

T

- Ta
 basalt
 depletion, 820474
 Melanesian Basin, 610705, 610707
 Mid-Atlantic Ridge, 820442, 820445, 820446
 midocean ridge, 820396, 820417, 820449, 820450
 hygromagmaphile element, 820460, 820461, 820462, 820464, 820467, 820468
 fractionation, absence, 820460
 nonfractionating pairs, 820467
 trace elements, 660732
 Goban Spur, 800944
see also tantalum
 Ta/Hf ratio
 basalt, 820474, 820475
 hygromagmaphile element, 820464, 820465
 Ta/La ratio
 hygromagmaphile element, 820645
 trace elements, 660732
 Ta/Nb anomaly, 820470
 Ta/Tb ratio
 Atlantic Ocean N, mantle, 490847
 basalt, geochemistry, 490629
 basement, chemistry, 600622
 Ta/Th ratio
 Atlantic Ocean N, basalt, 511092
 basalt, Cretaceous, 511092
 Emperor Seamounts, trace elements, 550586
 trace elements, Cretaceous, 511092
 Tabasco
 Mexico, Gulf of, regional aspects, 010625
 Veracruz, diapiir, salt, 010108, 010625
 Tabasco-Campeche Salt Dome fields, 010006, 010084, 100055, 100071
 Tabera Formation, 110545
 Table Mountain Series, 401029
 Tabuk, Saudi Arabia, Red Sea, geology, 230816
 tachybasalt, Red Sea, geology, 230816
 tachyhydrite
 Red Sea
 geochemistry, 230984
 interstitial water, 230957
 tachylyte, 180935, 180940, 180941, 180942, 180943
 ash, glass, 38S0101, 38S0102, 38S0103
 Atlantic Ocean SE, Cretaceous, 740767, 740773, 740774, 740779
 basalt, glass, 38S0101, 38S0102, 38S0103
 basalt, alkali andesine, mineral composition, 180943
 breccia, volcanic, Neogene, 630643
 East Mariana Basin, sedimentary history, 890667, 890669
 glass, 180941
 basalt, 38S0101, 38S0102, 38S0103
 hyaloclastite, 460342
 lithology, sandstone, volcanic, 120366
 mineral composition, 180937
 basalt, alkali andesine, 180943
 petrology
 glass, 38S0101, 38S0102, 38S0103
 igneous rocks, 38S0101, 38S0102, 38S0103
 sandstone, 320541
 tuff, Neogene, 630643
 volcanics, mineral composition, 180943
 volcanism, Neogene, 47A0703, 47A0710
 Tadjoura Trough, Indian Ocean, geophysical measurements, 240591
 Tafelney Plateau, 790179, 790858, 790894
 Tagus Basin, 130033, 47B0028
 Tagus Plain, 130019, 130033, 131012, 47B0658, 47B0659
 Mediterranean Sea, extension, 131012
 Tahiti, 200682, 200687, 200691, 330383, 340163, 340168, 850821, 850822, 910385, 910437, 920026, 920117, 920265, 920291
 Panama, Pacific Ocean, 950217
 pumice, source, 850821
 Volcanic rocks, petrography, alkalic island, 200691
 Taif, Saudi Arabia, Red Sea, geology, 230813
 Tairyo Formation, 061289
 Taito Fracture Zone, 870740
 Nankai Trough, heat flow, 870740
 Taiwan, 061289, 660661, 780578, 840767
 basin genesis, 310874
 Ryukyu Islands, 310863
 Philippine Basin, genesis, 310863
 Philippine Sea, Paleogene-Neogene, 310837
 Philippines
 genesis, 310874
 plate, 600928
 planktonic foraminiferal biostratigraphy, 310679
 sand, Luzon, 310508
 wedge, 780569
see also Philippine Sea
 Taizz, Yemen, Red Sea, geology, 230813
 Takanosu, Tohoku Arc, geology, 870716
 Takuyo-daiichi Seamount, 560558
 Takuyo-daini Seamount, 200656, 200693
 Emperor Seamounts, petrology, 550577, 550578, 550579, 550580, 550581
 Pacific Ocean W, guyot, 200657
 volcanic rocks, petrography, Geisha Guyots, 200682, 200683, 200684
 Talaud Ridge
 basin genesis, 310868
 Philippines, genesis, 310874
 talc, 340409
 alteration, low-temperature, 340409
 alteration minerals, trace elements, 920496
 alteration, nonoxidative, 340409
 authigenic minerals, 600462
 alteration, 600463
 diagenesis, 600463
 B, trace elements, 920491
 basalt, 830335
 alteration, 920512
 chemistry, 920472
 Costa Rica Rift Zone, 830145, 830147, 830151, 830165
 geochemistry, 920450
 mineral, secondary, 340398, 340406, 340409
 petrology, 580848
 basalt, altered
 geochemistry, 580792
 petrochemistry, 580792
 basalt, oceanic, Melanesian Basin, 610647, 610648, 610654, 610657, 610658, 610659
 Costa Rica Rift, basalt, 690517
 Costa Rica Rift Zone, basalt, 830228, 830230, 830232, 830233, 830237, 830238, 830254, 830257
 experimental production, 830236
 geochemistry, Guaymas Basin, 640711, 640712
 Guatemala, slope sediment, 840931
 Horizon Tablemount, 200668
 Indian Ocean W, mineralogy, 160529
 Li, trace elements, 920491
 major element, 650560
 Mariana Trough, basalt, 600650
 Melanesian Basin, ash, 610635, 610637
 Mendoza Rise
 lithology, 920436
 petrology, 920613
 Mid-Pacific Mountains, 200669
 mineral, secondary, 920507, 920508
 abundance, 920509
 diagenesis, nonoxidative, 340409
 elemental composition, 920511
 Guaymas Basin, 650644
 laumontite, 670551
 mineralogy
 Mariana Islands, 600458
 Mariana Trench, 600458
 Mariana Trough, 600457
 minerals, chemical composition, 600461
 Panama Basin, sediments, 690386, 690392
 Patton Escarpment, petrography, 630687, 630701
 Shatskiy Plateau S, 200683
 temperature, 670551
 X-ray diffraction analysis result, 920492
 Tallahatta Formation, 950365, 950369, 950370
 Talme Yafe borehole, Mediterranean Sea E, history, 42B1202
 Talparo Formation, 040599
 Tamabra limestone, talus, 770397, 770404
 Tamatave, Rio Grande Rise N, regional setting, 250694
 Tamaulipas, 790653
 Tamayo Fracture Zone, 630377, 630919, 640035, 640512, 641109, 641283, 641286, 641289, 650005, 650006, 650056, 650140, 650231, 650314, 650315, 650316, 650319, 650355, 650357, 650367, 650391, 650464, 650471, 650594, 650623, 650739, 650742, 650750, 880147, 920191
 basalt, 630479, 650527, 650559, 650664, 650667
 California, Gulf of, 650580, 650591
 geochemistry, 650559
 magma, 650549
 physical properties, 650693
 clay mineralogy,
 montmorillonite-illite-chlorite assemblage, 650368
 crust, oceanic, hygromagmatophile (HYG) elements, 650623, 650624
 differential movement, 650474
 faulting, 650476
 glass, basalt, 650479
 gulf mouth, 650365, 650399, 650401, 650404, 650406
 hyaloclastite, basalt, 650479
 intersection, 650453
 magnetic anomaly, 650309
 mineral, secondary, 650648
 basalt, 650646, 650647
 mineralogy, 650391
 minor element, basalt, 650596, 650597, 650598, 650601, 650602, 650603
 mud, siliceous, 650464
 paleomagnetism, 650705
 Rivera Fracture Zone, 630920
 sand, 650464
 sediment ponding, 650464
 sedimentation rate, 630474, 650474
 silt, 650464
 sinistral displacement, 650474, 650476
 skewness, 650464
 sorting, 650464
 topographic effects, 650355
 trace elements, basalt, 650594, 650596, 650597, 650598, 650601, 650602, 650603
 turbidites, 650464
 Tamayo Fracture Zone S, 641284, 650309, 650357, 650399, 650705
 Tamayo Transform Fault, 641112, 650375, 670747, 670749, 670750, 670754, 670775
 California, Gulf of, gulf mouth, 650409
 East Pacific Rise, sediments, 650375
 Tampico
 Bahama Islands, geology, 110893
 Mexico, volcano, 110893
 Tampico Embayment, 720757

- Tan-Tan delta
Cape Bojador, seismic interpretation, 47A0497
slope, Wealden facies, 47A0497
- Tan-Tan Formation, 930915
Moroccan Basin, margin, 500815
- Tanabe, physiography, Kumano, 870613
- Tang-Ku-la Range, Tethys, Mediterranean Sea, 42A0944
- Tanner Bank, 630914
- Tanner Basin. *See* Venezuela Basin
- tannin, organic matter richness, 801001
- tantalum, 540727
alteration, products, 810736
analyses, 920433
ash, 870684
hygromagmatophile (HYG) elements, 870684
- Atlantic Ocean N, mantle, 490844
- Atlantic Ocean S, history, 740715, 740718, 740723, 740726, 740727
- basalt
Barbados Ridge, 780404
Cretaceous, 511087, 511091, 511092
geochemistry, 260567, 260570, 590776
rare earth, 370581
- basalt, altered
geochemistry, 580811
major element, 580875, 580888, 580889, 580892
trace elements, 580875, 580888, 580889, 580892
- basement
chemistry, 600623
geochemistry, 590743, 590745, 590746, 590747, 590748, 590750, 590751
- Bauer Basin, basalt, 340239
- bulk-rock compositions, minor element, 540639
- California, Gulf of, Guaymas Basin, 650614
- Cretaceous/Tertiary boundary, 860537
- crust, oceanic, hygromagmatophile (HYG) elements, 650623
- Emperor Seamounts, trace elements, 550585, 550586
- Galapagos Spreading Center, basalt, 540756
geochemistry, 600624
Cenozoic sediments, 42B0543, 42B0544, 42B0597, 42B0599
fusion, partial, 540645
magma, 540642, 870699
negative anomaly, 600624, 600629
- Rockall Plateau, 810736
- hygromagmatophile (HYG) elements
contamination, 540732
geochemistry, 650631
- Japan Trench
minor element, 870649
trace elements, 870649
- low partition coefficient elements,
hygromagmatophile (HYG) elements, 600661, 600662
