, 050531
 biogenic components, 38S0105, 38S0106
 diatom, 38S0105
 radiolarians, 38S0105
 silicoflagellates, 38S0105
 sponge spicules, 38S0105
 biogenic sediment, diagenesis, 300446,
 300469
 biostratigraphy, Pigmy Basin, 960659
 biotite, 561029
 bioturbites, ashy, 870709
 bitumen, 571331
 Black Sea, interstitial water, 42B0648
 bottom current, deposition, 561029
 breccia, volcanic, Neogene, 630652
 bubble-junction, bubble-wall shards, 600474
 calcium carbonate, carbon, organic, 620869
 California, Gulf of, 650477
 glass, basalt, 650477
 California S, 630631
 Campeche Escarpment, sediments, 100026
 Cape Bojador, continental margin, 47A0781
 Cape Verde Basin, volcanic debris, 020414
 carbon, deep-sea sediments, 580745
 carbon, organic, diagenesis, 670610
 carbonate, 600473
 isotopes, 960671
 Caribbean Sea, sediments, 150934, 150938,
 150939
 Caroline Abyssal Plain, chalk, 200069
 Cenozoic paleoceanography, 901494
 Central America, Neogene, 670475, 670479,
 670480, 670482, 670483, 670484, 670486,
 670487
 chemical composition, metal, 571259, 571264
 chemistry, 150994
 chert, 300435, 300437
 alteration, 300437
 bottom current, 300437
 formation, 320444
 geochemistry, 620712
 oxygen isotope, 620749
 petrology, 620712
 porcellanite, 320444
 chondrites, 870709
 clastic products and ash, 490437
 clay
 Cenozoic, 780345
 Miocene to Pleistocene, 580671
¹⁸O/¹⁶O ratio, 350495
 clay, authigenic, Mariana Trough, 600471
 clay mineralogy, 650372, 870634
 clay minerals, 38S0016, 38S0026, 680384,
 680388
 ash, vitric, 680388
 clinoptilolite, 680388
 devitrified, 901445
 feldspar, alkali, 680388

- clay minerals (Cont.)
montmorillonite, 280748
Pacific Ocean NW, 200338
phillipsite, 680388
sediment source, 680392
stratigraphy, 680390
claystone, basalt, 550710
Colon Ridge, interstitial water, 680471, 680472
compaction, 870710
continental slope basins, 960706
Costa Rica Rift, carbonate, 690462
crystallization, 38S0102
current, strong, 870709
deep sea sediments, chemical composition, appendix, petrography, 540899
deformation, postdepositional, 870709
Denmark, 800849
deposition, 38S0105
airborne source, 561029
chalk, nannofossil, 250496, 250497
Lesser Antilles, 780307, 780309
ooze, nannofossil, 250496, 250497
origin, 600448
dewatering, 870709
diagenesis, 561030
dissolution, 561030
distribution, 561031
mineral, 47A0745, 47A0746
Miocene to present, 690345, 690355, 690366
organic matter, 870877
slope sediments, 840573, 840575, 840582, 840586, 840589
thermally controlled, 630945
diatom biostratigraphy, 870682
distribution, volcanism, explosive, 660691, 660692, 660693
dolerite, Cretaceous, 150989
East Pacific Rise, sediments, 650376
Emperor Seamounts, mineralogy, 550465, 550466, 550470
Eocene, 160615, 800845
stratigraphy, 800845
Eocene and Paleocene, Atlantic Ocean NE, 800845
eolian supply rate, 870709
eruption, 600473
evolution, 870685
faulting, 870709
Fe₂O₃, 870684
feldspar, 020417
fission track age, 571277
folding, 870709
frequency maximum, 870685
Fuji, 870684
Galapagos Hydrothermal Mounds, 690451
basalt, 690451
gas hydrate
hydrate, 670612
trench slope, 670605
geochemistry, 260560, 660689, 720429, 870695, 870700
calc-alkaline affinity, 870700
California, Gulf of, 640696
chronological evolution, 660690, 660691
composition, 660689, 660690
frozen sediments, 660549
glass, 660689, 870700
glass, acidic, 870700
Guaymas Basin, 640710
Holocene-Miocene, 660689
Japan SW, 870700
Japan Trench, 870695
K₂O, 870700
micropumice, 660689
mineral, 660691
mineral fragment, 660689
petrology, 870695
Sea of Japan, 870700
tephra, 870700
volcanism, 840616, 840617
volcanism, explosive, 870700
geochronology, 411116
geologic setting, 840922
Germany, 800849
glass, 050531, 38S0101, 38S0102, 561029, 600473, 870684, 870707, 870709
alteration, 050531
basalt, 320545, 390528, 390534, 490440, 650477, 650479
bubble wall, 870681
origin, 870685
sideromelane, 38S0101, 38S0102
tachylite, 38S0101, 38S0102, 38S0103
glass, basalt
alteration, 650477, 650479, 650480, 650482
California, Gulf of, 650477
glass, fresh, 020417
glass, rhyolitic, 490440
glass, volcanic, 571277, 571278, 600474, 870681
chemical composition, 870684
Pleistocene sea floor, 600494
Goban Spur
copper, native, 800851
evolution, 801209, 801212, 801213
stratigraphy, 800845
granite, intrusion, 870685
Greenland Sea, 38S0238
axis, extinct, 38S0240
basalt, 38S0241, 38S0242
biogenic siliceous lithofacies, 38S0217
clay minerals, 38S0231
diapir, 38S0200
Faroe-Iceland Ridge, 38S0239
geologic setting, 38S0197, 38S0205, 38S0210, 38S0214
Iceland Plateau, 38S0240, 38S0246
Jan Mayen Ridge, 38S0240
Knipovich Ridge, 38S0240
Lofoten Basin, 38S0240
Voring Plateau, 38S0197, 38S0200, 38S0240, 38S0248
Guatemala
mid-slope continental margin, 840929
Pliocene-Quaternary, 540314
Quaternary, 670493
trench, 670518, 670524
hafnium, 870684
healed fracture, 870709
Hess Rise
basalt, 620565
pyrite-marcasite, 620857, 620861
rocks, 620863, 620865
Honshu E, glass, 870685
hornblende, 050531, 561029
hyaloclastite, 650477
Al, 650479
alkali values, 650479
alteration, 650477, 650479, 650480, 650482
andesite, 650477
ash fall, 650477
ash, vitric, 650477
basalt, 650477
deposition, 650479
fractionation, 650477
iron, 650479
K, 650477
Mexico, 650477
oxide totals, 650477
refractive index range, 650477
rhyolite, 650477, 650479
rhyolite, calcalkaline, 650479
rhyolite, peralkaline, 650479
sedimentation rate, 650479
sodium, 650477
titanium, 650479
hydrocarbon, C₁-C₅, Japan Trench, 571338
hygromagmatophile (HYG) elements
Ce, 870684
cesium, 870684
hafnium, 870684
lanthanum, 840684
magma, 870684
Nankai Trough, 870684
Rb, 870684
tantalum, 870684
thorium, 870684
uranium, 870684
zirconium, 870684
hypersthene, 561029
Iceland, 810666
aerial distribution, 490440
magma, 490437
Iceland Basin, Cenozoic sediments, 38S0073, 38S0081, 38S0091
Iceland Plateau, 810666
igneous rocks, geochemistry, 620951, 620956
illite-montmorillonite, 150926
Indian Ocean C
noncarbonate sediment, 220492
terrigenous components, 240690
Indian Ocean NE
Cretaceous, 220745
sediment history, 220718, 220723
Indian Ocean NW
grain size, 250423
volcanic components, 241058, 241060, 241061
Indian Ocean S, geologic history, 260919
Indian Ocean SE, sediments, 260542
Indian Ocean SW, iron-rich sediment, 250395, 250396, 250401
Indian Ocean W, 240658
Aden, Gulf of, 240721, 241047, 241049
deposition, 241066
geochemistry, 250406
Indian Ocean C, 240722
regional aspects, 250755, 250756, 250757
terrigenous components, 240676
interstitial water, 590628
interstitial water chemistry, 240806
Shikoku Basin, 610607
intraslope basin, 960621
intraslope basins, Pigmy Basin, 960591
island arcs lee distribution, 870707
Japan
fore-arc area, 560545
tephra, 870707
Japan NE, 870681
Japan, Sea of, sedimentary structure, 310487
Japan Trench, 561027, 561028, 561029, 561031, 561277, 860681, 870647, 870681, 870921
augite, 561029
biotite, 561029
bottom current, 561029
deposition, 561029
distribution, 561031
geochemistry, 870695
geology, 870704
glass, 561029
glass, volcanic, 561028
hornblende, 561029
hypersthene, 561029
magnetite, 561029
Neogene, 561027
plagioclase, 561029

- Japan Trench (Cont.)
 pumice, 561028
 redeposition, 561029
 sedimentary environment, 561028
 sedimentation, 561029
 sediments, 271219, 271220, 571213, 571253
 tephra, 870684
 tuff, 561028
 volcanism, explosive, 561031, 561034
 K/Ar age, Walvis Seamount, 390525
 kerogen, sediment cores, 42B0739, 42B0742
 Kuroko, deposit, 870684
 La/Tb ratio, 870684
 lamina, 320546
 glass, 320546
 palagonite, 320546
 land calc-alkalic rock series, comparison, 870684
 lanthanum, 870684
 lead isotope, 700329
 Lesser Antilles, 780369
 island arc, 780194, 780369
 limestone, 320545
 Cretaceous, 620878, 620885, 620889
 stable isotope, 150795
 lipid, humic acid, 571383
 lithification, 320545
 lithologies, major
 chalk, 901480
 ooze, calcareous, 901480
 lithologies, minor, tephra, vitric, 901483
 lithology, 040218, 050017, 050058, 050109, 050205, 050257, 050277, 050298, 060044, 060059, 060072, 060172, 060174, 060198, 060225, 060247, 060248, 060295, 060296, 060298, 060299, 060350, 060449, 060450, 060495, 060541, 060587, 070029, 070729, 100025, 100026, 100030, 100071, 100072, 100075, 100189, 100197, 100198, 100203, 100261, 100266, 100298, 110227, 130122, 130124, 130194, 130195, 140053, 140054, 150021, 150022, 150218, 150280, 150282, 150302, 150333, 150368, 150408, 160159, 170288, 180033, 180034, 180172, 180236, 180288, 180289, 180295, 180378, 180381, 180408, 180409, 180412, 190023, 190095, 190220, 190292, 190329, 190375, 190417, 190418, 190466, 190556, 210018, 210021, 210035, 210060, 210067, 220015, 220017, 220086, 220216, 220270, 230121, 230171, 240021, 240128, 240199, 240284, 240330, 240394, 240395, 240472, 250031, 250032, 250093, 250193, 250194, 250243, 250266, 260160, 260161, 270198, 270199, 300032, 300044, 300178, 310029, 310069, 310136, 310138, 310143, 310193, 310194, 310203, 310280, 310320, 310354, 310355, 310410, 310443, 320048, 340086, 340114, 360032, 360212, 360214, 38S0016, 38S0026, 380027, 380035, 380036, 380119, 380120, 380161, 380162, 380163, 380164, 380168, 380170, 380172, 380176, 380177, 380178, 380391, 380453, 380455, 380524, 380525, 380528, 380580, 380597, 380598, 380656, 390147, 390239, 390376, 410237, 410332, 42B0144, 42A0155, 42A0156, 42A0226, 42A0327, 430165, 47A0027, 480176, 480177, 480222, 490025, 490026, 490027, 490029, 490102, 490104, 490105, 490163, 510042, 510043, 510360, 510363, 660683, 870615, 870681, 870811
 acid volcanics, 240129
 adularia, 260161
 altered, 210037, 430165
 analcite, 260161
 anatase, 260161
 basalt, 140139, 150376
 bedding, cyclic, 130194
 bedding, graded, 150022
 boundary, sharp, 130194
 burrows, 130194, 180034
 calcite, 260161
 calcium carbonate, 130194
 chert nodule, 300239, 300241
 clay, 140054
 clay minerals, 130122, 130190
 cristobalite, 260161
 diatom content, 870681
 dolomite, 130194, 130195
 feldspar, 140054
 foraminifers, 130194
 geologic events, 210061, 210062, 210110
 glacial, 130194
 glass, 130194, 130195, 140054, 190220, 300071, 300075
 glass, volcanic, 130122
 goethite, 130194, 260161
 grading, 130195
 gypsum, 260161
 hematite, 130194, 140054
 interbedding, 130195, 140054
 Japan Trench, 870681
 laminae, 180034
 lamination, 130194
 limestone, radiolarian, 300239, 300241
 limonite, 130194
 magnetite, 260161
 manganese, 140054
 marl ooze, 130194
 Marquesas Oceanic Formation, 080289
 mica, 130194, 140054
 micronodule-bearing glass, 300071
 minor sediment types, 47A0027, 47A0028
 Miocene sediments, 190222
 montmorillonite, 260161
 mordenite, 260161
 mud, diatomaceous, 870681
 mud, silt-laminated, 960478
 mudstone, 870681
 mudstone, nannofossil, 170106
 nannoplankton, 130194
 ooze, 130262
 ooze, marl, 130423
 palagonitized, 360020
 phillipsite, 260161
 plagioclase, 260161
 pyrite, 130194, 130195, 260161
 quartz, 130194, 130195, 140054
 Rio Grande Rise, 721021
 sand, 130262
 sanidine, 130122
 sapropel, 130194, 130195
 sedimentation rate, 870681
 Senonian-Albian, 140053
 siderite, 130194
 silt, 140054, 180502, 870681
 silt, dolomitic, 140139
 stagnation, 130194
 tephra, 130195
 vein, 130122
 veinlet, 140054
 zeolite, 140054
 lithostratigraphy, 680383
 Lord Howe Rise
 pale green laminae, 901154, 901156, 901157
 rhyolite, 210523, 210530
 Lord Howe Rise C, Neogene evolution, 901449, 901450, 901452
 Lord Howe Rise S, volcanic components, 210488
 Los Chocoyos, 680403
 Madagascar Basin, volcanic sediment, 250523
 magma
 differentiated liquid source, 870684
 Iceland, 490437
 magmatism, explosive, Lesser Antilles, 780194
 magnetite, 561029
 magnetostratigraphy, Lord Howe Rise N, 901277
 major reflectors, Reflector F, 870746
 Marcus Island, archipelagic apron, 200054
 Mariana Trough, 600483
 forearc, 600473
 source, 590425
 maximum, Pliocene-Miocene, 870684
 Mediterranean Sea
 lithostratigraphy, 131027, 131029, 131034, 131035
 Mediterranean Basin, 130667
 Melanesian Basin, 610633
 alkalic association, 610633, 610634
 geological characterization, 610642, 610644
 tholeiite, 610634, 610635, 610636, 610637, 610639, 610640
 metalliferous sediment, Nazca Plate, 340788, 340789
 methane hydrate, 660553
 Mexico, Gulf of, regional aspects, 100744
 Mid-Pacific Mountains, 621084, 621092, 621110
 Middle America Trench, 660687, 670475, 670493, 840609, 840610
 Costa Rica, 840553
 geochemistry, 660689, 660690, 660691
 glass, volcanic, 660687
 hiatuses, documentation, 660687
 inner slope, 660687
 magma, calc-alkaline, 660699
 mud, 660687
 Neogene, 670475
 Quaternary, 670493, 670494
 sedimentary environment, 660687, 660688, 660689
 siltstone, 660687
 transect, 660687, 660688, 670610
 trench, 660687
 trench inner wall, 660687
 tuff, devitrified, 660687
 upper slope, 660687
 mineral, chemical composition, sediments, 38S0043
 bulk mineral distribution, 38S0041
 mineral composition, 38S0031
 mineral composition, 050531, 38S0101, 38S0102
 biotite, 050531, 38S0103
 calcite, 38S0105
 clay, 050531, 38S0105
 clinopyroxene, 38S0102, 38S0106
 hornblende, 050531, 38S0103
 orthopyroxene, 38S0102
 phillipsite, 050531
 plagioclase, 38S0102, 38S0106
 pyrite, 38S0105
 quartz, 38S0105
 mineral, volcanic, 020417
 mineralogy, 150990, 38S0101, 38S0102, 38S0114, 38S0117, 600438, 660689
 biotite, 38S0103
 calcite, 38S0105
 chemistry, 480780
 clay, 38S0105
 clinopyroxene, 38S0102, 38S0106
 hematite, 38S0105
 Holocene-Miocene, 660689
 hornblende, 38S0103, 38S0105
 magnetite, 38S0105

mineralogy (Cont.)

- Mariana Trough, 600439
 orthopyroxene, 38S0102
 plagioclase, 38S0102, 38S0106
 pyrite, 38S0105
 quartz, 38S0103, 38S0105
 sediment, 680397
 Miocene, 160615, 490437
 Mississippi, margin, 960705
 Mississippi Fan, 960701
 mud, 870916
 pumice, 870913
 mud, calcareous, Pleistocene, 490437
 mud, diatomaceous, Guaymas Basin, 641205
 mud, terrigenous, diagenesis, 250457
 mud, vitric, 600474, 600475, 600476
 andesite, 600474
 basalt, 600476
 composition, 600476
 distribution, 600475
 explosivity degree, 600474
 glass, 600476
 increase, 600476
 magma, calc-alkalic, 600476
 mineral, mafic, 600474
 Pacific Ocean N, 600474
 Philippine Sea S, 600473
 Philippines, 600473
 pumice, 600474
 refractive index range, 600474
 rhyolite, 600474, 600476
 silica, 600474
 silicic composition, 600476
 SiO₂ content, 600474
 source composition change, 600476
 vitric component decrease, 600475
 volcanic activity, increase, 600476
 volcanism, 600475
 Na₂O, 870684
 Nankai Trough, 870684, 870695
 accretionary prism, 870695
 accumulation rate, 870696
 age, 870698
 clastic-free minerals, 870695
 "evolutionary lines", 870684
 geochemistry, 870695
 glass, 870695
 glass, volcanic, 870695
 Honshu E, 870684
 hygromagmatophile (HYG) elements, 870684
 La/Tb ratio, 870684
 mud, 870695, 870696
 pumice, 870695
 Quaternary, 870695
 Quaternary-Recent, 870698
 Shikoku Basin, 870695
 Shikoku Island, 870684
 subduction, 870685, 870695
 subduction zone, 870684
 Th/La ratio, 870684
 Th/Ta ratio, 870684
 trench fill, 870695
 trench fill base age, 870695
 turbidite, 870695, 870913
 turbidites, 870916
 volcanogenic sediment, 870695
 nanofossils, 320545
 Nazca Plate, South America, 340797
 Neogene, 630631
 Baja California, 630631
 California S, 630631
 Japan Trench, 561027
 Neogene cores, organic geochemistry,
 42A0466, 42A0471
 Neogene maxima, 870681
 New Caledonia Basin, volcanic components,
 210485
 nitrogen, deep-sea sediments, 580745
 North Sea, 800848, 810920
 Norwegian Sea, 38S0238
 axis, extinct, 38S0240
 basalt, 38S0241, 38S0242
 biogenic siliceous lithofacies, 38S0217
 clay minerals, 38S0231
 diapir, 38S0200
 Faroe-Iceland Ridge, 38S0239
 geologic setting, 38S0197, 38S0205,
 38S0210, 38S0214
 Greenland Sea, 38S0261, 38S0263, 38S0271,
 38S0285, 810666
 Iceland Plateau, 38S0240, 38S0246
 Jan Mayen Ridge, 38S0240
 Knipovich Ridge, 38S0240
 Lofoten Basin, 38S0240
 Voring Plateau, 38S0197, 38S0200,
 38S0240, 38S0248
 ocean basin, 050531, 050532
 age, 050531, 050532
 glass, 050531
 Oligocene, 490437
 Omuro-yama Volcano, 870684
 ooze, calcareous biogenic, 020417
 opal-A, 320545
 organic geochemistry
 kerogen, 630838, 630848, 630850
 Pendragon Escarpment, 800955
 organic material, 600473
 origin, Pacific Ocean N, 620559
 oxides, Walvis Ridge, 390526
 oxygen isotope
 carbon isotope, 800803
 geochemistry, 350507, 350509, 350510,
 350512
 Pacific Ocean C, 160615
 Pacific Ocean N
 alteration, 620559
 Bering Sea, 190909
 ice rafting, 190909
 Meiji Guyot, 190900
 origin, 620559
 Pacific Ocean NE, 180833
 chalk, 200035, 200037
 grain size, 050423
 lithology, 050607
 Pliocene, 200035, 200037
 Pacific Ocean NW, 860657
 grain size, 060709, 060723
 Pacific Ocean SW
 Pacific Plate, 210902
 tephra, vitric, 901161, 901162
 Western Marginal Basin Province, 210904
 Pacific Ocean W, volcanic rocks, 210481,
 210483
 Pacific Plate, Japan, 200022
 Paleocene sediments, Atlantic Ocean NE,
 800845
 paleomagnetism, 870682
 Panama Basin, 690355
 physical properties, 160503
 particle, origin, 901226
 pelagic components, distribution, volcanic
 components, 250491
 petrography, 260554, 260555, 260557, 260558
 petrography of volcanic products, 490437
 petrology, 38S0101, 38S0102, 38S0106,
 870685, 870695, 870700
 igneous rocks, 130767, 130768, 130769,
 130770, 130773, 130775, 38S0101, 38S0106
 Nankai Trough, 870695
 seismic coherence, 870695
 Walvis Seamount, 390525
 phenocryst minerals, 870709
 Philippine Basin, genesis, 310859
 Philippine Plate, subduction, 870685
 Philippine Sea
 Mariana Islands, 600432
 mud, vitric, 600473
 sedimentary structure, 310487
 Shikoku Basin, 600415
 West Mariana Basin, 600429
 Philippines, genesis, 310874
 physical properties, 061218, 061219,
 061221, 061243, 061246, 870811
 alkaline elements, 061243
 bedding, graded, 061219
 bedding, horizontal, 061219
 biogenic components, 061221
 burrow mottling, 061219
 calcareous nannoplankton, 061218
 carbonate, 061167
 clay, 061135, 061138, 061218
 cross-bedding, 061219
 cyclic sedimentation, 061219
 feldspar, 061218
 glass, volcanic, 061218, 061219
 inosilicates, 061221
 manganese, 061243
 manganese oxide, 061243
 Mariana Trench, 061242
 mineralogy, 061219
 oxides, 061221
 palagonite, 061218, 061221
 Philippine Sea, 061221
 phosphate, 061221
 pumice, 061218, 061221
 rock fragments, 061221
 sand, 061218
 sedimentation rate, 061218
 siliceous microfossils, 061218
 silt, 061218
 sorting, 061218
 sound velocity, 061248
 tectosilicates, 061221
 thermal conductivity, 061250
 titanium, 061243
 titanium oxide, 061243
 Pigmy Basin
 lithology, 960570
 tephrochronology, 960685
 Pinos Altos, correlation, 670493
 plagioclase, 320545, 38S0102, 38S0106,
 561029
 feldspar, 050531
 Planolites, 870709
 Pleistocene, 160615
 Pleistocene tephrochronology, 960686
 age, 960685
 chemistry, 960685
 correlation, 960685
 Mexico, Gulf of, 960685
 Pigmy Basin, 960685
 tephrochronology, 960686
 Pliocene, 490437
 stratigraphy, 800845
 Pliocene-Miocene sediment, 870670
 Pliocene-Pleistocene sediments, pyroclastic
 input, 810664
 porcellanite
 chert, 320444
 formation, 320444
 Porcupine Plain, 801197
 pore water, 680471
 potassium-argon age, Walvis Ridge, 390530,
 390534
 previous work, introduction, Neogene, 840939
 pumice, 320545, 600474, 870681
 source, 850821
 pyroxene, 38S0102, 38S0106

- pyroxene (Cont.)
 Walvis Ridge, 390526
 quartz, $^{16}\text{O}/^{18}\text{O}$ ratio, 350495
 Quaternary, 870707
 Middle America Trench, 670493
 Quaternary frequency, 870710
 rare earth elements, 590653, 590667
 trace elements, 590664, 590666
 tuff, 590655, 590656, 590657, 590659, 590661
 Rb, 870684
 red beds
 sediment history, 38S0285
 sedimentary structure, 38S0261, 38S0263
 turbidites, 38S0271
 Red Sea, sediment history, 230853, 230854
 redeposition, 561029
 bottom current, 561029
 transport, eolian, 561029
 refractive index, 600474
 refractive indices, 600473
 basalt, 600474
 glass, 600473
 refractive index, 600474
 rhyolite, 600474
 SiO_2 , 600474
 volcanic components, 600474
 regional problems, crust, 061301
 rhyolite, 600474
 Eocene, 930977
 Rio Grande Rise
 Eocene sedimentation, 721007
 limestone, flaser, 721007
 Mesozoic, 721015
 mineralogy, 721016
 sedimentation, 721017
 subsidence, 720966, 720974
 Rockall Plateau, volcanogenic sediments, 480780
 Rockall Rise, 800849
 sand, Pacific Ocean NW, 310511
 sandstone, source, 840932, 840934
 sandstone, foraminiferal, phillipsite, 42A0478
 sapropel
 Cretaceous, 620895, 620897
 Mediterranean Sea E, 42A0433
 seamount, Walvis Ridge, 390525, 390530, 390534
 sediment, lithology, 38S0114, 38S0117
 sediment chemistry, lower part, 350431
 sediment composition
 sand, 960479
 silt, 960479
 sediment density, 870710
 sediment geochemistry
 ooze, siliceous calcareous, 550457
 sediments, 670605
 sediment mineralogy, sediments, 670605
 sedimentary environment, 561028
 sedimentary structure, clay, 220739
 sedimentation, 561029
 bottom current, 561029
 transport, eolian, 561029
 sedimentation rate, 870710
 sedimentology, 340783
 organogenic pelagic sediments, 100699
 volcanic sediments, 020415
 volcanism, 340793
 sediments, 860657
 Barbados, 780618
 Kings Trough, 941251, 941258
 seismic reflections, porous zones, 660553
 Sele Formation, 800849
 shale, black, Cretaceous, 410866
 Shikoku Island, geochemistry, 870685
 silica, 200342
 devitrification, 200342
 silicate, unstable assemblages, 010543
 SiO_2 , 810666
 smectite, 320545
 source, 050531
 dacite, 050531
 magma, andesitic, 050531
 source area, 870710
 southwest regional unconformities
 Pleistocene increase, 210905
 showers, 210904
 stratigraphic significance, 800845
 stratigraphy, 800845, 800846
 Mariana Trough, 600469
 paleontology, 800847
 petrology, 800845
 Pliocene rocks, 630910
 regional correlation, 800847, 800848, 800849
 unconformities, 800846
 subaerial event, 870707
 submarine, 870707
 tantalum, 870684
 tectonic history, age, 840956
 tephra, 660692, 901162
 Cenozoic, 901170
 dispersion, 870709
 distribution, 901163
 petrography, 901163
 source, 901148, 901149, 901169
 transport, 870707
 tephrochronology, 870707
 terbium, 870684
 terrigenous components, 810870
 Tertiary
 Eocene, 801179
 Paleocene, 801177
 texture, 150993
 Th/Rb ratio, 870684
 Th/Ta ratio, 870684
 Th/U ratio, 870684
 tholeiite, 050531, 050532
 age, 050531
 glass, 050531
 thorium, 870684
 Timor Trough, 271010, 271011
 dacitic to rhyodacitic composition, 271011
 glass, 271011
 hornblende, 271011
 hypersthene, 271011
 mineral, opaque, 271011
 ooze interbeds, 271011
 plagioclase, 271011
 quartz, 271011
 Tohoku Arc
 geology, 870716
 tectonic evolution, 870684
 uplifting, 870685
 volcanism, 870703
 Towada, tephra, 870707
 transition element content, 870684
 transport, 38S0105
 deposition, 38S0105
 tuff, Neogene, 630652
 tuff, palagonitic, alteration, 020418
 turbidite, mineral composition, 670537
 turbidites
 Guatemala, 840925
 laminite, 250444
 turbidity current, 870709
 upper slope, other organic elements, 800733
 uranium, 870684
 Valencia Trough, 130767, 130769, 130770, 130773
 ankerite, 130769
 dolomite, 130769
 layering, 130769
 micropegmatite, 130770
 montmorillonite, 130769
 opal, 130769
 plagioclase, 130769
 sanidine, 130769
 silicon dioxide, 130769
 trace elements, 130772
 tuff, 130768
 vein, ore deposit, 870685
 volcanic activity product, 870707
 volcanic components, glass, 210481, 210483
 volcanic deposit, carbonate, 901181
 volcanic fan shard concentration, 870710
 volcanic sediment, 600455
 petrography, 901176
 volcanic, tectonic evolution, 600473
 volcanoclastics, 550504
 Eocene, 720957, 720959
 volcanism, 050531, 050532, 320546, 561027, 561028
 age, 050531, 050532
 biotite, 050531
 Caribbean Sea, 150971
 clay, 050531, 870638
 glass, 050531
 glass, volcanic, 561028
 hornblende, 050531
 mineral evolution, 600450
 Neogene, 47A0707
 phillipsite, 050531
 pumice, 561028
 tuff, 561028
 volcanism, acidic
 Miocene, 870684
 Pliocene, 870685
 volcanism, andesitic, Miocene, 870685
 volcanism, bimodal, 870684
 volcanism, explosive, 561031, 870684, 870707
 Central America, 670484, 670486, 670487
 distribution, 561031, 561034
 global debate, 870707, 870708, 870709
 Neogene, 870716
 volcanism, midplate, 870707
 volcanogenic sediment, 870681, 870707
 maxima, 870681
 Walvis Ridge, 390525
 chemistry, 390526
 mineralogy, 390528, 390530, 390534
 petrography, 390526
 petrology, 390525, 390526
 potassium-argon age, 390530, 390534
 radiometric age, 390530, 390534
 Wharton Basin, 220822
 wind system, global, 870707
 zeolite, 020417
 Zoophycos, 870709
 ash, acidic vitric, Japan Trench, sediments, 271219, 571213
 ash, altered
 ash, 020417
 Caribbean Sea, sediments, 150934
 clay, authigenic, 600470
 clay minerals, mineralogy, 140730
 geochemistry, Guaymas Basin, 640708
 lithologies, minor, pale green laminae, 901484
 lithology, 170106, 320197
 analcime, 170106
 bedding, graded, 170106
 burrow mottling, 170106
 chlorite, 170106
 clay, volcanic, 170106
 currents, 170106
 glass, 170106