- mantle, upper, trace elements, 460247
- Mariana Islands
basement, 600617
fore arc, 600621
- Mariana Trench, 600621
- Mariana Trough, 600614
- melting, partial, 460247
- Mid-Atlantic Ridge
basalt, 450494, 450496
isotopes, 450549
minor element, East Pacific Rise, 650613
- Nazca Plate, basalt, 340239
- Philippine Sea
minor element, 870645
trace elements, 870645
- Shikoku Basin
minor element, 870645
trace elements, 870645
- Suiko Seamount, trace elements, 550561, 550564
trace elements, 370581, 650594, 810788
anomaly, 810790
basalt, 810790
Cretaceous, 511087, 511091, 511092
East Pacific Rise, 650594, 650613
magnetite, 450549
Tamayo Fracture Zone, 650594
see also Ta
- Tanzania, 250437, 250693, 250737, 260949, 360999
Africa E, coast, 250680, 250682, 250683
Atlantic Ocean SW, basin, evolution, 360999
coast, 250141, 250179, 250460
coastline, 250694
Gondwana, dispersal, 260949
Indian Ocean W, regional aspects, 250752
Lindi, 250679, 250695
Rio Grande Rise N, regional setting, 250693, 250694, 250695, 250698
- Tanzania S
Africa E, coast, 250679, 250681
Rio Grande Rise N, regional setting, 250689, 250693, 250695, 250698
- Tanzawa region, 870046
- Tarfaya, 790894
coast, Miocene, 790114
diapir, 790179
Morocco, 150505
- Tarfaya Basin, 140871, 411133, 790510, 930915
Atlantic Ocean E, 640809
flysch, source area, 500753
Rif, 931139
tetrapyrrole, geochemistry, 630810, 640809
- Tarfaya, Gulf of, 411091
- Tarim Basin, 131228, 131258
- Tarpo Graben Formation, 901452
- Tarr Bank, 180592
- Tasman Basin, 210197, 210641, 210703, 210716, 291160, 300003, 300005, 360589, 900005
Pacific Ocean SW, 210897
Cenozoic, 300667, 300679, 300680
island arcs, 300691, 300696
regional evolution, 210900
Western Marginal Basin Province, 210898, 210903
Paleocene-Eocene unconformity, 300664
southwest regional unconformities completion, 210903
sea floor spreading, 210716
- Tasman Basin S, 290833, 291156
borderland, 291135, 291136, 291138
bottom current, 291138, 291139
Campbell Plateau, 291136, 291138, 291139, 291140, 291142
crust, 291144
Emerald Basin, 291136, 291142, 291143
geophysical results, 291135
plate movement, 291135
sediment distribution, 291135
Solander Trough, 291142, 291143
Tasmania, 291142, 291143, 291144
geophysical summary, 291135
- Tasman Current
Cenozoic paleoceanography, oceanographic setting, 901495
Challenger Plateau, Quaternary, 901414
Tasman Fracture Zone, 220119
Tasman Front, 900985, 900986
- Tasman Peninsula, Black Sea, evolution, 42B1145, 42B1147
- Tasman Plain, 210005, 901439
- Tasman Plateau, 290237, 291143
- Tasman Sea, 291124, 291173, 480611, 540819, 620362, 900400, 900763, 900795, 900800, 900961, 900965, 900969, 900973, 900981, 900982, 900983, 900986, 900987, 901037, 901082, 901154, 901156, 901157, 901161, 901169, 901170, 901175, 901183, 901184, 901185, 901189, 901235, 901265, 901327, 901347, 901353, 901357, 901445, 901472, 901480, 901484, 901495
Atlantic Ocean SW, basin, evolution, 361009
burrow mottling, silt, 291049
Cenozoic paleoceanography, stratigraphic continuity, 901495
Chatham Rise, seismic stratigraphy, 901327
clay minerals, Tertiary, 291082
clay, terrigenous
siliceous biogenic sedimentation, 291062
terrigenous sedimentation, 291062
- Coral Sea E, geology, 300660, 300661
- currents
Miocene, 901234
transition currents, 901235
diagenesis, organic matter, 901265
- Eocene/Oligocene boundary, volcanic sediments, 901175
- general synthesis
oceanography, 280937
unconformity, 280931
- isotopes, similarity, 901353
- lithologies, minor
chalk, siliceous, 901482
tephra, vitric, 901483
turbidite, volcanic, 901483
- lithology, 290276, 290369, 290377
- lithostratigraphy, unconformity, 901473
- Lord Howe Rise, 720762
isotope stratigraphy, 901385
pale green laminae, 901154, 901157
- Lord Howe Rise C, Neogene evolution, 901448, 901449
- mineralogy, 210701, 210723
- amphiboles, 300605
apatite, 300606
aragonite, 300605
augite, 300603, 300604, 300605
barite, 300606
calcite, 300603, 300604, 300605, 300606
chlorite, 300604
clinoptilolite, 300604, 300605, 300606
cristobalite, 300605, 300606
dolomite, 300604, 300605
hematite, 300604
kaolinite, 300605
mica, 300603, 300604, 300605, 300606
montmorillonite, 300603, 300604, 300605, 300606
palygorskite, 300606
phillipsite, 300603, 300604, 300605
plagioclase, 300603, 300604, 300605, 300606
quartz, 300603, 300604, 300605, 300606
tridymite, 300606
- New Zealand, tectonics, 901234, 901235
- ocean basin, evolution, 291049, 291147
- ooze, siliceous, Eocene and Oligocene, 291149
- Pacific Ocean SW, 210897
Cenozoic, 300680
island arcs, 300696, 300698, 300700, 300704
Mesozoic regional evolution, 210902
paleoceanography, 901495, 901502
regional evolution, 210900
tephra, vitric, 901161
- Paleocene-Eocene unconformity, 210708

- plate, 210723, 210724
 regional unconformities, 210701
 seismic stratigraphy, rise crest seismic stratigraphy, 901332
 seismic studies, 291124
 silt, terrigenous
 siliceous biogenic sedimentation, 291062
 terrigenous sedimentation, 291062
 South Fiji Basin, history, 300631
 southwest regional unconformities, 210897
 temperature gradient, deposition, 901357
 tephra
 Cenozoic, 901170
 source, 901153, 901169
 unconformities, regional, 210701
 volcanic deposit, 901185
 volcanism, submarine, Eocene-Oligocene, 901182, 901183
 X-ray mineralogy, 300603
 Tasman Sea S, 070338, 280931, 280937, 291147, 300005, 300153, 300439, 300603, 300631, 300660, 300661, 300693, 300696, 300700, 300702, 300704, 350273, 350486, 350560, 350817, 360746, 361009, 38S0689, 390531, 47B0031, 901225, 901234, 901413, 901422, 901483
 central, 290365
 Challenger Plateau, Quaternary, 901414, 901422
 manganese, 291084
 oceanography, Cenozoic, 291155
 particle, origin, 901227
 Quaternary, isotope stratigraphy, 901413, 901414
 X-ray mineralogy, 291173
 Tasmania, 151000, 280931, 290682, 290809, 291049, 291077, 291119, 291143, 291160, 291165, 350817, 38S0688, 710417, 901347, 950400
 Antarctica, 730784
 glaciation, 291042
 carbon, 310633
 clay minerals, Tertiary, 291077, 291081
 clay, terrigenous
 nannoplankton, 291148
 shallow-water fossils, 291148
 sponge spicules, 291148
 continental shelf, 291117
 continental slope, 291042, 291149
 cooling, passage, 710417
 fracture zones, 220119
 Great Lake, 151000
 hydrocarbon, 310901
 hydrocarbon, C₁-C₈, Baja California, 630781
 Magnetic Quiet Zone, 290317
 ocean basin, evolution, 291152
 plateaus, 290237, 291143
 ridges, 290555
 sand, glauconitic, bottom current, 291152
 shelf, 290477
 silt, terrigenous
 nannoplankton, 291148
 shallow-water fossils, 291148
 sponge spicules, 291148
 sulfur, geochemistry, 310633
 unconformity, 280931
 Tasmanian Seaway
 Pacific Ocean SW, paleoceanography, 901500, 901502
 temperature gradient, opening, 901357
 Tateyama Bay, 870605, 870606
 Tatra Mountains, 620782, 760871
 Tauern, 42A0945
 Taupo
 Atlantic Ocean SW, basin, evolution, 361000
 New Zealand W, 210490
 North Island, 210110
 South Fiji Basin, history, 300630
 volcanic zone, 361000
 Taupo Graben, Lord Howe Rise C, Neogene evolution, 901452
 Taurian Formation, 42B0475
 formations, 42B1186
 Tauride Mountains, 130742
 Neogene formations, paleogeography, 42A0911
 ophiolite, 42A0946
 Paratethys, paleogeography, 42A0987
 Tethys, Mediterranean Sea, 42A0946
 Taurus Mountains, 230497, 42A0219, 42A0220, 42A0953
 Neogene formations, paleogeography, 42A0906, 42A0921
 Taxaquara fault, Santos Plateau, origin, 390931
 Taylor Valley, 280227
 marl, 100391
 Tb, 820041, 820484
 basalt
 Costa Rica Rift Zone, 830201, 830207
 Melanesian Basin, 610705, 610706
 Mid-Atlantic Ridge, 820445
 midocean ridge, 820396, 820449
 trace elements, incompatible, 820487
see also terbium
 Tb/Ta ratio, Emperor Seamounts, trace elements, 550586
 Tb/Th ratio, geochemistry, fusion, partial, 540642
 Tbilisi, Rabat, granite, 790547
 Tchauchab Valley, 750766
 tectonite, 820526, 820527
 tectonite, ultramafic, 450587, 450591, 450592, 450595, 450603
 mineral chemistry, 450588
 peridotite, 450603
 peridotite, alpine-type, 450595
 geothermometry, 450598
 mineral chemistry, 450598, 450600
 petrography, 450595, 450600
 petrology, 450587
 Tehuantepec, 790523
 salt, Jurassic, 790524
 Tehuantepec, Gulf of, 660727, 660728, 660775, 670675, 670676, 840879, 840947
 Mexico, magmatic episodes, 660727