- lithology (Cont.)
hyaloclastite, altered, 170106
montmorillonite, 170106
sandstone, volcanic, 170106
siltstone, volcanic, 170106
slumping, 170106
zeolite, 170106
magnetostratigraphy, Lord Howe Rise C, 901281
mineralogy, Mariana Trench, 600443
pelagic components, distribution, terrigenous, hemihalmeic components, 250491
rare earth elements
trace elements, 590662
tuff, 590659
sediment properties, 901274
silica, mineralogy, 140730
specific biogenic traces, 901192
tuff, altered, 020417
ash, andesitic
Caribbean Sea, sediments, 150939
rare earth elements, tuff, 590659
ash, argillized, tephra, source, 901153
ash, dacitic, rare earth elements, trace elements, 590663
ash, devitrified
Africa E, continental rise, 250520
Indian Ocean NW, grain size, 250422
Lord Howe Rise, pale green laminae, 901156
Mascarene Basin, volcanic sediment, 250517
Natal Basin, volcanic sediment, 250526
volcanism, Madagascar Basin, 250539
ash, diatomaceous, lithology, 380177
ash fall, 780369
breccia, volcanic, Neogene, 630639
glass, basalt, 650477
hyaloclastite, ash, 650477
lithology, 310198, 430046
limestone, 120054
Lord Howe Rise, pale green laminae, 901146
Pacific Ocean C, Pliocene-Quaternary sediments, 540314
tuff, Neogene, 630639
volcanism, Neogene, 47A0703
ash, feldspar-rich, turbidites, sand, 300433
ash flow
tuff, 210525, 210530
Walvis Ridge, 390525, 390530
chemistry, 390526
mineralogy, 390526, 390527, 390528
petrography, 390526, 390530
potassium-argon age, 390530, 390534
trachyte, 390526, 390530, 390533
ash, glass
Indian Ocean W, terrigenous components, 240696
lithology, 190096, 190097, 190329, 190375, 190417
Pacific Ocean SW, island arcs, 300693
ash, glauconitic
clay, Eocene, 580686
Greenland Sea, Iceland Plateau, 38S0246
Norwegian Sea, Iceland Plateau, 38S0246
ash, hyaloclastic
Pacific Ocean W
volcanic components, 210491
volcanic rocks, 210491
volcanic components, morphology, 210491
ash, hyalopelitic
mineralogy, sediment history, 38S0120
sediment, lithology, 38S0120
ash, lithic
gas hydrate, 840950
Guatemala, trench, 670520
Japan Trench
sediments, 271214
silt, 561008
lithology, 380656
silt, light fraction, 561008
ash, nannofossil
Caroline Abyssal Plain, chalk, 200069
lithology, 210060, 310030
Pacific Ocean SW, unconformities, 280709
southwest regional unconformities, 210709
ash, plutonic, diagenesis, slope sediments, 840582
ash, pumice, regional problems, carbonate, 061302
ash, pyritic, lithology, 180033, 220016
ash, rhyolitic
composition, 930977
Costa Rica Rift, 690451
diagenesis, slope sediments, 840582
Galapagos Hydrothermal Mounds, 690451
basalt, 690453, 690456
rhyolite, 690451, 690452, 690453
geochemistry, Guaymas Basin, 640708
glass, basalt, 650479
hyaloclastite, basalt, 650479
Indian Ocean NE
Cretaceous, 220745
volcanic sediment, 220745
K/Ar age, 930977
lithology, San Blas Oceanic Formation, 090617
New Jersey Transect, Eocene, 930977
origin, 930977
palynological residue, gulf mouth, 640739
ash, sideromelane
glass, basalt, 650479
hyaloclastite, 650479
ash, siliceous
basalt, petrology, 580865
clay, Eocene, 580686
lithology, 380163
tephra, source, 901166
ash, subalkalic, Caribbean Sea, sediments, 150941
ash, trachytic, Hess Rise, pyrite-marcasite, 620861
ash, tuff
clay minerals, 38S0014, 38S0015
claystone, basalt, 550709
lithology, 38S0014, 38S0015
ash, vitric, 600473
ash, Philippine Sea S, 600473
basalt
geochemistry, 590781
pyroclastics, 260554, 260555, 260557, 260558
breccia, volcanic, Neogene, 630644, 630645
clay, authigenic, Miocene, 600471
clay minerals
ash, 680388
distribution, 560985
diagenesis, mineral, 47A0746
glass, basalt, 650477
glass, volcanic, 560985
hyaloclastite, ash, 650477
hydrocarbon, C_1 - C_7 , volatile organic compounds, 571351
Indian Ocean S, geologic history, 260919
Japan Trench
clay minerals, 560985
sediments, 271228, 271229, 571251, 571255
lithology, 190281, 210059, 210060, 310280
volcanic components, 190171
organic geochemistry, 630837
Pacific Ocean W, volcanic components, 210491
pelagic components, distribution, terrigenous, hemihalmeic components, 250491
petrology, igneous rocks, 260554, 260555, 260557, 260558
Philippine Sea
Mariana Trough, 600431
West Mariana Ridge, 600430
pyroclastics, petrography, 260554, 260555, 260557, 260558
tuff, Neogene, 630644, 630645
ash, zeolitic
lithology, 310029
minor sediment types, 47A0026
sediments, Kings Trough, 941251
Ashburton River, 270572
Ashdod
clastics, 42B1202, 42B1203
Mediterranean Sea E, history, 42B1203
Ashizuri Canyon, 870052, 870612, 870621
grain size, sediments, 870621
physiography, 870612
Ashizuri Peninsula
offshore, 870942
imbricate thrust zone, 870942
prototrust zone, 870942
seaward imbricate block, 870942
Ashmore Reef, 270380, 271051
tectonics, geological and geophysical data, 271051
Timor, 271051
see also Indian Ocean E
Ashmore-I, Australia W, continental margin, 270581
Ashqelon Member, 42B1201
Mediterranean Sea E, history, 42B1201, 42B1202
Asia, 130669, 190902, 560482, 580675, 580843, 580953, 580972, 580994, 580996, 590601, 590602, 720589, 760142, 760870, 860066, 860175, 860473, 860577, 860596, 860600, 860666, 860853, 930784
attapulgitic, source, 580669, 580673, 580676
clastic wedge source, 580996
clay minerals, 580992
continental margin, 580883
eolian debris source, 860666
eolian sediment source, 860596
eolian sediments, aridity, global, 860600
island arc, 200003, 200006, 200733, 200736
lithology, 310411
Messinian environments, pre-evaporitic setting, 42A1004
Pacific Ocean EC, geologic history, 090924
Pacific Ocean N, plate movement, 190902
Paleogene-Neogene, continental, 310849
Philippine Sea, Paleogene-Neogene, 310849
Pleistocene, Pliocene foraminifers, 310695
quartz, source, 860583
Ryukyu Islands, arc, 590803
Tethys, Mediterranean Sea, 42A0945
vermiculite, source, 580669, 580673, 580676
Asia E, 130973, 580673, 580674, 580992, 860576
clay, source, 860576
Philippine Sea, Paleogene-Neogene, 310841
Asia Minor, 270984, 42A0393, 42B1043
environment, clay minerals, 42A0461
sapropel, sedimentology, 42A0461
Asia SE, 42B1046, 870636, 090924, 130797, 220407, 220503, 260947, 270984, 280831, 280832, 38S0306, 42B0499
deposition, depositional paleoenvironment, 250497
Gondwana, dispersal, 260947
Pacific Coast, 130950
plate movement, 42A1004
sediment source, 560991, 560993
southern margin, 220403, 220411

- southwest, mountains, 130973
 Asian Plate. *See* Eurasian Plate
 Askouti Section, Morocco, 790923, 790924, 790925, 790928, 790929, 790930, 790931
 Cretaceous onshore sediment, 790923
 Morocco, 790925
 Asmara, Red Sea, geology, 230815
 Aso Volcano, 870624
 dacite, conglomerate, 571286, 571287
 detrital modal analysis, turbidites, 870624
 rhyolite, conglomerate, 571286, 571287
 aspartic acid
 amino acid, 680479
 nonprotein, 680477
 racemization, 680475
 asphalt
 Gulf of Mexico, limestone, 770477
 tetrapyrrole, geochemistry, 630813
 asphaltene
 Balearic Plain, hydrocarbon, 130815
 bitumen, 571332
 geochemistry, 42B0684, 42B0691, 42B0693
 caprock, organic matter, 010468
 contact metamorphism, kerogen, 410821, 410822
 hydrocarbon, 220674
 kerogen, 220674
 sediments, 410845
 oil, organic matter, 010468
 organic geochemistry, 640819, 640827
 bitumen, 640820
 carbon isotope, 640821
 petroleum generating potential, organic matter, 571327
 preliminary organic analyses, 42B0727
 sediments, 410821
 organic extract, 410822
 tetrapyrrole, geochemistry, 630802, 630804, 630808, 630809, 630813
 Assam, 230490, 260816
 Asse clay, Belgium, 730630
 asteroid theory
 Cretaceous-Tertiary, 720949, 730755
 Cretaceous/Tertiary boundary, 720949
 Hess Rise, iridium, 620847
 mass extinctions, 621036
 asthenosphere
 Atlantic Ocean C, basin, 511501, 511505
 Atlantic Ocean NE, evolution, 411239
 basalt, Rb-Sr, 550695
 East Mariana Basin, sedimentary history, 890663
 influences, seismic horizons, 760906
 mantle, plume, 760906, 760925
 Pacific Ocean SW, island arcs, 300691, 300705
 Rio Grande Rise, subsidence, 720963
 Suiko Seamount, trace elements, 550568
 volcanic rocks, ages, 550659
 Astoria Canyon, 050536, 050539, 050582, 180097, 180103, 180965, 180980, 180106, 180108
 Indian Ocean W, mineralogy, 180108
 lithology, 180103
 Astoria Channel, 050582, 180097
 Astoria Fan, 050539, 180006, 180097, 180102, 180170, 180537, 180541, 180584, 180633, 180803, 180878, 180964, 180965, 180979, 180980, 180106, 180108
 accumulation rate, deposition, 960599
 distal edge, 180961
 Indian Ocean W, mineralogy, 180108
 lithology, 180102
 sand, mineral, heavy, 180878
 tectonic history, 180961
 Cascadia Basin, 180961
 Tufts Plain, geologic setting, 180980
 Astrup, Germany W, 081000, 091204, 160015
 Asturia
 margin, 120674
 slope, 120673
 Asturias Basin, 47B0525
 Aswan, 131242
 Atair Island, 230853
 Atbara River, 130735
 Atchafalaya River, 100742
 Mexico, Gulf of, regional aspects, 100742
 Athalassa Formation, 42B1186
 Neogene formations, paleogeography, 42A0908, 42A0917
 ation, low-temperature, 411113
 Atitlan Lake, 670483, 670487
 caldera, 680403, 960685
 Pigmy Basin, tephrochronology, 960685
 Atka Basin, 190008, 190217, 190279, 190569, 190570, 190799, 190808, 190812, 190859, 190903, 190906
 anticlinal structure, 190570
 faulting, 190571
 Pacific Ocean N, Aleutian Ridge, 190906
 reflection profiles, 190570
 seismic reflection, 190570
 topography, 190570
 Atka Island, 190218
 Atlantic City, 930422, 930525, 930539, 930661, 930699, 930801, 931343, 931393, 950015, 950253, 950661
 continental rise, 930789
 continental rise, uppermost, 931057
 Atlantic coastal plain, 110352, 181019, 230608, 360873, 770691, 790894, 790923, 930958, 931363, 950050, 950052, 950488, 950726, 950763, 950766
 biostratigraphy, 440941, 440942, 440944
 continental shelf, 930944, 930945
 Europe W, 130950
 limestone, shallow water, 440413
 lithostratigraphy, 440941, 440942, 440944
 New Jersey Transect, stratigraphy, 950766
 United States NW, 430587, 440413
 Atlantic continental margin, 440941, 440977, 47B0533, 481042, 710118, 710317, 750478, 750845, 760367, 760783, 760861, 760868, 760878, 760891, 770383, 790875, 790924, 800415, 800421, 800863, 801145, 801213, 820549, 931061, 931343, 931417, 950339, 950496, 950535, 950560
 Albian sediment
 geochemistry, 480872, 480873
 mineralogy, 480872, 480873
 Atlantic Ocean N
 lipid, 500659, 500660, 500661
 Mediterranean Sea, 110815
 Atlantic Ocean NE, evolution, 411233, 411241
 basalt, compressional wave velocities, 140773, 140774
 basins, 760146, 790857
 biostratigraphy, 440941, 440945
 uplifting, 440945
 Blake Spur, north rim, 440070
 Blake Spur S, 440337
 Canada, 38S0779, 38S0781, 410495
 carbonate
 diagenesis, 100791
 trace elements, 440557
 carbonate platform, 790439, 790888
 continental rise, 931368
 deposition, models, 750838
 erosion, 950560
 bottom current, 950562, 950564
 Oligocene, 790265
 sea level, 950560, 950563
 evolution, 950560, 950562
 circulation, oceanic, 950562
 Cretaceous, 950562
 glaciation, 950562, 950563, 950564
 subsidence, 950562, 950564
 Galicia Bank, tectonics, 47B0667
 gas, C₁/C₂ ratio, 960782
 geochemical analysis, 440625
 Gondwana, dispersal, 260947
 interstitial water, 100795
 gas, natural, 100795
 interstitial water chemistry, 010411, 020373, 040415, 040421, 050513, 050516, 050522, 070883, 080853, 090841, 100613, 100997, 101004, 101009, 111009, 130809, 140763, 140765, 160573, 160891, 170515, 200427, 230953
 alkalinity, 100997, 111011, 140763
 ammonia, 100613, 101011, 111009, 130810, 140763, 160573, 160891, 170515, 230953
 amorphous silica, 140765, 170515
 anhydrite, 130809
 ash, 160573
 authigenic materials, 111009
 B, 160891, 170515
 barium, 101004
 basalt, 170515
 bicarbonate, dissolved, 160573
 boron, 040427, 070884, 080855, 090841, 100613, 111009, 130809, 140765, 160573
 bromide, 040419, 050521, 070884, 080855, 090843, 100613, 101009, 111009, 130809, 140763, 160573, 230953
 bromine, 160891, 170515, 230953
¹²C/¹³C ratio, 080855, 090843
¹³C, 080855, 090843, 111011, 140765, 160573
 CaCO₃, 111011, 170515
 calcareous fossils, 170515
 calcite, 140765
 calcium, 010413, 040421, 050521, 100997, 111011, 140763
 calcium carbonate, 101006, 140763
 carbon, 160891, 170515
 carbon dioxide, 050513, 050521, 070884, 080853, 080855, 090843, 101011, 140763, 140765
 carbon dioxide, biogenic, 140765
 carbon dioxide, dissolved, 050521
 carbon isotope, 111009, 140763, 170515
 carbon isotope ratio, 100613
 carbonate, 050521, 090843, 100613, 130810, 140765
 carbonate, authigenic, 140763
 carbonate carbon, 080855
 carbonate, dissolved, 070884, 080855, 100613, 111011, 160573
 cation, 080853
 Cd, 230953
 chemical gradients, 101008
 chert, 170515
 chloride, 040419, 050521, 070884, 080855, 090843, 100613, 101005, 101009, 111009, 130809, 140763, 160573, 230953
 chloride/bromide ratio, 010411
 chlorine, 100613, 160891, 170515, 230953
 chlorine/bromine ratio, 140763, 170515
 clay, 090843
 clay, radiolarian, 170515
 clay, zeolitic, 170515
 clay-rich sediments, 100613
 CO₂, 100613, 111009, 160573, 170515
 cobalt, 050516, 070883, 070884, 080853, 090841
 copper, 040427, 050516, 070883, 070884, 080853, 090841, 230953

- interstitial water chemistry (Cont.)
 cored sediment lithology, 170515
 diagenesis, 090843
 diagenetic change, 050521
 distribution, 040421
 dolomite, 101005, 111011, 140765
 Eh, 080853
 Eh values, 050521
 elements, 050515
 ethane, 101011
 evaporites, 090843, 140763, 160573
 extrusive, 160573
 Fe-Mn oxide, 160573
 FeS₂, 090841
 gas, 101011, 111009
 gas, dissolved, 111011
 glass, volcanic, 070883
 gypsum, 130809
 halite, 010411
 iron, 040427, 050516, 070883, 070884, 080853, 090841, 230953
 Li, 100613, 160891, 230953
 Li/chlorine ratio, 100613
 lithium, 040425, 050521, 101012, 111012, 130809, 140765, 160573, 230953
 magnesium, 010413, 040421, 050521, 100997, 101005, 111011, 140765
 major cation concentrations, 090841, 100613, 111009, 160573
 major cations, 170515
 major element, 101004
 manganese, 010413, 040427, 050513, 050516, 070884, 080853, 100613, 101012, 111009, 130810, 140765, 170515, 230953
 manganese crust, 090841
 marl, 160573
 methane, 140765, 160573
 minor element, 101004, 101007, 140763
 Mn-Fe oxide, 090841
 montmorillonite, 101004
 NaCl, 230953
 NH₃, 100613, 111011, 160573, 170515
 nickel, 040427, 050516, 070883, 070884, 080853, 090841, 230953
 nitrogen, 160891
 ooze, biogenic, 080853, 090841
 ooze, carbonate, 100613
 ooze, chalk, 160573
 ooze, radiolarian, 080853
 ooze, siliceous, 140763
 oxidation, 160573
 oxygen, 101011
 pelagic sediments, 170515
 pH, 050516, 080853, 101011, 111009
 phosphate, 050516
 pore water, 111009
 potassium, 010413, 050521, 101004, 140765
 present-day sea water values, 140763
 pyrite, 040420, 111009, 160573
 reducing sediments, 140765
 salinity, 140763, 160573
 salt, 100613
 seawater, 090843, 100613
 seawater concentrations, 111009
 seawater ratio, 100613
 sediment-water interface, 160573
 sedimentation rate, 040420
 sediments, 080853, 090841
 siderite, 111009
 silica, 040427, 100613, 101007, 111009, 160573, 160891, 170515
 silica, dissolved, 170515
 silicate, 140765
 siliceous microfossils, 160573
 silicon, 050516, 101011, 111011, 130809, 140765
 sodium, 010413, 040420, 100613, 101004
 strontium, 010413, 040425
 sulfate, 040419, 050521, 100997, 111009
 trace elements, 050516, 140763
 transition metals, 040427
 turbidite, 170515
 variability, 130809
 volcanic debris, 170515
 water requirement, 050516
 zinc, 010413, 040427, 050513, 050516, 230953
 Jurassic basin, 760233
 Jurassic sedimentation, 760861, 760868
 Africa NE, 760865
 North America E, 760861, 760864, 760865
 lithostratigraphy, 440941, 440945
 uplifting, 440945
 lower continental rise
 carbonate, 100791
 sediments, 100791, 100792
 lower continental rise hills, 440023, 440513, 440657
 methanogenesis, sediments, 640762
 mineralogy, 010354, 010355, 050441, 050442, 050443, 050444, 070913, 070914, 070915, 080901, 080902, 080903, 080907, 080908, 080909, 090707, 090743, 090752, 090759, 090764, 090773, 100337, 100729, 100772, 100773, 100786, 110729, 110755, 110757, 110760, 110764, 110771, 110772, 110773, 110783, 110784, 110786, 121127, 121130, 121131, 121132, 121134, 121136, 121137, 121141
 amorphous content, 050442
 amorphous iron, 090752
 amorphous manganese oxide, 090752, 090773
 amorphous material, 050443
 amorphous opal, 070914
 amorphous scattering, 090773, 100337
 amorphous silica, 121141
 amphiboles, 100763, 110763, 110772, 121127, 121130, 121131
 analcite, 121130
 anatase, 121132
 ankerite, 100783, 110783
 apatite, 090707, 100337, 110783, 121132
 aragonite, 100753, 100758, 100773, 110758, 110772, 110773, 121134
 augite, 121130, 121131, 121132, 121141
 authigenic minerals, 090773, 100337
 barite, 050442, 070914, 070915, 080902, 080903, 080907, 080909, 090743, 090752, 090759, 090764, 090773, 100337, 100755, 100773, 110757, 110773, 110786, 121132
 barium, 050442, 080909
 basalt, 100755
 basanite, 100786, 110783
 CaCO₃-free residues, 100337
 calcite, 050442, 050443, 070913, 070914, 080902, 090707, 090759, 090764, 100783, 110755, 110759, 110763, 110771, 110772, 110783, 121127, 121128, 121130, 121131, 121132, 121134, 121136
 calcite, magnesium, 100773, 100785, 110773, 110786
 calcium carbonate, 090752, 110769, 110773, 110783
 carbonaceous matter, 110759
 carbonized plant debris, 110757
 celestite, 121132, 121137
 chert, 050441, 080902, 100754, 100773, 110772, 110773
 chlorite, 050441, 050442, 050443, 080903, 090743, 090764, 100754, 100772, 100783, 110755, 110760, 110763, 110764, 110769, 110771, 110772, 110783, 110784, 121127, 121130, 121131, 121132, 121134, 121136, 121137
 chlorite-mica, 110784
 clathrate, 110783
 clay minerals, 121141
 clinoptilolite, 010354, 050442, 050443, 070913, 070914, 070915, 080902, 080907, 080909, 090707, 090752, 090759, 090764, 090773, 100337, 100753, 100772, 100773, 100784, 110755, 110759, 110763, 110764, 110769, 110771, 110772, 110773, 110784, 121127, 121130, 121132, 121134, 121136
 continental sediments, 050442
 copper, 100786
 copper, native, 110786
 corrensite, 010354
 cristobalite, 010354, 070913, 080903, 090743, 090752, 100073, 100337, 100754, 110755, 110772, 110773, 110784, 110786, 121132, 121136
 diatomite, 010354, 010355
 diffuse scattering, 010354, 100337
 dolomite, 050442, 090752, 090764, 090773, 100337, 100753, 100773, 100784, 110755, 110758, 110759, 110760, 110763, 110773, 110783, 110784, 121127, 121130, 121134, 121137
 erionite, 100337
 factors, 010354
 feldspar, 050442, 100755, 100784, 110783, 110784
 feldspar, potassium, 110784
 gas, 100783
 glaciation, 121137
 glass, 121137
 glass, volcanic, 070915, 080909, 121130
 glauconite, 121127
 goethite, 080907, 080908, 080909, 090743, 090773, 100337, 100784, 110784
 groutite, 100786, 110784
 gypsum, 010354, 121132
 halite, 010354, 121132
 hematite, 100337, 100771, 110755, 110771, 121130
 iron, 080909
 iron oxide, 050443, 080907, 080909, 090743
 iron-manganese, 080908
 iron-manganese oxide, 080909
 K-feldspar, 050441, 070914, 080902, 080903, 090743, 090752, 090759, 090764, 100759, 110757, 110759, 110760, 110769, 110771, 121127, 121131, 121132, 121141
 kaolin, 010355
 kaolinite, 050441, 050442, 050443, 070913, 070914, 080902, 080903, 080907, 080908, 090743, 090752, 090759, 090764, 090773, 100753, 110755, 110757, 110759, 110760, 110763, 110764, 110769, 110771, 110772, 110783, 110784, 121127, 121128, 121130, 121131, 121132, 121134, 121136, 121137, 121142
 lithogenous minerals, 110753, 110754, 110755
 magnesite, 110773
 magnetite, 090752, 121132
 manganese, 090759, 090764
 manganese oxide, 050443, 080909
 manganese oxide, dendritic, 100773, 110773
 manganosiderite, 100783, 110783, 110784, 110786
 melanterite, 100783, 110783
 mica, 010354, 050441, 050442, 050443, 070913, 070914, 080902, 080903, 080907, 080908, 090707, 090743, 090752, 090764, 100753, 110755, 110757, 110758, 110760, 110763, 110764, 110769, 110771, 110772,

- mineralogy (Cont.)
 110783, 110784, 121127, 121128, 121130,
 121131, 121132, 121134, 121136, 121137,
 121141, 121142
 microcline, 010355, 110784
 mineral analysis, 100337
 mineral concentrations, 110786
 mineral trends, 100763
 mineralogical changes, 121137
 minerals, 100729
 minerals, unusual, 110786, 110789
 montmorillonite, 010354, 010355, 050441,
 050442, 050443, 070913, 070914, 070915,
 080902, 080903, 080907, 080908, 090707,
 090743, 090752, 090759, 090764, 090773,
 100337, 100729, 100753, 100773, 110755,
 110759, 110760, 110763, 110764, 110769,
 110771, 110772, 110773, 110784, 121127,
 121128, 121130, 121131, 121134, 121136
 montmorillonite/mica ratio, 121130
 opaline, 070914
 opaline silica, 080909
 origins, 070914
 oxyhornblende, 090773
 palagonite, 090773, 110784
 palygorskite, 070914, 070915, 100754,
 100772, 100773, 110755, 110757, 110763,
 110772, 110773, 121136
 phillipsite, 010354, 010355, 050442,
 050443, 070915, 080902, 080903, 080907,
 080909, 090707, 090752, 100337, 110784,
 121132
 phosphorite, 121132
 plagioclase, 010354, 050441, 050442,
 050443, 070913, 070914, 070915, 080902,
 080903, 090743, 090752, 090759, 090764,
 090773, 100755, 110755, 110763, 110769,
 110771, 110772, 110784, 121127, 121128,
 121130, 121131, 121132, 121134, 121136,
 121137, 121142
 pumice, 050443, 090773
 pyrite, 050441, 050442, 070913, 070914,
 090773, 100337, 100757, 100783, 110755,
 110757, 110758, 110759, 110760, 110763,
 110764, 110769, 110772, 110783, 110784,
 121130, 121132
 quartz, 050441, 050442, 050443, 070913,
 070914, 070915, 080902, 080903, 090707,
 090743, 090752, 090759, 090764, 090773,
 100753, 100773, 100784, 110755, 110757,
 110758, 110760, 110763, 110764, 110769,
 110771, 110772, 110773, 110783, 110784,
 121127, 121128, 121130, 121131, 121132,
 121134, 121136, 121137, 121141, 121142
 quartz, authigenic, 110773
 rectorite, 010354
 rhodochrosite, 010355, 100337, 100783,
 110764, 110783, 110784
 rock fragments, 121130
 sandstone, volcanic, 121130
 sanidine, 090773, 100786, 110784
 sepiolite, 100773, 100784, 110773
 siderite, 070914, 090743, 090759, 090764,
 100337, 100758, 100773, 110758, 110759,
 110763, 110764, 110773, 110783, 110784,
 110786
 sphalerite, 100784, 110764, 110784
 todorokite, 110784
 turbidite, 050441, 050442, 050443,
 121130, 121136, 121137
 vitroclastic material, 090773
 window, 010354
 zeolite, 070913, 110764, 110784
 Moroccan Basin, margin, 500811
 New Jersey Transect, 950811
 North America E, 411178
 Pacific continental margin, geomorphology,
 350279
 sedimentary environments, 440977
 sedimentation, subsidence, 47B0667
 sediments, 100791
 gas, natural, 100791, 100792
 United States, 770404, 800161, 950757
 deposition, 950706
 United States NW, 350279
 Atlantic continental margin NE, Goban Spur,
 evolution, 801212, 801213
 Atlantic continental margin NW, 770005
 evolution, Mesozoic, 440949, 440951,
 440953, 440954, 440955, 440956, 440957,
 440958, 440960
 evolution, Mesozoic, 440949
 Tethys N, margin, 440949, 440951, 440953,
 440957
 Atlantic Deep Water, 750296, 780505, 901422,
 950267
 Atlantic Ocean, circulation, 720977
 basalt, alteration, 450610
 Challenger Plateau, Quaternary, 901422
 Atlantic Deep Water NW
 dissolution
 Miocene, 930511
 Miocene microfacies, 930511
 Atlantic Formation, 760834
 Atlantic Fracture Zone, 140135, 370331,
 780099, 820460, 820525
 magnetic anomaly, 370331
 Atlantic Ocean, 040659, 040677, 040687,
 110504, 160575, 370341, 370363, 370367,
 370531, 370883, 390423, 450023, 450030,
 450032, 450507, 540138, 540251, 540307,
 540323, 540455, 540514, 540545, 540549,
 540575, 540596, 540659, 540686, 540689,
 540729, 540773, 540874, 540881, 540883,
 550350, 550585, 550586, 550587, 580044,
 580765, 580849, 580864, 580892, 590601,
 590602, 600924, 610005, 610020, 610074,
 610528, 610560, 610680, 610835, 610861,
 620005, 620065, 620330, 620344, 620471,
 620472, 620481, 620484, 620522, 620617,
 620675, 620677, 620878, 620889, 620891,
 620956, 621005, 621044, 621090, 640665,
 640865, 641089, 641263, 650418, 650530,
 650534, 650575, 650579, 650580, 650581,
 650628, 650630, 650648, 650661, 650664,
 650711, 650750, 670320, 670428, 680163,
 680269, 680275, 680327, 680353, 680357,
 680392, 680394, 680445, 680446, 680447,
 680450, 680455, 680460, 680461, 680462,
 690245, 690376, 690403, 690770, 700433,
 700472, 700474, 710289, 710307, 710319,
 710356, 710357, 710397, 710437, 710455,
 710640, 710759, 710802, 710977, 711028,
 711143, 720022, 720025, 720027, 720029,
 720030, 720074, 720155, 720340, 720387,
 720399, 720404, 720405, 720408, 720412,
 720413, 720422, 720425, 720430, 720447,
 720589, 720726, 720762, 720805, 720810,
 720835, 720857, 720873, 720878, 720897,
 720905, 720912, 720913, 720929, 720981,
 720983, 720985, 720987, 720988, 720989,
 720990, 720991, 721006, 730147, 730427,
 730442, 730459, 730489, 730528, 730537,
 730628, 730722, 730723, 730734, 730744,
 730772, 730780, 730782, 730784, 740019,
 740247, 740613, 740654, 740658, 740690,
 740713, 740725, 740888, 750035, 750036,
 750306, 750454, 750456, 750461, 750510,
 750511, 750519, 750520, 750593, 750651,
 750653, 750755, 750809, 750814, 750819,
 750820, 750823, 750826, 750827, 750828,
 750830, 750834, 750835, 750837, 750838,
 750840, 750853, 750903, 750973, 750977,
 751011, 751031, 751091, 760005, 760006,
 760007, 760012, 760014, 760142, 760144,
 760147, 760181, 760184, 760189, 760192,
 760368, 760403, 760417, 760442, 760481,
 760491, 760499, 760549, 760550, 760552,
 760565, 760569, 760571, 760581, 760596,
 760599, 760602, 760604, 760606, 760607,
 760624, 760626, 760628, 760632, 760633,
 760634, 760639, 760641, 760642, 760645,
 760646, 760654, 760665, 760667, 760669,
 760670, 760671, 760672, 760675, 760681,
 760682, 760691, 760693, 760699, 760705,
 760727, 760733, 760741, 760742, 760743,
 760763, 760766, 760775, 760776, 760777,
 760779, 760783, 760795, 760821, 760822,
 760823, 760824, 760825, 760826, 760827,
 760831, 760832, 760842, 760852, 760864,
 760870, 760871, 760877, 760885, 760887,
 760889, 760890, 760892, 760893, 760894,
 760919, 760931, 760935, 760941, 770044,
 770339, 770340, 770341, 770358, 770369,
 770382, 770383, 770388, 770391, 770392,
 770721, 770728, 770729, 770731, 780029,
 780037, 780079, 780099, 780316, 780318,
 780330, 780338, 780367, 780377, 780411,
 780463, 780464, 780506, 780516, 780575,
 780618, 780737, 790027, 790201, 790377,
 790551, 790557, 790585, 790702, 790775,
 790880, 790889, 790893, 790923, 790930,
 790931, 800040, 800481, 800489, 800498,
 800516, 800552, 800562, 800579, 800596,
 800614, 800616, 800773, 800786, 800808,
 800809, 800810, 800824, 800896, 800946,
 800962, 800980, 801003, 801009, 801011,
 801026, 801055, 801106, 801107, 801161,
 801200, 801201, 801202, 810005, 810078,
 810097, 810435, 810439, 810440, 810442,
 810451, 810459, 810479, 810484, 810517,
 810523, 810549, 810613, 810671, 810683,
 810691, 810696, 810776, 810779, 810858,
 810903, 820010, 820013, 820285, 820296,
 820351, 820359, 820431, 820497, 820498,
 820499, 820500, 820510, 820514, 820553,
 820582, 820583, 820611, 820612, 820614,
 820621, 820624, 840423, 840798, 840805,
 850408, 850414, 850473, 850477, 850555,
 850655, 850656, 850771, 850775, 850849,
 850947, 850967, 860349, 860379, 860514,
 860541, 870707, 890030, 890097, 890098,
 890159, 890162, 890314, 890664, 900891,
 900926, 900977, 901079, 901402, 901462,
 901507, 901508, 901512, 910271, 910489,
 930027, 930030, 930064, 930069, 930091,
 930487, 930529, 930839, 930881, 931032,
 931107, 931108, 931112, 931116, 931120,
 931128, 931129, 931131, 931157, 931245,
 931389, 950191, 950272, 950277, 950402,
 950441, 950511, 950562, 950564, 950570,
 950757, 960644
 abyssal plain, 760742, 780008, 780046,
 780132, 780228, 780316, 780317, 780366,
 780401, 780471
 deformation, 780491
 fracture zone, 780039
 Pleistocene foraminiferal assemblage,
 780488
 South America, 780304
 Africa NW, Paleocene sediments, 770358
 age, 511525, 540887
 age of sediments, 540887
 alteration
 basalt, 370563
 mineralogy, 540776
 petrology, 370811
 serpentine, 370563

- alteration (Cont.)
 temperature, 920499
 alteration, low-temperature, basalt, 370775
 andesite, rift zone, 790523
 Angola Basin, 751051
 carbon, organic, 750819
 Cretaceous, 751009
 Cretaceous sediments, 750990 anoxia,
 organic richness, 801011 Antarctic
 Bottom Water, 901057 Arctic Ocean,
 050572 ash, volcanism, explosive, 870707
 authigenic minerals, Miocene, 710361
 Azores, mantle, 370591 Bahama Islands,
 geology, 110878, 110882, 110893
 Barbados Ridge
 basalt, 780401
 crust, oceanic, 780401
 basalt, 450493, 450507, 780401
 alteration, 370563
 alteration, low-temperature, 370775
³⁹Ar/⁴⁰Ar age, 370629
 California, Gulf of, 650580
 chemical stratigraphy, 450507
 chemistry, secondary phases, 370825
 crust, oceanic, 780401
 depleted, 820499
 distribution, 370825
 extent domain, 820499
 geochemistry, 590768
 heterogeneity, 370563
 K/Ar age, 370629
 liquid variation, 650556
 magnetic domain state, 370515
 magnetic field intensity, 370457
 magnetic mineralogy, 370507
 magnetic properties, 370457
 magnetic viscosity, 370503
 mineral, magnetic, 370507
 mineralogy, 370507, 370825
 oxygen isotope, 370607
 paleomagnetic field intensity, 370457
 paleomagnetism, 370425
 petrochemistry, 370681, 370981
 petrology, 370711, 580849, 580864,
 590675, 590678
 physical properties, 370395
 rare earth elements, 370599
 secondary phases, 370825
 smectite, 370825
 spinel, 370883
 Sr isotope, 370599, 370607
 strontium isotope, 370607
 sulfur, 370561
 thorium, 370607
 trace elements, 370563, 450493
 uranium, 370607
 basalt, altered, 370821
 major element, 580882, 580889, 580892
 trace elements, 580882, 580889, 580892
 zeolite, 370795
 basalt, magnetic, mineralogy, 370507
 basement, 650006, 650556, 780023
 geochemistry, 370695
 magnetic properties, 370446
 magnetism, 370489
 mineralogy, 370857
 mineralogy, opaque, 370857
 opaque mineralogy, 370857
 paleomagnetism, 370425
 petrology, 370695
 seismic velocity, 370373
 bathymetry, 450024
 Beata Ridge, Cretaceous-Cenozoic, 040668
 Belem Ridge, axis, 040661
 biostratigraphy, 440944
 Messinian salinity crisis, 42A1139
 shelf, 440944
 biostratigraphy, Miocene, 950935
 Biscay, Bay of N, continental margin,
 481025, 481042
 Blake Basin, 440395, 440398
 basement, 440395
 basement, volcanic, 440395
 basin margin, 440395
 Bermuda Rise, 440153, 440200
 Central Basin, 440395
 fracture zone, 440395
 margin, 440191
 Blake Ridge, 840699
 Blake Spur, north rim, 440069, 440085
 bottom water, 730702, 730720, 730742,
 730746, 770044, 850771, 930473, 931414
 boundary current, 590601
 Brazil Basin, geochemistry, 720422
 calcareous nannoplankton, 440742, 440744
 bottom water, 440744
 calciturbidities, Tithonian, 500747, 500748
 calcium carbonate compensation depth,
 history, 040659
 California, Gulf of, basalt, 650534,
 650661, 650664
 Campanian, 721017
 Canada, shelf, 410495
 Cape Basin, shale, black, 711030
 carbon, 040307, 370637
 carbon isotope
 bottom water, 850771
¹³C, 901401
¹⁸O, 720413
 Pacific Ocean, 850771
 Paleocene temperatures, 430697
 stratigraphy, 680455
 carbon, organic, geochemistry, 750828,
 750967
 carbonate, 040307, 370637
 diagenesis, 801055
 redeposited clastics, 760820
 Sr, 801055
 carbonate reef, 790868
 Caribbean Plate, 150218
 Cenozoic sediment
 carbonate compensation depth, 140881
 continental slope, 140881
 dolomite-pelite cycle, 140868, 140869,
 140870, 140871
 dolomite-sapropel cycle, 140883
 interbedding, 140883
 oxygen, 140881
 paleobathymetry, 140871
 paleogeography, 140871
 pelagic domain, 140881
 redeposition, 140881, 140883
 regional patterns, 140797
 ridge flank, 140881
 sedimentation rate, 140871
 stratigraphy, 140871
 temperature, 140881
 trough, 140881
 Cenozoic sediments, 140787, 140788, 140791,
 140792, 140793, 140794, 140795, 140827,
 140871, 140881, 450330
 Albian to Cenomanian, 140792
 Aptian to Albian, 140791
 ash, 140791
 basalt, 140795
 benthic foraminifers, 140794
 bottom current, 140794
 burrows, 140795
 calcarenite, foraminiferal, 140795
 calcareous sediments, 140834, 140838,
 140839, 140842, 140844, 140845
 calcisiltite, 140795
 calcisiltite, foraminiferal, 140795
 carbonate, 140795
 carbonate compensation depth, 140881
 Cenomanian, 140792
 Cenomanian to Senonian, 140792
 central pelagic zones, 450330
 chalk, 140791, 140794
 chert, 140791, 140793, 140846, 140848,
 140850, 140851, 140853
 clay, 140791, 140792, 140793, 140795,
 140827, 140828, 140831, 140832
 clay, dolomitic, 140792, 140793
 clay, zeolitic, 140793
 continental slope, 140881
 Cretaceous to Eocene, 140791
 diapir, 140794
 diatoms, 140792
 distribution, sediments, 140797, 140798,
 140799, 140800, 140806, 140807, 140809,
 140811, 140813, 140815, 140817, 140819,
 140822, 140824, 140825
 dolomite-pelite cycle, 140865, 140867,
 140868, 140869, 140870, 140871, 140883
 Eocene, 140793
 glauconite, 140795
 grading, 140795
 interbedding, 140795, 140883
 limestone, 140791
 lithostratigraphy, 140788
 Maestrichtian, 140793
 marl ooze, 140795
 Miocene, 140792, 140793, 140794, 140795
 Miocene to Quaternary, 140791
 Miocene to Recent, 140791
 mud, calcareous, 140795
 mud, carbonaceous, 140792
 mud, diatomaceous, 140792, 140793
 mud, nannofossil, 140795
 mud, siliceous, 140846
 mudstone, 140792
 Neogene, 140791, 140795
 Oligocene, 140794
 Oligocene to Aptian, 140795
 ooze, biogenic, 140795
 ooze, calcareous, 140791, 140794, 140795
 ooze, carbonate, 140793
 ooze, chalk, 140792
 ooze, nannofossil, 140791, 140792
 ooze, siliceous, 140846
 oxygen, 140881
 oxygenation, 140795
 paleobathymetry, 140871
 Paleocene, 140793
 paleogeography, 140871
 pelagic domain, 140881
 pelagic fossils, 140795
 phosphorite, 140795
 Pleistocene, 140795
 Pleistocene to Miocene, 140795
 Pliocene, 140792
 Pliocene to Pleistocene, 140794
 Pliocene to Recent, 140793
 pyrite, 140792
 Quaternary, 140795
 radiolarians, 140792, 140793
 redeposition, 140795, 140881, 140883
 regional patterns, 140796, 140797
 ridge flank, 140881
 sand, quartzose, 140792
 sand, subarkosic, 140793, 140794, 140795
 sand, terrigenous, 140795
 sedimentation rate, 140792, 140793,
 140794, 140795, 140871
 Senonian, 140791
 shale, black, 140791, 140793
 shelf sediments, 140795

- Cenozoic sediments (Cont.)
 siliceous microfossils, 140795
 slope sediments, 140795
 stratigraphy, 140871
 temperature, 140881
 terrigenous material, 140795
 terrigenous and pelagic sediment, 140791
 terrigenous sediment, 140795, 140854, 140856, 140859, 140861
 trough, 140881
 volcanogenic sediments, 140861, 140862, 140864, 140865
 winnowing, 140794
 zeolite, 140792, 140795
 Challenger Plateau, Quaternary, 901422
 chemical stratigraphy, 450507
 crust, 450658
 magnetic stratigraphy compared, 450657
 chemistry, igneous rocks, 370725
 chert, seismic reflectors, 561137
 chlorophyll derivatives, geochemistry, 610619
 circulation, 720977
 abrupt change, 720978
 Antarctic Bottom Water, 720977
 Antarctic Intermediate Water (AAIW), 720977
 Atlantic Deep Water, 720977
 Atlantic Ocean SW, 720977
 boundary conditions change, 720978
 Cenozoic major water masses, 720977
 Circumpolar Deep Water, 720977
 climatic events, 720978
 crust, 720978
 crust, oceanic, 720978
 current, thermohaline, 720977
 currents, deep ocean, 720978
 major basins, sills, geometry changes, 720978
 New England, 720977
 Nova Scotia, 720977
 oxygen minima, 720977
 Rio Grande Rise, 720977
 sea floor spreading, 720978
 subsurface salinity minimum, 720977
 tectonically controlled events, 720978
 volcanism, midplate, 720978
 Walvis Ridge, 720978
 circulation, oceanic, change, 131404
 clastic sediment
 continental rise, 401025
 Cretaceous, 401025
 clay, volcanic influence, 860576
 clay mineralogy, 481091
 clay minerals, stratigraphy, 390395
 Colombian Basin, isotope stratigraphy, 680445, 680447, 680452
 continental boundary, Morocco, 790181
 continental margin, 620991, 641115, 800683, 930754, 931354, 931359, 931361, 931385, 950340, 950353, 950535, 950763
 deposition, 800863
 continental margins, 790907
 continental shelf, 950019
 onshore geology, 400972
 Cretaceous, carbon, organic, 750820, 750823, 750826, 750828, 750830, 750833, 750834, 750835, 750837, 750838, 750839
 Cretaceous cyclic sedimentation, 770339
 Cretaceous sediment, 140787, 140788, 140791, 140792, 140793, 140794, 140795, 140827
 Albian to Cenomanian, 140792
 Aptian to Albian, 140791
 ash, 140791
 basalt, 140795
 benthic foraminifers, 140794
 bottom current, 140794
 burrows, 140795
 calcarenite, foraminiferal, 140795
 calcareous sediments, 140834, 140838, 140839, 140842, 140844, 140845
 calcisiltite, 140795
 calcisiltite, foraminiferal, 140795
 carbonate, 140795
 Cenomanian, 140792
 Cenomanian to Senonian, 140792
 chalk, 140791, 140794
 chert, 140791, 140793, 140846, 140848, 140850, 140851, 140853
 clay, 140791, 140792, 140793, 140795, 140827, 140828, 140831, 140832
 clay, dolomitic, 140792, 140793
 clay, zeolitic, 140793
 Cretaceous to Eocene, 140791
 diapir, 140794
 diatoms, 140792
 distribution, sediments, 140797, 140798, 140799, 140800, 140806, 140807, 140809, 140811, 140813, 140815, 140817, 140819, 140822, 140824, 140825
 dolomite-pelite cycle, 140865, 140867, 140868, 140869
 Eocene, 140793
 glauconite, 140795
 grading, 140795
 interbedding, 140795
 limestone, 140791
 lithostratigraphy, 140788
 Maestrichtian, 140793
 marl ooze, 140795
 Miocene, 140792, 140793, 140794, 140795
 Miocene to Quaternary, 140791
 Miocene to Recent, 140791
 mud, calcareous, 140795
 mud, carbonaceous, 140792
 mud, diatomaceous, 140792, 140793
 mud, nannofossil, 140795
 mud, siliceous, 140846
 mudstone, 140792
 Neogene, 140791, 140795
 Oligocene, 140794
 Oligocene to Aptian, 140795
 ooze, biogenic, 140795
 ooze, calcareous, 140791, 140794, 140795
 ooze, carbonate, 140793
 ooze, chalk, 140792
 ooze, nannofossil, 140791, 140792
 ooze, siliceous, 140846
 Paleocene, 140793
 pelagic fossils, 140795
 phosphorite, 140795
 Pleistocene, 140795
 Pleistocene to Miocene, 140795
 Pliocene, 140792
 Pliocene to Pleistocene, 140794
 Pliocene to Recent, 140793
 pyrite, 140792
 Quaternary, 140795
 radiolarians, 140792, 140793
 regional patterns, 140796, 140797
 sand, quartzose, 140792
 sand, subarkosic, 140793, 140794, 140795
 sand, terrigenous, 140795
 sedimentation rate, 140792, 140793, 140794, 140795
 Senonian, 140791
 shale, black, 140791, 140793
 shelf sediments, 140795
 siliceous microfossils, 140795
 slope sediments, 140795
 terrigenous sediment, 140795, 140854, 140856, 140859, 140861
 volcanogenic sediments, 140861, 140862, 140864, 140865
 winnowing, 140794
 zeolite, 140792, 140795
 Cretaceous sediments, 140871, 140881
 carbonate compensation depth, 140881
 continental slope, 140881
 dolomite-pelite cycle, 140868, 140869, 140870, 140871
 dolomite-sapropel cycle, 140883
 interbedding, 140883
 oxygen, 140881
 paleobathymetry, 140871
 paleogeography, 140871
 pelagic domain, 140881
 redeposition, 140881, 140883
 regional patterns, 140797
 ridge flank, 140881
 sedimentation rate, 140871
 stratigraphy, 140871
 temperature, 140881
 trough, 140881
 Cretaceous/Tertiary boundary, paleoenvironmental history, 740688, 740691
 crust, 450005, 780086, 780377, 780602, 780603
 crust, oceanic, 780025, 780039, 780042, 780096, 780188, 780301, 780573
 basalt, 780401
 mud, 780538
 seismic refraction, 450026
 crystallization, fractional, 370539, 450493
 partial melting, 370539
 deformation, abyssal plain, 780491
 deposition
 bottom water, 250503
 depositional paleoenvironment, 250497
 models, 750836, 750838, 750840
 rift, 790509
 diagenesis
 basin rim, 020422
 evaporite basin, 020422
 Mesozoic-Tertiary, 020422
 rifting, 020422
 silica, 950501, 950508, 950511
 spreading, 020422
 diatom occurrences, slope, 950417
 diatom paleoceanography, paleoclimatology, Pacific Ocean, 850944
 diatomite, laminated, Miocene-Pliocene, 730537
 diatoms, 810858
 early subsidence of margin, 790365
 electrical measurements, 370417
 emplacement mode, 370511
 Eocene-Oligocene benthic foraminifer isotope record, Pacific Ocean, 850775
 Eocene/Oligocene boundary, event, 710409
 evaporites, 020422
 rift zone, 790523
 evolution, 750506
 Falkland Plateau, shale, black, 711051
 FAMOUS area, 540415
 Fe, crust, continental, 801055
 Fe-montmorillonite, authigenic, 540307
 fracture zone, 760743
 fracture zones, 411239
 gabbro
³⁹Ar/⁴⁰Ar age, 370629
 K/Ar age, 370629
 petrography, 370763
 petrology, 370711
 phase chemistry, 370825
 physical properties, 370395

- gabbro (Cont.)
 postmagmatic fabrics, 370757
 postmagmatic textures, 370757
 gabbro, postmagmatic, 370757
 fabric, 370757
 gabbro, pyroxene, mineralogy, 370763
 Galapagos Spreading center, sediment
 classification, 540323
 Galicia Bank, tectonics, 47B0667, 47B0674
 garnet, metasomatic, 370893
 geochemical partitioning, margin sediments,
 650429
 geochemistry, 040645
 clay, red, 720431
 Cretaceous and Cenozoic sediments,
 47B0429, 47B0430, 47B0431, 47B0432,
 47B0434, 47B0435, 47B0436, 47B0437,
 47B0438, 47B0439, 47B0440, 47B0441,
 47B0442
 Holocene, 720430
 igneous rocks, 370653, 370729, 370735
 nodule, 810715
 geophysical data, 370329
 geophysical implications, seismic
 velocities, 370389
 glaciation, calcareous phytoplankton, 800786
 glass, 450507
 glass, basalt, 370625
 differentiation, 370729
 differentiation trends, 370729
 fission track chronology, 370625
 geochemistry, 370729
 mineralogy, 370729
 glass, volcanic, 590675
 Goban Spur
 carbonate, 801055
 evolution, 801200, 801201, 801203,
 801204, 801205, 801206, 801213
 Pleistocene radiolarians, 800757
 Quaternary sediments, 800683
 trace elements, 801055
 Gondwana, dispersal, 260947
 grain size, 040295, 040305, 370637
 ash, 040305
 bedding, graded, 040305
 clay, 040295, 040305
 flysch, 040295
 foraminifers, 040305
 fossils, 040305
 glauconite, 040305
 graywacke, 040295
 marl ooze, 040305
 nannoplankton, 040305
 ooze, chalk, 040305
 ooze, clay radiolarian, 040305
 ooze, foraminifer, 040295
 ooze, nannofossil chalk, 040305
 ooze, radiolarian, 040305
 sand, 040295, 040305
 sand-silt-clay distribution, 040295,
 040305
 silt, 040305
 terrigenous origin, 040295
 turbidites, 040295
 gravity, 450026
 gravity anomaly, modeling, 801145
 groups, occurrence, general trends,
 calcareous nannoplankton, 901462
 Gubbio, 801055
 heat flow, 370347, 450029
 Hess Rise, Albian sediment, 620940, 620941
 heterogeneity, 450493
 hiatuses, 140962
 Holocene sediments, 790559
 hydrocarbon, extractable, organic
 petrology, 630821, 640838
 hydrothermal activity, submarine, 801055
 hydrothermal alteration, crust, oceanic,
 830297
 hygromagmatophile (HYG) elements,
 geochemistry, 650630
 Iberian margin, opening, 47B0667
 Iberian margin NW, tectonics and
 sedimentation, 47B0667, 47B0674
 Iberian margin W, evolution, 47B0764,
 47B0766
 Iberian Peninsula
 Cenozoic sediments, 47B0429
 Cretaceous sediments, 47B0429
 igneous rocks
 magnetic properties, 370471
 paleomagnetism, 140777
 petrology, 370653
 viscous remanent magnetization, 370525
 whole-rock chemistry, 370725
 Indian Ocean W, 250237, 250287, 250497,
 360008
 regional aspects, 250756
 inorganic geochemistry, sediments, rocks,
 Mid-Pacific Mountains W, 620685
 interstitial water, chemistry, 040401,
 040415
 island arc, 780086
 island arc, active, 780083
 islands, 411103, 720458, 740744, 740749
 isoleucine, racemization, 370633
 Jurassic, 760146, 760233, 760538
 Atlantic Ocean N, 760913
 Jurassic and Cretaceous sediments, 790369
 Jurassic sedimentation
 basin, 760856, 760857, 760859, 760861
 Tethys, 760878
 K/Ar age
 basalt, 370629
 gabbro, 370629
 kaolinite, Coniacian-Campanian, 720387
 Labrador Sea S, magnetic anomaly, 121166
 lava, isotope geochemistry, 810776
 Layer 2, magnetic history, 370987
 limestone
 Albian, 620934
 Cretaceous, 620877, 620878, 620889
 limestone, fossiliferous, 790416
 lipid, Japan Trench, 571387
 lithology, 370987
 Africa NW, 721021
 low-latitude, 410041
 lithostratigraphy, 440944
 Messinian salinity crisis, 42A1139
 shelf, 440944
 magnetic field intensity, 370481
 magnetic mineralogy, 370507
 magnetic properties, 370465, 370511
 basalt, submarine, 450399
 igneous rocks, 370471
 shallow inclination, 920528
 magnetic stratigraphy, crust, 450658
 magnetism, 450024
 magnetization, 370481
 major element
 basalt, 650575
 chemistry, 370643
 geochemistry, 930693
 manganese, geochemistry, 801055
 manganese-iron, 801055
 mantle
 blob, 670568
 domain, 670568
 margin, 440191
 paleoenvironments, 481099, 481100,
 481101, 481102, 481103, 481104, 481105,
 481106, 481107, 481108, 481109, 481110,
 481112, 481113, 481114
 margin, early subsidence, 790365
 margin, European, 480895, 801032
 margins, preopening features, 801111
 marl, fossiliferous, 790416
 Mediterranean Sea
 connection, 42A1040
 lithostratigraphy, 131038, 131039
 Neogene, 131260
 Pliocene, 131341
 Mediterranean Sea E, history, 42B1196,
 42B1214, 42B1218
 melting, partial, 370539
 Mesozoic basins, 590497
 Mesozoic evolution, 440958
 Mesozoic-Tertiary evolution, 121155
 Messinian environments
 climatic conditions, 42A1031
 Mediterranean Sea, 42A1031
 pre-evaporitic setting, 42A1004
 salinity crisis, 42A1005
 Mexico, Gulf of, regional aspects, 010629,
 010637
 microfacies, sediments, 440478, 440491
 midocean ridges, 690578
 mineral, magnetic, 370507
 mineral, secondary, East Pacific Rise,
 650648
 mineralogy, 130719, 140727, 140728
 chert, 140731, 140732
 clay minerals, 140728, 140729, 140730
 clinoptilolite, 140736
 Cretaceous and Cenozoic sediments,
 47B0429, 47B0430, 47B0431, 47B0432,
 47B0434, 47B0435, 47B0436, 47B0437,
 47B0438, 47B0439, 47B0440, 47B0441,
 47B0442
 Goban Spur, 801026
 palygorskite-sepiolite, 140732, 140733
 Rockall Rise, 801033
 sanidine, 140737
 Miocene, Messinian salinity crisis, 720987
 Miocene changes
 circulation, 850943
 sedimentation, 850943
 Moroccan Basin
 evolution, 500803
 margin, 500805, 500807, 500808, 500809,
 500810, 500811, 500812, 500816, 500819
 Morocco, continental boundary, 790181
 mud, 780538
 Neogene formations, paleogeography,
 42A0917, 42A0918
 New Jersey Transect, oceanic sediments,
 950641
 North America, 120056, 120067
 basins, 770691
 continental shelf, 760233
 margin, 930092, 950563
 shelf, 120428, 120431
 ooze, radiolarian, 020417
 organic geochemistry, carbon, organic,
 800962
 organic sediments, origin, 660544
 Orphan Knoll, Cenozoic history, 121181
 oxygen isotope, 370603, 370617
 benthic and planktonic foraminifers,
 130799
¹⁸O, 720413
 Paleocene temperatures, 430697
 stratigraphy, 680455
 Pacific Ocean, 850980
 Pacific Ocean C, oxygen isotope, 850771
 Pacific Ocean EC, geologic history, 090929
 Pacific Ocean NE, 151098, 151099
 Pacific Ocean NW, geochemical history,

- Pacific Ocean NW (Cont.)
620800
- Pacific Ocean SW, paleoceanography, 901507
paleoceanographic changes, subantarctic, 710409
paleoceanography
 Reflector Green, 850967
 Reflector Purple, 850964
Paleocene, temperature, 430695, 460695
Paleocene sediments, Africa NW, 770358
paleoclimatic record, 730701
paleoclimatology, planktonic foraminifers, 960659
paleomagnetism, 040439, 370531
paleotemperature, subantarctic, 710409
Paratethys, paleogeography, 42A0987
partial melting, 450493
passive margin, stratigraphy, 950763
Pb, distribution, 710403
pelagic facies, continental outcrops
 origin, 801055
peridotite
 petrology, 370711
 phase chemistry, 370825, 370841
 postmagmatic fabric, 370757
 postmagmatic texture, 370757
 spinel, 370883
peridotite, postmagmatic, 370757
 fabric, 370757
peridotite-gabbro-basalt, mineralogy, 370847
petrology, 370987
 igneous rocks, 370653
 phase chemistry, 370883
 physical properties, 370403
plate, 780131, 780201, 780549
 magnetic inclination, 490813
Pleistocene foraminiferal assemblage,
 abyssal plain, 780488
plutonic rock, petrochemistry, 370681
porcellanite, seismic reflectors, 561137
proto-Atlantic, 790715
 limestone, fossiliferous, 790416
 marl, fossiliferous, 790416
Puerto Rico Trench, 040665
Quaternary isotopic record
 Caribbean Sea, 680464
 Pacific Ocean, 680461
 sea level, 680462
Quaternary sediments
 carbon isotope, 680455
 oxygen isotope, 680455
radiolarians, Cenozoic, 950339
rare earth, 370591
regional problems, crust, 061302
regional summary, carbonate compensation
 depth, 020415
regional tectonics, swell push forces,
 720962
remanent magnetization, 370507
rift, 500805, 500809
 deposition, 790509
 evaporites, 790523
 Triassic or Jurassic, 790523
rift valley, 511107
rift zone, 790524
 evaporites, 790523
rifting
 Mesozoic, 760885, 760886, 760887, 760888,
 760889, 760890, 760891, 760892, 760894
 Tethys, 760886
Rio Grande Rise
 regional setting, 390955
 sedimentation, 721017
 subsidence, 720964, 720965
Rockall Plateau W, stratigraphy, 481061,
 481062
salt, rift zone, 790523
sapropel
 Cretaceous, 620891
 petrography, 130719
sea floor spreading, history, 250663
seamounts, bathymetry, 490407
sediment distribution, 450024
sedimentary environments, 440974
 rifting, 440974
sedimentary history, Tethys, 760829
sedimentary structure, 390407
sedimentation
 opening, 47B0667, 47B0674
 subsidence, 47B0674
seismic modeling, paleoceanography,
 conclusions, silica, 850968
seismic velocity, 370389
seismicity, 450029
serpentine, trace elements, 370563
shale, black, 711053
shelf, 010291, 010637, 750847
slope, 901198, 950339, 950349, 950359,
 950729
smectite, distribution, 370825
sorting, 040295, 370637
Southeast Pacific Basin, evolution,
 geologic, 350736
Sr
 magnesium, 801055
 paleoceanographic reconstitution, 720412
 time marker, 801055
stable isotope, 750895
stratification, planktonic foraminiferal,
 430705
stratigraphy, carbonate, 680357
stratigraphy and evolution, composite,
 801184
structural evolution, 481061
 tectonic history, 481062
structure, 370987
sulfide, 370875
sulfur isotope, 370621
supracomplex sedimentary basin, 780036
surface water, 960778
tectonic history, depositional environment,
 430802
tectonics and sedimentation, 47B0674
terigenous sediment, 390453, 390461
Tethys, 760538, 760874, 760876, 760877
 Mediterranean Sea, 42A0945
Tethys N, current system, 430715
Tethys Seaway, Jurassic sediment, 760829
tetrapyrrole, 040431
thermohaline flow, Quaternary, 720990,
 720991
tholeiite, geochemistry, 800946
tholeiite, olivine, 450513
Ti/Zr ratio, geochemical significance,
 710398
time stratigraphic framework, 040677
trace elements, 450493
 basalt, 450493, 650575
 geochemistry, 930693
 Goban Spur, 800944
 igneous rock, 370573, 370577
 MORB, 920440
Triassic or Jurassic, rift, 790523
tropical realm, 760511
ultramafic rocks, physical properties,
 370395
United States, coast, 930815
United States NW, continental margin, 110819
uranium, 370547
Venezuelan Basin, Pacific Ocean, 040666
volcanic rocks
 Pacific Ocean, 200691
 submergence, 200695
Walvis Ridge, climatic, oceanographic
 evolution, 740679
water, 720412
X-ray mineralogy, 040325
zirconium, distribution, 710403
Zr/Nb ratio, 490848
see also Atlantic S
- Atlantic Ocean C, 030443, 030466, 370329,
 391099, 391101, 391103, 391104, 391105,
 391106, 391108, 391109, 391113, 391117,
 391121, 391122, 391123, 391124, 391125,
 391127, 540497, 600915, 641244, 670792,
 680413, 720807, 730774, 730775, 730776,
 750913, 751250, 760571, 760705, 760927,
 760933, 770043, 770044, 770343, 770357,
 770360, 780325, 780330, 780475, 780783,
 790369, 790437, 790894, 790906, 790914,
 790915, 810450, 820005, 820061, 820115,
 820127, 820215, 820233, 820245, 820255,
 820279, 820325, 820361, 820377, 820395,
 820519, 820582, 820598, 820599
age, 391099
Amazon Ridge, 391121
 crest, 391099
Aptian-Albian, sedimentation, 770360
Argentine Basin, 391099, 391108
 seismic reflection, 391115, 391117,
 391120, 391121
Atlantic Ocean S, geological history, 391099
basalt, magnetism, 460357, 460361
basement, 391099
basin, bathymetric reconstruction, 511501,
 511502, 511503, 511504, 511505, 511506,
 511507, 511508, 511509, 511510, 511511
bathymetric reconstruction, 511501
 application, 511504
 calcium carbonate compensation depth,
 511509
 crestal elevation, 511508
 Cretaceous, 511506
 Cretaceous-Cenomanian, 511506
 Jurassic, 511505
 Tertiary, 511507
biostratigraphic section, low-latitude,
 391099
biostratigraphy, 391081
birth, 42A0944
Brazil Basin, 391108
calcium carbonate, 101059
carbon, 101059
 carbon, organic, 101059
carbon isotope, 410957
coastal plain, 931082, 931087
crust, oceanic, appearance, 500809
cyclic sedimentation, Cretaceous, 770339
diapir, structural, 391099
drifting, 760885
 Mesozoic, 760885
evolution, 390927
Falkland Plateau, shale, black, 711051
fracture zone tectonics, 391099
fracture zones, 360538, 820621
geophysical data, 370329
glacial cycles, deep-sea environment, 800810
Gondwana, dispersal, 260950
Guiana Basin, 391099
hiatuses, 391099, 391101, 391103, 391104,
 391106
 accumulation rate, 391101, 391103
 Amazon Ridge, 391104, 391105
 Angola Basin, 391104
 Antarctic Bottom Water, 391104, 391105
 Antarctica, 391104, 391105
 Antarctica E, 391105
 Argentine Basin, 391103, 391104

hiatuses (Cont.)