 Tehuantepec, Isthmus of, 010108, 010625, 670676
 Tehuantepec Ridge, 660522, 670733, 670747, 670748, 670754, 670762, 670775, 670776, 840339, 840831
 Central America, 670475
 Tejon Formation, 950365
 Tekirova, Turkey, 760876
 tektite
 bediasite, 950570, 950571
 clinopyroxene, 950565
 crater, impact-generating, 950571
 Eocene sediments, 950565
 Georgia, 950570, 950571
 glass, 950565
 microtektite, 950565, 950570
 Eocene, 151031
 New Jersey, continental slope, 950565
 North America, 730633
 stratigraphy, 950565
 Tel Aviv
 fault, transverse, 42B1204
 Mediterranean Sea E, history, 42B1204, 42B1216
 Telegrafo Section, 100649
 telinite
 coal, petrology, 220485
 organic matter, petrology, 40S0663
 sapropel, Cretaceous, 620891
 Tell Atlas, 130043, 130403
 geosyncline, 410439
 Tethys, Mediterranean Sea, 42A0948
 Temblor Horizon, California, 180700
 Tenji Seamount, 550801
 Emperor Seamounts, bathymetry, 550848
 Tenryu Canyon, 870046, 870054, 870612
 Tenryu River, 870046
 sedimentary facies, sedimentation model, 870624
 tephra, 580617, 580992, 650477, 660687, 660693
 air-fall, 901162
 alkalis, 901164
 ash, 660692, 901162, 901170
 dispersion, 870709
 geochemistry, 870700
 Japan, 870707
 Japan Trench, 870684
 Middle America Trench, 670494
 Towada, 870707
 transport, 870707
 volcanism, explosive, 870709
 bentonite, 901170
 laminated, 901162
 biosiliceous material, 901162
 biotite, 901164
 calcareous facies, 291151
 calcium, 901164
 Central America, volcanism, 660692
 chemistry, 901161
 Cocos Plate, spreading rate, 660693
 Daito Ridge, 580618
 devitrification, 901170
 diagenetic bioturbation structures, 901162
 distribution
 ash, 901163
 biogenic reworking, 901163
 bioturbate structure, 901163
 sedimentation rate, 901163
 Eocene to Miocene, 580618
 feldspar, 901164
 geochemistry, 580617
 Philippine Sea, 580617
 volcanism, 840617, 870700
 glass, 580617, 901162, 901164
 SiO₂, 580992
 glass, volcanic, chemical composition, 870711, 870713
 glauconite, 901162
 Hess Rise N, post-Jurassic, 620806
 hornblende, green, 901164
 hypersthene, 901164
 Indian Ocean, 580617
 iron, 580622, 901164
 Izu, Iwo Jima, 580625, 580992
 Japan Trench, 870703
 geochemistry, 561058
 glass, volcanic, 561058
 petrography, 561043
 volcanism, 870703
 Kapingamarangi Rise, 901170
 Kinan Seamounts, source, 580617, 580992
 labradorite, 901164, 901170
 less active episode, 660693
 lithologies, major, 901480
 lithologies, minor, tephra, vitric, 901483
 lithology, 130124, 310280, 42A0328
 ash, 130195
 basalt, 140140
 clay, zeolitic, 140221
 ooze, foraminiferal, 130369
 sapropel, 130195
 silt, dolomitic, 140140
 Lord Howe Rise

- Lord Howe Rise (Cont.)
 pale green laminae, 901154, 901155, 901156
 stratigraphy, 901145
 magma, 901166
 Mediterranean Sea, lithostratigraphy, 131034
 melting zone, water supply increase, 660693
 Mexico S, 660687
 Middle America Trench, 660687
 andesite, 660687
 Baja California E, 660687
 ignimbrite, 660687
 Mexico, 660687
 volcanic source proximity, 660687
 mineralogy, 38S0114, 38S0116
 Miocene
 basalt, 580618
 ejecta origin, 580625
 iron, 580618
 tholeiite, nonalkali, 580623
 Miocene-Pliocene pulses, 660692
 Mt. Curl tephra, 901170
 Nankai Trough, stratigraphy, 870912
 Nazca Plate, spreading rate, 660693
 New Zealand, 901170
 origin, 901161
 Pacific Ocean, volcanic activity, 660693
 Pacific Ocean SW, 901161
 Peter I Island, geology, 350343
 petrography, 561043, 580617, 580618
 alteration, 901163
 ash, 901163
 biotite, 901163
 correlation, 561045
 feldspar, 901163
 glass, 901163, 901164
 glass, volcanic, 561043
 hornblende, green, 901163
 hypersthene, 901163
 Japan Trench, 561043
 Philippine Sea, 580617
 plagioclase, 901163
 pyrite, diagenetic, 901163
 sand, 901163
 smectite, 901163
 vesicularity, 901164
 Philippine Sea
 geochemistry, 580617
 petrology, 580617
 Pigmy Basin, tephrochronology, 960685
 plagioclase, 901164
 Pleistocene and Pliocene
 ejecta origin, 540624
 nonalkali rhyolitic, 580623
 Pleistocene tephrochronology
 horizons, 960685, 960686
 Pigmy Basin, 960685
 pyrite, 901162
 recovery, variability, 660692
 refractive index, 580622
 sediment
 lithology, 38S0114, 38S0116
 Miocene, 580617
 sediment geochemistry, ooze, siliceous
 calcareous, 550458
 shear heating increase, 660693
 Shichito, Iwo Jima, 580617
 Shikoku Basin
 geochemistry, 580617
 glass, 580992
 iron, 580622
 Miocene, 580618, 580623
 petrography, 580617, 580618
 Pleistocene and Pliocene, 580623
 refractive index, 580622
 sources, 580992
 volcanic origins, 580623, 580624
 silicic volcanic source, 901164
 silt, continental margin, 660692
 slope/oceanic correlation, 660692
 source, 580992, 901148, 901166
 andesite, 901153
 ash, 901148, 901149, 901169
 ash, argillized, 901153
 ash, siliceous, 901166
 bentonite, 901149
 Bering Sea, 901152
 biotite, 901167
 Central Volcanic Region, 901166
 chemical similarities, 901169
 clay minerals, 901151
 diagenesis, 901148
 distal air-fall correlatives, 901167
 eruption, 901166
 glass, 901166
 glass, volcanic, 901149, 901151
 ignimbrite, 901167
 illite, 901153
 iron sulfide, 901153
 K₂O, 901167
 kaolinite, 901153
 Kapingamarangi Rise, 901169
 Lord Howe Rise, 901149
 Mt. Curl tephra, 901167
 New Britain, 901153
 New Hebrides, 901153
 New Zealand, 901153
 North Island, 901166, 901169
 Pacific Ocean SW, 901148
 palagonite, 901151
 pale green laminae, 901148, 901149
 palygorskite, 901151
 reworking effects, 901148
 sedimentation rate, 901149
 silica, biogenic, 901149, 901151
 slumping, 901148
 smectite, 901151, 901152
 South Fiji Basin, 901170
 sulfate, 901153
 Tasman Sea, 901169
 Tonga, 901153
 transport, 901153, 901169
 Vanuatu, 901170
 volcanism, 901148
 volcanism, silicic, 901166
 Whakamaru, 901167
 zeolite, 901151
 spreading rate, 660693
 stratigraphy, Neogene and Quaternary, 901145
 subduction rate, increase, 660693
 Tasman Sea, 901170
 tephrochronology, abundance, 680403
 tholeiite, quartz, 901164
 Tohoku Arc, volcanism, 870703
 Vanuatu, 901170
 volcanic activity, 660693
 volcanic origins, 540624, 580623
 volcanoclastics, 550504
 volcanism
 Central America, 660692, 660693
 global control, 660693
 intense episodes, 660693
 major pulses, 660693
 Neogene, 870703
 volcanism, circum-Pacific, 660693
 volcanism, explosive, 901170
 Neogene, 870703, 870716, 870718
 Quaternary increase, 660692
 volcanism, midplate, 660693
 Whakamaru, 901170
 tephra, air-fall
 geochemistry, volcanism, 870699
 glass, volcanic, petrology, 870711
 tephra, altered
 lithostratigraphy, abundance, 901473
 tephrostratigraphy, 901145
 volcanic sediment, lithostratigraphy, 901176
 tephra, basalt, 901166
 mineralogy, 38S0114
 sediment
 lithology, 38S0114
 Miocene, 580617
 Shikoku Basin, 580618
 tephra, silicic, 901166
 Cenozoic, 901170
 chemistry, 901166
 lithologies, minor, tephra, vitric, 901483
 magma, 901166
 source, 901166, 901169
 tephra, vitric
 ash, 901483
 biotite, 901483
 ferromagnesian, 901483
 glass, 901483
 hypersthene, 901483
 Japan Trench, sediments, 271219
 labradorite, 901483
 Lord Howe Rise N, 901483
 Mt. Curl tephra, 901483
 North Island, 901483
 Pacific Ocean SW, 901161
 Antarctic Intermediate Water, 901161
 ash, 901161, 901162
 glass, 901161, 901162
 Kapingamarangi Rise, 901161
 Lord Howe Rise, 901161
 magma, 901162
 smectite, 901161
 South Island, New Zealand, 901161
 stratigraphic markers, 901161
 Tasman Sea, 901161
 sediment geochemistry, ooze, siliceous
 calcareous, 550457
 South Island, New Zealand, 901483
 Southeast Trade Winds, 901483
 Tasman Sea, 901483
 Vanuatu, 901483
 volcanism, explosive, 901483
 tephrochronology
 biostratigraphy, 960657
 chronostratigraphy, 960589, 960592
 paleoenvironmental interpretation, 960673
 intraslope basin, 960621
 Pigmy Basin, 960591
 Mississippi Fan, 960591
 Pigmy Basin
 ash, 960685
 Atitlan Lake, 960685
 carbonate, 960671
 Los Chocoyos, 960685
 Mexico, Gulf of, 960685
 oxygen isotope, 960685
 Pacific Ocean E, 960685
 Pleistocene tephrochronology
 ash, 960686
 Mexico, Gulf of, 960685
 terbium, 670570
 analyses, 920433
 ash, 870684
 Atlantic Ocean S, history, 740715, 740721
 basalt
 chemistry, 450447
 Cretaceous, 511087, 511092
 geochemistry, 490609
 basalt, altered
 major element, 580875, 580881, 580882
 trace elements, 580875, 580881, 580882
 basement
 chemistry, 600622

- basement (Cont.)