- Atlantic Ocean, 391099, 391105
- Atlantic Ocean N, 391104, 391106
- Atlantic Ocean NW, 391104
- Atlantic Ocean S, 391099, 391103, 391104, 391106
- Atlantic Ocean SE, 391101, 391104, 391105
- Atlantic Ocean SW, 391105
- Australia, 391104
- biosiliceous sequences, 391105
- bottom current, 391101, 391104
- bottom temperature drop, 391104
- Brazil Basin, 391103, 391104
- calcareous nannofossils, 391104
- calcareous sequences, 391105
- calcium carbonate, 391105
- carbonate, 391104, 391106
- CCD, 391101, 391104, 391105, 391106
- circulation, 391101, 391104
- circulation, thermohaline, 391104, 391105
- Circum-Antarctic Current, 391105
- circumpolar current, 391099
- climate, global, 391104
- Cretaceous hiatuses, 391101
- Cretaceous unconformity, 391101
- Cretaceous/Tertiary boundary, 391103
- critical sill depth, 391105
- crust, oceanic, 391101
- current control, 391099, 391104
- current regime, 391105
- current, thermohaline, 391099
- deposition, 391101, 391104, 391105
- dissolution, 391104
- Drake Passage, 391105
- east-west-trending structural feature, 391101
- Eocene/Oligocene boundary, 391099, 391104, 391106
- Falkland Plateau, 391099, 391101, 391104
- Faroe Islands, 391105
- foraminifers, 391101
- Frio Ridge, 391101
- global tectonic events, 391104
- Greenland Ridge, 391105
- hiatus formation, 391104
- hiatuses, major ocean basins, 391099
- hiatuses, maxima, 391103
- ice rafting, 391104
- increased current activity, 391101
- Indian Ocean, 391099, 391103, 391106
- isotopic paleotemperature studies, 391104
- Labrador Sea, 391105
- Maestrichtian-Eocene, 391103
- Malyinas Outer Basin, 391099
- meridional water flow, 391104
- Mid-Atlantic Ridge, 391104
- Miocene hiatuses, 391099
- Natal Basin, 391101
- North Atlantic Deep Water, 391105
- Norwegian Sea, 391105
- ¹⁸O, 391105
- ocean basins, sediment record, 391099
- ocean sediment budget, 391106
- oldest sediment, 391101
- Oligocene hiatus, 391099
- ooze, calcareous, 391104
- oxidizing, open marine conditions, 391101
- Pacific Ocean SW, 391099
- paleoceanographic conditions, hiatuses, 391103
- Paleocene-Eocene hiatuses, 391099
- Paleocene/Eocene boundary, 391103
- paleotemperature, 391104
- photic zone, 391104
- progradation, 391106
- psychrosphere, 391104
- reducing conditions, 391101
- regional Tertiary hiatuses, 391099
- regression, 391106
- regression, global, 391104
- Rio Grande Rise, 391101, 391103, 391104
- Santos Plateau, 391101, 391103, 391104
- sea level, 391099
- sedimentation rate, 391104
- silica, 391106
- siliceous organisms, productivity, 391104
- slow sedimentation times, 391103
- solar energy, 391105
- South Tasman Rise, 391105
- southern oceans, 391099
- subsidence, 391101
- surface water, 391104
- synchronism, 391106
- temperature changes, 391105
- terrigenous input, 391101
- Tertiary hiatus, 391106
- Tertiary sediments, 391099
- topographic extremes, 391105
- topographic highs, 391101
- transport, 391106
- Turonian-Maestrichtian-Paleocene hiatuses, 391099
- upwelling, 391105
- Walvis Ridge, 391101
- Walvis Seamount, 391104
- Weddell Sea, 391105
- igneous rocks, 391099
- interstitial water, chemistry, 820539
- isotopic values, 480746
- lipid
 - paleoenvironment, 660566
 - paleoenvironmental assessment, 660566
- magnetic anomaly, 370329, 391099
- dating, 391112, 391113, 391115
- margin, 481104, 481106
- Mediterranean Sea
 - Ionian Basin, 131293
 - Tyrrhenian, 131293
- Moroccan Basin
 - evolution, 500801
 - margin, 500808, 500809, 500810, 500815
- oxygen, 410957
- physiographic high, 391099
- reflector, 391099
- rifting, 760885
 - Atlantic Ocean, 760890, 760891
 - Tethys, 760890, 760891
- Rio Grande Rise, 391099, 391124, 391125, 391127
- salt, Aptian, 391099
- Santos Plateau, 391099
- margin, 391106, 391108
- origin, 390929, 390940, 390941, 390942, 390943, 390944
- seamount province, 391099
- sedimentary structure, 390407
- sedimentary succession, 391099
- sedimentation history, 391099
- seismic reflection, 370329, 391099
- Sierra Leone Rise, 391121, 391122, 391123
- South Tasman Basin, borderland, 291135
- stratigraphic correlation, 140969
- structural high, 391099
- tectonic fabric sea floor, 820017
- Tethys, Mediterranean Sea, 42A0944, 42A0947, 42A0948
- Vema Fracture Zone, 391099
- Walvis Ridge, 391099
- Walvis Seamount, 391127, 391128
- aseismic ridges, subsidence rates, 391128
- Atlantic Ocean, 391128
- benthic foraminiferal evidence, 391128
- benthic foraminifers, 391127
- bryozoans, brachiopods, 391127
- crust, oceanic, 391128
- Eocene subsidence, 391128
- feldspar, 391127
- Gough Island, 391127
- Hawaiian Islands, 391128
- island movement, 391128
- island, oceanic, 391128
- isostatically corrected depth, 391128
- larger megafossils, 391128
- magma, 391128
- magnetic anomaly, 391128
- major hiatus, 391127
- Mid-Atlantic Ridge, 391127
- mollusks, 391127
- mud, calcareous volcanic, 391127
- ooze, foraminiferal nannofossil, 391127
- open ocean microfossils, 391128
- open ocean nannoflora, foraminifers, 391127
- pumice, 391127
- sea floor spreading, 391128
- seamount history, 391128
- seamount subsidence, 391127
- seamounts, 391127
- slope fauna, 391128
- subsidence theory, 391128
- transport, 391128
- Tristan da Cunha, 391127
- tuff, 391127, 391128
- tuff, ash-flow, 391127
- tuff, trachytic, 391127
- volcanic components, absence, 391128
- volcanic processes, 391128
- volcano, shield, 391128
- Walvis Ridge, 391127
- Atlantic Ocean E, 020400, 030443, 050525, 140500, 38S0883, 440539, 640724, 640908, 640910, 640911, 710751, 751099, 760920, 760922, 760925, 760926, 760930, 760931, 760933, 760937, 760940, 770360, 790390, 790807, 800161, 800764, 930629, 931118, 950025
- aptychi, Cretaceous, 440899
- basin, evolution, 361005
- Cretaceous samples, 790816
- diagenesis, silicate, magnesian, 020422
- geochronology, 411113
- Goban Spur, upper slope, 800762, 800764
- Horizon A, 020424
- humic substances, source, 440587
- hydrocarbon, Cretaceous, 790809
- Jurassic sediments, 760181
- lipid, source, 440587
- lower continental rise hills, Norfolk, 440024
- Mesozoic variegated, red sediments, 440503
- continental margins, 440503
- Moroccan Basin, margin, 500819
- organic geochemistry
 - Cretaceous, 630837
 - kerogen, 630849
- Pacific Ocean W, 931324
- paleoceanography, Reflector Green, 850966
- protokerogen, hydrothermal effects, 640908, 640910, 640911
- reflection horizon, Horizon A, 040671
- regional summary, surface water, 020415
- rifting, margin, 800876
- seismic modeling, paleoceanography, conclusions, seismic reflector, 850968
- Tarfaya Basin, 640809
- Atlantic Ocean EC
 - geophysical measurements, 450055
 - Jurassic sedimentation, Atlantic Ocean,

- Jurassic sedimentation (Cont.)
760859
seamount province, 391099
Atlantic Ocean N, 020009, 020035, 020117,
020225, 020249, 020307, 020323, 020413,
020431, 020451, 020491, 030443, 030464,
040007, 040659, 040661, 040671, 090918,
110813, 120033, 120161, 120255, 120313,
120361, 120395, 120673, 120753, 121127,
121181, 121209, 130254, 130789, 131054,
131393, 131398, 131405, 140341, 140377,
140846, 140859, 140955, 150512, 150670,
150755, 160575, 160601, 160612, 160658,
160674, 160718, 160899, 180576, 180817,
210660, 220421, 220433, 260480, 260490,
260743, 280179, 290479, 350276, 370329,
370917, 370935, 380118, 3850193,
38S0285, 381101, 430177, 430759, 430889,
431013, 431019, 440015, 440020, 47B0761,
47B0764, 47B0768, 480165, 480169,
480215, 480271, 480426, 490825, 490859,
540064, 540084, 540085, 540411, 540498,
540538, 540688, 540721, 540725, 540728,
540730, 540731, 540732, 580806, 580819,
580823, 580888, 600882, 610559, 620372,
620374, 620479, 620583, 620602, 620909,
640653, 640679, 650023, 650591, 660732,
670559, 680419, 680449, 680451, 680452,
700325, 710307, 710349, 710418, 710489,
710837, 711061, 711155, 720027, 720028,
720029, 720032, 720413, 720415, 720454,
720485, 720723, 720794, 720809, 720876,
720962, 720963, 720984, 720988, 721021,
721022, 730278, 730341, 730425, 730569,
730628, 730713, 730740, 730742, 730780,
740251, 740469, 740502, 740510, 740515,
740520, 740525, 740601, 740615, 740625,
740658, 740664, 740680, 750821, 750823,
750836, 750846, 750903, 751079, 751205,
760005, 760007, 760010, 760012, 760014,
760045, 760142, 760146, 760147, 760151,
760196, 760200, 760228, 760230, 760231,
760232, 760234, 760341, 760367, 760429,
760435, 760437, 760442, 760463, 760467,
760472, 760473, 760474, 760475, 760476,
760478, 760479, 760491, 760502, 760511,
760523, 760537, 760552, 760565, 760587,
760598, 760602, 760606, 760624, 760626,
760627, 760628, 760630, 760632, 760633,
760645, 760653, 760654, 760667, 760671,
760675, 760681, 760682, 760685, 760719,
760727, 760729, 760743, 760759, 760761,
760763, 760778, 760781, 760782, 760785,
760788, 760790, 760791, 760851, 760856,
760857, 760859, 760871, 760879, 760897,
760899, 760901, 760903, 760904, 760907,
760908, 760913, 760914, 760920, 760931,
760936, 760937, 770005, 770056, 770071,
770290, 770352, 770377, 770451, 770454,
770455, 770456, 770459, 770675, 770706,
770714, 770715, 770718, 770730, 770732,
770734, 780338, 780463, 780499, 780505,
780690, 790379, 790510, 790525, 790651,
790653, 790671, 790677, 790678, 790732,
790879, 790880, 790889, 790890, 790896,
790914, 790917, 800010, 800057, 800058,
800144, 800148, 800161, 800286, 800287,
800288, 800419, 800421, 800439, 800475,
800477, 800489, 800505, 800508, 800515,
800524, 800525, 800528, 800529, 800545,
800561, 800562, 800567, 800570, 800576,
800580, 800582, 800590, 800591, 800613,
800617, 800647, 800653, 800687, 800692,
800696, 800703, 800704, 800757, 800759,
800761, 800764, 800794, 800800, 800814,
800818, 800830, 800832, 800833, 800876,
800967, 800969, 800976, 800979, 800999,
801000, 801001, 801004, 801005, 801006,
801008, 801019, 801031, 801063, 801066,
801070, 801103, 801108, 801109, 801110,
801111, 801115, 801132, 801137, 801143,
801155, 801156, 801158, 801176, 801183,
801203, 801206, 801207, 801209, 801212,
801213, 810035, 810044, 810045, 810046,
810246, 810277, 810278, 810282, 810409,
810411, 810413, 810415, 810439, 810440,
810450, 810456, 810457, 810504, 810505,
810507, 810509, 810517, 810519, 810520,
810523, 810525, 810535, 810541, 810543,
810547, 810554, 810565, 810573, 810595,
810605, 810612, 810613, 810614, 810616,
810618, 810620, 810621, 810653, 810666,
810669, 810670, 810681, 810687, 810688,
810689, 810690, 810692, 810778, 810783,
810784, 810790, 810793, 810802, 810803,
810804, 810822, 810837, 810856, 810858,
810859, 810862, 810870, 810871, 810884,
810899, 810900, 810903, 810913, 820005,
820006, 820007, 820008, 820012, 820156,
820369, 820403, 820417, 820418, 820449,
820450, 820460, 820464, 820475, 820494,
820523, 820525, 820527, 820531, 820533,
820536, 820551, 820559, 820567, 820595,
820606, 820615, 820616, 820624, 820630,
820631, 820633, 850408, 850731, 850749,
850772, 850919, 850941, 850943, 850962,
850963, 850966, 850968, 860372, 860438,
860651, 890005, 890066, 890094, 890214,
890333, 890418, 890425, 890545, 900020,
900563, 900800, 901227, 901334, 901399,
901422, 920568, 930005, 930074, 930090,
930316, 930423, 930483, 930508, 930516,
930542, 930543, 930548, 930559, 930613,
930618, 930619, 930739, 930741, 930755,
930760, 930793, 930868, 930915, 930998,
931000, 931004, 931019, 931030, 931034,
931036, 931088, 931093, 931094, 931095,
931096, 931097, 931113, 931122, 931132,
931139, 931140, 931145, 931163, 931175,
931191, 931195, 931226, 931229, 931298,
931301, 931302, 931336, 931358, 931374,
931382, 931389, 931390, 931417, 941103,
941159, 941207, 950249, 950299, 950319,
950352, 950360, 950432, 950434, 950439,
950503, 950508, 950527, 950533, 950703,
950706, 950756, 950773, 950774, 950790,
950805, 950809, 950810 14-MeV neutron
activation analysis, 020347 AF
demagnetization, sediments, 940637 age,
760903 age of opening, 47B0028 amino
acid, epimerization, 940879, 950879
ammonite zonation, 760919, 760920
Ammonoidea, Cretaceous, 47B0361 ancient
current flow, 760903 anoxia, organic
richness, 800999, 801011 anoxia, global,
evidence against, 801003 anoxic
conditions, 760479 ash, 810666
asthenosphere, influences, 760906
Atlantic continental margin NW,
evolution, 440957
Atlantic Ocean
Cretaceous, 750820
geochemistry, 47B0442
Jurassic, 760913
margin, 481099, 481100, 481102, 481105,
481106, 481107, 481108, 481109
margins, 801111
mineralogy, 47B0442
basalt, 780402
California, Gulf of, 650591, 650592
compressional wave velocity, 140773
Costa Rica Rift Zone, 830207
density, 430769
elastic constants, 430769
geochemistry, 490597, 490657, 590776
magnetism, 760705
midocean ridge, 820449, 820450
mineralogy, 490597
minor element, 490686, 490687, 490688,
490689
paleomagnetism, 430773, 760705
petrology, 140767, 490597
pillow margins, 830166
rock magnetism, 430773
seismic velocities, 430769
Ta/Th ratio, 511092
Th/Hf ratio, 830208
basalt, altered
compressional wave velocity, 140773
geochemistry, 540687, 540688, 580806,
580819, 580823, 580838
major element, 580882
petrology, 540687, 540688
trace elements, 580882
basement, 801103
Biscay, Bay of, 801103
carboniferous E-W shear belts, 801103
continental margin, 801103
crust, continental, 801103
Europe NW, 801103
fit, latitudinal precision, 801103
fit, longitudinal precision, 801103
Hercynian Front, 801103
Hercynian transatlantic markers, new fit,
801103
inaccuracy of fit, 801103
main features, 801103, 801111
ocean-continent boundary, 801103
post-Hercynian dextral shear, 801103
post-Paleozoic cover, 801103
preopening, 801103
proposed Triassic reconstructions, 801103
rotation poles, 801103
tectonism, listric, 801103
transatlantic correlations, 801103
basin, 241159, 430323, 430326, 430341,
440346, 47B0031, 47B0477, 47B0699,
480744, 480751, 481100, 760228, 760479,
760931, 790510, 790522, 810692
depositional supercycles, 950706
evaporites, 790510, 790520
hydrothermal circulation, 790521
Jurassic sedimentation, 760856
Neogene sediments, 490447
basins, 411233, 481107
Belem Ridge, Horizon A, 040661
benthic foraminifers, 940965
bottom water, 950965
biogeography, 480350, 480351
biogeography, Cenozoic, 120965
biostratigraphic zonation
midlatitude location characterization,
800687
Quaternary bioclimatic subdivisions,
800692
zones, subzones, definition, 800692
biostratigraphy, 020391, 941159
biostratigraphy, Cenozoic, 120965
biostratigraphy, Miocene, 950935
bioturbation, slope, 901198
Biscay, Bay of, thermal regime, 480291
Blake Basin, 440008, 760913
basin, 440204
Blake Ridge, 760913
Blake Spur, north rim, 440084, 440102
Blake Spur S, basin, 440346
Bolboforma, 950785, 950813
bottom current, 490859, 950756, 950757

- bottom current (Cont.)
ice rafting, 490859
bottom water, 760479, 760681, 940965
circulation, 760478, 760933, 941061,
941130, 941220, 941229, 941230, 941231,
941236, 941240
Neogene, 940965, 950965
Brazil Basin, Horizon A, 040659
breccia
density, 430769
elastic constants, 430769
seismic velocities, 430769
calcareous nannofossils, 490519
calpionellid zonation, 760920
calpionellids, 790652, 790654
Canada, continental margin, 790868
Cape Basin, shale, black, 711028
carbon, 010340, 020319, 040342, 431043,
760945
calcium carbonate, 010340
carbon isotope, 430695, 940981
benthic foraminifers, 800814
benthic foraminifers, cycles, 850771
benthic record, comparison, 850730
bottom water, 850774
 ^{13}C , 720415, 850771
 ^{18}O , 720412, 720413
Pacific Ocean, 850772
Pacific Ocean C, 850775
sediments, 760477
shift, 901402
carbon, organic, 931187
 ^{13}C , 121115
carbonate, 010340, 020319, 431043, 760945
calcium carbonate, 010340
carbon, 040342 Atlantic Ocean N,
carbonate, carbon, organic, 711061
comparison, 720399
isotope stratigraphy, 850733
isotopic composition, Cretaceous, 430719
manganese, 801063, 801064
Paleocene-Coniacian, 720399
paleoenvironment, 47A0673
Pleistocene, 820629
Sr, 720404
carbonate compensation depth, 47A0673,
760905, 760907
carnallite, basins, 790520
Cenozoic, sediment, 140787
Cenozoic silicoflagellate, coccolith
stratigraphy, 440780
Cenozoic-Cretaceous sediments
Atlantic Ocean S, 800980
bottom water, 800980
low productivity areas, 800980
mudstone, 800980
central, 140955, 260626
paleoenvironment, terrestrial influence,
510905
central-southern, 151086
chalk, dissolution, 941129
Challenger Plateau, Quaternary, 901422
circulation, Jurassic, 760930
circulation, abyssal, development, 940981
circulation history, 760478
circulation, oceanic, 760931
Jurassic, 760930
clay, 790498
mineralogy, 481091, 481092, 481094,
481095, 481096, 481097
clay minerals, 140727
mineralogy, 140727
origin, 140727
claystone, sediments, 760429
climate, 810861
differences, 760477
Pleistocene change, 800805
coast, 931357
Cobb Mountain Subchron, sediments, 940647,
940648
coccolith biostratigraphy, 950651
planktonic foraminifers, 950703
Cochiti Subchron, sediments, 940638, 940643
continental margin, 440491, 47B0373, 620480
deposition, 47B0373
Jurassic sedimentation, 760861
continental rise, 47B0374, 931033
continents, 480038
contour currents, 760681
contourites, 810695
Cretaceous, 790591, 800999
anoxia, 800999
anoxic episodes, 800999
deposition, 800999
oceanic anoxic event, 800999
oil source sediment, 800999
organic enrichment, 800999
organic matter preservation, 800999
oxygen, 800999
well-oxygenated waters, 800999
Cretaceous ostracodes, 440922
Cretaceous sediments, organic geochemistry,
510737, 510738, 510740, 510741, 510743
Cretaceous Tertiary, Quaternary, carbon,
organic, 121115, 121116, 121120
crust, oceanic, 780398
aging, 490583
crustal model, 830126
currents, 120909
cyclicality, lithofacies, 810692
deepening, 47B0674
deposition
bottom water, 250500
carbonate, 790890
models, 750840
sediments, 941240
depositional age, 790523, 790525
diagenesis, silica, 500725
diapirism, 790510, 790523
diatom biostratigraphy, 950729
diatom paleoceanography, paleoclimatology,
siliceous sedimentation, 850944
diatoms, 930793
dinoflagellate biostratigraphy, 760920,
950785
drift, 810867
deposits, 941083
drift, sediment, 490861, 941083, 941217
Eirik Ridge, 490861
Feni Ridge, 490861
Gardar Ridge, 490861
Hatton, 490861
east, bathymetric features, 47B0753
East Mariana Basin, micromorphology, 890418
eastern, 130019, 130517, 130595, 130605,
130747, 130822, 131137, 131343
 ^{13}C , 47B0507
Cenozoic paleotemperatures, 47B0507
limestone, 480921
mudstone, 480921
 ^{18}O , 47B0507
shale, 47B0513, 47B0523
volcanic complex, 411237
volcanics, 480771
elastic wave velocity, compressional
velocity, 920568
Eocene diatoms, 930793
Eocene sediments, 941089, 941091
Eocene-Oligocene benthic foraminifer
isotope record
benthic foraminifers, comparison, 850775
bottom water, 850775
epicontinental basin, 790890
equatorial, 140729, 140735
Europe N, Miocene sediments, 800669
Europe W, opening, 47B0658
evaporites, 790509, 790510, 790520, 790521,
790523
evolution, 47B0764, 47B0768, 480040,
760479, 020001, 020009, 020032, 020413,
020414, 020415, 020417, 020423, 47B0093,
47B0761
Rockall Rise, 810653
evolution results in framework, 47B0764
evolution, stratigraphic, 480814
ferrobasalt, 820403
foraminifer zonations, 760920
foraminiferal transfer function, 940045
foraminifers, benthic, 940965, 950965
foraminifers, planktonic
Miocene to Quaternary, 940818, 940827
Pliocene to Pleistocene, 940816, 940817,
940818
formation, 760901, 760903, 760931
fracture zones, 411239
Galapagos Spreading center, basalt, 540725
gas hydrate, 760367
Gauss Chron, sediments, 940638, 940641,
940642, 940646
geochemistry, 481157, 490597, 720399
carbonate, 720399
geographic regions, 121181
geological and geophysical setting, 450023,
450024, 450030, 450032, 450035
bathymetry, 450024
crust, 450026, 450028, 450029
gravity, 450026
heat flow, 450029
magnetic anomaly, 450035
magnetics, 450024, 450025
Mid-Atlantic Ridge, 450024
sediment distribution, 450024
seismic velocity, 450035
seismicity, 450029
geology, 790885
geophysical data, 121209, 370329
Gilbert Chron, sediments, 940638
glacial events, 950757
glaciation, 120073
history, 490583
Pliocene, 850731
Pliocene-Pleistocene, 120953, 120959
Goban Spur
Cenomanian-Turonian, 800979, 800980
continental margin, 801132, 801156
dinoflagellates, 800761
evolution, 801203, 801204, 801207, 801212
microfaunal, stable isotope evidence,
800817
model, 801006, 801007, 801008, 801009
upper slope, 800764
grain size, 020307, 020308, 431043
chalk, nannofossil, 020308
chert, 020307
clay, zeolitic, 020307, 020308
clinoptilolite, 020307, 020308
composite crystals, 020307
fish debris, 020307
fish fragments, 020308
foraminifers, 020307, 020308
glass, 020307
glass, volcanic, 020308
manganese, 020307, 020308
marl ooze, 020308
ooze, foraminiferal, 020308
ooze, nannofossil, 020307
planktonic foraminifers, 020308
Radiolaria, 020307, 020308

- grain size (Cont.)
 rhodochrosite, 020307
 sand-silt-clay distribution, 020307, 020308
 sponge spicules, 020307
 turbidites, 020307
 gravity anomaly, modeling, 801143, 801145
 Hatton-Rockall Basin, 121201
 sea floor spreading, 121188
 heat flow, 480277, 480278, 760719
 Biscay, Bay of, 480278
 Rockall Plateau, 480279
 temperature, 480277
 thermal conductivity, 480277
 hydrocarbon, 241159
 hydrocarbon, aliphatic, dominant component, 720835
 hygromagmatophile (HYG) elements
 basalt, 540732
 mantle, 540732
 Iberian margin W, evolution, 47B0761, 47B0764, 47B0766, 47B0768, 47B0770
 Iberian Peninsula W, passive margin, 47B0761, 47B0768
 ice rafting, 490859, 490869, 941091, 941093, 941095, 941098
 glaciation, 490869
 mineral grains, 490869
 ice-rafted debris, paleomagnetic age, 860651
 ichthyolith, 930739
 igneous rocks, 020387
 Indian Ocean S, geologic history, 260910
 insoluble residue data, 480765
 interstitial water, 480297, 480298
 alkalinity, 480297, 480298
 calcium, 480297, 480298
 chemistry, 020367, 020373, 121193, 140753, 140763, 160891
 magnesium, 480297, 480298
 sedimentation rate, 480297
 silica, 480297
 strontium, 480297
 sulfate, 480297, 480298
 unconformities, 480298
 iron, Albian-Cenomanian enrichment, 801070
 island arc emergence, 580675
 isotopes, present hydrological features, faunal assemblages, 800808
 isotopic values, 480743, 480744
 Jaramillo Subchron, sediments, 940639, 940641, 940642, 940646
 Jurassic sedimentation, 760829
 Jurassic stratigraphy, 760931
 Jurassic-Cretaceous, 47B0766
 organic matter distribution, 760781
 tectonics, 47B0766
 Kaena Subchron, sediments, 940645
 Labrador Sea
 connection, 47B0097
 Mesozoic and Tertiary evolution, 121155
 Labrador Sea S, 121155
 deep current-controlled sediment body, 121163
 history, 121155
 magnetic anomaly, 121164, 121166
 lava, isotope geochemistry, 810775, 810779
 lava types, 830125
 lead isotope, 700325, 700328
 lipid, 38S0659, 38S0660, 480965, 480966, 480967, 480971, 500647, 500661
 alkane, 38S0659
 allochthonous contribution, 38S0660
 anoxic conditions, 38S0660
 Atlantic continental margin, 500659, 500660, 500661
 branched-chain components, 500654
 carbon, 38S0659
 carboxylic acid, 480969, 500651, 500653
 chain components, straight, branched, 480971
 cyclic components, 480972, 480973
 dehydroabietic acid, 38S0660
 diagenesis, 500661
 diterpenoid, 38S0660
 fatty acid, 38S0659
 hopane, 38S0660
 hydrocarbon, aliphatic, 480967, 480969, 500648
 hydrocarbon, aromatic, 38S0660, 480969, 500649
 hydrocarbon, polynuclear aromatic, 500658, 500659
 hydroxy carboxylic acids, 480970
 maturity, 500661
 metalloporphyrin, 500647, 500648
 norhopane, 38S0660
 origins, 38S0659
 porphyrin, 38S0660, 500649, 500650, 500651
 porphyrin, nickel, 500659
 pristane/phytane ratio, 38S0659
 sterane, 38S0660
 steroidal components, 500655, 500656, 500657
 straight-chain components, 500654
 terrigenous components, 38S0660
 terrigenous markers, 38S0660
 triterpenoid, 500658
 lithology
 Eocene-Pleistocene minerals, 721021
 sedimentation, 120073
 Magnetic Anomaly, 13, 34, 47B0093, 47B0766, 820014
 Magnetic Anomaly 34, mineral, 47B0768
 magnetic anomaly, 370329, 370336, 760901, 760904, 760919
 sediments, 760673
 true sea floor, 47B0079, 47B0094, 47B0097, 47B0766
 Magnetic Anomaly J, 430879, 47B0766
 magnetic data, 730341, 760341
 magnetic data and evolution, 47B0764
 magnetic polarity reversal, 760904, 950831
 boundaries, 940638, 940646
 Magnetic polarity time scale, sediments, 940636, 940647
 magnetism, 140341, 47B0764
 magnetism, Cretaceous sediments, 430785
 magnetostratigraphy, 440523, 760685, 941159, 950815
 Jurassic-Cretaceous, 760685
 Miocene, 950935
 sediments, 940635
 magnetostratigraphy, Cretaceous sediments, 430785
 Mammoth Subchron, sediments, 940645
 mantle, heterogeneity, 490866, 490841, 490842, 490843, 490844, 490845, 490846, 490847, 490848, 490849
 margin
 Jurassic sedimentation, 760861
 Tethys N, 440949
 margin basins, Jurassic stratigraphy, 760931
 Matuyama Chron, sediments, 940637, 940639, 940641, 940646, 940648
 Mediterranean Sea, Mesozoic facies compared, 110812, 110801, 110802, 110805, 110806, 110810, 110811, 110812, 110813, 110814, 110815, 110816, 110817, 110818, 110819, 110820
 Mesozoic, 760478
 Mesozoic and Cenozoic sequences, 770629
 Mesozoic sediment, 790721
 Mesozoic and Tertiary evolution, 121155
 Messinian environments, pre-evaporitic setting, 42A1004
 microfacies, sediments, 440493
 continental margin, 440491
 microstructure, silica, 950533, 950534
 mineral geochemistry
 climate, 801019
 paleohydrological evolution, 801019
 mineralogy, 020329, 020330, 101127, 101136, 101137, 431019, 431020, 431021, 431022, 431023, 431025, 490597
 analcime, 431023
 apatite, 431023
 barite, 431023
 calcite, 431020, 431021, 431022, 431023, 431025
 calcite, magnesium, 431023, 431025
 celestite, 101137
 chlorite, 431020, 431021, 431023, 431025
 clinoptilolite, 101136, 431020, 431021, 431022, 431023, 431025
 Cretaceous, 020330
 cristobalite, 431025
 crust, 810784
 dolomite, 431025
 Eocene, 020329, 020330
 glass, 431023
 Goban Spur, 801031
 gypsum, 431023, 431025
 hornblende, 431020
 K-feldspar, 431020, 431021, 431022, 431023, 431025
 kaolinite, 431020, 431021, 431022, 431023, 431025
 manganocalcite, 431023
 mica, 431020, 431021, 431022, 431023, 431025
 Miocene, 020330
 Miocene ooze, 020330
 montmorillonite, 101127, 431020, 431021, 431022, 431023, 431025
 muscovite, 431023
 ooze, radiolarian, 020329
 palygorskite, 431025
 phillipsite, 431020, 431022, 431023
 Pliocene, 020330
 Pliocene-Miocene, 020330
 pyrite, 431022, 431023, 431025
 pyroxene, 431020, 431023
 quartz, 431020, 431021, 431022, 431023, 431025
 Quaternary, 020330
 Quaternary-Pliocene-Pleistocene, 020330
 Rockall Plateau, 810783
 Tertiary, 020330
 minor element, East Pacific Rise, 650608
 Miocene, Messinian salinity crisis, 720987
 Miocene sediment biostratigraphy, 940033
 Miocene sediments, 940090, 941089, 941091, 941093, 941097
 Europe N, 800669
 Miocene stable isotopes, 940935
 Miocene to Pliocene planktonic foraminifers, 940925
 Moroccan Basin
 evolution, 500801
 margin, 500808, 500813, 500816, 500819
 nannofossil zonation, 760920
 Neogene nannofossils, high latitudes, 490529
 Neogene sediments, high-latitude, 490447, 490448, 490465
 New Jersey Transect, 950805, 950809, 950810
 North America, continental margin, 760897
 northeastern
 nannoplankton, 490533