 geochemistry, 590743, 590747, 590751
 Bauer Basin, basalt, 340239
 bulk-rock compositions, minor element, 540639
 crust, oceanic, hygromagmatophile (HYG) elements, 650623
 Galapagos Spreading center, basalt, 540756
 geochemistry, magma, 540641
 hygromagmatophile (HYG) elements, 540727
 geochemistry, 650631
 Indian Ocean SE, sediments, 260548
 low partition coefficient elements, hygromagmatophile (HYG) elements, 600664
 mantle, upper, trace elements, 460247
 melting, partial, 460247
 Mid-Atlantic Ridge, basalt, 450496
 Nazca Plate, basalt, 340239
 petrology, 540747
 rare earth elements, distribution, 590653
 Suiko Seamount, trace elements, 550561, 550568
 trace elements
 Cretaceous, 511087, 511092
 geochemistry, 370573
see also Tb
- Terinake, Ross Sea, continental shelf, 280940
 Terminal Island, California, 550008, 630027
 terpane
 carbon, geochemistry, 571322
 organic geochemistry, 590648
 terpane, tricyclic
 lipid, molecular markers, 860672
 Pacific Ocean NW, lipid, 860672
 terpene
 Black Sea, sediments, 42B0661
 hydrocarbon, C₁-C₅, 571345
 organic matter, 571345
 hydrocarbon, C₁-C₇, volatile organic compounds, 571351, 571354
 hydrocarbon, light, 410859
 terpenoid
 hydrocarbon, nonaromatic, composition, 950655
 Walvis Ridge, sediments, 751055, 751080
 Terra limestones, 42B1186
 Terres Noires Formation, Lake Bolsena, 760877
 teschenite
 basalt, petrology, 580856, 580861
 Shikoku Basin, basalt, 580895
 Tethys, 110801, 110802, 130231, 220406, 230814, 270129, 271050, 42B0003, 42B0121, 42B0518, 42B1043, 42B1079, 42B1199, 440768, 47B0031, 47B0049, 47B0079, 47B0094, 47B0699, 47B0719, 47B0766, 480080, 670792, 720929, 760571, 760691, 770043, 790524, 800824, 801005, 890159
 Aegean Basin, 42A0947
 Africa, 720981
 Africa E, coast, 250683
 Africa NW, continental margin, 790437
 Algerian Basin, 42A0947
 Alps, Mediterranean Sea, 42A0954
 anoxia, organic richness, 801011
 anoxia, global, evidence against, 801002
 Atlantic continental margin NW, evolution, 440957, 440958
 Atlantic Ocean, 760538, 760874, 760876, 760877
 margin, 481102
 Atlantic Ocean C, basin, 511505
 Atlantic Ocean N, Mediterranean Sea, 110801, 110802, 110805, 110806, 110812, 110819, 110820
 Atlantic Ocean NE
 carbonate, 801055
 evolution, 411240
 stable isotope, 480477, 480483, 480486
 Atlantic Ocean NW
 comparison, 440957
 regional aspects, 110971
 sedimentary evolution, 430801
 Atlantic Ocean S, Paleogene, 720983
 Atlantic Ocean SW, basin, evolution, 360999
 Atlantic Ocean W, 760879
 biostratigraphy
 heat flow, 42A1140
 Mediterranean Sea, 42A1139
 Messinian salinity crisis, 42A1139, 42A1140
 Black Sea
 evolution, 42B1147
 geophysical framework, 42B1079
 sediment, 42B0493
 calcareous nannoplankton, 440743
 Canary Islands, 42A0945
 carbon isotope
¹³C, 720415
¹⁸O, 720412, 720413
 carbonate
 Atlantic Ocean NE, 801055
 comparison, 720399
 diagenesis, 801055
 Fe, 801055
 Goban Spur, 801055
 Gubbio, 801055
 hydrothermal activity, 801055
 Jurassic, 790417, 790421
 manganese, 801055
Schizosphaerella, 790411
 Sr, 720404, 801055
 circulation, water mass, 760931
 continental margin, 110805
 current flow, 760903
 drifting, 760885
 Ligurian Sea, 760885
 Europe, 720807
 margin, 760892
 Europe W, 270984, 330375, 360294
 Paratethys, 42B0518
 facies province, 430592
 genesis, 42A0943
 geochemistry comparison
 Atlantic Ocean N, 720399
 Atlantic Ocean S, 720399
 carbonate, 720399
 diagenetic phenomena, 720399
 Rio Grande Rise, 720399
 stratigraphic indicators, 720399
 Goban Spur, trace elements, 801055
 Gondwana, dispersal, 260947
 Iberian margin W, evolution, 47B0766
 Indian Ocean S, geologic history, 260938, 260940
 Ionian Basin, 42A0945
 Jurassic sedimentation, 760870, 760875, 760876, 790439, 790440, 790443
 Africa NW, 790437
 basin influences, 760878, 760879
 facies evolution, 790445
 global influences, 760876, 760878
 Iberian Peninsula, 760870, 760871
 Tethys W, 760871, 760873, 760874
 Jurassic stratigraphy, 760931
 Levantine Basin, 42A0945
 Ligurian Sea, 760890, 760893, 760894
 drifting, 760885
 rifting, 760885
 limestone, Mediterranean Sea, 790412
 lithology, 410174
 lithostratigraphy
 heat flow, 42A1140
 Mediterranean Sea, 42A1139
 Messinian salinity crisis, 42A1139, 42A1140
 margin
 Atlantic Ocean NW, 440949
 Jurassic, 790446
 Mediterranean Sea, 410984, 760569, 790890
 genesis, 42A0943, 42A0944, 42A0945, 42A0946, 42A0947, 42A0948
 mountain belts, 790412
 Paratethys, 42A0985
 similarities, 790411
 Mediterranean Sea E, history, 42B1199, 42B1214, 42B1218, 42B1219, 42B1220
 Mesozoic evolution, 440958
 margin, 440949, 440960
 Messinian environments
 climatic conditions, 42A1031
 Lago Mare, 42A1021, 42A1031
 Miocene salinity crisis, Paratethys, 42A0985
 Moroccan Basin, margin, 500807, 500808, 500809, 500810, 500811, 500815, 500819
 Neogene formations, paleogeography, 42A0906, 42A0914
 oxygen isotope
¹³C, 720415
¹⁸O, 720412, 720413
 Pacific Ocean, 42A0952
 Pacific Ocean EC, geologic history, 090924
 paleoceanography, 950511
 Reflector Lavender, 850962
 Paleogene-Neogene, 310852
 Paleotethys, 42A0944
 Paratethys, 131224, 42A0338, 42A0985, 480613
 basins, 42B0515, 42B0516
 geography, 42A0985
 lakes, 42A1031, 42B1195, 42B1214
 paleogeography, 42A0985, 42A0987, 42A0989
 Philippine Sea, Paleogene-Neogene, 310852
 plate, 260947
 Red Sea
 geology, 230814
 temperature, 42B1085
 rifting, 760885, 760891, 760892, 760894
 Atlantic Ocean C, 760885, 760886, 760887, 760888, 760889, 760890, 760891
 continental margin collapse, 760892
 drifting, 760892
 evolution, 760887, 760888, 760889
 Ligurian Sea, 760885
 ophiolite, 760892
 Pangea, 760886
 Tethys Seaway, 760886
 Triassic-Liassic, 760892
 Rio Grande Rise, carbonate, 720399
Schizosphaerella, 790411
 seaways, 750518, 760875
 sedimentary history, Atlantic Ocean, 760829
 sequences, Jurassic sediments compared, 790437
 Sicily, 42A0945
 Sr, paleoceanographic reconstitution, 720405, 720408
 tectonic history, depositional environment, 430801
 tectonics, geological and geophysical data, 271050
 temperature, 42B1085
 trace elements, isotope geochemistry, 720415
 Tyrrhenian Basin, 42A0947
see also Indian Ocean E
 Tethys N, 110645, 110660, 110801, 230005, 250683, 260940, 350560, 38S0818, 390629, 391057, 391070, 410164, 410186, 410424, 410499, 410991, 411121, 411240, 42A0906,

- 42A0952, 42B1079, 42A0222, 42A0829, 430011, 430577, 430697, 430712, 430795, 430802, 430817, 440413, 440742
 Atlantic continental margin NW evolution, 440953, 440954, 440955, 440956, 440957
 margin, 440949
 Atlantic Ocean, current system, 430715
 Atlantic Ocean NW, comparison, 440957
 continental margin, 110805, 110819
 Cretaceous-Eocene, 480081
 evolution, Mesozoic, margin, 440949
 genesis, 42A0943
 margin, 440949, 440953
 Atlantic Ocean N, 440949
 Mesozoic evolution, margin, 440953, 440960
 Tethys Seaway, 270290
 Atlantic Ocean, Jurassic sediment, 760829
 Central America, 850962
 Jurassic sedimentation, Tethys, 760878
 rifting
 Atlantic Ocean, 760886
 Tethys, 760886
 Tethys W, 801002
 calcareous nannoplankton, 440742
 Italy, Austria, 760875
 Jurassic sedimentation, Tethys, 760871, 760873, 760874
 Moroccan Basin, margin, 500809
 tetracosane
 preliminary organic analyses, 111018
 Sigsbee Basin, organic analyses, 100625
 tetrapyrrole
 Angola Basin, Cretaceous sediments, 751053
 Atlantic Ocean, 040431
 Atlantic Ocean N, lipid, 500659
 Atlantic Ocean NW, 430651
 Baja California, geochemistry, 630785
 Bermuda Rise, 430651
 Biscay, Bay of, 480931
 continental margin, 480931, 480933
 pigment, 480931
 Blake Basin, 440639
 pigment, 440639
 California, Gulf of, pigment, 640789
 California S, geochemistry, 630785
 Cape Verde Basin, 410825
 Cape Verde Terrace, 410825
 Caribbean Sea, 040431
 chlorophyll, diagenesis, 42B0708, 42B0713, 47A0547, 571391, 571392, 571395, 571396, 571397, 571398, 571399, 571401, 571402, 571403, 571404, 571405, 571406, 571407
 chlorophyll derivatives, 220677, 600499
 geochemistry, 610619
 Cretaceous, 440639
 pigment, 440639
 diagenetic, 410825
 geochemistry
 absorption maxima, 640794
 active aromatization region, 640796
 allochthonous source component, 630785
 allochthonous terrestrial input, 640798
 alteration, catagenic, 630808, 630812, 630814
 alteration, thermal, 630811
 analytical bias, 640790
 Angola Basin, 630813
 anoxia, 630814
 anoxic sediments, 630808
 aromatization, 630808, 630810, 640790, 640795, 640796, 640798
 asphaltene, 630808, 630813
 assemblages, 640794
 authigenic minerals, 630809