- northeastern (Cont.)
 silicoflagellate biostratigraphy, 490533
 Northern Hemisphere, glaciation, 720987
 northernmost, 110971
 NRM, sediments, 940638, 940639
 Nunivak Subchron, sediments, 940638, 940645
 nutrient gradient, 760479
¹⁸O, 940911, 950911
 oceanic anoxic event, 801003
 anoxic sediments, 801003, 801004, 801005, 801006
 oceanography, Pliocene-Pleistocene, 950895
 oldest sediment, carbonate compensation depth, 020424
 Olduvai Subchron, sediments, 940638, 940639, 940641, 940642, 940646
 Oligocene sediments, 941089, 941090, 941091, 941097
 Oligocene to Recent benthic foraminifers, 940997
 Oligocene unconformity, 950756
 opal, phytoplankton, 490589
 opening, 260007, 260910
 Orca Basin, methane, 960779
 organic facies, 800969
 bottom water, 800969
 chalk, 800969
 chalk, black, 800969
 climate, 800969
 darker organic matter enriched material, 800969
 deposition, 800969
 diagenesis, 800969
 Goban Spur, 800969
 hinterland paleoclimate, 800969
 less oxic conditions, labile components preservation, 800969
 lighter organic matter-lean material, 800969
 mudstone, black, 800969
 organic facies, regional controls determination, 800969
 organic matter, 800969
 organic matter enrichment, 800969
 Porcupine Plain, 800969
 preservation importance effect, determination, 800969
 productivity importance effect, determination, 800969
 sediment accumulation, 800969
 sedimentary parameters, 800969
 surface water, 800969
 terrigenous organic matter, 800969
 organic facies origin, terrigenous material, 660544
 organic geochemistry, 480959, 480960, 480961, 480963, 480964, 480977, 480980, 760463
 Biscay, Bay of, 380980, 480980
 black-colored sediments, depositional model, 800967
 Cenozoic, 790721
 hydrocarbon, gaseous, 480961, 480963, 480964
 petroleum, 480959
 Rockall Plateau, 480980, 480981
 organic matter
 distribution, 760781
 sediments, 760469, 760473, 760474, 760479
 organic matter richness, Barremian littoral sediments, 801001
 oxygen, Cretaceous, 801009, 801010, 801011
 oxygen isotope, 430695
 benthic record, comparison, 850730
¹³C, 720415
¹⁸O, 720412, 720413
 Pliocene, 901399
 Pliocene benthic isotopic records, 850739
 Quaternary conditions, 800814
 Pacific Ocean, inflow, 760478, 760479
 Pacific Ocean C, oxygen isotope, 850771, 850772
 Pacific Ocean EC, geologic history, 090918
 Pacific Ocean N
 Pacific Ocean NE, regional aspects, 050635
 Pacific Ocean SW, paleoceanography, 901512
 paleoceanography, 940895
 circulation, oceanic, 850749
 purple (11-12 Ma or 8.5-9.5 Ma), 850964
 Reflector Green, 850966
 Reflector Lavender, 850962
 Paleocene cold water incursion, 800419, 800421
 Paleocene planktonic foraminifers, 730782
 Paleocene temperatures, 430695
 paleoenvironment, 940855, 941207, 950855
 strong thermal asymmetry, 800759
 paleogeography, 760931
 African Plate, 121177
 American Plate, 121174, 121177
 basement, 121177
 Caledonian rocks, 121177
 carbonate, 121177
 changing shape, 121177
 circulation, 121177
 compression, 121173
 continental dispersion, 121177
 continental margins sedimentation, 121177
 continental seamounts, 121177
 continental shelf, separation, 121177
 continents, 121174, 121177
 Cretaceous opening, 121173
 crust, oceanic, 121171
 current-controlled sedimentation, 121178
 earthquake epicenters, 121166
 Farewell Transform Fault, 121171
 formation, 121177
 fossil ridge axis, 121171
 fracture zones, 121166
 fracture zones shift, 121177
 fractured continental margin process, 121177
 initial breakup, 121175
 Jurassic, 121177
 Jurassic, opening movement, 121173
 Jurassic-Cretaceous Orogeny, 121177
 K/Ar age, 121171
 limestone, 121177
 magnetic anomaly, 121166, 121171
 Magnetic Quiet Zone, 121171
 Mediterranean Sea, 121177
 Mesozoic geology, 121177
 Mesozoic-Tertiary evolution, 121177
 Mid-Labrador Sea Ridge, 121167
 opening, 121166, 121177
 Paleocene major subsidence, 121175
 Paleocene ocean trends, 121171
 Paleocene tectonic activity, 121177
 plates, stress pattern shift, 121171
 quartzite, 121177
 sedimentation rate, 121171, 121178
 spreading, 121171, 121174, 121177
 spreading center, 121171, 121174, 121177
 subsidence, 121175
 tectonic activity, 121175
 transgression, 121177
 two plate geometry, 121171
 uplifting, 121173
 volcanic history, 121171, 121177
 paleomagnetic time scale, 760901
 paleomagnetism, 020375
 igneous rock, 140777
 igneous rocks, 140777
 paleotemperature, cold-water diatoms, 850941
 Paleozoic, 801107
 Hercynian transatlantic shear belts, 801109, 801110, 801111
 Iapetus Ocean, 801107, 801108
 Laurasia, 801108, 801109
 palynological zonation, 760920
 palynology, 930751, 950785
 particle, origin, 901227
 Pendragon Escarpment
 mudstone, black, 800979
 regional implications, 800979, 800980
 petroleum, source rocks, 770070
 petroleum generating potential, 38S0671, 440599, 480951, 480953
 clay, black, 480953
 metamorphism, organic, 38S0671, 440600
 organic matter, 440600, 440601, 440602, 480951, 480952, 480953
 organic richness, 38S0672, 38S0675
 poor potential, 480953
 thermal maturity, 480952
 physical properties, 120935, 140655, 430759
 planktonic foraminiferal biostratigraphy, 490447
 planktonic foraminiferal fauna, Pliocene, 940921
 planktonic foraminifers, zonation, 760920
 plate, 490825
 plate tectonics, 760479
 Pleistocene, 820629
 Pliocene sediment, 941089, 941090, 941091, 941093, 941098
 Pliocene stable isotope record, 940911
 Pliocene-Pleistocene oceanography, 950895
 Pliocene/Pleistocene boundary
 sedimentation changes, 941236, 941240
 sediments, 940638
 polarity zones, sediments, 940637, 940638, 940640, 940641, 940642, 940645, 940646, 940647
 Porcupine Plain, Albian-Cenomanian, 800975
 porosity measurements, 431049
 Portugal, continental margin, 47B0373
 postrift sediments, Turonian, 801176
 potash, 790520
 mineral, 790520
 Precambrian features, 801103
 Camosunary-Skerryvore Transcurrent Fault, 801106
 Erris Head, 801106
 front, postulated course, 801106
 Grenville Front, 801103, 801106
 Hadrynian Arches, 801106, 801107
 Lewisian, 801106
 Makkovik Bank, 801106
 morphologic high, 801106
 Stanton Banks, 801106
 present-day hydrological framework
 circulation, 800793
 water mass boundaries, 800793
 Puerto Rico Trench, chert, 040665
 Quaternary, Pliocene planktonic foraminifers, Quaternary, 800704
 Quaternary sediments, 941089, 941090, 941091, 941093, 941097
 radiolarian comparisons, 940889
 radiolarian layers, deposits, 770360
 radiolarian zonation, 760920
 radiolarians, 490586, 950763
 redeposition, 941061
 reflection horizon, Horizon A, 040671
 Reflector R2, smectite, 941109
 regional geology, spreading rate, 801115
 regional summary, 020415

- regional summary (Cont.)
 sea floor spreading, 020415
 Reunion, sediments, 940641, 940647, 940648
 ridges, 810790
 rifting, 480415
 margin, 760901
 Rio Grande Rise
 carbonate, 720399
 subsidence, 720963
 Rockall, 580675
 Rockall Plateau, Tertiary deposits, 810669
 Rockall Plateau W, stratigraphy, 481061
 Rockall Rise
 evolution, 810653
 sediment origin, 810653
 stratigraphy, 810653
 Rockall Rise SW, structure, 481087
 sample list, 020431
 sand, quartzose, source, 941103
 sea floor spreading, 500770, 760922,
 760924, 760941, 790895, 790896, 790914,
 790917
 mid-ocean ridge, 020424
 sea level
 changes, 760478, 760479, 760675, 760904,
 760905
 fluctuations, 950757
 sediment, 440503
 sediment age, 511530, 511531, 511532
 sediment, Cretaceous, 140787
 sediment drift, 490861
 sediment origin, Rockall Rise, 810653
 sediment wave, 941238
 field, 941083, 941087
 sedimentary environments
 basin, 440971, 440975, 440977, 440978,
 440979
 continental landmasses, 440976
 shelf, 440977
 sedimentary formations, 760763
 sedimentary history, Jurassic, 760829
 sedimentation, 120905
 bottom current, 120909, 120911, 120912,
 120913, 120915, 120918
 currents, 810856
 surface currents, 120920, 120925, 120928,
 120930
 turbidites, 120909
 turbidity current, 120906, 120907, 120909
 sedimentation rate, 020421, 510871, 940634,
 940635, 940641, 940646
 high sedimentation, 800696
 sediments, 940635, 940647, 941089
 accumulation rate, 760477
 AF demagnetization, 940637
 bottom currents, 760681
 carbon isotope, 760477
 chronozone, 940636
 claystone, 760429
 deposition, 760479
 deposition rate, 940634
 distribution, 760477
 drift, 941083
 illite, 760441, 760442
 lithology, 941089, 941090
 magnetic anomaly, 760673
 magnetic polarity reversal, 940638, 940646
 magnetic polarity time scale, 940636,
 940647
 magnetostratigraphy, 940635
 nearshore vs. offshore, 760477
 NRM, 940638, 940639
 ooze, nannofossil, 940637
 organic matter, 760469, 760473, 760474,
 760477
 Pliocene/Pleistocene boundary, 940638
 polarity zones, 940637, 940638, 940640,
 940641, 940642, 940645, 940646, 940647
 redeposition, 941061
 seismic reflection, 760653, 760675
 transport, eolian, 941093
 turbidite, 760672, 760675
 water content, 940634
 sediments, Cretaceous, 140787
 sediments, magnetostratigraphy, 760685
 seismic horizons, 760905, 760907
 seismic modeling, paleoceanography,
 conclusions
 Pacific Ocean, 850968
 reflection, major, 850968
 seismic reflection, 140341, 370329, 760341
 sediments, 760653, 760675
 seismic reflection data, 140341, 760341
 seismic reflection horizon, 760905, 760907
 seismic stratigraphy, bottom scour, mass
 movement, 901334
 shale, 47B0030
 shale, black, 47B0719
 silica, 140727
 mineralogy, 140727
 origin, 140727
 silicate, authigenic
 mineralogy, 140727
 origin, 140727
 silicoflagellates, Quaternary, 950779
 silicoflagellates, Quaternary, 950779
 slope, 930801
 smectite, 941109
 Southeast Pacific Basin, sediment
 distribution, 350204
Spirillina, 790678
 spreading, 47B0766
 spreading center
 Jurassic shift in, 760901
 shift, 760924
 spreading rate, 760899, 760903, 760904,
 760908, 760922
 Sr, paleoceanographic reconstitution,
 720405, 720407, 720408
 stable isotope
 Pliocene, 950911
 stratigraphy, 940879, 950879, 950935
 stable isotope analysis, surface water,
 800799
 stratigraphic correlation, 140969, 140972
 stratigraphy, 481061, 481062
 post-Eocene stratigraphy, 481087
 Rockall Rise, 810653
 structural evolution, 481061, 481062
 opening, 481061
 subpolar, foraminiferal transfer function,
 940045
 surface productivity, 760776
 surface water, productivity, 760479
 tectonic history, 480166, 481100
 tectonics, 760897
 tectonics pulsation, 760897
 temporal evolution, sedimentary conditions,
 480895
 tensional episode
 Cretaceous, 47B0093
 Jurassic, 47B0093
 older, 47B0093
 terrigenous organic matter, 47B0056
 terrigenous sediments, 760477
 Tertiary sediments, 941097
 Tethys
 geochemistry comparison, 720399
 Mediterranean Sea, 42A0948
 Tethys N, margin, 440957
 thermohaline flow, Quaternary, 720989,
 720991
 tholeiite, depleted, geochemistry, 810783,
 810784
 time scale, Jurassic, 760919, 760941
 trace elements
 alteration, 511087
 basalt, 810790, 810793
 East Pacific Rise, 650608
 isotope geochemistry, 720415
 Triassic-Liassic, 47B0093, 47B0764
 rifting, 47B0764, 47B0768
 salt diapir, 47B0764
 triterpanoid acids, 241159
 tropical, 400679, 400688
 turbidite, sediments, 760672, 760675
 ultramafic rocks, petrology, 820523
 unconformities, Oligocene, 950756
 volcanism, 810913
 Paleocene-Eocene, 810913
 volcanism, pyroclastic, 810900
 western, 110427, 130045, 140958, 510721
 clay, black, 510897
 clay minerals, 510731
 Cretaceous sediments, 510737
 floral province, 510904
 Pleistocene sediment, 510360
 wet-bulk density, 431049
 X-ray mineralogy, 020329, 121127, 140677
 zonation
 ammonite, 760919, 760920
 calpionellid, 760920
 dinoflagellate, 760920
 foraminifer, 760920
 nannofossil, 760920
 palynological, 760920
 radiolarian, 760920
 Atlantic Ocean NC, 540500, 711051, 750471,
 770474, 790671, 790857, 790867, 790868,
 790880, 790885, 820017, 820351, 820483,
 820492, 820493, 820509, 820531, 820539,
 820584, 820618
 Aptian to Albian, 510905
 Atlantic Ocean C, basin, 511505
 Azores, lead isotope, 820497
 basalt
 geochemistry, 820395, 820421, 820639
 heterogeneity, 820395, 820439
 isotopic composition, 820501, 820519
 magnetic properties, 820369
 mineralogy, 820395
 petrogenesis, 820449
 sulfur, 820519
 trace elements, 820035, 820449, 820501
 basin sediments, 790888
 basinal sediments, 790888
 Blake Spur, north rim, 440107
 crust, oceanic, 820361
 lead isotope, 820497
 seawater downflow, 820361
 temperature, 820361
 diapir, structures, 790195
 diapir, salt, 790195
 glass, 820509
 Hayes Fracture Zone, basalt, 820439
 hygromagmaphile elements
 heterogeneities, 820459
 mantle, 820459
 interstitial water, chemistry, 820539
 Jurassic sedimentation, framework, 760861
 limestone, 820543
 limestone, cross-laminated, 820543
 Magnetic Anomaly J, 430879, 430880, 430883
 anomalous magnetization distribution,
 430882
 high anomaly amplitude, 430879
 intermediate anomaly amplitude, 430879
 isochrons, 430879

- Magnetic Anomaly J (Cont.)
 magnetic anomaly, 430879
 magnetization, residual, 430879
 Mid-Atlantic Ridge, 430879
 magnetostratigraphy, Oligocene to Pleistocene, 820385
 mantle
 heterogeneity, 820459
 ¹⁴³Nd/¹⁴⁴Nd ratio, 820483
 ⁸⁶Sr/⁸⁷Sr ratio, 820483
 Mesozoic sequences, 410991, 411007
 chalk, 411007
 clay, zeolitic, 411007
 claystone, 411007
 limestone, 411007
 limestone, argillaceous, 411007
 Mesozoic lithostratigraphy, 410992,
 410993, 410994, 410996, 410997, 410998,
 410999, 411000, 411001, 411002, 411004,
 411005, 411006, 411007, 460973
 shale, black, 411007
 structural setting, 410991, 410992
 Mid-Atlantic Ridge, magnetics, 450128
 mineralogy, sediment, 820531
 Miocene changes, siliceous sediment, 850943
 Moroccan Basin, margin, 500805
 ¹⁴³Nd/¹⁴⁴Nd ratio, 820483
 niobium, 820035
 Oligocene to Pleistocene sediments,
 magnetostratigraphy, 820385
 physical properties, 820351
 pillow, 820543
 rare earth elements
 mantle, 820483
 mantle source, 820483
 ⁸⁶Sr/⁸⁷Sr ratio, 820483
 stratigraphic correlation, 140969
 tectonic fabric sea floor, 820017
 trace elements, 820035
 ultramafic rocks, petrology, 820523
 X-ray mineralogy, 820531
 Atlantic Ocean NE, 38S0779, 38S0817, 38S0841,
 38S0983, 130517, 410861, 411135, 480329,
 480348, 490826, 510277, 750532, 750920,
 790721, 790743, 800473, 800478, 800484,
 800557, 800582, 800590, 800595, 800601,
 800663, 800686, 800689, 800703, 800725,
 800726, 800742, 800745, 800746, 800767,
 800793, 800797, 800803, 800805, 800813,
 800817, 800823, 800847, 800877, 800885,
 800905, 800939, 800983, 801027, 801032,
 801073, 801081, 801141, 801179, 801187,
 801191, 801210, 810031, 810235, 810403,
 810505, 810506, 810507, 810544, 810581,
 810611, 810663, 810695, 810698, 810861,
 810872, 810875, 850568, 850569, 901452,
 950605
 abyssal plain, cyclic sedimentation, 801078
 alteration product
 geochemistry, 810733
 mineralogy, 810733
 anoxia, 800999
 apatite
 age, 810725
 Paleogene, 810725
 ash
 Eocene, 800845
 Eocene and Paleocene, 800845
 Paleocene, 800845
 Paleocene sediments, 800845
 Pliocene, 800845
 Atlantic Ocean
 Cretaceous, 750820
 margin, 481099, 481102, 481107, 481113
 Atlantic Ocean N
 climate, 800805
 sedimentation, 120930
 Atlantic Ocean NW, sedimentary evolution,
 430811
 barite, authigenic, 410915
 Barremian-Albian environment, 800905
 basalt
 chemistry, 810743
 geochemistry, 810733
 major element, 810795
 mineralogy, 810733, 810743
 petrology, 810743
 trace elements, 810795
 basement, main features, 801103
 benthic foraminifers, Oligocene to Recent,
 950997
 biostratigraphy, 411181, 481119, 810855
 Blake Basin, 440192
 bottom current, circulation, 490869
 bottom drift, 810695
 bottom water, circulation, 810696, 941114
 calcareous nannofossil, Neogene, 131137
 calcareous nannofossils, 480589
 carbon isotope, 940981, 950981
 carbonate, trace elements, 801055
 Cenozoic geologic history, 480431
 Cenozoic, Mesozoic sediments, 790721
 Cenozoic paleoceanography, 480377
 Cenozoic silicoflagellate, coccolith
 stratigraphy, 440775
 chlorite, sediments, 941089, 941090,
 941091, 941092, 941093, 941095, 941096,
 941097
 circulation, bottom water, 490859
 circulation, abyssal, 941122
 development, 950981
 clay minerals, 410087, 411087, 810689
 margin, 500717
 sediments, 941089
 climate
 Pleistocene change, 800805
 Pliocene-Pleistocene history, 810861
 continental rise, deposition, organic,
 47A0503
 contourites, Hatton Drift, 810695
 cooling, water mass, 941090
 crust, diagenesis, 800823
 crust, polymetallic, 800823
 cycle description, carbonate cycle, 750920
 deposition, organic, 47A0503
 dolosparite, petrography, 800899
 Eocene and Paleocene geochronology, 810877
 eolian organic matter, 410855
 Europe NW, continental margin, 801187
 evolution
 Africa, 411215, 411241
 Africa N, 411234, 411237, 411240, 411241,
 411242, 411243
 African Plate, 411241
 anoxic conditions, termination, 411229
 aseismic plateau, 411234
 aseismic rise, 411215
 basement, 411219, 411220
 basin stagnation, 411240
 basins, carbonate-poor sediments, 411229,
 411230, 411232
 bottom water, 411240
 carbonate, 411221, 411222, 411223,
 411225, 411234, 411240
 CCD, 411215, 411232, 411233, 411240,
 411241
 Cenozoic history, 411241
 Central America, 411240
 chert, 411232
 circulation, 411240, 411241
 clay, 411240
 climate change, 411241
 climate, global, 411241
 continental evolution, 411240
 continental influence, 411237
 continental slope, 411237
 Cretaceous anoxic environments, 411225,
 411226, 411227
 Cretaceous record, 411240
 crust, oceanic, 411215, 411237
 deep basins, 411215, 411218, 411219
 deposition, 411232, 411240
 eastern/western basins, 411218
 Eocene/Oligocene boundary, 411241
 Jurassic Quiet Zone, 411215
 magnetism, 411219
 major hiatus, 411232
 margin, 411215
 margin evolution, 411237
 marl, nannofossil, 411232
 mass wasting, 411237
 maximum subsidence zone transfer, 411237
 N-S basins, comparison, 411218
 Neogene calcareous layers, 411233, 411234
 North American Basin, 411232
 oceanwide facies, 411218
 Pacific Ocean C, 411240
 passive origin, 411237
 progradation, 411237
 Reflector D₂, 411232
 Reflector D, 411232
 regional tectonics, 411240
 sea floor spreading, 411240
 sediment distribution, 411232
 sediment history, 411215
 sediment loading, 411237
 sedimentary cycle, 411241
 sedimentary evolution, 411240
 sedimentation rate, 411237
 seismic reflection, 411215, 411232
 shale, black, 411227, 411228, 411229,
 411232, 411240
 Sierra Leone Rise, 411215, 411234
 sill, 411237, 411239
 single-channel coverage, 411219
 slope anticline, 411237
 Spanish Sahara, 411218
 stability, margin subsidence, 411237
 starved margin, 411237
 submarine canyons, 411237
 subsidence, 411237, 411240
 subsidence, thermal, 411237
 tectonic evolution, 411240
 terrigenous components, 411237
 terrigenous influences, decrease, 411233
 terrigenous sediment, 411240
 Tertiary renewed tectonic activity, 411240
 Tertiary tectonics, 411215
 Tethys, 411240
 transgression, 411240
 upwelling, 411237, 411241
 volcanic detritus, 411237
 volcanism, 411234, 411237, 411239, 411241
 well-oxygenated basin, 411240
 worldwide facies, 411218
 feldspar, sediments, 941090, 941091,
 941093, 941096, 941097
 foraminifers, benthic, 940997
 foraminifers, planktonic, 940605
 Eocene to Miocene, 950605
 geophysical measurements, 130517
 glacial cycles, deep-sea environment, 800811
 Goban Spur
 benthic foraminifers, 800725
 Cretaceous, 800863
 dinoflagellates, 800761
 evolution, 801210, 801213
 planktonic foraminifers, 800793

- Goban Spur (Cont.)
 Quaternary nannofossils, 800767
 Quaternary sediments, 800683
 hydrocarbon, organic petrology, 47A0511
 hydrocarbon, C_1 - C_7
 hydrocarbon, C_4 - C_7 , 480943
in situ generation, rate, 480943
 low-temperature history, 480943
 temperature, 480943
 hydrocarbon, extractable, 47A0511
 organic petrology, 630829, 630833
 hydrocarbon, light, 410855, 410859
 Iberian margin W, evolution, 47B0766, 47B0768
 ice rafting, 941091, 941093, 941095, 941098
 Iceland Basin, 810689, 810692
 illite, sediments, 941089, 941090, 941091, 941092, 941093, 941095, 941096, 941097
 inorganic geochemistry, 810173
 interstitial water, 410907
 chemistry, 810147, 810829
 isotopes, stable, 480475, 480476, 480477, 480478, 480479, 480480, 480481, 480482, 480483, 480484, 480485, 480486, 480487, 480488, 480489, 480490
 isotopic geochemistry, 810173
 Jurassic, calcisphaerulids, 440912
 kaolinite, sediments, 941090, 941091, 941092, 941093, 941096, 941097
 Kings Trough, 941149
 lava, isotopic geochemistry, 810775
 limestone, carbonaceous, Cretaceous, 800885
 lipid, 410855
 Melanesian Basin, 610617
 lithostratigraphy, 810689
 magnetic anomaly, 941149
 magnetic fabric of sediments, 941083
 magnetic polarity reversal, 940831
 magnetostratigraphy, 940635
 margin paleoenvironments, 481099
 Mesozoic variegated, red sediments, 440503
 Canary Basin, 440503
 Cape Verde Basin, 440503
 Mid-Pacific Mountains W, Aptian sediments, 620908, 620909
 mineral geochemistry
 Cenozoic, 810109
 mineralogy, 810109
 mineralogy, 410907
 Cenozoic, 810109, 810142
 Goban Spur, 810132
 Rockall Rise, 810132
 sediments, 941089
 Moroccan Basin, margin, 500817
 Neogene sediment fabric, 941083
 nitrogen, inorganic, 800993
 sediments, 800993
 nitrogen, organic, 800993
 sediments, 800993
 Northern Hemisphere, glaciation, 720987
 ooze, nannofossil, sediments, 941090, 941091, 941093, 941096
 organic geochemistry, 410815, 800849, 800949
 organic matter, 800999
 Cenozoic, 800969
 Cretaceous, 800949, 800969
 Cretaceous sediment, 800983
 organic petrography, 47A0511
 oxygen isotope
 carbon isotope, 800803
 ^{18}O , 850773
 Paleocene deposits, 790502
 paleoclimatology, estimated temperatures, 800703
 paleoenvironment, 940855
 Barremian-Albian, 800905
 Recent sediment, species, 800759
 paleoenvironments, margin, 481099
 paleontology, 411181
 palygorskite, 410087, 411087
 passage, 810690
 initiation, 810683, 810690
 Pendragon Escarpment, biostratigraphy, 800742
 petrography, Cenozoic, 801019
 petroleum generating potential, 400817, 410817
 physical properties, 411199
 planktonic foraminifers, 940605
 Pleistocene circulation, 800805
 Pleistocene climatic changes, 800805
 Pliocene-Pleistocene, 810663
 polymetallic concretions, 810701
 geochemistry, 810695, 810701
 mineralogy, 810701
 polymetallic crusts, 800823
 diagenesis, 800823
 quartz, sediments, 941090, 941091, 941092, 941093, 941095
 Quaternary calcareous benthic foraminifers biozone, 800745
 temperate latitudes, 800746
 temperate sector, 800745
 Quaternary nannofossils, 800767
 Biscay, Bay of N, 800767
 climatic events correlation, 800767
 continuous deep-water sections, 800767
 glaciation, 800767
 Goban Spur, 800767
 nannofossil assemblage, use, 800767
 nannofossil variations, 800767
 oxygen isotope, 800767
 phytoplankton population, development discontinuity, 800767
 Pleistocene stratigraphic zonations, 800767
 Quaternary stratigraphic scale, 800767
 Quaternary oceanography, 800817
 Quaternary sediment fabric, 941083
 radiolarian, 480493
 reflection horizon, Horizon A, 040671
 Reflector R2, sediments, 941125
 regional geology, regional gravity, geomagnetic patterns, 801191
 sea floor spreading, 941149
 sediment, 411087
 sediment disturbance, 940615, 940635
 sedimentary environments, 440975
 sedimentation rate, 941114
 sediments, 941089
 lithology, 941089, 941090
 seismic reflectors, 941120
 transport, eolian, 941093, 941097
 seismic reflection, 941109
 sepiolite, 410087, 411087
 shale, organic-rich, 47A0523
 geochemistry, 47A0523
 slope, 800736
 slopes, 780093
 smectite, sediments, 941089, 941090, 941091, 941092, 941093, 941095, 941096, 941097
 sphene
 age, 810725
 Paleogene, 810725
 stable isotope, 480475, 480477, 480478, 480482, 480483, 480484, 480486
 Antarctic Bottom Water, 480477
 Antarctic Surface Water, 480477
 Antarctica, 480477, 480486
 biological fractionation, 480478
 Biscay, Bay of, 480475
 bottom water, 480486
 ^{13}C , 480477, 480486
 calcareous nannofossils, 480477
 carbon isotope, 480477, 480484
 carbonate, 480477
 carbonate, biogenic, 480477, 480486
 Cenozoic planktonic foraminifers, 480477
 Cenozoic seawater cooling, 480484
 circulation, oceanic, 480477
 climate, 480478
 climate change, 480484
 climate, global, 480477
 coccoliths, 480477
 cold deep-water influx, 480486
 current systems, 480475
 deep current, 480475
 density, 480475
 deposition, 480477
 diagenesis, 480477, 480478
 dissolution, 480477
 Eocene cooling, 480483
 Eocene productivity, 480486
 Eocene temperatures, 480486
 Eocene/Oligocene boundary, 480477, 480486
 Faroe-Iceland Ridge, 480477
 glaciation, 480484
 glaciation, polar, 480477
 hydrologic changes, 480484
 ice, 480477
 ice cap, 480477
 Iceland-Scotland Overflow Water, 480475
 isotopes, 480478
 isotopic change, 480477
 Labrador Sea, 480477
 latitudinal thermal zonation, 480486
 Mediterranean Sea, 480475
 microfaunal evolution, 480486
 microflora, microfauna distribution, 480475
 Miocene thermal evolution, 480477
 Miocene-Pliocene isotopic temperatures, 480486
 nannofossil assemblages, 480486
 North Atlantic Deep Water, 480475
 North Atlantic Drift, 480475
 Northern Hemisphere, 480486
 ^{18}O , 480477
 ocean opening, 480477
 Oligocene/Miocene boundary, 480486
 organic evolution, 480477
 ostracodes, 480486
 oxygen isotope, 480477
 Pacific Ocean, 480475, 480477
 Paleocene-Eocene warming, 480477
 paleodepth, 480478
 paleontological-isotopic events, correlations, 480484
 paleotemperature, 480477
 planktonic, benthic foraminifers, 480477
 planktonic foraminifers, variations, 480478
 precipitation, 480478
 productivity, nutrients, 480486
 psychrosphere, 480486
 Pyrenean Orogeny, 480477, 480486
 Rockall, 480475
 salinity, 480475
 sand/silt/clay ratio, 480486
 sea floor temperature, 480482
 sea ice, 480477
 siliceous microfossils, 480486
 subantarctic latitudes, 480477
 subantarctic paleotemperature, 480477
 surface water, 480475, 480478, 480482, 480483
 temperature, 480475

- stable isotope (Cont.)
 terrigenous origin, 480486
 Tertiary, 480484
 Tethys, 480477, 480486
 topographic barrier, 480477
 transform fault, 480475
 water mass, climatic evolution pattern, 480475
 water stratification, 480478, 480479
 stable isotope analysis, surface water, 800797, 800800
 surface water, climate, 800793
 tectonic history, clay, black, 430811
 Tertiary, Eocene, 801179
 Tertiary deposits, 810669
 Tertiary oceanography, 480475, 480476, 480477, 480478, 480479, 480480, 480481, 480482, 480483, 480484, 480485, 480486, 480487, 480488, 480489, 480490, 480491
 Tertiary paleontology, paleoceanography, 480475
 Tethys
 carbonate, 801055
 Mediterranean Sea, 42A0945
 tholeiite
 geochemistry, 800939, 810783
 mineralogy, 800939, 810783
 Thulean Land Bridge, 810689
 transport, eolian, sediments, 941097
 upper slope
 biostratigraphy, 800733
 bottom water, 800736
 vermiculite, sediments, 941097
 volcanism, Paleocene-Eocene, 810913
 X-ray mineralogy, 130605, 130606, 410065, 411065
 Atlantic Ocean NW, 010501, 020413, 030007, 040007, 040077, 040093, 040590, 040671, 110009, 110051, 110075, 110105, 110135, 110219, 110313, 110351, 110357, 110977, 111013, 130829, 140737, 151086, 151098, 180577, 260626, 320005, 320193, 320201, 350560, 440515, 440547, 440993, 500809, 650739, 670542, 720485, 720720, 760007, 760010, 760439, 760469, 760561, 760719, 760851, 760915, 770292, 770352, 770455, 770456, 800654, 800725, 800759, 810596, 820385, 820578, 850964, 890601, 930096, 930425, 930473, 930507, 930511, 930525, 930555, 930577, 930593, 930713, 930753, 930761, 930850, 930854, 930867, 930891, 930908, 930989, 931039, 931079, 931080, 931113, 931208, 931247, 931254, 931271, 931299, 931303, 931328, 931329, 931333, 931338, 931339, 950040, 950047, 950245, 950400, 950429, 950431, 950468, 950512, 950565, 950766
 abyssal plains, 950766
 acoustic stratigraphy, 430827, 430828, 430844
 diagenesis, 430844
 geologic and age correlations, 430844
 Horizon A, 430827, 430829, 430830, 430832, 430833, 430834, 430836, 430840, 430841
 Horizon B, 430827
 Horizon Beta, 430827
 impedance contrast, 430844
 reflector age, 430844
 reflectors, 430827, 430828, 430829
 seismic reflection, 430844
 unconformity, 430844
 Atlantic continental margin NW, evolution, 440957, 440958
 basalt
 geochemistry, 430736
 mineralogy, 110873
 radiometric age, 430749, 430751
 basins, 931305
 benthic foraminiferal distribution, 930473
 Bermuda Rise, physical properties, 110667
 biostratigraphy, 440657
 lower continental rise, 930593
 bitumen, 440645
 Blake Basin, 440192, 440203
 Bermuda Rise, 440153
Bolboforma, 950429
 Cape Verde Basin, 020414
 carbohydrate, residues, 440653
 carbon, 111059, 440949, 440983
 geochemistry, 430651, 440605
 carbon isotope, 930989, 931003
 oxygen isotope, 850772
 Pacific Ocean NW, 850774
 carbonate, 111059, 440949, 440983
 diagenesis, 110791
 Cat Gap Formation, 790889
 Cenozoic planktonic foraminifers, 950253
 Cenozoic radiolarians, 930713
 Cenozoic silicoflagellate, coccolith stratigraphy, 440782
 chemistry, clay, 650418
 chert
 basin, 430437
 Cretaceous, 430437
 clay, Plantagenet Formation, 770731
 clay, black, geochemistry, 430633
 clay minerals, 510721, 510731
 claystone, Cretaceous, 440593
 clinoptilolite, 430463, 430464, 430474, 430646
 chemistry, 430463, 430478
 distribution, 430464, 430469, 430470, 430471, 430472, 430473, 430474
 as environmental indicators, 430463
 phillipsite, 430464
 processes of origin, 430474, 430475, 430476
 compressional sound velocity, sediments, 110723
 compressional wave velocity, 110723
 continental margin, 930751, 930783, 931187
 continental rise, 930047, 931177, 950766
 continental rise, lower, 931003
 Cretaceous foraminifers, 440663, 950245
 Cretaceous sediments, 510737, 930989, 931305
 diagenesis, carbonate, 110791
 diagenetic textural features, 930989
 Eocene diatoms, 510851
 Eocene-Oligocene benthic foraminifer isotope record, ³C, 850775
 evolution, 430791
 evolution, sedimentary, 430791
 foraminifers, 930555
 foraminifers, planktonic, Cretaceous to Quaternary, 950253
 geochemistry, 930989
 geology, 110877
 Goban Spur, benthic foraminifers, 800725
 grain size, 111047, 440987, 450379
 Gubbio, 720730, 720734, 720737
 hiatuses, 950253
 Horizon A, 020424
 hydrocarbon, light, 440651
 sediments, 440651
 inorganic chemistry, 430675
 inorganic geochemistry, sediments, 440578
 interstitial water, chemistry, 110997, 111009
 interstitial water chemistry, 430669
 introduction, principal results, Blake Basin, 440008
 Jurassic, nannofossils, calcareous, 440766
 Jurassic sedimentation, 760829
 Labrador Sea S, bathymetry, 121155
 limestone
 Jurassic-Cretaceous, 440465
 shallow water, 440444
 lithology, 110901, 110905, 410174, 410182, 440203
 basalt, 110905
 basement, 110901, 110903, 110905
 basin, 110942, 110944, 110946, 110947, 110948
 chalk, carbonate, 110922
 clay, 110905, 110924, 110928, 110929
 clay, black, 110922, 110923, 110924
 interbedding, 110905
 limestone, 110909, 110911, 110918, 110919, 110920, 110921
 limestone, green, 110905
 limestone, red, 110905, 110911, 110912, 110913, 110914, 110915, 110916, 110918
 oldest sediment, 110909
 ooze, carbonate, 110922
 palagonite, 110905
 Quaternary deposits, 110939, 110942
 sediments, 110901
 Tertiary deposits, 110929, 110932, 110933, 110934, 110936, 110937
 volcanic material, 110905
 lithostratigraphy, 430827
 lower continental rise, calcareous nannofossil, 930593
 macrofossils, petrology, 931003
 Maestrichtian foraminifers, 930555
 magnetic anomaly, 430857
 sea floor spreading, 430857
 magnetic reversal, Keathley chronology, 430857
 magnetic stratigraphy, lower continental rise, 930593
 magnetostratigraphy, 440523, 930593, 930849, 930881
 Mediterranean Sea, Mesozoic, 110801
 Mesozoic evolution, 440960
 margin, 440949
 Mesozoic sediments, 440503
 Mesozoic variegated, red sediments, 440503, 440505, 440511
 crust, continental, 440505
 Pacific Ocean, 440505
 microfacies
 aggregate, 440485, 440488, 440489
 attapulgitic, 440490
 authigenic fraction, 440482, 440488, 440489
 authigenic material, 440485
 Barremian to Eocene, 440483
 breccia, oolitic, 440489
 burrow mottling, 440484, 440485, 440489
 CaCO₃, 440478, 440484, 440488, 440491
 calcilutite, 440487, 440488
 calcite, 440490
 Campanian to Barremian, 440489
 carbonate, 440487
 carbonate compensation depth, 440491
 chalk, 440484, 440485, 440487, 440489
 circulation, 440492
 clay, 440482, 440486
 clay, calcareous, 440482, 440483, 440489
 clay minerals, 440480
 claystone, 440482, 440483
 claystone, carbonaceous, 440488
 claystone, radiolarian, 440487
 contour current, 440483, 440489, 440490, 440493

- microfacies (Cont.)
 cross-lamination, 440487
 current, geostrophic, 440489
 current, low-energy, 440491
 dolomite, 440490
 illite, 440485, 440490, 440491
 kaolinite, 440485, 440491
 lamination, 440483, 440484, 440485
 limestone, 440483, 440487, 440489
 limestone, cherty, 440484
 limestone, siliceous, 440484
 manganiferous sediment, 440489
 marl ooze, 440482
 marlstone, 440488
 mica, 440488, 440489, 440490
 micaceous grains, 440482
 mixed layer clay, 440490
 mud, 440482, 440492
 mud, calcareous, 440482
 mudstone, 440482, 440483, 440487, 440489
 ooze, 440483
 ooze, foraminiferal nannofossil, 440490
 ooze, nannofossil, 440482, 440483,
 440484, 440485, 440486, 440489, 440490
 ooze, siliceous, 440487
 pelagic sedimentation, 440491
 planktonic foraminifers, 440482, 440484,
 440489, 440491
 quartz, 440482, 440488
 sand, 440482
 sand, foraminiferal, 440486, 440489
 sandstone, radiolarian, 440487
 settling velocities, 440491
 shale, 440487
 shale, black, 440487, 440489, 440491
 siliceous organisms, 440484
 siliceous skeletons, 440488
 silt, 440480, 440482, 440489
 silt, calcareous, 440489
 skewness, 440480, 440491
 smectite, 440483, 440485, 440489, 440490,
 440491, 440492, 440493
 solution, 440489
 sorting, 440480, 440491
 sponge spicules, 440489
 terrigenous components, 440485, 440490
 transport, 440492
 turbidity, 440489
 turbidity current, 440483, 440485, 440493
 volcanic source, 440492
 microfacies, sediments, 440477, 440491
 midocean canyon, 120930, 121155
 mineralogy
 clay, 650418
 sediment, 430463
 mineralogy, coarse fraction, sediments,
 430457
 Moroccan Basin, margin, 500816
 mudstone, black, 430411
 deposition, 430411
 mudstone, green, 430411
 deposition, 430411
 mudstone, organic-carbon-rich, 430411
 Neogene calcareous nannofossils, 930593
 Neogene planktonic foraminifers, 930481
 Neogene and Quaternary planktonic
 foraminifers, 930481
 New England Seamounts, 430847
 New Jersey, margin, 930481, 930493
 New Jersey Transect, 950809
 organic geochemistry, 440585, 440593, 440617
 organic matter, insoluble, 440645
 oxygen isotope, 930989, 931003
¹⁸O, 850774
 Pacific Ocean C
 oxygen isotope, 850772
 paleoceanography, 850948
 Paleocene planktonic foraminifers, 930577
 paleoenvironment, submerged cold water,
 800759
 paleomagnetism, 440523
 paleoplate thickness, 430877
 palynology, 510897, 930751, 930783
 palynostratigraphy, correlation, 440887,
 440893
 petroleum generating potential, 440599
 Cretaceous sediments, 430663
 petrology, 931003
 sea floor, 430736
 phillipsite, 430463, 430464, 430474, 430646
 chemistry, 430463, 430478
 clinoptilolite, 430464
 distribution, 430464, 430469, 430470,
 430471, 430472, 430473, 430474
 as environmental indicators, 430463
 processes of origin, 430474, 430475,
 430476
 physical properties, 010104, 010168,
 010206, 010232, 010287, 010313, 020028,
 020104, 020211, 020242, 020293, 030036,
 030079, 030119, 030159, 030204, 030253,
 030282, 030329, 030375, 030419, 040023,
 040046, 040066, 040084, 040098, 040130,
 040151, 040222, 040246, 050057, 050167,
 060022, 060045, 060061, 060072, 060146,
 060174, 060198, 060226, 060249, 060299,
 060352, 060390, 060452, 060495, 060542,
 060559, 060588, 070031, 070056, 070328,
 070480, 070612, 070730, 070825, 840140,
 930445
 accumulation rate, 160499
 acoustic anisotropy, 47B0059
 acoustic character, 400066
 acoustic impedance, 080047, 080290,
 080539, 080624, 120261, 120415, 160307,
 230050, 230124, 230176, 230217, 230309,
 230390, 230550, 230611, 240025, 240026,
 240133, 240202, 240254, 240334, 240401,
 250033, 250097, 250147, 250197, 250296,
 260083, 260304, 260333, 260366, 280183,
 330053, 330173, 330310, 340121, 360096,
 360150, 430170, 430222, 430340, 440086,
 440173, 440349, 47A0045, 47B0063, 510058
 acoustic velocity, 430049, 430121
 Atterberg limits, 160499
 average grain density, 160499
 basalt, 340090, 42A0157
 Black Sea, 42B1107
 bulk density, 080047, 080064, 080140,
 080290, 080463, 080539, 080624, 090039,
 090059, 090216, 090323, 090409, 090453,
 090454, 090491, 090618, 100009, 100027,
 100058, 100073, 100093, 100122, 100169,
 100198, 100298, 120056, 120370, 120415,
 120684, 120766, 130066, 130122, 130156,
 130197, 130230, 130267, 130268, 130370,
 130390, 130425, 130489, 140023, 140054,
 140093, 140140, 140164, 140185, 140224,
 140259, 150024, 150174, 150219, 150280,
 150302, 150334, 150368, 160026, 160059,
 160158, 160236, 160270, 160306, 160371,
 160417, 170059, 170153, 170267, 170293,
 180020, 180039, 180174, 180217, 180239,
 190025, 190097, 190172, 190223, 190293,
 190331, 190375, 190419, 190469, 190557,
 200013, 200026, 200038, 200048, 200056,
 200073, 210040, 210065, 210118, 210210,
 210279, 210344, 210380, 240024, 240027,
 240135, 240201, 240203, 240287, 240289,
 240333, 240334, 240398, 240476, 250032,
 250072, 250095, 250147, 250197, 250243,
 250254, 250267, 250296, 260031, 260083,
 260139, 260163, 260239, 260304, 260333,
 260365, 270024, 270098, 270140, 270205,
 270292, 280022, 280053, 280085, 280126,
 280183, 280223, 280224, 280341, 280374,
 330032, 330047, 330048, 330113, 330172,
 330310, 340030, 340090, 340121, 350076,
 350132, 350165, 360033, 360095, 360149,
 360216, 360262, 380038, 380124, 380181,
 380182, 380185, 380186, 380395, 380458,
 400211, 410031, 410176, 411199, 42A0039,
 42A0072, 42A0184 42A0330, 430049,
 430121, 430170, 430222, 430340, 440087,
 440179, 440351, 47A0044, 47A0045,
 bulk density and porosity, 240024
 bulk density versus lithology, 310558
 carbonate, 120935
 compressional sound velocity, 500027
 compressional wave velocities, 410032
 compressional wave velocity, 230049,
 230124, 230176, 230217, 230307, 230390,
 230549, 230609, 230763, 510058
 consolidation, 160499
 density, 120945, 230307, 430049, 430121
 density, porosity, 230049, 230124,
 230174, 230217, 230389
 diagenesis, 160499
 geophysical logging, 050057, 050167
 grain density, 080048, 080064, 080140,
 080290, 080462, 080539, 080678, 130066,
 130124, 130156, 130230, 130267, 130390,
 130426, 130489, 160026, 160059, 160158,
 160236, 160270, 160307, 160371, 160417,
 310536, 42A0072, 42A0330
 GRAPE, 310535, 310536, 310537, 310562
 heat conductivity, 500027
 heat flow, 210024, 210040, 210067,
 210120, 210211, 210279, 210344, 210380
 humidity, 42B1110
 interstitial waters, 110715
 Kyushu-Palau Ridge, 310544, 310545
 magnetic properties, 340090, 340121
 modeling, 930425
 Nankai Trough, 310545, 310547
 natural gamma radiation, 080048, 080140,
 080290, 080539, 080624, 090039, 090058,
 090216, 090321, 090409, 090452, 090454,
 090491, 090618, 100009, 100027, 100058,
 100073, 100093, 100122, 100198, 100262,
 100314, 110667, 110668, 110669, 120169,
 120261, 120415, 120684, 120766, 130066,
 130124, 130156, 130197, 130230, 130267,
 130268, 130370, 130426, 130489, 140023,
 140056, 140093, 140140, 140164, 140185,
 140224, 140259, 140298, 150030, 150175,
 150220, 150281, 150305, 150335, 150369,
 160027, 160059, 160159, 160236, 160270,
 160307, 160371, 160417, 170059, 170153,
 170250, 170267, 170293, 180239
 Pacific Ocean NE, 160499
 paleomagnetism, 230051
 Panama Basin, 160499
 Philippine Basin, 310541
 Philippine Sea, 310535
 plasticity, 42B1110
 porosity, 080047, 080064, 080140, 080290,
 080462, 080539, 080624, 090058, 090215,
 090321, 090409, 090453, 090454, 090491,
 090618, 120261, 120415, 130122, 130197,
 130230, 130267, 130268, 130370, 130390,
 130426, 130489, 140023, 140054, 140140,
 140164, 140185, 140224, 140259, 140298,
 150024, 150174, 150219, 150280, 150302,
 150334, 150368, 160026, 160059, 160158,
 160236, 160270, 160306, 160371, 160417,
 160499, 170153, 180020, 180039, 180102,
 180174, 180217, 180239, 180292, 180381,

physical properties (Cont.)

180411, 180454, 180503, 240024, 240027, 240135, 240201, 240203, 240287, 240289, 240333, 240334, 240398, 240476, 250197, 250254, 250267, 250296, 260031, 260083, 260139, 260163, 260239, 260304, 260333, 260365, 270026, 270098, 270140, 270205, 280022, 280053, 280126, 310536, 330032, 330047, 330048, 330113, 330172, 330310, 340030, 340090, 340121, 350076, 350133, 350165, 360033, 360095, 360149, 360216, 360262, 380038, 380124, 380181, 380182, 380185, 380186, 380395, 380458, 400051, 400053, 400214, 400368, 410031, 410176, 410429, 411200, 411205, 411206, 411207, 42A0157, 42A0184, 42A0330, 42B1112, 440087, 440179, 440351, 47B0059, 500027, porosity relationship, 110678
porosity and water content, 110679, 110692, 110696
reflectors, 120951
Sea of Japan, 310535
sediment-rock transformation, 310535
seismic stratigraphy, 230050
shear strength, 160059, 160159, 160236, 160270, 160307, 160371, 160417, 160499, 310560, 380038, 380124, 380181, 380183, 380185, 380186, 380187, 380395, 380458, 400053, 400054, 400214, 400216, 400370, 410032, 410176, 410242, 410334, 410430, 411199, 411200, 510058, 42A0039, 42A0074, 430049, 430121, 430169, 430221, 430339, 440089, 47A0045, 500027, sonic velocity, 080048, 080064, 080140, 080290, 080463, 080539, 080624, 090059, 090216, 090323, 090409, 090453, 090454, 090491, 090618, 100009, 100027, 120261, 120322, 120370, 120415, 120766, 140023, 140057, 140140, 140185, 140225, 140259, 150026, 150174, 150281, 150304, 150335, 150369, 160027, 160059, 160158, 160236, 160270, 160307, 160371, 160417, 170250, 180020, 180039, 180102, 180174, 180292, 180411, 180454, 190025, 190172, 190233, 190293, 190331, 190375, 190420, 190469, 190557, 200013, 200026, 200038, 200048, 200056, 200073, 200100, 210023, 210040, 210067, 210120, 210210, 210279, 210344, 210380, 240024, 240133, 240135, 240287, 240334, 240400, 240476, 250033, 250073, 250095, 250147, 250197, 250243, 250254, 250267, 250295, 260031, 260083, 260139, 260163, 260239, 260285, 260304, 260333, 260366, 270026, 270100, 270140, 270206, 270292, 280053, 280085, 280126, 280183, 280223, 280224, 280341, 280374, 330032, 330048, 330172, 330310, 340030, 340090, 340121, 350034, 350076, 350165, 360033, 360096, 360149, 360216, 360262, 380039, 380124, 380181, 380185, 380186, 380187, 400053, 400054, 400214, 400216, 400368, 410178, 410242, 410334, 410430, 411199, 411200, 411206, 411209, 411211, 42A0038, 42A0071, 42A0184, 42A0329, 430170, 430222, 430340, 440086, 440173, 440349, 47A0041, 47A0045, 47B0058, sound velocity, 110704, 110707, 110710, 42B1113
sound velocity anisotropy, 330053
specific gravity, 410176, 411199
specific weight, 42B1111
Swedish Fall Cone, 160500
temperature, 47A0069
thermal conductivity, 080048, 210024, 210040, 210067, 210120, 210211, 210279, 210344, 210380, 230550, 230611, 230763,

250097, 250147, 250198, 250243, 250267, 250296, 340030, 340090, 340121, 42A0039, 42A0074, 42A0157, 42A0184, 42A0331, 510059
variation with age, 160499
velocity, 110678
velocity anisotropy, 330117, 330173
velocity, *in situ*, 120945 void ratio, 410031
water content, 130122, 130197, 130230, 130267, 130268, 130370, 130390, 130426, 130489, 140093, 140164, 140259, 140298, 150024, 150174, 150280, 150302, 150334, 150368, 160026, 160059, 160158, 160236, 160270, 160306, 160371, 160417, 160499, 240027, 240135, 240203, 240289, 240334, 240401, 240481, 250097, 250197, 250254, 250296, 260083, 260163, 260239, 260304, 260333, 260365, 270292, 280022, 310535, 330032, 330047, 330048, 330113, 330172, 350034, 350076, 350133, 350165, 360033, 360095, 360149, 360216, 360262, 380038, 380124, 380181, 380182, 380185, 380186, 380395, 380458, 410031, 410176, 42A0073, 42A0184, 42A0330, 430170, 430221, 430339, 440087, 440179, 440351, 510059
wet-bulk density, 110702, 160499, 310535, 310536, 500027, 510051 Yamato Basin, 310553 Yamato Rise, 310556
planktonic foraminifers, Quaternary, 930481
lanorotalites *pseudomenardii*, 930577 pollen, spores, pollen studies, 960644
porcelanite, Eocene, 430437
porcellanite basin, 430437 Eocene, 430437
proto-Atlantic Ocean NW, shale, 430643
quartz, 790378
radiolarians, Cenozoic, 930713
reflection, bathymetric, 440547
reflection horizon, Horizon A, 040671
reflection, magnetic, 440547
reflection, seismic, 440547
regional aspects, 110951, 110957, 110967, 110970, 110971, 110972
regional seismic grid, borehole data
extrapolation, depositional history, 950790
salt, sequence, 790187
sea floor geochemistry and petrology, 430736
sea floor spreading, 430857
magnetic anomaly, 430857, 430858, 430862, 430863, 430865, 430866, 430867, 430869, 430870, 430871, 430872, 430873, 430874
sedimentary environment, 440971
Cenozoic, 440949
Mesozoic, 440949
sedimentary evolution, 430791, 430792, 430808
American Plate N, 430792
basalt, 430792
carbonate, 430812
carbonate compensation depth, 430791, 430793, 430794, 430795, 430811, 430812
circum-global current, 430797
clay, 430811
clay, black, 430795, 430796, 430797, 430801, 430811
Cretaceous, 430814
Cretaceous fluctuations, 430808
Cretaceous rudist reefs, 430810
Cretaceous sea floor fluctuations, 430808
Cretaceous/Tertiary boundary, 430812, 430813, 430814, 430815
depositional environment, 430795, 430797, 430799, 430801, 430802
Eocene siliceous sedimentation, 430815,

430816
events, 430817
Horizon A*, 430812
J-Anomaly Ridge, 430802, 430803, 430805, 430806, 430807, 430808, 430809, 430810
limestone, 430791, 430793, 430794, 430795, 430797
North American Basin, 430793
Oligocene drop, 430818
Pacific Ocean, 430808
Paleocene, 430815
paleomagnetism, 430813
Red Sea, 430811
rudists, macrofossils, 430806
tectonics, 430793
volcanism, 430811, 430815
sedimentation, 440971
basin sedimentary units, 440971, 440974, 440975, 440976, 440977, 440978
sediments, 440599, 440651
seismic modeling, paleoceanography, conclusions, erosion, 850968
seismic stratigraphy, 930425
siliceous sponge spicules, 510851
sonic velocity, 110723
sorting, 111047
tectonic history, 430791
Tethys
comparison, 440957
margin, 440949
tetrapyrrole, 430651
texture, 110873
turbidite, mineral composition, 670542
volcano, height, 430877
X-ray mineralogy, 110729
zeolite
chemistry, 430463
distribution, 430463
Atlantic Ocean S, 030003, 030007, 030025, 030027, 030071, 030113, 030153, 030195, 030249, 030275, 030319, 030367, 030413, 030441, 030445, 030453, 030462, 030464, 030466, 030509, 030699, 030711, 040017, 040661, 050573, 061260, 061280, 72034, 090919, 090924, 100388, 120003, 130800, 140500, 190294, 210717, 220382, 260478, 260484, 260935, 260936, 260945, 260947, 260949, 300445, 340573, 350560, 350885, 360019, 360027, 360087, 360143, 360207, 360259, 360519, 360857, 360971, 361047, 361051, 370594, 38S0285, 38S0491, 390445, 390947, 391047, 391099, 391101, 391103, 391104, 391105, 391106, 391108, 391109, 391113, 391117, 391121, 391122, 391123, 391124, 391125, 391127, 400589, 400638, 400741, 400915, 400924, 410041, 410961, 411232, 430618, 430697, 430699, 430710, 430799, 430811, 440807, 47B0031, 480006, 480482, 480483, 480484, 480916, 481104, 481106, 481128, 490848, 490933, 610432, 610817, 620362, 620477, 620508, 620991, 680271, 710005, 710008, 710024, 710046, 710111, 710122, 710145, 710284, 710287, 710302, 710317, 710336, 710340, 710341, 710345, 710377, 710379, 710405, 710409, 710416, 710417, 710448, 710457, 710459, 710468, 710566, 710567, 710739, 710741, 710747, 710748, 710750, 710754, 710755, 710756, 710757, 710758, 710789, 710798, 710799, 710800, 710822, 710825, 710830, 710837, 710888, 710933, 710941, 710951, 710981, 711011, 711015, 711016, 711029, 711030, 711033, 711054, 711061, 711105, 720006, 720008, 720010, 720025, 720028, 720063, 720064, 720183, 720189, 720415, 720457, 720467, 720499, 720501, 720606,

- 720675, 720721, 720728, 720731, 720737, 720738, 720757, 720787, 720807, 720809, 720821, 720829, 720849, 720854, 720890, 720895, 720897, 720908, 720915, 720918, 720925, 720927, 720928, 720931, 720933, 720939, 720941, 720953, 720956, 720957, 720959, 720961, 720974, 720980, 720982, 720995, 720997, 721004, 730005, 730036, 730045, 730048, 730049, 730095, 730096, 730109, 730110, 730111, 730137, 730188, 730207, 730272, 730278, 730285, 730391, 730429, 730486, 730487, 730488, 730489, 730496, 730498, 730519, 730527, 730528, 730545, 730579, 730599, 730600, 730603, 730620, 730629, 730648, 730701, 730709, 730711, 730713, 730717, 730721, 730725, 730730, 730740, 730741, 730746, 730749, 730758, 730771, 730776, 730778, 730783, 730791, 730796, 740005, 740014, 740042, 740061, 740249, 740480, 740505, 740521, 740525, 740561, 740603, 740645, 740664, 740679, 740713, 740728, 740729, 740731, 740732, 740735, 740752, 740755, 740756, 740775, 740795, 740837, 740875, 740884, 740886, 740888, 740892, 750031, 750060, 750065, 750070, 750115, 750116, 750119, 750292, 750457, 750463, 750469, 750472, 750477, 750479, 750483, 750522, 750524, 750528, 750529, 750539, 750547, 750570, 750578, 750578, 750763, 750771, 750783, 750811, 750821, 750845, 750846, 750850, 750852, 750893, 750894, 750903, 750933, 750967, 750979, 751035, 751039, 751040, 751041, 751055, 751069, 751099, 751205, 751206, 751207, 751211, 751216, 760142, 760429, 760442, 760480, 760606, 760822, 760825, 760829, 760834, 760843, 760851, 760852, 760853, 760856, 760859, 760861, 760866, 760879, 760897, 760898, 760899, 760901, 760907, 760913, 760914, 760915, 780029, 780475, 780506, 800161, 800507, 800515, 800516, 800524, 800559, 800570, 800726, 800794, 800817, 801002, 810446, 810456, 810525, 820515, 820568, 820577, 820578, 820579, 820580, 820581, 820582, 820596, 820624, 820625, 850415, 850668, 850818, 860441, 860600, 860793, 860794, 860796, 860797, 860801, 900003, 900927, 900979, 901274, 901401, 920415, 920597, 930527, 930528, 931231, 931233, 950400
- age, 391099
ages, biostratigraphic zones, 730623
Amazon Ridge, 391121
crest, 391099
Angola, Brazil, 390927
Angola Basin, Cretaceous sediments, 751051
Angolan borderland, 391099
anisotropy, 390555
anoxia, organic richness, 801011
anoxia, global, evidence against, 801002, 801003
Aptian, 481148
Argentine Basin, 391099, 391108
seismic reflection, 391115, 391117, 391120, 391121
Bahama Islands, geology, 110883
basalt
density, 390493
K/Ar age, 390547
magnetostratigraphy, 730687
mineral chemistry, 730545
ore mineralogy, 730603
petrography, 730545
petrology, 390513, 730545
physical properties, 390555, 390561
basement, 391099
basin, 360999
Belem Ridge
formation, 040661
spreading, 040661
Tertiary, 040662
Benguela Current, 780507
biostratigraphic section, low-latitude, 391099
biostratigraphic zones, numerical ages, 730623
biostratigraphy, 391081
boundary current, Atlantic Ocean N, 500502
Brazil, Angola, 390927
Brazil Basin, 391108
basalt, 390545
sedimentation comparison, 721004
breccia, volcanic, 390537
¹³C, 730725, 730733
isotopes, 730726, 730728, 730730, 730732
isotopic temperature scale, 730732
calcareous nannoplankton, 440745
rifting, 440743
calcite, recrystallization, 850818
Cape Basin, 901230 Cretaceous to Pliocene, 400494 shale, black, 711028, 711029, 711030
carbon, 020319, 030495, 030507, 040307, 050431, 050432, 060739, 060752, 361047, 390501, 730789 calcium carbonate, 020319, 030495, 040307, 040314, 050431, 050432, 060750, 060751 carbon, organic, 040314
carbon isotope benthic foraminifers, 850771
¹³C, 720415, 850774, 901401
Eocene-Oligocene, 730725
¹⁸O, 720412, 720413
shift, 901402
stratigraphy, 390911
carbon, organic, 720833, 750967
geochemistry, 750967
preservation, 711054
carbonate, 020319, 030495, 040307, 050431, 060739, 060752, 361047, 390501, 730789
calcium carbonate, 020319, 030495, 040307, 040314, 050431, 050432, 060750, 060751
carbon, 020319, 030507, 050432
carbon, organic, 040314, 711061
Cretaceous-Tertiary, 730749
dissolution, 730765
redeposited clastics, 760820
Sr, 720404
Cenozoic, 710340
Cenozoic paleoceanography, 730771
calcite, 730772, 730773, 730775
paleoecological evolution, 730783
stable isotope geochemistry, 730776, 730779
Cenozoic silicoflagellate, coccolith stratigraphy, 440776
Cenozoic-Cretaceous sediments, Atlantic Ocean N, 800980
chalk, 820598
chalk, nannofossil, Miocene, 720821
circulation, 400025
clastic sediment, Cretaceous, 401025, 401045
clay minerals, 390395
distribution, 390395
stratigraphy, 390395
clay, red, Miocene, 730515
climate
Paleogene, 730737
Pliocene, 720895, 730701
coarse detritus, paleoglacial implications, 360857
cone-in-cone structure, 710345
calcite, 710346, 710348
carbonate, 710346
diagenesis, 710349
formation hypothesis, 710349
geochemistry, 710345
lithology, 710345
morphology, 710345
shale, black, 710345
continental margin, 390940, 390944
continental shelf, onshore geology, 400970, 400971, 400974, 400975
Cretaceous, 720979
climate, 720980, 720981
Cretaceous/Tertiary boundary, 720981, 720982
lithofacies, 720980
tectonics, 720979, 720980
Cretaceous-Tertiary sediments, 730749
Cretaceous/Tertiary boundary, 730755
magnetostratigraphy, 730657
crust, 730791
age, 730791
crust, oceanic, 390941, 390942
age, 730791
evolution, 390941, 390943
deepening, 47B0674
deposition, 390940, 390943
bottom water, 250501
diapir, 390928
structural, 391099
diatomites, organic chemistry, 730537
dissolution
carbonate, 730765
ooze, calcareous, 730515
Eocene-Oligocene benthic foraminifer
isotope record, benthic foraminifers, 850775
evaporites, deposition, 390940, 390941, 390944
evolution, 390927, 390940, 390944, 710331
evolution, early, 750469
evolution, structural, 750483
Falkland Plateau
Antarctica, 711011
geochemical relationships, 711011
fracture ridges, 390940
fracture zone, 390931
fracture zone tectonics, 391099
geochemical history, sedimentation, 710404, 710405
geochemistry, 390477
geologic evolution, 750469
geophysical data, 360945, 390947, 390971
glass, volcanic, 360871
Goban Spur, Cenomanian-Turonian, 800980
Gondwana, dispersal, 260945, 260950
grain size, 030475, 361047
Gubbio, 720941
Guiana Basin, 391099
hiatuses, 391099, 391101, 391103, 391104, 391106
high-latitude isotope records, 710417
Campbell Plateau, 710417
diachrony, 710417
Oligocene, 710417
Southern Ocean, 710417
synchrony, 710417
time-transgression, 710417
history, 740713, 740714, 740715, 740717, 740728
humic substances, source, 440587
hydrocarbon, aliphatic, eolian input, 720836
Indian Ocean S, geologic history, 260910, 260922, 260936, 260938
Inoceramus, 750893
inorganic geochemistry, sediments, rocks,