 autochthonous organic matter, 630814
 bacteriochlorophyll, 630809
 Baja California, 630785, 630802, 630804
 Baja California Borderland, 630785, 630808, 630811, 630815, 640798
 benzene, 630787
 benzothiophene, 630813
 bitumen, 640790
 burial depth, 630785
 California, 630813
 California Borderland, 640796
 California, Gulf of, 640790, 640797
 Cape Basin, 630812, 630813
 Cape Verde Terrace, 630813
 carbon number, 630785
 carbon, organic, 630785
 carboxylic acid, 630785, 630786
 Cariaco Trench, 630814
 carotene, 630814
 carotene, beta, 630785, 630814
 carotenoid, 630785, 630804, 630805, 630806, 630808, 630813, 630814, 630815, 630816, 640789, 640790
 catagenesis, 630811
 Challenger Knoll, 630813
 Channel Islands, 630813
 chelate, homological distribution, 630809
 chelation, 640798
 chelation reaction, 630785, 630810
 chelation reactions, 640796
 chlorine, 630786, 630788, 630789, 630790, 630791, 630792, 630809, 630810, 640790, 640794, 640795, 640796
 chlorine, secondary, 630811
 chlorine-free acids, 640794
 chlorophyll, 630785, 630808, 630809, 640789, 640790, 640795, 640797
 chlorophyll, autochthonous, 630808, 630810, 640798
 chlorophyll derivatives, 640789, 640790, 640794
 clay, 630785
 clay, diatom, 630813
 claystone, 630809
 coal, 630809
 coal, humic, 630809, 630815
 conjugated carbonyl groups, 630787
 copper, 630787, 630809, 630813, 640790, 640798
 crudes, 630813
 deposition, 630815, 640789
 deposition, anoxic, 630785
 deposition, oxic, 630809
 depositional environment, 630814
 diagenesis, 630785, 630810, 640798, 640806, 640807, 640809, 640810
 diagenesis, oxidative, 640789
 diagenesis, reductive, 630814
 diagenetic markers, 640789
 diagenetic pathways, alternate, 640794
 diagenetic-catagenetic trends, 630810
 diagenetic-geothermal history indicator, 630785
 diatom source, 630814
 diazomethane, 630786
 dihydroporphyrin, 630810, 640795
 elevated temperatures, short-term, 640797
 Florida, 630809
 free-base, 640795
 fucoxanthin, 630814
 gallium, 630809
 geothermal history, markers, 640794
 geothermal stress, organic indicator, 640790
 Guaymas Basin, 640789
 heat flow, 640790
 higher alkyl homologues, appearance, 630809
 humic acid, 640795
 hydrocarbon, 630786, 630814
 hydrocarbon, polyaromatic, 630785, 630787, 630806, 630807, 630808, 630814
 hydroxyl groups, 630786
in situ sediment temperature, 630785
 isocyclic ring, oxidative cleavage, 630809, 640795
 isotopic contributions, 630787
 Japan Trench, 630810, 640789, 640796
 kerogen, 630808
 Knipovich Ridge, 630813
 Los Angeles Basin, 630814
 low-temperature processes, 640798
 macromolecular complex, 640795
 metabolism, 640789
 metallochlorin, 640790
 metalloporphyrin, 630785, 630786, 630787, 630793, 630810, 630811, 630812, 640789, 640790, 640798
 methyl ester, 640795
 methyl esterification, 630787
 microbial activity, 630811, 640798
 migration, 630786
 Miocene temperatures, 630813
 Miocene-Pliocene sea retreat, 630815
 monocarboxylic acid fraction, 640795
 nickel, 630785, 630787, 630808, 630809, 630813, 630814, 640798
 organic matter, source, 630815
 organic reactions, time-temperature interdependence, 640797
 oxidative destruction, 640789
 oxygen minimum zone, 640794
 paleodepositional conditions, assessment, 630808
 paleoenvironment, 630815
 paleoenvironment markers, 640794
 Pb, 630813
 peat, 630809
 perylene, 630785, 630787, 630808, 630814, 630815, 630816, 640790, 640804, 640805, 640806, 640810
 petroleum, 630809
 pheophorbide-a, 640790
 pheophytin, 630808, 640790
 pheophytin-a, 630808, 640794
 Philippine Sea, 580737
 phorbide, 630787, 630788, 630789, 630790, 630791, 630792, 630808, 630809, 630810, 640794, 640795, 640796
 phylloerythrin, nickel, 630811, 640797
 phytol esters, 640794
 pigment, 630785, 630786, 630787, 630788, 630808, 630810, 630814, 630815, 630816, 640789, 640790
 pigment yield, 630788, 630808, 630809, 640790, 640791, 640792, 640793, 640794
 polar function, 640794
 polarity classes, 640794
 porphyrin, 630785, 630808, 630809, 630810, 630811, 630812, 630813, 630814, 640798
 reaction kinetics, 630810
 reduction, 630808, 640789
 San Miguel Gap, 630785, 630808, 630813, 630814, 630815, 640790, 640796, 640798
 San Miguel Island, 630813
 Santa Barbara Channel, 630813, 630814, 630815
 sedimentation rate, 630815
 shale, 630813
 sill, 640790, 640797
 slow-moving fractions, 630786
 sodium carbonate, 630787

- geochemistry (Cont.)
 source differences, 630809
 source indicator, 630785
 stable geologic pigments, 640789
 Tarfaya Basin, 630810
 temperature increase, 630787
 terrigenous components, 630810
 terrigenous marker, 630808, 630814
 tetraterpenoid, 640789, 640790, 640798,
 640799, 640800, 640801, 640802, 640803,
 640804, 640810
 thermal degradation, 640789
 thermal generation, higher homologues,
 630812
 thermal profiles, 630785
 thermal reactions, 640797
 thermal regimes, 630808, 630815
 thermal stress, 630808, 640796
 time-scale compression, effects, 640797
 tin, 630813
 toluene, 630787
 transport, 630815
 United States, 630809
 upwelling, 630814
 V, 630785, 630786, 630787, 630788,
 630790, 630791, 630802, 630805, 630807,
 630809, 630811, 630812, 630813, 630814,
 630815, 640789, 640790, 640791, 640792,
 640799, 640805, 640806, 640807, 640810
 vanadium, 630813
 vanadyl, 630787, 630813
 Ventura Basin, 630813, 630814
 Voring Plateau, 630813
 zinc, 630787, 630813
 zinc isotope, 630787
 lipid, 630763, 630767, 630768
 Miocene, 440639
 Miocene, Cretaceous, 440639
 Bermuda, 440641
 Black Sea, 440640
 Blake Basin, 440639
 Norwegian Sea, Greenland Sea, 380785
 organic geochemistry, pigment, 640820,
 640821, 640826
 organic matter, pigment, 500582
 Patton Escarpment
 San Miguel Gap, 630944
 terrigenous source indicators, 630944
 Philippine Sea, 580737
 Philippine Sea N, sediments, 580737
 Philippine Sea S, 600497
 pigment, 310905
 geochemistry, 580724, 580737, 580738,
 580739, 640789
 Miocene, 440639, 440640, 440641, 440643
 Miocene and Cretaceous, 380785, 440639
 San Miguel Island, terrigenous source
 indicators, 630944
 Vigo Seamount, pigment, 47B0572, 47B0573,
 47B0574, 040431, 040435, 380785, 380786,
 380787, 430657, 430658, 430660, 430661,
 47B0571
- tetrapyrrole, diagenetic
 pigment
 alkylation, 410830, 410834
 burial, 410825
 carbon, organic, 410825
 chlorine, 410825, 410827
 dealkylation, 410830, 410832, 410834
 diabase, 410825, 410830
 diagenesis, 410825
 hydrocarbon, 410825
 intrusion, 410825, 410835, 410836, 410837
 metalloporphyrin, 410825, 410827, 410830
 metamorphism, thermal, 410825
 nickel, 410825
 organic matter maturation reaction
 pathways, 410830
 petroporphyrin, 410825
 porphyrin, 410830, 410834
 porphyrin, free-base, 410825, 410827
 porphyrin, nickel, 410825, 410834
 porphyrin, vanadyl, 410825
 reaction rates, 410830
 sill, 410834
 source rock potential, 410825
 thermal decomposition, 410830, 410834,
 410835, 410836
 thermal gradient, 410285
 thermal stress, 410830
 vitrinite, 410825
- tetraterpenoid
 California, Gulf of, pigment, 640789
 chlorophyll, diagenesis, 571406
 pigment, geochemistry, 640789
 tetrapyrrole, geochemistry, 630804, 630805,
 640789, 640790, 640798, 640799, 640800,
 640801, 640802, 640803, 640804, 640810
- Tetuan Gap, 42A1031
 Messinian environments, climatic
 conditions, 42A1031
- Teurian/Waipawan boundary, southwest regional
 unconformities, 210711
- Texas, 440521, 620481, 780773
 Bahama Islands, geology, 110893
 Blake Spur, 440007
 north rim, 440069
 Blake Spur S, Blake Spur, 440337
 Coahuila, 670750
 coast, 010010, 010084, 640765
 Cretaceous foraminifers, North America,
 440671
 deposition, models, 960738
 Louisiana, 960738
 Mexico, magmatic episodes, 660728
 Mexico, Gulf of, regional aspects, 010625,
 100738
 offshore, 960584
 Orange, 010003
 Orca Basin, 750510
 protokerogen, hydrothermal effects, 640910
 Texas E, 960361, 960705
 continental slope basins, continental
 slope, 960705
 embayment, 100314
 Texas W, 100198, 100314, 100710, 110545,
 120062, 120974, 130695, 140490, 151031,
 151032, 260625, 270290, 270985, 42A0586,
 42B1039, 430577, 430599, 430806, 440007,
 440069, 440337, 440521
 central, 150817
 continental margin, 100738
 continental shelf, 100003, 100167
 continental slope, 100055, 100127, 100715
 Gulf Coast, 100117
 Uvalde, 080005
 west, lakes, 230877
- textinite
 coal, petrology, 670601
 Guatemala, continental slope, 670601
 maceral, 870880
 New Jersey, continental margin, 950654
 organic matter, 670601
 transport, organic matter, 870881