- inorganic geochemistry (Cont.)
 Angola Basin, 750933
 interstitial water
 chemistry, 030663, 730539
 paleoceanographic history, 740701
 K/Ar age, tuff, 390547
 Kelvin Seamount, 47B0658
 limestone, 720821
 limestone, nannofossil, 720821
 Campanian-Maestrichtian, 720821
 lipid, source, 440587
 lipid, terrigenous, carbonate-rich samples, 390497
 lithology, accumulation rate, 400390
 magnetic anomaly, 391099
 dating, 391112, 391113, 391115
 magnetic remanence acquisition, 730663
 magnetostratigraphic and biostratigraphic correlations, 730645
 magnetostratigraphy, 730609, 730623
 biostratigraphy, 730645
 Cretaceous/Tertiary boundary, 730657
 Miocene, 730637
 Oligocene to Pleistocene, 730623
 major boundaries, Eocene/Oligocene boundary, 901463
 margin, 6632, 481102, 481103, 481104, 481109
 Mesozoic, 751035, 751041
 Agulhas Fracture Zone, 751040, 751041
 Albian-Santonian organic enrichment, 751042
 Angola Basin, 751037, 751038, 751041
 anoxia, 751042
 anoxic conditions termination, Aptian, 751041
 Atlantic Ocean, 751039
 Cape Basin, 751035, 751036, 751037, 751041
 carbon, organic, 751035, 751040
 climate/organic facies history, relationship, 751042
 Cretaceous anoxic conditions development, 751042
 deposition, 751042
 Falkland Plateau, 751035, 751040, 751041
 Jurassic coastal sediments, 751040
 Jurassic shelf sediments, 751040
 Jurassic-Aptian organic enrichment, 751042
 kerogen, 751040, 751041
 Orange River, 751040
 organic enrichment, 751042
 organic facies, 751035
 organic matter, 751035
 organic matter, preservation, 751041
 organic terrigenous material, 751040
 oxygen, 751042 Atlantic Ocean S, Mesozoic, oxygen minimum zone, 751041, 751042
 oxygen-poor water mass fluctuation, 751041
 paleowater depths, variation, 751041
 productivity level, 751040
 regression, 751041
 restricted basin, density stratification, 751041
 Rio Grande Rise, 751039
 salinity, 751042
 Santos Plateau, 751039, 751042
 sea level, 751039, 751041, 751042
 sedimentation rate, 751040
 shale, black, 751035, 751041
 shale, red, 751041
 terrigenous material, influx, 751042
 transgression, 751041
 Walvis Ridge, 751039
 Mesozoic and Cenozoic paleoenvironments, 750003
 Mesozoic, organic facies, 751042
 mineralogy, 030509, 030510, 040325, 040326, 400541, 400547, 400548, 730687
 Al, 740715, 740718
 alteration, 040326
 As, 740715, 740718
 ash, 030510, 040325
 Ba, 740715, 740718
 barite, 040325, 040326
 basalt, 740727, 740728
 basement, 740725, 740726
 bromine, 740715
 CaCO₃, 740715
 calcite, 040326, 400542, 400547, 400548
 calcite, biogenic, 040325
 calcite-free, 040325
 calcium, 740728
 calcium carbonate, 740715
 calcium carbonate compensation depth, 030510
 carbonate, 030510, 740717, 740728
 Ce, 740713, 740715, 740723, 740728, 740729
 cerium, 740729
 chemical fractionation, 740718
 chert, cristobalite, 040326
 chloride, 040325
 chlorine, 740715
 chlorite, 040325, 040326, 400542, 400543, 400544, 400545, 400546
 chromium, 740715, 740718
 clay, 740715, 740717, 740718
 clinoptilolite, 040325, 040326, 400547, 400548
 Co, 740715, 740718
 continental drift, 740729
 continental origin of sediment, 040325
 cristobalite, 040325, 040326
 diagenesis, 030510
 dolomite, 040325, 040326, 400547, 400548
 dysprosium, 740715
 europium, 740713, 740715
 evaporites, 040326
 feldspar, potassium, 040325
 glass, volcanic, 040325, 740722, 740723
 Goban Spur, 801032
 hafnium, 740715, 740718
 harmotome, 400547, 400548
 hematite, 040326
 hydrothermal alteration, 030510
 illite, 400542, 400544, 400547, 400548
 iron, 740715, 740718
 K-feldspar, 040325, 040326, 400542, 400543, 400544, 400545, 400546, 400547
 kaolinite, 040325, 040326, 400542, 400544, 400547, 400548
 lanthanide, 740713, 740728
 lanthanum, 740715, 740718
 lutetium, 740715
 magnesium, 740715, 740718
 manganese, 740715, 740718
 meteorite, 740713
 mica, 040325, 040326
 Mid-Atlantic Ridge, 030510
 mineralogical uniformity, 030510
 Mn dioxide, 740718
 Mn/Fe ratio, 740718
 montmorillonite, 040325, 040326, 400542, 400544, 400547, 400548
 neodymium, 740715, 740728
 noncarbonate chemical composition, 740717
 ooze, calcareous, 030510
 ooze, siliceous, 030510
 opal, 740715
 phillipsite, 040325, 400542, 400547, 400548
 plagioclase, 040325, 040326, 400544, 400545, 400547
 potassium, 740715, 740718
 protodolomite, 400548
 provenance changes, 030510
 pyrite, 040325, 040326, 400542, 400543, 400544, 400545, 400548
 quartz, 040325, 040326, 400542, 400543, 400544, 400545, 400546, 400547
 rare earth, 740728
 rare earth elements, 740713, 740717, 740718, 740719, 740720, 740721, 740722, 740728
 Rb, 740715, 740718
 redox conditions, 740713
 reducing conditions, 740718
 rhodochrosite, 040325
 Rio Grande Rise, 030510
 samarium, 740715
 sandstone, 740715
 scandium, 740715, 740718
 seawater, bulk concentrations, 740728
 seawater composition, 740717
 seawater conditions, present-day, 740729
 seawater, oxidizing conditions, 740729
 seawater, redox indicator, 740729
 sepiolite, 040326
 siderite, 040325, 040326
 Sierra Leone Rise, 030509, 030510
 sodium, 740715
 strontium, 740718, 740728
 tantalum, 740715, 740718
 terbium, 740715
 thorium, 740715
 titanium, 740715, 740718
 turbidite, 040325, 040326
 V, 740715, 740718
 Venezuela, 040326
 zeolite, 040325
 Moroccan Basin, margin, 500817
 morphology, 750483
 mud, 720821
 mudstone, 720821
 nannofloral analysis, basin, 711061
 Northern Hemisphere, glaciation, 720987, 720988
¹⁸O, 730725, 730733
 isotopes, 730726, 730728, 730730, 730732
 isotopic temperature scale, 730732
 oceanic anoxic event, 801003
 oceanographic history, Pliocene, 720895
 oceanography, Cenozoic, 730771
 opening, 260007, 780029
 organic facies, Mesozoic, 751035
 organic matter, 720821
 bottom morphology, 720837
 southern basin euxinic conditions, 711016
 thermal evolution, 711015
 thermal maturation, 720821
 oxygen, Paleogene, 710409
 oxygen isotope
¹³C, 720415
 Eocene-Oligocene, 730725
¹⁸O, 720412, 720413
 Pliocene, 901399
 stratigraphy, 390911
 thermal gradients, 901401
 Pacific Ocean C, oxygen isotope, 850771
 Pacific Ocean EC, geologic history, 090919, 090924
 Pacific Ocean SE
 eolian input, 920415
 hydrocarbon, 920409
 paleoceanography, 920597
 Pacific Ocean SW, paleoceanography, 901512
 paleoceanography, 720895, 730699, 730737, 750895
 paleoclimatic history, 720895

- paleoenvironmental comparison, euxinic condition, 711030
- Paleogene, 720982
- basin development, 720982, 720983, 720984
- Eocene/Oligocene boundary, 720984, 720985
- Oligocene sedimentation, 720985
- paleoceanography, 730737
- paleomagnetism, 030667
- Pendragon Escarpment, regional implications, 800980
- physical properties, 361033, 390555, 390561
- physiographic high, 391099
- planktonic diatom stratigraphy, 751245
- polar water, 750554
- Quaternary sediments, 720833
- alteration, 720833
- alteration, chemical, 720833
- Brazil Basin, 720833
- C/N ratio, 720833
- carbon, organic, 720833
- deposition, 720833
- fatty acid, 720833
- fatty alcohol, 720833
- hydrocarbon, 720833
- lipid, 720833
- lipid, allochthonous, 720833
- Neogene depositional, 720833
- organic geochemistry, 720833
- organic matter, 720833
- organic matter sources, 720833
- Rio Grande Rise, 720833
- sediment accumulation, sources, 720833
- surface water, 720833
- transport, 720833
- reflection horizon, Horizon A, 040671
- reflector, 391099
- regional tectonics
- opening, 720959
- swell push forces, 720961
- tectonic evolution, 720959
- rift valleys, 390940, 390941
- rifting, 390941, 390942, 750469
- salt
- Aptian, 391099
- deposition, 390928, 390940
- sample list, 030711
- sand, quartzose, 390445
- Santos Plateau, 391099
- margin, 391106, 391108
- origin, 390928, 390931, 390940, 390942
- sea floor spreading, 390941
- seamount province, 391099
- sediment age, 511529
- sedimentary environments, 440976
- sedimentary structure, 390407
- sedimentary succession, 391099
- sedimentation history, 391099
- Sediments
- clastic layer, 390940
- depositional history, 390940
- seismic reflection, 360971, 391099
- shale, black, 710345
- Cretaceous, 750983
- shear strength, 361059
- silt, 390445
- sorting, 361047, 390501
- spreading center, 390942
- spreading rate, 390928, 390940
- Sr, paleoceanographic reconstitution, 720405, 720408
- stable isotope, 720895, 750895
- Cretaceous-Tertiary, 730749
- paleoceanographic implications, 730717
- stable isotope data, 730717
- stratigraphy, 750483
- structural high, 391099
- synthesis, biostratigraphy, addendum $^{39}\text{Ar}/^{40}\text{Ar}$ age, 850932
- Magnetic Anomaly, 5, 850931
- paleomagnetism, 850930
- tectonic fabric, age, 730791
- tectonic history, clay, black, 430811
- terrigenous sediment, Cenozoic, 390453
- Tethys, geochemistry comparison, 720399
- thermohaline flow, Quaternary, 720990, 720991
- time stratigraphic framework, 030699
- trace elements, isotope geochemistry, 720415
- tuff, trachytic
- density, 390493
- elastic constant, 390493
- unconformities, Oligocene, 950756
- upwelling, 750905
- carbonate, 750905
- velocity anisotropy, sediments, 390555, 390561
- Vema Fracture Zone, 391099
- volcaniclastic material, 720821
- volcaniclastics, Eocene, 720957
- volcanism, 430853
- Walvis Ridge, 391099
- Cretaceous to Pliocene, 400494
- sediments, 751069
- X-ray mineralogy, 030509
- zeolite, 390423
- Zr/Nb ratio, 490848
- see also Antarctic Bottom Water; Argentine Basin; Drake Passage; Falkland Fracture Zone; Falkland Islands; Falkland Plateau; Malvinas Outer Basin; Maurice Ewing Bank; Rio Grande Rise; Scotia Sea; Southern Ocean
- Atlantic Ocean SC, 391099, 620363, 720717, 730648, 730737
- climate
- Paleogene oceanographic record, 730737, 730738, 730740, 730742, 730744, 730745, 730746
- Pliocene, 730701, 730702, 730703, 730704, 730709, 730710, 730713
- deposition
- chalk, nannofossil, 250492
- ooze, nannofossil, 250492
- fracture zone, 390931
- Gondwana, dispersal, 260945
- Atlantic Ocean SE, 140839, 3850703, 400487, 400981, 710637, 710753, 711155, 720649, 720650, 720978, 730271, 730324, 730425, 730481, 730485, 740003, 740501, 740519, 740533, 740543, 740557, 740663, 740765, 740827, 740873, 740875, 750449, 750465, 750671, 750845, 750906, 750983, 751001, 751208, 810878, 900983
- Albian benthic foraminifers, 400741
- Angola Basin, Cretaceous, 751001
- Aptian benthic foraminifers, 400741
- Atlantic Ocean C, hiatuses, 391101, 391104, 391105
- Atlantic Ocean S, hiatuses, 391101, 391104, 391105
- biostratigraphy, 400063
- calcareous nannofossils, 400571
- carbon, organic, isotopic composition, 751051
- carbonate, dissolution, 400981
- Cenozoic coccolith stratigraphy, 400635
- Cenozoic radiolarians, 400839
- Cenozoic silicoflagellate stratigraphy, 400635
- chemical, physical properties, 361033
- compressional velocity, 361038
- physical properties, 361033
- clay minerals, paleoenvironment, 740663
- Cretaceous, volcanoclastics, 740765, 740767, 740768, 740770, 740771, 740773, 740774, 740775, 740776, 740778, 740779, 740780, 740781
- Cretaceous benthic foraminifers, 400759
- Cretaceous calcispherulids, 400819
- Cretaceous clastic sediments
- composition, 400025
- source, 400025
- Cretaceous planktonic foraminifers, 400651
- Cretaceous radiolarians, 400839
- diagenesis, Cretaceous clastic sediments, 400063
- dissolution, carbonate, 400981, 400988, 400989, 400990, 400991, 400993, 400994, 400995, 400996, 400997, 400998
- facies evolution, 400981
- Cretaceous-Cenozoic facies, 400981
- inorganic geochemistry, 740663
- interstitial water, chemistry, 400549
- magnetostratigraphy, Cretaceous, 400459
- Neogene benthic foraminifers, 400811
- Neogene planktonic foraminifers, 400723
- organic geochemistry, 400557
- paleoceanography, 730717
- paleoenvironment, 740663
- paleoenvironmental evolution, 740663
- clay mineralogy, 740664
- geochemistry, 740664, 740665
- subsidence, 740677, 740678, 740679
- Walvis Ridge, 740665, 740666, 740667, 740670, 740672, 740673, 740676, 740677
- Paleogene benthic foraminifers, 400783
- Paleogene Calcisphaerulidae, 400819
- paleontology, 400063
- palynology, 400857
- Albian to Senonian, 400915
- Cretaceous, 400883
- Tertiary, 400953
- petrology, 400469
- planktonic foraminiferal biostratigraphy, 400679
- sedimentary evolution, 400999
- carbonate compensation depth, 401000
- Cretaceous, 400999
- Tertiary, 400999
- Walvis Ridge, 401000
- sedimentary features, 400525
- shale, black, Cretaceous, 750983
- stable isotope, 730717, 730718, 730719
- carbon isotope, 730718, 730720
- Mediterranean Sea, 730722
- Messinian isolation, 730722
- oxygen, 730719
- sea level, 730723
- Walvis Ridge
- climatic, oceanographic evolution, 740679
- transect, 740645
- X-ray mineralogy, 400541
- Atlantic Ocean SW, 260744, 390842, 390863, 390885, 710351, 710355, 710361, 710377, 710391, 710404, 710410, 710423, 710425, 710428, 710430, 710436, 710438, 710447, 710481, 710551, 710565, 710583, 710635, 710667, 710674, 710687, 710859, 710863, 711001, 711171, 720005, 720015, 720016, 720023, 720029, 720033, 720339, 720344, 720383, 720388, 720581, 720678, 720723, 720783, 720786, 720793, 720806, 720871, 720907, 720917, 720921, 720952, 720977, 720979, 730723, 740516, 740726, 750008, 750287, 750555, 800811
- authigenic minerals, Miocene, 710361
- authigenic transformations, 710351
- Ba, Jurassic sediments, 710423

- basin, evolution, 360993, 360994, 360996, 361000
 Africa, 360993
 age, 361009
 Albian, 360994
 Albian open marine conditions, 360996
 Albian open ocean conditions, 360994
 basement, continental, 360993, 360996
 bottom current, 360994
 brackish water diatoms, 360996
 CCD, 360994
 Cenozoic sedimentation, 361009
 chalk, nannofossil, 360994
 circulation, 360994, 360996
 circulation, deep-water, 361009
 circulation, oceanic, 361008, 361009
 circumpolar current, 361006
 clast, ice-rafted, 360994
 climate, 361006
 cool, 360996
 Cretaceous-Neogene submarine erosion, 360994
 Cretaceous-Paleogene subsidence, present depth, 360996
 crust, continental, 360993
 crust, oceanic, 360993
 diagenesis, 360994
 Eocene-Quaternary hiatuses, 360994
 erosion, 360996
 fracture zone ridges, 361009
 Gondwana, 360998
 ice rafting, 360993, 360994
 Maestrichtian-Paleocene hiatus, 360994
 magnetic anomaly, 361009
 Mediterranean climate, 360996
 Mesozoic-Eocene sedimentation, 361004, 361005
 metamorphic complex, 360993
 Mid-Atlantic Ridge, 361002
 mineral, heavy, 360996
 Miocene ooze bank, 360994
 oceanography, 360993
 Oligocene-Miocene hiatuses, 360994
 Paleocene/Eocene boundary, 360994
 Paleozoic thermal events, 360996
 Paleozoic-Triassic sedimentary strata, 360993
 post-Eocene sedimentation, 361006
 radiolarians, 360996
 regional seismic reflectors, 360993
 sedimentary succession, 360996
 sedimentation rate, 360994, 360996
 spreading center, 360993
 subsidence, 360994
 tectonic evolution, 360993
 terrigenous sediment, 360996
 transgression, marine, 360996
 Turonian-Coniacian hiatus, 360994
 unconformity, 360994
 calcareous nannofossils, Eocene-Oligocene, 711171
 carbon, organic
 C/N ratio, 740732
 fatty acid, 740735
 Cenozoic planktonic foraminifers, 720623
 Cenozoic sediment, 710377
 chert, 720443
 circulation, 720977, 720978
 clay, 710351
 Jurassic, 710351
 clay minerals
 Cenozoic, 710377
 paleoenvironmental significance, 710317
 stratigraphy, 720383, 720384, 720385, 720386, 720387, 720388
 climate, Quaternary, 720871
 Coniacian-Santonian environment, 720395
 Cretaceous/Tertiary boundary, 720949
 depositional history, 710351
 geochemistry
 Jurassic sediments, 710423
 paleoenvironment, 710317
 geochemistry, paleoenvironmental significance, 710317
 geological, geophysical setting, 390947
 ice rafting, 710307, 710309, 710313, 710314, 710315
 accumulation rate, 710313, 710314
 Antarctic influence, 710314
 deposition rate, 710307
 lag deposits, 710313
 ice-rafted debris, 710307
 lithology, 710377
 Mesozoic sediment, 710377
 Miocene, Antarctica, 720986
 Neogene environment, 710461
 Neogene sediment, 710461
 ocean basin, evolution, 360993
 oceanographic setting, 720015
 organic geochemistry, Jurassic-Cretaceous, 711001
 oxygen isotope
 Quaternary, 720871
 Quaternary stratigraphy, 720871
 Pacific Ocean SE, hydrocarbon, aliphatic, 920412
 paleoceanography, 720847
 paleocirculation, 720977
 paleoclimatology, 720871
 Quaternary, 720871
 paleoenvironment, 710317, 710461
 clay minerals, 710317, 710319, 710320, 710321, 710328, 710329, 710331, 710336, 710337, 710339, 710340, 710341
 paragenetic assemblages
 assemblage IB(-), 710425
 Assemblage IIA(+), 710425
 Assemblages IIIA(+), 710428
 physical properties, 390555
 Quaternary environment, 710461
 Quaternary planktonic foraminifers, 720601
 Quaternary sediment, 710461
 reversal boundaries, 720581
 Rio Grande Rise, Recent-Cretaceous sediments, 721006
 sediment, geochemistry, 710423
 sedimentation, geochemical aspects, 710430
 sediments, organic geochemistry, 711001
 strontium, Jurassic, 710423
 tectonic setting, 720005
 velocity anisotropy, 390555
 anisotropy, 390557
 compressional wave velocities, 390555, 390557
 physical properties, 390555
 Walvis Ridge, alkane, 751091
 Zn/Zr, distribution, 710404
 Atlantic Ocean W, 010622, 010629, 020367, 020394, 020400, 020415, 030007, 030025, 030027, 030158, 040003, 040659, 050443, 060004, 060837, 060839, 071264, 091078, 130007, 130029, 130046, 130093, 130183, 130219, 130720, 130783, 130799, 130821, 131006, 131021, 131038, 131061, 131079, 131203, 131219, 131227, 131241, 131258, 131266, 131288, 131341, 131404, 131405, 131409, 131412, 140964, 150006, 150018, 150483, 150553, 150807, 151077, 151091, 160873, 170064, 170620, 190657, 200695, 200780, 210909, 220381, 220434, 220582, 230045, 230439, 231007, 240969, 260505, 260547, 260568, 270445, 270747, 291164, 330467, 330493, 330507, 330581, 330794, 330800, 330880, 330925, 370599, 38S0019, 38S0141, 38S0279, 42A0382, 42B0518, 42B0633, 42A1039, 42B1149, 42B1218, 47B0028, 480421, 490861, 510675, 510705, 650329, 680477, 710467, 720031, 720986, 730498, 760019, 760178, 760354, 760468, 760538, 760573, 760920, 770339, 780083, 780675, 780676, 790520, 790523, 790895, 810505, 930087, 930849, 930913, 931211, 931326, 931330, 931341
 age, 511525
 amino acid, nonprotein, 680477
 aptychi, Cretaceous, 440899
 Aves Ridge, 040666
 chalk, 040666
 clay, 040666
 Equatorial Current N, 040666
 Grenada Basin, 040666
 Grenadines, 040666
 Miocene, 040666
 planktonic foraminifers, 040666
 Pleistocene, 040666
 Pliocene, 040666
 sand, 040666
 sedimentation rate, 040666
 silt, 040666
 terrigenous material, 040666
 volcanism, 040666
 Azores, opening, 130033
 basalt, trace elements, 511087
 basement, lithology, 511535
 basin, methane carbon, 500615
 Beata Ridge, 040668
 calcium carbonate compensation depth, 040668
 chalk, 040668
 Miocene to Oligocene, 040668
 ooze, 040668
 planktonic foraminifers, 040668
 Pleistocene, 040668
 Pliocene, 040668
 Belem Ridge, 040661
 origin and development, 040661
 benthic environment, 500353
 Biscay, Bay of N, continental margin, 481042
 Blake Basin, 440204
 Blake-Bahama Formation, 931305
 calcareous nannoplankton, 440731
 calcium carbonate compensation depth, 040672
 calpionellids, 500439
 carbon, organic, 931245
 carbonate, 430421
 shallow water, 430421
 Caribbean Sea W, sediments, 680477
 central, 131350, 270589, 440492
 crust, oceanic, 500809
 Magnetic Anomaly J, 430879
 chemical stratigraphy, 510939
 circulation, sediment distribution, 481099
 clay, mineralogy, 481091
 clay minerals, 931245
 claystone, 430417
 origin, 430417
 climate, planktonic foraminifers, 480446
 Columbia Basin, 680269
 continental margin, 080864, 440515
 continental rise, 930997
 Cretaceous sediments, 47B0548, 510353
 crust, structure, 511540
 crust, oceanic, Cretaceous, 511540
 crystallization, 511039
 Demerara Plain, 040662
 Barbados, 040662
 Barracuda Ridge, 040665
 calcareous nannoplankton, 040665

- Demerara Plain (Cont.)
 clay, 040662
 limestone, 040662
 oceanic formation, 040662
 Pliocene, 040662
 radiolarians, 040662, 040665
 turbidites, 040662
 unconformity, 040662
 diagenesis, 020422
 clinoptilolite, 020423
 Miocene-Eocene, 020421
 eastern continental margin, geochemical analysis, 480955
 eastern tropical, 410763
 equatorial, 090005, 110496, 38S0300, 38S0491, 38S0498, 390825, 390929, 391121
 erosional unconformity, 480116
 eruptive stratigraphy, 511535
 evaporites, 790510
 evolution, 500116
 evolution, early, 510987
 foraminiferal distribution, Cenozoic, 460410
 geochemical partitioning, basal sediments, 650429
 glass, chemistry, 460123
 heat flow, 480278
 Iberian margin, subsidence, 47B0029, 47B0667
 Indian Ocean, 250237, 250287, 250497
 islands, 200691, 411103
 kerogen, organic matter, 770070
 lipid, 47B0565
 lithologic stratigraphy, 510939
 lithology, 511535
 North Atlantic Deep Water, 721022
 longitudinal transect, 490228
 lower continental rise hills, 440027
 bottom current, 440027
 Norfolk, 440023
 ridge, swale formations, 440027
 magnetic anisotropy determination, 480916
 margin, 790509
 Mesozoic calcareous nannofossils, 47B0076
 Mesozoic foraminifers, 500353
 mineralogy, 040325, 040326, 511039
 alteration, 040326
 ash, 040325
 ashy zone, 040326
 barite, 040325, 040326
 biological origin, 040325
 calcite, 040325, 040326
 calcitic fossiliferous zones, 040326
 carbonate, secondary, 040326
 chert, quartz, 040326
 chlorite, 040325, 040326
 clinoptilolite, 040326
 continental margin, 040325
 corrensite, 040326
 cristobalite, 040325, 040326
 dolomite, 040325, 040326
 Eocene, 040325, 040326
 glass, volcanic, 040326
 hematite, 040326
 K-feldspar, 040325, 040326
 kaolin, 040325, 040326
 kaolinite, 040325, 040326
 mica, 040325, 040326
 Miocene, 040325, 040326
 montmorillonite, 040325, 040326
 Oligocene, 040326
 ooze, foraminiferal, 040325
 Paleocene, 040325
 phillipsite, 040325
 plagioclase, 040325, 040326
 Pleistocene, 040325, 040326
 Pleistocene to Miocene, 040325
 Pliocene, 040326
 potassium feldspar, 040325
 pyrite, 040325, 040326
 quartz, 040325, 040326
 quartz-rich clastic zones, 040326
 Quaternary, 040325
 Recent, 040326
 recrystallization, 040326
 rhodochrosite, 040325, 040326
 sepiolite, 040326
 siderite, 040325, 040326
 Tertiary, 040326
 turbidites, 040325, 040326
 zeolite, 040325, 040326
 Moroccan Basin, margin, 500809, 500817
 Neogene silicoflagellates, 780463
 nitrogen, 931245
 opening, 260910, 400478, 47B0440
 organic matter, petrology, 500609
 planktonic foraminiferal assemblage, 500497
 predrift reconstruction, 500805
 Puerto Rico Trench N, 040665
 calcium carbonate compensation depth, 040665
 Eocene, 040665
 reflection horizon, 040670
 basement, 040671, 040672
 Reflector A, 040671
 regional problems, carbonate, 061302
 ridge crests, 370682, 401046
 rifting, 47B0663
 subsidence, 481025
 sea floor spreading, 500770
 seamounts, 490407
 sediment chemistry, 511515
 Al₂O₃, 511522
 claystone, black, 511519
 iron magnesium, 511519
 manganese, 511516
 potassium, 511519
 volcanic material, 511516
 sediment composition, 931245
 sedimentary environments, continental shelf, 440978
 sedimentation rate, 040668, 040670
 Oligocene/Miocene boundary, 040670
 seismic refraction study, 481018
 shale, Cretaceous, 500629
 shale, black, 47B0674, 480831
 Cretaceous, 480935
 silicoflagellate biostratigraphy, 490553
 southeastern, 270383
 subsidence, 500810
 subtropical, 38S0306
 tectonic evolution, 500368
 tensional phases, 47B0671
 Tethys, 760879
 thermohaline flow, Quaternary, 720990
 transform fault, 220464
 transgression, 500811
 tropical, 200255
 tropical area, 411230
 tropical-subtropical, 150478
 Vema Fracture Zone, 040662
 bedding, graded, 040662
 Demerara Plain, 040662
 Pleistocene, 040662
 sedimentation rate, 040662
 South America, 040662
 turbidites, 040662
 turbidity current, 040662
 Venezuelan Basin, 040665
 Carib beds, 040666
 chert, 040666
 clay, zeolitic, 040666
 Eocene, 040666
 grading, 040666
 ooze, foraminiferal nannofossil, 040666
 ooze, radiolarian, 040666
 siliceous sediments, 040666
 water content
 Arabian Sea, 511453
 Atterberg limits, 511453
 western, 270589, 510091
 Atterberg limits, 511453
 depositional environment, Cretaceous, 500366
 water content, 511453
 Atlantic Ocean WC, 760795
 grain size, ooze, clay radiolarian, 040305
 magnetic polarity, 930849
 time scale, 930849
 magnetic polarity time scale, 930849
 magnetostratigraphy, 930849
 Atlantic Seaway NE, 810690, 930914
 initiation, 810690
 Atlantis Fracture Zone, 140960, 370331, 370634
 Atlantis II Deep, 23, 230539, 230595, 230598, 230599, 230601, 230685, 230688, 230823, 230849, 230857, 230943, 230945, 230947, 230955, 230956, 230959, 230969, 230988, 230989, 230990, 230992, 230996, 260985, 700241
 Arabian Sea, history, 231123
 halite, 230909
 density, 230910
 sonic velocities, 230910
 sonic velocity, 230910
 thermal conductivity, 230909
 hydrothermal deposits, Galapagos Spreading center, 700241
 lead isotope, 230943
 Red Sea
 Fe-montmorillonite, 540315
 uranium, 230943
 sonic velocity, 230910
 southwestern, 230943
 thorium, 230943
 lead isotope, 230943
 uranium-thorium-lead, 230943
 see also especially Volume; Red Sea
 Atlantis Seamount, 490407
 Atlas Basin, 790894
 Jurassic sediment, 760865
 Atlas Fault, 801111
 Atlas Gulf, 790923, 790924, 790927, 790928, 790929
 basin, 790929
 Cretaceous onshore sediments, 790923
 western margin, 790930
 Atlas Mountains, 130667, 130971, 140871, 38S0939, 391064, 410439, 410497, 42B1181, 500005, 500753, 760234, 760866, 790390, 790392, 790500, 790525, 790888, 790894, 790929, 931113
 Algeria, continental shelf, 42B1181, 42B1182
 Atlantic Ocean NE, evolution, 411218, 411225, 411228, 411232, 411233
 Canary Islands, 790439
 Cretaceous tectonics, 500770
 coastal basin, 790929
 fault, 801103, 801201
 sinistral shear, 500770
 fluvial sediment, 790393
 foreland, 131417, 131422
 fracture zones, 790524
 geosynclinal facies, 410439
 Jurassic sediment, 760870
 Jurassic sedimentation, Tethys, 760870, 760871
 lithology, 410439
 Moroccan Basin
 evolution, 500801