- texto-ulminite
 organic matter, petrology, 500568
 shale, black, thermal maturation, 711025
- Th, 820041, 820471
 basalt
 Costa Rica Rift Zone, 830201, 830209,
 830210, 830211, 830212
 depletion, 820474
 Melanesian Basin, 610705
 Mid-Atlantic Ridge, 820440, 820442, 820445
 midocean ridge, 820396, 820417, 820449,
 820450
 hygromagmaphile element, 820460, 820461,
 820467, 820468
 minor element, geochemistry, 360934
 radioactive elements, 42A0628
 trace elements, 660732
 Goban Spur, 800944
 see also thorium
 Th/Hf ratio
 basalt
 Atlantic Ocean N, 830208
 California, Gulf of, 650592
 Costa Rica Rift Zone, 830208
 East Pacific Rise, 830208
 geochemistry, 490629
 basalt, altered
 geochemistry, 580811, 580816, 580819,
 580833, 580837
 major element, 580881, 580883, 580885,
 580887, 580891
 trace elements, 580881, 580883, 580885,
 580887, 580891
 basement, geochemistry, 590744, 590746,
 590750
 California, Gulf of, Guaymas Basin, 650615,
 650616, 650617, 650618
 Kyushu-Palau Ridge, 590746
 minor element, East Pacific Rise, 650608,
 650613
 trace elements
 East Pacific Rise, 650596, 650608, 650613
 Tamayo Fracture Zone, 650596
 Th/La ratio
 ash, Nankai Trough, 870684
 basalt, altered
 major element, 580892
 trace elements, 580892
 Th/Rb ratio, ash, 870684
 Th/Ta ratio
 alteration, products, 810739
 ash, 870684
 Nankai Trough, 870684
 Atlantic Ocean S, history, 740727
 basalt, midocean ridge, 820418
 basement, geochemistry, 590750
 bulk-rock compositions, minor element,
 540640
 Emperor Seamounts, trace elements, 550586,
 550587
 geochemistry
 fusion, partial, 540645
 Hatton Ridge, 810739
 trace elements, 810790
 Th/Tb ratio
 basement, chemistry, 600622
 geochemistry, magma, 540641
 Th/U ratio, 42B0629
 ash, 870684
 basalt, altered
 major element, 580881
 trace elements, 580881
 isotopic composition, 370608
 lead isotope, 340346
 Mid-Atlantic Ridge, basalt, 511106
 sediments, radioactive elements, 42B0629
 Th/V ratio
 basalt, altered
 major element, 580873
 trace elements, 580873
 Thasos, 42A0321
 thaumasite, lithology, sandstone, volcanic,
 120366
 Theic Ocean, 801200

- Atlantic Ocean N, Paleozoic, 801108, 801109
basement, main features, 801111
Goban Spur, evolution, 801200
- theralite
Necker Ridge, 200674, 200678
Wake Guyots, 200679
- Thessalonika Basin, 42A0338
Theta Gap, 120673
- thiophene
bitumen, geochemistry, 42B0693
hydrocarbon, C₁-C₇, volatile organic compounds, 571349, 571353, 571354
hydrocarbon, C₁-C₈, Baja California, 640764
hydrocarbon, extractable, organic petrology, 630823, 640847
Mazagan Escarpment, 790795
sediments, Blake Ridge, 760383
Walvis Ridge, sediments, 751077
- thiophene, alkyl
hydrocarbon, extractable, organic petrology, 630823, 630828, 630832, 640840, 640843
organic geochemistry
Angola Basin, 750461
Baja California, 640940
Walvis Ridge, 750465
Walvis Ridge, sediments, 751073, 751077
- thiophene, aromatic, chemical characterization, molecular analysis, 711048
- Thirtymile Bank, platform, 630912
- tholeiite, 050531, 050532, 050533, 050534, 180935, 180936, 180938, 180939, 180940, 180941, 180942, 190615, 190616, 190617, 190625, 220450, 240781, 260465, 270556, 300412, 330571, 330766, 330783, 330891, 330902, 340190, 340191, 340192, 340194, 340234, 340263, 340264, 340270, 370736, 370743, 370744, 370746, 370747, 380751, 380752, 411103, 411104, 411109, 411111, 42A0509, 42A0513, 42A0521, 460089, 460227, 460235, 460299, 511099, 540063, 540804, 511099, 511101, 511102, 600705, 630695, 670558, 670561, 670562, 670570, 690757, 690775, 690796, 690800, 820510, 820515, 840805, 890456
- acoustic basement, 180940
- Africa E, coast, 250680
age, 050532, 050533, 050534
alkali metal, 670564, 670566
variations, 670564
alteration, 42A0509, 42A0511, 42A0512, 670564, 820440
cesium, 820440
major element, 511104
products, 450615, 810733, 810740
rare earth elements, 511105
remnant arc debris, 590739
transition metals, 511105
alteration, low-pressure, 460300
geochemistry, 460310
mineral, secondary, 460304
mineral, transparent, 460300
oxidation and hydration stages, 460316
- amygdale, 180939
- Angola Basin, petrochemistry, 751102
- aphyric, 830129
- arc
geochemistry, 590681
petrology, 590681
ash, 050531, 050532
age, 050531
glass, 050531
glass, volcanic, 870684
- Atlantic Ocean C, magnetic anomaly, 391113
Atlantic Ocean N, Paleozoic, 801109
- Atlantic Ocean NE
geochemistry, 800939, 810783
mineralogy, 800939, 810783
- Atlantic Ocean S
history, 740726, 740727
magnetic anomaly, 391113
- Atlantic Ocean SE, Cretaceous, 740765
authigenic minerals, island arc, 600462
- Baja California
geochemistry, 630687
intrusives, 630687
oldest sediment, age, 630687
petrography, 630687
spreading center, 630687
- Barbados Ridge
composition, 780401
trace elements, 780403
- basalt, alkali, mixing, 540719, 540720, 540721
- basalt, altered
classification, 540684, 540686
geochemistry, 540689, 540691, 580811, 580828, 580839
major element, 580873, 580874, 580875, 580881, 580882, 580883, 580884, 580885, 580889, 580892
petrology, 540689, 540691
trace elements, 580873, 580874, 580875, 580881, 580882, 580883, 580884, 580885, 580889, 580892
- basalt, sparsely phyrlic
Mid-Atlantic Ridge, 540630, 540631
petrology, 540628, 540629
- basalt, tholeiitic, crystal morphology change, 600681
- basement, 240767, 240775, 460095, 610643, 630695
basalt, 460095, 460229, 460232
geochemistry, 590743, 590744, 590746, 590749, 590750, 590751, 600653, 600655
petrography, 600653, 600655, 690775
petrology, 180935, 180936
- basment, geochemistry, 590751
- Bauer Basin
basalt, 340239
structure, 340162
- Bermuda Rise, rare earth elements, 511113, 511115
- Blake Basin, geochemistry, 760715
- boninite
classification, 600697, 600698
crystal, 600681
geothermometry, 600697
island arcs, proximity, 600741
mineralogy, 600695
- Brazil Basin, 390513, 390519, 390545
bulk-rock compositions, 390514
mineralogy, 390517
petrography, 390514
- brittle deformation, 511491
microtectonic data, 511493, 511494
- bulk chemical composition, chemical composition, 660712
- bulk-rock compositions, 540741
norms, 540639
calc-alkalic series, Mariana Ridge W, 590750
- California Continental Borderland, basalt, 630695
- California, Gulf of, 650579, 650580, 650584, 650585
- California S
geochemistry, 630687
petrography, 630687
- Celtic Sea, passive margin, 800939
chemical composition, 320563, 320567, 330902, 411103, 411111
- major element, 330893
mineral analysis, 330898
minor element, 330895
trace elements, 600461
chemical variation, 340301, 340306
chemistry, 180939, 180940, 180941, 180942, 260472, 340190, 340191, 450447, 540679
basalt, 180935, 180936
chemistry, petrography, 550686
crystallization, 260481
normative composition, 260477
trace elements, 260472, 260483
chemistry, bulk, magma, 630706
clastic sediment, Cretaceous, 401037
clinopyroxene, 600705
Cocos Plate, basalt, 660703
composition, 820511, 820515
composition changes, 630695
conclusions, lavas, 670570
continental shelf, onshore geology, 400970
cooling unit, petrography, 460259
crust, oceanic, 330915, 330917
age, 330915, 330917
crystal morphology
island arcs, proximity, 600683
Mariana Islands, 600681
crystallization, 411104, 920466
crystal, 180941
liquidus phase relations, 460235
microphenocryst, 180941
olivine, 460236
plagioclase, 460236
crystallization, fractional evolution, 630695
melting, partial, 370539
dacite, conglomerate, 571285, 571288
depleted, 670568
deposition, origin, 600450
- diabase
petrology, 630706
trace elements, 240781
- dolerite, 630713, 630714, 630720
alteration, 630711
smectite, 630714
- East Mariana Basin, sedimentary history, 890667
- East Pacific Rise, 540059
basalt, 540695, 540701, 920471
ferrobasalt, 600705
silicate, hydrothermal, 920374
tholeiite, olivine, 600705
element variation, 630695
elevated oxygen fugacity, 600705
- Emperor Seamounts
petrology, 550509, 550510, 550511, 550521, 550522, 550533, 550534, 550535, 550571, 550574, 550576, 550577, 550578, 550579, 550580, 550581, 550583
trace elements, 550585, 550586
emplacement, 190617, 190623
eruption, 380751, 380752
extrusive rock types, 190617
Fe-Ti oxide, 550640
feldspar, 670561
FeO/MgO ratio, 630695
ferrobasalt, East Pacific Rise, 540836
flow, chemical composition, 411109
fractionation, 340191
Galapagos Fracture Zone, ferrobasalt, 600705
Galapagos Spreading center, basalt, 540725, 540738
genesis, 920447
chemical gradation, 920447
clinopyroxene, 920447
cooling, 920447
crust, oceanic, 920449

- genesis (Cont.)
 crystallization, fractional, 920447
 geochemistry, 920446
 liquidus phases, 920447
 magma chamber, 920447, 920448
 major element, 920447
 MORB, 920449
 olivine, 920447
 olivine-plagioclase cotectic, 920448
 ophitic texture, 920447
 Pacific Ocean E, 920449
 plagioclase, 920447
 sill, 920447
 trace elements, 920447, 920449
 transition zone, 920447
 vesicle, 920447
 xenocrysts, early mixing evidence, 920447
 geochemical stratigraphy, 370743
 geochemistry, 160638, 190620, 370736,
 370743, 370746, 370747, 42A0510,
 42A0513, 590681, 630687, 260567, 260570,
 350331, 350333, 430736, 550599, 550600,
 550601, 550602, 550603, 550604, 550605,
 590779, 590781, 590782, 590783, 590784,
 590785, 590786, 590787, 590789, 590792,
 590794, 590795, 920450
 accumulation rate, 590682
 Al, 590681
 andesite, 590681
 arc-tholeiitic character, 590681
 Atlantic Ocean NE, 800939
 Ba, 590681
 back-arc basin formation, 590681
 Baja California, 630687
 basalt, 380720
 basalt, subalkalic, 590681
 basement, 160633
 calc-alkalic series, 590681
 chemistry, 590685, 590687, 590688,
 590689, 590690, 590692
 chromium, 590681
 clast, 590682
 continental orogenic belts, 590681
 crust, continental, 590681
 crystalline phases, 590682
 Fe/Mg ratio, 590681
 FeO/(FeO + MgO) ratio, 590681
 gabbro, pyroxene, 590681
 glass, 590682
 greenschist facies, 590681
 Guaymas Basin, 640712
 hydrothermal activity, 590681
 igneous rocks, 370737, 370743, 370744,
 370746, 370747, 370749
 inactive remnant arcs, 590681
 interarc basin, origin, 590681
 island arc, mature, 590681
 Kyushu-Palau Ridge, 590681, 590682
 laterite, 550461
 lithosphere, 590681
 magma, 870698
 magmatic phase, 590681
 magmatic-arc evolution, initial phases,
 590681
 major element, 42A0510, 42A0511, 42A0512,
 590682
 major oxides, 540371
 marginal basin, formation, 590681
 marginal basin, magmatic arc complexes,
 590681
 marginal basins, genesis, 590681
 Mariana Trough, 600657
 mineral chemistry, 160630
 mineral, secondary, 450615
 mineralogy, 800946
 mineralogy, special features, 060831
 nickel, 590681
 ocean ridge, 810740
 ore, 590681
 Pacific Ocean W, 590681
 Pacific Plate, 590681
 petrography, 630687
 petrology, 590682, 590685
 Philippine Basin W, 590681
 Philippine Ridge W, 590681
 Philippine Sea, 600657
 potassium, 590681
 pumpellyite-prehnite, 590681
 pyroclastic debris, 590682
 rare earth elements, 590682
 remnant arcs, 590681
 Rockall Rise, 810783
 seawater weathering, 590681
 Shikoku Basin, 590682
 spreading, 590681
 strontium, 590681
 trace elements, 42A0510, 42A0511,
 42A0512, 590682
 transform fault, 590681
 volcanic material, 590682
 volcanism, 590681
 West Mariana Basin, 590681, 590682
 geochronology, 42A0510
 glass, 050533, 370732, 540709, 600604,
 600657
 basalt, alkali, 540709
 East Pacific Rise, 540706
 Galapagos Fracture Zone, 540706
 glass, interstitial, iron enrichment, 600705
 glass, volcanic, 810637
 chemical composition, 870713
 interarc basin, 600495
 Mariana Trough, 600492
 Mariana Trough W, 600489
 Tonga, 600492
 Goban Spur, evolution, 801213
 Greenland Sea
 basalt, 38S0241, 38S0242
 regional conclusions, 38S0252
 Guadalupe Island, 630695
 Guatemala, 670577
 island arc, 670577
 Guatemala Trench, 670568
 mineralogy, 670568
 hematite, 411104
 Hess Rise, 620947, 620953, 620958, 621039
 heterogeneity, 670568
 hornblende, 411104
 hygromagmaphile element, 820462
 hygromagmatophile and isotope ratios, 690758
 Iceland, 820445
 igneous rocks
 affinities, 840948
 chemical composition, 590721, 590724
 geochemistry, 370675
 Melanesian Basin, 610673
 Indian Ocean NE, sediment history, 220763
 Indian Ocean W
 basalt, 250543, 250548, 250549
 regional aspects, 250754, 250756, 250757,
 250758
 intrusion, 050533
 island arc, 670577
 Japan, 590750
 Jingu Seamount, volcanics, 550686
 K/Ar age, 160651, 260466, 390545, 390546
 Kyushu-Palau Ridge, arc, 590681
 large ion lithophile elements (LILE), 340191
 depletion, 340191
 major element, 340191
 minor element, 340191
 lava, isotope geochemistry, 810775
 lead isotope, 340343, 340346
 Lesser Antilles, island arc, 590792
 LILE element, 340285, 340286
 Line Islands, tectonics, 330740
 liquid, 650570
 mantle, 540077
 liquid variation, 650556
 lithology, 230171, 410240
 low partition coefficient elements, 600661
 andesite, 600661
 hygromagmatophile (HYG) elements, 600661
 magma
 crystallization, 460235, 460236
 mixing, 540842
 olivine, 370675
 magma, calc-alkaline, 660702
 mud, 660700
 sediment, 660701
 magma, parental, derivation, 630695
 magmatism, 380751, 380752, 540714, 820515
 Al₂O₃, 540711
 basalt, aphyric, 540714
 basalt, transitional, 540715
 chemical diversities, 540711
 clinopyroxene, 540711
 crystal fractionation, 540711
 East Pacific Rise, 540714
 fractionation conditions, variation,
 540714
 Galapagos Fracture Zone, 540715
 glass, 540711
 heterogeneous source, 540716
 higher oxygen fugacities, 540715
 hygromagmatophile (HYG) elements, 540715
 iron, 540711
 low partition coefficient elements, 540715
 magma, 540715
 major silicate phase, 540714
 melt, partial, 540714
 melting, 540715
 Mid-Atlantic Ridge, 540714
 nickel, 540714
 olivine, 380751, 380752, 540711
 oxide variation, 540714
 parental composition, 540714, 540715
 phenocryst, 540711
 phosphorus, 540716
 pillow lava, 380751
 plagioclase, 540711
 plagioclase-olivine, 540714
 pressure effects, 540716
 quartz, 380751, 380752
 REE, 540714
 shallow fractionation, 540714
 source composition, 540715
 spinel, 540711
 tholeiite, fractionated, 540714
 titanomagnetite, 540715
 yttrium, 540715
 zirconium, 540714
 magnetization intensity (NRM), 600705
 major element, 460229, 460232, 510996
 geochemistry, 930693
 Manihiki Plateau, 620958
 Mariana Islands
 basement, 600615
 fore arc, 600653, 600743
 Mariana Ridge, calc-alkalic series, 590750
 Mariana Trough
 bytownite, 600658
 clinopyroxene, 600658
 island arcs, proximity, 600615
 labradorite, 600658
 major element, 600657
 Mariana Trough W, 600487
 mineralogy, 600657

- Mariana Trough (Cont.)
 MORB, 600658
 plagioclase, 600658
 tholeiite, olivine, 600657, 600658
 zoning, 600658
 Meiji Guyot, K/Ar age, 550678, 550679
 Melanesian Basin, 610691
 ash, 610634, 610635, 610636, 610637,
 610639, 610640
 melt, residual, 600705
 melting
 liquidus phase relations, 460235
 olivine, 460236
 plagioclase, 460236
 tholeiite, olivine, 450516
 Mendoza Rise, petrology, 920613
 microamygdale, 050533
 microphenocryst, 050533
 Mid-Atlantic Ridge, 820509
 tholeiite, olivine, 600705
 Mid-Pacific Mountains, 200669, 200674
 Middle America Trench, 670577
 basalt, 670577
 midocean ridge, 820440
 mineral chemistry, 550607, 550608, 550611,
 550615, 550617, 550624, 550626, 550627,
 550629, 550630, 550631, 550632, 550633,
 550635
 spinel, 630690
 mineral composition, 050533, 050534
 aragonite, 180939, 180941
 augite, 180935
 calcite, 180939, 180941
 chlorite, 180939
 clay, 180939, 180941
 hydroxides, 180935
 ilmenite, 180939, 180941
 iron, 180940
 iron oxide, hydrated, 180941
 iron-titanium oxide, 180935
 magnetite, 180941
 mineral, opaque, 180939, 180941
 olivine, 180935, 180939, 180941, 180942
 plagioclase, 180935, 180939, 180941
 pyroxene, 180935, 180939, 180941
 serpentine, 180941
 spinel, 180939, 180941
 mineral, opaque, 600705
 mineralogic facies comparison, lithogenous
 material, 810708
 mineralogy, 180935, 180936, 190618, 190620,
 340192, 340194, 340264, 42A0509, 511099,
 540752, 600657, 600716, 670562
 Atlantic Ocean NE, 800939
 basalt, 270556
 calcite, 42A0509
 clay, 42A0509
 clinopyroxene, 190620, 42A0509, 42A0510,
 540743, 670561
 feldspar, 340264
 geochemistry, 600712
 ilmenite, 340269, 340270
 interstitial, intersertal material, 540744
 large ion lithophile elements (LILE),
 340194
 magmatic, 670561
 Mariana Islands, 600657
 mineral composition, 660731
 mineral, opaque, 42A0509
 olivine, 340192, 340270
 Philippine Sea, 600657
 plagioclase, 190620, 340271, 340273,
 340274, 42A0509
 pyroxene, 340267, 340271, 340273, 340274
 quartz, 340192, 340194
 Rockall Rise, 810783
 spinel, 800940, 800941
 titanomagnetite, 340269
 minor element, 330583, 330587, 330592
 Mohole, 630695
 Nazca Plate, basalt, 340239
 New Hebrides, island arc, 670559
 norm, 180940, 180941
 normative mineralogy, fractionation, 370732
 Norwegian Sea
 basalt, 38S0241, 38S0242
 regional conclusions, 38S0252
 ocean, 690775, 690796, 690800
 alteration, 690796
 magma, 690775, 690796