- Moroccan Basin (Cont.)
limits, 500005
margin, 500808, 500809, 500810, 500813,
500814, 500815
Morocco, 931031
Rif, 140871
tectonics, 42B1181, 42B1182
troughs, 760870
uplifting, epeirogenic, continental
terrace, 790115
Atlas Mountains S, Moroccan Basin, margin,
500808
Atsunai, Hokkaido E, 870426, 870428, 870564
attapulgit, 580670, 580672
Angola Basin
clay mineralogy, 750846
geochemistry, 750846
Asia, source, 580669, 580673, 580676
Atlantic Ocean
geochemistry, 47B0432, 47B0434, 47B0437,
47B0439
mineralogy, 47B0432, 47B0434, 47B0437,
47B0439
Atlantic Ocean NE, evolution, 411230
Atlantic Ocean NW, microfacies, 440490
Atlantic Ocean SE, paleoenvironmental
evolution, 740664
Cape Verde Basin, 020414
clay mineralogy, 750862
clay minerals, 500715, 500716, 500720
Cretaceous and Cenozoic, 480705
Miocene, 47A0600
clay, palygorskite sepiolite, 020417
correspondence analysis, Vigo Seamount,
47B0469
Cretaceous/Tertiary boundary, mineralogy,
620851, 620852
deposition, origin, 600450
environment, sapropel, 42A0459
geochemistry, 620851, 620852
mineralogy, 620851
Indian Ocean W, mineralogy, 411072, 411075,
411078, 411079, 411081, 411084, 411085,
42A0370, 42A0373
lithology, 42A0181, 42A0226, 42A0229,
42A0230, 42A0231, 42A0233, 42A0237,
42A0238, 480080, 500043, 500044, 500127,
500128
chert nodule, 300241
limestone, radiolarian, 300241
Mesozoic deposits, 47B0052
Mesozoic units, 480049
lueneburgite, Miocene sediments, 42A0662
Mediterranean Sea, mineralogy, 42A1162,
42A1163, 42A1164, 42A1165
Messinian environments, salinity crisis,
42A1026
mineralogy
clay minerals, 600438
Mariana Trench, 600446
Moroccan Basin, continental margin, 500707,
500708
Neogene formations, paleogeography,
42A0909, 42A0913
origin, erosion, 580674
paleoenvironment, Hauterivian to
Cenomanian, 47B0414
regional summary, 020415
sapropel, sedimentology, 42A0459
Shikoku Basin, 580670, 580672
origin, 580673
trace elements, distribution, 42A0505,
42A0506
X-ray diffraction analysis, 500707
Atterberg limits, 511453, 650685, 650687,
650689, 650690
Atlantic Ocean NW, physical properties,
160499
California, Gulf of, 650685
clay, Pacific Ocean NW, 860727
Middle America Trench, Quaternary
sediments, 670639
Pacific Ocean NW, 860727
physical properties, 160499
seawater content, 511453
Sediments, Pacific Ocean NW, 860727
Walvis Ridge, geotechnical properties,
751115
water content, 511453
definition, 511453
Attu, 190887
islands, 190887
Pacific Ocean N, plate movement, 190902
Atumi, Japan, basalt, petrology, 580856
Auckland, 300028
Auckland Islands, 290021, 290045, 290056,
291139
lithology, 290048
South Tasman Basin, borderland, 291139
Tasman Basin S, borderland, 291139
Augen, salt, 790523
Aughrabies Falls, continental shelf, onshore
geology, 400973
augite, 561091, 650694, 670563
alteration
chlorite, 300486
sand, 300485
sandstone, volcanic, 300485
siltstone, 300485
andesite, alkalic, 180937
Antarctica, geochemistry, 350405
ash, 561029
Atlantic continental margin, mineralogy,
121130, 121131, 121132, 121141
Atlantic Ocean SE, Cretaceous, 740773
Azores, mantle, 370592
basalt, 240784, 240785
Costa Rica Rift Zone, 830166
crystallization, 920466, 920467
geochemistry, 350330, 350333, 490601,
490606, 490618, 490622, 590756, 590757,
590767
glass, 180935
major element, 511008
midocean ridge, 820404
mineral chemistry, 550629, 550633
mineral composition, 340227
mineralogy, 110873, 110874, 270552,
270553, 300401, 540697, 540698, 540700
petrography, 160620, 160626, 160639,
330578, 540697, 540698, 540700
petrology, 330579, 330589, 340227,
350330, 350333, 411103, 580852
potassium-argon age, 42A0531
pyroxene, 590696, 590697, 590698, 590699,
590700
sill-pillow complex, 610677
yttrium, 370569
basalt, alkali andesine, mineral
composition, 180943
basalt, altered
crystal morphology change, 600702
geochemistry, 580791, 580792, 580807,
580809, 580810, 580812, 580814, 580816,
580820, 580823, 580824, 580825, 580826,
580827, 580828, 580830, 580831
petrochemistry, 580791, 580792
basement, 180937
basalt, 411103, 490601, 490604, 490606,
490609, 490611, 490618, 490622
mineral composition, 180935
mineralogy, 110873, 110874, 110875,
270552, 270553
petrology, 370695, 370699, 370700
Bauer Basin, basalt, 340227
Black Sea, sediments, 42B0378
boninite
classification, 600697
crystallization, 600700
geothermometry, 600695, 600697
mineralogy, 600691
boninite, nonglassy, microlite, 600698
carbonate, diagenesis, 320522
clinopyroxene, crystallization, 540663,
540665
crust, oceanic, Costa Rica Rift Zone, 830184
crystal, 180935
crystal morphology, 600683
crystallization, 270553
crystallization, fractional, 340224
melting, partial, 370543
crystals, 180943, 270552
Daito Ridge
mineral, detrital, 580633
sandstone, 580609
detrital minerals, 580633
detrital sediment, origin, 670509
diabase, trace elements, 240784, 240785
diagenesis, slope sediments, 840575
dispersal patterns, 350293, 350294, 350295
dolerite, 540663
rapid metastable growth, 540665
East Pacific Rise, sediments, 650381
Emperor Seamounts, petrology, 550572, 550577
exotic pebbles, plutonic rock, 561091
Falkland Plateau, basement, 360897, 360911
FAMOUS area, mineralogy, 370896, 370897,
370898, 370899, 370900, 370901, 370902,
370903
feldspar, 600705
ferrobasalt, 820404
gabbro, phase chemistry, 370841
Ganges Fan, sand, 220711
geochemistry, 160620, 160639, 370699, 370700
clinopyroxene, 650534
crystal, 160639
igneous rocks, 370741
mineral chemistry, 160626
mineralogy, 340218
petrology chemistry, 370695
glass
crystals, 180935
glomerocryst, 180935
microlite, 180935
microphenocryst, 180935
heavy minerals, 810663
Iceland Basin, mineralogy, 101130
igneous rocks
chemical composition, 590720
geochemistry, 370654
Indian Ocean, mineralogy, 220696
Indian Ocean NW
grain size, 250417
volcanic components, 241060
Indian Ocean W
basalt, 250543, 250546, 250548, 250553
mineralogy, 130608, 150848, 150849,
150850, 170518, 240814, 250844, 260573
regional aspects, 250755
Japan Trench, 561091
ash, 561029
silt, 561005
Lau Basin, volcanic components, 210481
limestone, 320545
lithology, 160305, 160372, 180099, 210021,
210035, 250196, 280083, 300031, 300075,
310029, 310030, 330308, 360020, 480176,
480179

- lithology (Cont.)
 basalt, 170059, 270020, 270134, 310069
 oozes, 120683
 sandstone, volcanic, 120366
 turbidites, 120683
 major element, chemistry, 370651
 Mariana Islands, fore arc, 600619, 600659, 600660
 Mariana Trench, pillow lava, phyrlic, 600619
 Mariana Trough, basalt, 600650
 Mascarene Basin, volcanic sediment, 250517
 Mediterranean Sea, lithostratigraphy, 131033
 Melanesian Basin, ash, 610634
 melting, partial, experiments, 600732, 600733
 Mendoza Rise, lithology, 920438
 microlite, 180935
 Mid-Pacific Mountains, 200667, 200669
 mineral, chemical composition, 660713
 mineral, chemical composition, sediments, mineral distribution, 38S0032
 mineral chemistry
 basalt, 340227
 pyroxene, 630691, 920440
 mineral composition, 180935, 180937
 basalt, alkali andesine, 180943
 basement, 110873, 110874, 110875
 mineral, heavy, characteristics, 350293, 350294, 350295
 mineral, primary, pyroxene, 810786
 mineralogy, 210724, 210728
 basalt, 270552, 270553
 spinel, 800941
 Nazca Plate, basalt, 340227
 Neogene formations, paleogeography, 42A0912
 Pacific Ocean, mineralogy, 310885, 310887, 310890
 Pacific Ocean NW, mineralogy, 320549, 320550
 Pacific Ocean SE, basalt, 340218, 340381
 Pacific Ocean W
 mineralogy, 200324
 volcanic rocks, 210481, 210483, 210490
 Pacific Plate, volcanic components, 210481
 peridotite, phase chemistry, 370841
 Peter I Island, geology, 350347, 350348, 350352
 petrography
 microlite, 600731
 phenocryst, 540652
 petrology, 810796
 Walvis Ridge, 740757
 phenocryst, 490618, 490622
 clinopyroxene, 540656
 conglomerate, andesitic, 300407
 magma, 370654
 Philippine Sea NE, 580661
 mineral, heavy, 580661
 physical properties, 920541
 Pliocene-Pleistocene sediments, mineral, heavy, 810663
 pyroxene, 340227, 600705
 Reykjanes Ridge, mineralogy, 101130
 Rockall Plateau, Paleogene sediments, 810653, 810655, 810658, 810661
 sand, turbidite, mineralogy, 050536
 sandstone, 320543, 580609
 pyroxene, 320541
 sill
 chemistry, 300401
 mineralogy, 270552, 270553
 silt, mineral, heavy, 561005
 siltstone, foraminifer tests, 320542
 South Fiji Basin, geology, 300621
 Sr isotope, 590720
 stable isotope, basalt, 350502
 sulfur isotope, pyrite, 340381
 Tasman Sea, mineralogy, 300603, 300604, 300605
 tholeiite
 geochemistry, 590690
 major element, 590707
 mineral composition, 180935
 petrology, 590690
 tholeiite, depleted, geochemistry, 810784
 trace elements, 370569
 volcanic components, 210481, 210483
 composition of volcanic material, 210490
 volcanic rocks
 ages, 550661
 petrology, 180935, 180943
 Volcanic rocks, petrography, Necker Ridge, 200678
 volcanic sediment, 480771
 petrography, 901178
 primary volcanic material, 901180
 volcanoclastics, volcanoclastic matter, 550504
 volcanics, 180937
 mineral composition, 180935, 180943
 Walvis Ridge, basalt, 740741, 740757
 Wharton Basin, sand, 220711
 augite, aluminous
 Pacific Ocean SE, basalt, 340248
 phase chemistry, pyroxene, 340248
 augite, crystal
 ash, 320545
 sandstone, 320543
 sandstone, calcareous turbiditic, volcanic, 320544
 augite, diopsidic
 basalt, geochemistry, 590757, 590766
 geochemistry, igneous rocks, 370741
 Peter I Island, geology, 350348, 350352
 augite, iron-rich, 670561
 boninite, geothermometry, 600696
 mineralogy, 670561
 augite, Mg-rich
 Guadalupe Island, petrography, 630688
 mineralogy, clinopyroxene, 540761
 Patton Escarpment, petrography, 630701
 augite, subcalcic
 basalt
 mineral chemistry, 550629, 550633
 petrology, 160626
 basalt, phyrlic, clinopyroxene, 650636
 Bermuda Rise, crystallization, 511044, 511047
 clinopyroxene, crystallization, 540665
 dolerite, 540665
 Geisha Guyots, 200683
 geochemistry
 clinopyroxene, 650534
 mineral chemistry, 160626
 Mariana Islands, fore arc, 600652, 600659
 mineralogy, clinopyroxene, 540761
 augite, tholeiitic
 basalt, geochemistry, 590754
 feldspar, 600705
 pyroxene, 600705
 augite, titaniferous
 basalt, petrology, 580848
 basalt, altered, geochemistry, 580823
 East Mariana Basin, geochemistry, 890419
 Indian Ocean W, regional aspects, 250757
 terrigenous minerals, mineralogy, 250437
 augite-bronzite, boninite, nonglassy, 600698
 augite-orthopyroxene, basalt, pyroxene, 590696
 augite-plagioclase, basalt, sill-pillow complex, 610677
 Aure Trough, 210376, 300007
 lithology, geologic events, 210376
 Pacific Ocean SW, island arcs, 300703
 Austell Spur, 481006, 481028, 800005, 801155, 801158, 801189
 Biscay, Bay of N, continental margin, 481028
 Goban Spur, continental margin, 801155, 801158
 regional geology, 801189
 physiography, 801189
 Austin, 750490, 750494
 chalk, 100391
 Austral Basin, 360819, 710789
 Austral biogeoprovince, 360531, 400029, 400054, 400217, 400697, 400744, 400783, 710459, 710754, 710798, 710800, 710801, 710802, 710832, 720650, 750554, 750555
 Albian sediments, 710751
 southwest regional unconformities, 210717
 Austral Fracture Zone, 920026, 920097, 920237, 920259, 920599
 tectonic setting, lithosphere, 920599
 Austral Fracture Zone NW, Mendoza Rise, characteristics, 920505
 Austral Fracture Zone SE, calcareous nannofossils, biostratigraphy, 920259, 920260, 920262, 920265
 Austral Gulf, 900800
 Austral Islands, 200682
 Geisha Guyots, 200682
 Wake Guyots, 200682
 Australasia, 270984, 300667, 300681, 360819, 901413
 Pacific Ocean SW, Cenozoic, 300667, 300680, 300681
 Australasia N, Pacific Ocean SW, Cenozoic, 300667
 Australia, 220495, 360909, 620395, 621044, 680409, 710040, 710050, 710288, 710417, 710739, 710789, 710802, 710863, 710880, 710882, 710884, 710885, 710886, 710888, 710909, 710910, 710911, 720757, 730740, 730742, 730743, 730744, 730746, 760741, 760887, 900020, 901079, 901080, 901089, 901231, 901234, 901249, 901321, 901327, 901334, 901357, 901438, 901445, 901450, 901480, 901502, 901507, 901511, 931390, 950453, 950468, 950474, 950573
 Antarctica, 250187, 250664, 38S0687
 abyssal plain sediment, 271017
 continent, 900005, 901333
 detrital to biogenic sediment trends, 291071
 glaciation, 291041
 manganese, separation, 291084
 passage, 610555
 Ross Sea, continental shelf, 280940
 sea floor spreading, 291062
 separation, 210903, 360036, 360096, 361009, 391062, 400388
 Atlantic Ocean, margin, 481106
 Atlantic Ocean C, hiatuses, 391104
 Atlantic Ocean S, hiatuses, 391104
 Atlantic Ocean SW, basin, evolution, 360998, 361006, 361009
 basalt, paleomagnetism, 270403
 basin, 050525, 260945, 291156, 300679
 carbonate-free sediment fraction, results, source region, 901445
 Chatham Rise, seismic stratigraphy, 901327
 clay, terrigenous, sea floor spreading, 291062
 climate, 280935
 Neogene and Paleogene, 901437
 continental, 271002
 continental block, 270568
 continental margin, 270571
 bathymetry, 260967
 geophysical measurements, 260419

- continental shelf, 290276, 290730
onshore geology, 400973
Coral Sea E, geology, 300647, 300649, 300660
deposition
bottom water, 250500, 250502
depositional paleoenvironment, 250499
deserts, 901493
eolian sedimentation, 680409
paleoclimatic setting, 680410
flank, 270561
geophysical measurements, continental margin, 260419
Gondwana, 291119
dispersal, 260945, 260950
granite, S-type, 790552
hydrocarbon, 310901
Indian Ocean E
bathymetry, 260967
surface currents, 270387
Indian Ocean S, geologic history, 260910, 260929, 260940
Indian Ocean W, regional aspects, 250743
Indo-Australian Plate, 901081, 901154
lithologies, major
chalk, 901480, 901481
ooze, calcareous, 901480, 901481
lithology
Antarctica, 290276
continental margin, 270142
continental shelf, 290276
rifting, 290275
lithosphere, 890214
Lord Howe Rise, pale green laminae, 901154
Lord Howe Rise C, Neogene evolution, 901450, 901451, 901452
margin, passive, 760539, 760548, 760549
Mid-Atlantic Ridge, basalt, 280876
oceanography, 280937
surface currents, 270387
Pacific Ocean SE, trade winds, 920332
Pacific Ocean SW
Antarctica, 210906
Cenozoic, 300667, 300681, 901514
island arcs, 300696, 300698, 300700
Neogene-Paleogene evolution, 901437
paleoceanography, 901502, 901507, 901512
unconformities, 210708
Western Marginal Basin Province, 210898, 210900, 210903, 210904, 210905
regional summary, 220815
India, 220818
Ninetyeast Ridge, 220824
reconstruction, 220826, 220827
ridges, Antarctica, 220827
Rio Grande Rise N, regional setting, 250699
Ross Sea, continental shelf, 280940
sea floor spreading, history, 250663, 250664
seaway, 250499
segregation vesicles, lava, 460284
seismic reflection, flank, 270561
silt, terrigenous, sea floor spreading, 291062
South Fiji Basin, history, 300631
South Tasman Basin, borderland, 291135, 291144
Southeast Pacific Basin
evolution, geologic, 350729, 350736, 350739
sediment distribution, 350223
southwest regional unconformities
Antarctica, 210903, 210906
separation, 210900
tropical, 680410
Victoria, 210713
western, 360531, 360761, 400884, 400890
western continent, 220492
western margin, 361006
Australia C
deserts, 901451, 901452
Lord Howe Rise C, Neogene evolution, 901452
Australia E, 900798, 901157, 901183
Coral Sea E, geology, 300661
Lord Howe Rise, pale green laminae, 901157
Pacific Ocean SW
Cenozoic, 300667
island arcs, 300696, 300700
South Fiji Basin, history, 300631
Australia N, 220731, 901514, 910472
Gondwana, dispersal, 260945
Pacific Ocean SW, Cenozoic, 901514
Australia NE, Coral Sea E, geology, 300648
Australia NW, 950763
continental margin, 220351
geophysical measurements, 220351
Gondwana, dispersal, 260945, 260947
regional summary, anomalies, 220816
seismic profiles, margin, 220351
Australia S, 291158, 710801, 810035, 810235, 900800
Indian Ocean S, geologic history, 260935
Indian Ocean W, regional aspects, 250746
offshore environments, 280934
Pacific Ocean SW, Western Marginal Basin Province, 210905
paleoceanography, 280931
Rio Grande Rise N, regional setting, 250698
Australia SE, 220503, 220507, 290723, 710859
Atlantic Ocean SW, basin, evolution, 361009
Challenger Plateau, Quaternary, 901414
continental margin, 901439
East Australian Current, 901414
Australia SW
general synthesis
accumulation rate, 280929
unconformity, 280931
Gondwana, dispersal, 260951
Indian Ocean S, geologic history, 260925
Miocene sequences, 720649
Australia W, 050565, 061281, 061287, 110573, 160718, 170920, 200359, 210211, 210341, 210455, 210488, 210656, 210900, 210905, 220003, 220005, 220119, 220351, 220369, 220403, 220407, 220411, 220609, 220771, 220809, 220816, 220824, 220826, 230054, 230521, 250698, 260007, 260135, 260281, 260295, 260745, 260750, 260773, 260815, 260816, 260909, 260910, 260928, 260929, 260935, 260940, 260947, 260950, 260951, 270397, 270403, 270697, 270702, 270978, 270983, 271017, 271020, 271051, 280005, 280007, 280378, 280602, 280727, 280828, 280831, 280832, 280835, 280887, 280888, 280905, 280931, 300003, 300008, 300153, 300631, 300661, 300667, 300680, 300696, 300698, 330510, 350006, 350028, 350063, 350127, 350223, 350381, 350531, 350736, 360528, 400697, 400723, 400744, 400764, 400860, 400865, 411002, 42A0596, 430697, 480548, 490843, 710553
360690, 360701, 360849, 360887, 380807, 38S0847, 390657, 39S0845, 390904, 391104
Antarctica, 250664, 38S0687
separation, 210903, 360036, 360096, 361009, 391062, 400388
assemblages, 400883
coastline, 210490
continental margin, 210903, 220362, 260009, 260359, 260967, 760907
stratigraphy, 270571, 270572, 270573, 270575, 270576, 270578, 270580, 270581, 270582, 270583, 270584, 270585
Fremantle, 220037, 260669, 260675
Gondwana, dispersal, 260945
Indian Ocean E, 270387
lithology, 271015
surface currents, 270387
surface water, 270387
margin, 270571
northwest margin, 220351
oceanography
surface currents, 270387
surface water, 270387
passive margin, 760915, 760920
depositional history, 950763
Perth, 260419, 260751, 271049, 271051
Queensland, 480552
regional summary, 140972
stratigraphy, comparative, continental margin, 270571
structure, comparative, continental margin, 270571
suspended sediment, 270383
biological material concentration, 270383
flash flooding discharge, 270383
near-diurnal component, 270383
ocean currents, 270383
open-ocean areas, 270383
organic/inorganic ratio, 270383
river mouth areas, 270383
salinity measurement, 270383
shore areas, 270383
temperature, 270383
Timor Sea, 270383
transport, 270383
upwelling, 270383, 270385
transport, eolian, 270397, 270398
Victoria, 38S0689
see also Indian Ocean E
Australian Mineral Province, 220492
Australian Plate. *See* Indo-Australian Plate
Austria, 050565, 110573, 110575, 110617, 210837, 400784, 410504, 410505, 42B0910, 42A0987, 480612, 760870, 760873, 800601, 800614, 950360
Alps, 110614, 110616, 410504, 410506
Austro-Alpine nappes, 760606
Frattingsdorf, 210841, 210843
Italy, Tethys W, 760875
Paratethys, paleogeography, 42A0987
Rote Berg, 410502
Vienna Basin, 110615, 410501
Walbersdorf, 210844
Wallern, 210819
Austro-Alpine nappes, 110802, 110805
Austria, 760606
Autan Island, formations drilled, exposed land, 42A0899
authigenesis, 390435, 390438
Antarctica, geochemistry, 350405
Atlantic Ocean SE, paleoenvironmental evolution, 740664
Caribbean Sea, sediments, 150935
clay mineralogy, clay minerals, 750866
deposition, models, 960739
East Pacific Rise, sediments, 650380
Emperor Seamounts, mineralogy, 550468
ferromanganese oxide, 550463
Emperor Seamounts, 550463
Hess Rise N, sedimentary sequences, 620727, 620766, 620767
pelagic components, distribution, terrigenous, hemihalmeic components, 250491
phosphate, 550463
Emperor Seamounts, 550463
silica
diagenesis, 410880
Melanesian Basin, 610523

- silicate, 550463
 Emperor Seamounts, 550463
 authigenic minerals, 340619, 600455, 600462, 600463
 alteration, 600463
 hydrothermal, 600463
 low-temperature, 600463
 Arabian Sea N, sediment history, 230506
 Atlantic continental margin, mineralogy, 090773, 100337
 Atlantic Ocean
 Cenozoic sediments, 140809, 140811, 140813, 140815, 140817
 Cretaceous sediment, 140809, 140811, 140813, 140815, 140817
 Miocene, 710361
 Atlantic Ocean NE, evolution, 411218
 Atlantic Ocean S, Malvinas Outer Basin, 391109
 Atlantic Ocean SW, Miocene, 710361
 barite, authigenic, barite, 410916
 basin evolution stages, 600463
 Biscay, Bay of, shale, black, 480839
 breccia, volcanic, Neogene, 630654
 burrow mottling, silt, 291053
 calc-alkaline trend, sources, 600462
 California, Gulf of, gulf mouth, 650399, 650410
 Caribbean Sea, sediments, 150939
 Cenozoic sediments, mineral composition, 42B0413, 42B0423
 chemistry, distribution patterns, 650418
 chert
 geochemistry, 620720, 620728
 petrology, 620720, 620728
 chlorite, 600462, 600463
 clastic sediment, Cretaceous, 401039
 clay, 291053
 iron, 291053
 manganese nodules, 291053
 clay minerals, 600463
 clay, terrigenous, 291148
 glauconite, 291148
 iron, 291148
 manganese nodules, 291148
 pyrite, 291148
 claystone, 600462
 clinoptilolite, 600463
 Daito Ridge, 580629
 diagenesis, 020421, 600462
 beidellite, Fe-rich, 600463
 calcium, 600463
 cerium, 600463
 glass, volcanic, 600463
 magnesium, 600463
 saponite, 600463
 sedimentation rate, 600462
 serpentine, 600463
 slope sediments, 840589
 smectite, 600462
 talc, 600463
 zeolite, 600463
 dolomite, 340620
 Emperor Seamounts, mineralogy, 550466, 550468, 550473
 erosion, 600463
 Falkland Plateau, Miocene, 710361
 fossils, minerals, rare and unusual, 340619, 340620
 geochemistry, Cenozoic sediments, 42B0587
 geologic setting, 600462
 glass, volcanic, 600462
 glauconite, 480787
 Guatemala, trench, 670515, 670516, 670518, 670519, 670524
 Hess Rise N
 post-Jurassic, 620806
 sedimentary sequences, 620761, 620762, 620764
 hydrothermal alteration, sediments, 650419
 hydrothermal solution, 600463
 illite, 600463
 Indian Ocean W, 240656
 Aden, Gulf of, 240719
 regional aspects, 250758
 Somali Basin, 240721
 interstitial water, mineralogical studies, 410913
 kaolinite, 600462
 lithologies, major
 chalk, 901480
 ooze, calcareous, 901480
 manganese, micronodule, 340620
 Maurice Ewing Bank, Miocene, 710361
 mineral, chemical composition, sediments, 38S0044
 mineral composition, 38S0031
 mineral distribution, 38S0032
 mineral, secondary, 600462
 mineralogical patterns, change, 600462
 mineralogy, 350309
 distribution patterns, 650418
 Miocene, 710361, 710363, 710364, 710365
 calcium, 710366
 glauconite, 710365
 gypsum, 710365
 iron, 710364
 origin, 710366
 pyrite, 710364
 reworking, 710365
 surface water, 710366
 mixed layer clay, 600463
 mudstone, 600462
 ooze, siliceous, 291150
 opal-CT, 600462
 oxygen isotope, geochemistry, 350507
 palygorskite, 600462, 600463
 Philippine Sea, 600455
 Philippine Sea S, volcanogenic sediments, 600455
 phillipsite, 600463
 plagioclase, calcic, 600462
 primary origin minerals, 600462
 pyroxene, 600462
 quartz, absence, 600462
 rare earth elements, 590667
 trace elements, 590664
 saponite, 600462
 sapropel, Cretaceous, 620896
 sedimentation rate, 600463
 serpentine, 600462, 600463
 silica, opaline, transformation, 480758
 silicate, ferromagnesian, 600462
 silt, terrigenous, 291148
 glauconite, 291148
 iron, 291148
 manganese nodules, 291148
 pyrite, 291148
 smectite, 600463
 sources, terrigenous material, 600462
 Southeast Pacific Basin, evolution, geologic, 350730, 350736
 spreading
 chemical patterns, 600463
 mineralogical patterns, 600463
 talc, 600462, 600463
 terrigenous volcanic material, 600463
 tetrapyrrole, geochemistry, 630809
 tholeiite, island arc, 600462
 tuff
 mudstone, 600462
 Neogene, 630654
 volcanic sediment, Philippine Sea S, 600455
 volcanoclastic products, sources, 600463
 volcanism, chemistry, 600462
 volcanogenic minerals, 340619
 volcanogenic sediments, 600455
 volcanogenic sources, 600462
 zeolite, 340619, 600463
 authobrecciation
 basalt, petrography, 260470
 hyaloclastite, 210535
 Lord Howe Rise, rhyolite, 210535
 Magdalena Bay, sulfide, 630703
 rhyolite, 210530, 210535
 volcanics, 210530, 210535
 autoclastite
 basement, basalt, 490611, 490749, 490750, 490757
 breccia, 490611
 Auvergne, Lake Bolsena, 120959
 Avalon Peninsula, 120036, 801106, 801107, 801111, 801200
 basement, main features, 801111
 Goban Spur, evolution, 801200
 Moroccan Basin, margin, 500813
 platform, 801106, 801110
 uplifting, 500813
 Avalon Platform
 Atlantic Ocean N
 Paleozoic, 801110
 Precambrian features, 801106
 Aves Escarpment, topography, 780084
 Aves Islands, 780094
 Aves Ridge, 040009, 040010, 040145, 040215, 040592, 040598, 040666, 140345, 150217, 150696, 151002, 151015, 151081, 151090, 200661, 200752, 200851, 200891, 680357, 780025, 780027, 780084, 780094, 780095, 780096, 780097, 780302, 780303, 780367
 Atlantic Ocean W, 040666
 chalk, 040666
 clay, 040666
 Equatorial Current N, 040666
 Grenada Basin, 040666
 Grenadines, 040666
 Miocene, 040666
 planktonic foraminifers, 040666
 Pleistocene, 040666
 Pliocene, 040666
 sand, 040666
 sedimentation rate, 040666
 silt, 040666
 terrigenous material, 040666
 volcanism, 040666
 basalt, compressional wave velocities, 151015
 Belem Ridge, 040666
 calcareous plankton biostratigraphy, 040666
 CCD, Pleistocene, 040666
 chalk, terrigenous admixture, 040666
 clay, 040666
 clay, ashy, 780304
 compressional wave velocities, 151015
 crust, oceanic, 780096
 dolerite, compressional wave velocities, 151015
 Equatorial Current N, 040666
 granite, 780095
 granodiorite, Lesser Antilles, 780095
 Grenada Basin, 040666
 Grenadines, volcanic activity, 040666
 magmatic activity, 780096
 magnetic anomaly, 780095
 Miocene sediments, 040666
 morphology, 780094
 ooze, calcareous, slope, 780308
 ooze, foraminiferal, 040666

- origin, 780027, 780094, 780096
 Pacific Ocean W, guyot, 200661
 Pleistocene sediment, 040666
 Pleistocene-Pliocene sediments, 040666
 sand, 040666, 780304
 sedimentation rate, 040666, 040670
 silt, volcanic, 040670
 silt, Pliocene-Pleistocene, 040666
 silt, volcanic, 040666
 subduction zone, 780096
 subsidence, 780096
 topography, 780084
 transport, mechanism, 040666
 turbidites, 040666
 Venezuelan Basin, 040666
 Wadati-Benioff zone, 780096
 Aviles Canyon, 801106
 Atlantic Ocean N, Precambrian features, 801106
 axis, extinct
 Greenland Sea, 38S0248
 ash, 38S0240
 geologic setting, 38S0196, 38S0197
 glass, 38S0240
 Norwegian Sea, 38S0248
 ash, 38S0240
 geologic setting, 38S0196, 38S0197
 glass, 38S0240
 Axlou section, Neogene formations, paleogeography, 42A0918
 Ayarza caldera, ash, 670493
 Azores, 260505, 260571, 650579, 690644, 800692, 800700, 800703, 810670, 820008, 820395, 820396, 820418, 820431, 820492, 820497, 820499, 820500, 820506, 820507, 820554, 820582, 931031
 Atlantic Ocean
 mantle, 370591
 margin, 481099
 Atlantic Ocean NC, lead isotope, 820497
 Atlantic Ocean W, opening, 130033
 basalt, 820503, 820505
 hot spot, 820475
 Mid-Atlantic Ridge, 820501
 midocean ridge, 820453, 820454, 820457, 820460, 820491
 Pb isotope, 820499
 basalt, altered
 major element, 580882, 580883, 580887, 580892
 trace elements, 580882, 580883, 580887, 580892
 biostratigraphic zonation, Quaternary
 bioclimatic subdivisions, 800692
 blob, rare earth, 370591, 370595
 chemical stratigraphy, 450658
 Iceland, 450658
 flow line, 820017, 820487, 820490, 820491
 age, 820487
 hot spot, 820007, 820396, 820430, 820431, 820460, 820475, 820483, 820485, 820487, 820491, 820493, 820494, 820495
 age, 820487
 anomaly, 820422, 820431
 hygromagmaphile element, mantle, 820464
 islands, 510982
 Kane Fracture Zone, 450005
 lead isotope, crust, oceanic, 820497
 magmatism, mantle, 820456, 820457
 magnetic stratigraphy, 450658
 Iceland, 450658
 mantle, 370592, 820483
 anomaly, 820491, 820494
 blob, 370591, 370592, 370593, 370594, 370595, 370995
 plume, 820493, 820501, 820506
 Mid-Atlantic Ridge, plume, 510982
 plateaus, 370332
 platform, 820005, 820006, 820395, 820421, 820430, 820431, 820483, 820493, 820519, 820547
 plume, 510982, 820495, 820497, 820500
 blob, 090918, 120003, 120368, 120673, 230529, 260505, 370028, 370592, 370599, 390531, 430013, 430130, 430234, 430803, 430805, 430853, 430890, 481099, 490007, 490315, 490407, 490519, 490617, 490658, 490722, 490841, 510982
 Ponta Delgada, Sao Miguel, 810005
 seismic reflection, flow lines, 820017
 Azores Plateau, 120003, 370332, 370334
 bathymetry, 370334
 magnetic anomaly, 370334
 Azores Triple Junction, 820006, 820007, 820008, 820009, 820010, 820035, 820073, 820083, 820084, 820121, 820138, 820361, 820396, 820397, 820402, 820421, 820422, 820424, 820429, 820431, 820449, 820456, 820457, 820460, 820463, 820464, 820465, 820475, 820514, 820523, 820559, 820591
 basalt, midocean ridge, 820449, 820450, 820451, 820452, 820453, 820454, 820455, 820456, 820457, 820460
 Magnetic Anomaly, 13, 820014, 820061
 mantle, heterogeneity, 820465
 Azores-Biscay Rise, 120673, 481102, 800507, 800525
 Atlantic Ocean, margin, 481102
 magnetic anomaly, 941151
 regional reflectors, 941257
 tectonics, 941260
 Azores-Gibraltar, 140955, 410439
 Atlantic Ocean, margin, 481101, 481102
 Atlantic Ocean NE, evolution, 411239
 Iberian margin W, evolution, 47B0764, 47B0768
 line, 47B0764, 47B0768, 481101, 481102
 plate, 130022
 plate boundary, 47B0028, 47B0096
 ridges, 380118, 430879
 spreading, Jurassic, 280890
 tectonic zone, 411239
 Moroccan Basin, 500005
 Azores-Gibraltar Fracture Zone, 140004, 140015, 140025, 140967, 42A0966, 790439
 Azores-Gibraltar Ridge, 090918, 120315, 130751, 380118, 430879, 430881, 720012, 800507, 800525
 Pacific Ocean EC, geologic history, 090918
 Azov, Sea of, 131007, 42B0359, 42B0499, 42B0648, 42B1039, 42B1079
 Messinian environments, Lago Mare, 42A1022
 Azuro Peninsula, 670753, 670754, 670791, 670792, 680246, 840643