 ocean plateau, 610673, 610681
 oceanic
 depleted, 780404
 trace elements, 780403
 olivine, 180939, 370675, 600705, 830129
 olivine, tholeiitic, 180941, 180942
 olivine-plagioclase-clinopyroxene cotectic,
 630695
 origin, 660708
 Pacific continental margin, geomorphology,
 350285
 Pacific Ocean E, 630695
 basalt floor, 660707, 660708
 Pacific Ocean N, basalt, 190903
 Pacific Ocean NW, basement, 200046
 Pacific Ocean SE
 basalt, 340381
 Pb isotope, 920396, 920399
 rare earth elements, 920553
 Pacific Ocean SW, island arcs, 300702
 Patton Escarpment, 630695
 alteration, 630713, 630714
 Peter I Island, geology, 350354, 350356
 petrochemistry, 630712, 630727, 670580
 petrochemistry, 670583
 petrogenesis, modeling, 920440
 petrogenetic affinity, 42A0512, 42A0513
 geochemistry, 42A0513
 rare earth elements, 42A0513
 Sr isotope, 42A0513
 petrography, 330893, 330902, 42A0509,
 511099, 460259
 Baja California, 630687
 celadonite, 260471
 groundmass, 42A0509
 microphenocryst, 42A0509
 phenocryst, 42A0509
 texture, 260466, 260467, 260470, 260471
 vein, 42A0509
 vesicle, 42A0509
 petrology, 160630, 160633, 160638, 180935,
 180938, 330571, 330573, 330574, 330591,
 42A0512, 540747, 740755, 320563, 320567,
 350331, 350333, 411104, 540753, 580849,
 580852, 580854, 580856, 580861, 580862,
 580863, 580865, 590669, 590670, 590671,
 590672, 590673, 590674, 590675, 590678,
 590679
 accumulation rate, 590682
 affinities, 590682
 Al, 590681
 alteration, 180939, 180940, 180941, 590682
 amygdale, 180939
 andesite, 590681
 Atlantic Ocean NW, 430736
 Ba, 590681
 back-arc basin formation, 590681
 basalt, 590682, 690775
 calc-alkalic series, 590681
 chemistry, 590682, 590685, 590687,
 590688, 590689, 590690, 590692
 chilled margins, 180941
 chromium, 590681
 clast, 590682
 clay minerals, 590682
 continental orogenic belts, 590681
 crystal, 180939, 180941
 crystal fractionation, 42A0512
 crystalline fragments, 180935
 crystalline phases, 590682
 diorite, 590682
 eruption, 590682
 fault zone, 180938
 flow structures, phenocrysts, 590682
 fractures, 180939
 gabbro, pyroxene, 590681
 geothermal gradient, 590682
 glass, 180935, 180941, 590682, 590685
 greenschist facies, 590681
 groundmass, 180941
 hornblende, 590682
 hydrothermal activity, 590681
 ilmenite, 590682
 intrusive units, 590682
 island arc, 590682
 K-feldspar, 590682
 Kyushu-Palau Ridge, 590681, 590682
 lithosphere, 590681
 magmatic phase, 590681
 magnetite, 590682
 major element, 330582, 330588, 330592,
 42A0512, 590682
 marginal basin, formation, 590681
 microliite, 180939
 microphenocryst, 180939, 180941
 mineralogy, 330577, 330583, 330586,
 330592, 42A0512
 minor element, 330583, 330587, 330592
 nickel, 590681
 olivine, 590682
 ore, 590681
 Pacific Ocean W, 590681
 Pacific Plate, 590681
 palagonite, 180935
 phenocryst, 180939
 Philippine Basin W, 590681, 590682
 Philippine Ridge W, 590681
 Philippine Sea, 590682
 Phillipsite, 180935
 plagioclase, 590682
 potassium, 590681
 pumpellyite-prehnite, 590681
 pyroclastic debris, 590682
 quartz, 590682
 rare earth elements, 590682
 remnant arcs, 590681
 Shikoku Basin, 590682
 sill, 180938
 spreading, 590681
 stratigraphy, 330573, 330591
 strontium, 590681
 submergence, inactivity, 590682
 trace elements, 42A0512, 590682
 transform fault, 590681
 tuff, 590682
 veinlet, 180941
 vesicularity, 590682
 volcanic material, 590682
 volcanism, 590681
 West Mariana Basin, 590681, 590682
 zeolite, 590682
 zoning, 180939
 phase chemistry, 260484, 511099
 plagioclase, 260485
 pyroxene, 260484
 phenocryst, 050533, 180938
 plagioclase, 180938
 Philippine Basin, genesis, 310857, 310864

- Philippine Basin W, 590678
 Philippine Sea, 600657
 arc, 590681
 Philippines, genesis, 310876
 pillow lava, chemical composition, 411109
 plagioclase, 180939, 190620, 340234,
 411104, 600705, 660716, 670561
 Porcupine Plain, 801197
 potassium-argon age, 340443
 pumice, 050531, 050532
 pyroxene, 180939, 190620, 590701, 590702,
 590703, 590705, 600681, 670563
 lava textures, 600681
 Mariana Islands, 600681
 quartz, normative, 830129
 rare earth, 370582
 rare earth elements, 460243, 850797
 geochemistry, 600740, 600742
 island-arc associations, 590667
 trace elements, 590664
 tuff, 590655, 590656, 590657
 Rb-Sr, 550696, 550698, 550699, 550704
 Red Sea, geology, 230816
 regional tectonics, Rio Grande Rise, 720962
 rhyolite, conglomerate, 571285, 571288
 Rio Grande Rise, basement, volcanic, 720955
 Rivera Plate, 630695
 alteration, 630720
 Rockall Rise
 geochemistry, 810783
 mineralogy, 810783
 volcanism, 810917
 Santos Plateau, 390513, 390522
 bulk-rock compositions, 390515
 mineralogy, 390517
 petrography, 390514
 seamounts, ridges, volcanic origin, 330783
 Shatskiy Rise, 620958
 Shikoku Basin
 basalt, 580895, 580898
 tephra, 580623
 sill, 270556
 chemical composition, 411109, 411111
 sill-pillow complex, 610676, 610680, 610681
 SiO₂, 600705
 Siqueiros Fracture Zone, basalt, 540607
 Somali Basin, volcanism, 250537
 South Fiji Basin, history, 300629, 300630
 South Sandwich Islands, 590793
 Southeast Pacific Basin, evolution,
 geologic, 350729
 spherulitic zones, darkening, 600705
 spinel, 180939
 Sr isotope, 600679
 major element, 590721, 590724
 ratio, 450535
 trace elements, 590724
 strontium, noncarbonate fractions, 42B0611
 Suiko Seamount, trace elements, 550559,
 550560, 550561, 550563, 550564, 550565,
 550567, 550568
 sulfur isotope, pyrite, 340381
 texture, 050533
 titanomagnetite, crystallization, 600705
 Tonga, island arc, 670570
 trace elements, 180936, 180940, 180942,
 370582, 460243, 510996, 511104, 600657,
 630695, 660732, 810787, 920439
 alteration, 670564, 670567
 basalt, 810792
 British Tertiary Igneous Province, 810788
 Cocos Plate, 660732
 East Pacific Rise, 660732
 Emperor Seamounts, 550585
 genesis, 660732
 geochemistry, 370573, 550559, 930693
 glass, 540710, 540711
 Goban Spur, 800943, 800944
 hygromagmaphile elements, 670567
 Middle America Trench, 660732
 passive margin, 810788
 Siqueiros Fracture Zone, 660732
 stabilization, 220449, 220450
 uranium, 260491
 vein, 050533
 vesicularity, 600657, 600705
 volcanic rocks
 ages, 550660, 550661, 550665, 550668,
 550670, 550673
 eruption, 200691
 Galapagos Islands, 200687
 Geisha Guyots, 200682
 Hawaiian Islands, 200687
 Horizon Tablemount, 200668
 Mid-Pacific Mountains, 200667, 200687
 Necker Ridge, 200678
 petrology, 180935
 volcanoclasts, 810636, 810637, 810640
 volcanics, 190618
 Pacific Ocean C, 170439, 170440
 petrology, 180935, 180936, 190618,
 330758, 330766
 volcanism, 330783
 Madagascar, 250532
 Mascarene Basin, 250536
 volcanism, explosive, Neogene, 870718
 Walvis Ridge, basalt, 740743, 740748, 740755
 whole rock chemistry, 370725
 zirconium, 600657
 zoning, 050533
 see *also* major element: tholeiite
 tholeiite, altered
 chert
 geochemistry, 620712
 oxygen isotope, 620749
 petrology, 620712
 Volcanic rocks, petrography, Shatskiy
 Plateau S, 200683
 tholeiite, aphyric
 basalt, petrology, 590670
 basalt, sparsely phyrlic, crystal
 morphologies, 540627
 boninite, nonglassy, Mid-Atlantic Ridge,
 600698
 geochemistry, igneous rocks, 370736, 370743
 Siqueiros Fracture Zone, basalt, 540607
 tholeiite, continental
 clastic sediment, Cretaceous, 401037
 Goban Spur, evolution, 801204
 tholeiite, geochemistry, 800946
 trace elements
 basalt, 810793
 Goban Spur, 800944
 tholeiite, depleted, 810786, 810788, 810790
 geochemistry, 810783
 Atlantic Ocean N, 810783, 810784
 basalt, 810784
 Faroe Islands, 810784
 Greenland E, 810784
 Hebridean Tertiary Basaltic Province,
 810784
 lithology, 810784
 Rockall Plateau, 810783
 low partition coefficient elements,
 hygromagmaphile (HYG) elements, 600662
 major element, mineralogy, 600665
 trace elements, geochemistry, 370574
 tholeiite, Fe-rich
 basalt
 geochemistry, 540768
 mineralogy, 540768
 basalt, altered
 geochemistry, 540686
 petrology, 540686
 Galapagos Spreading center, basalt, 540755
 petrology, Galapagos Islands, 540746
 Rockall Plateau, basalt, 810802
 tholeiite, high-alumina
 basalt, petrology, 160633
 basalt, altered, classification, 540686
 geochemistry, 160633
 South Fiji Basin, geology, 300625
 tholeiite, high-temperature
 basalt, pyroxene, 590705
 boninite, geothermometry, 600695
 tholeiite, low-K, 670567
 basalt
 major element, 510996, 510999
 trace elements, 510996, 510999
 geochemistry, basalt, 380720
 Indian Ocean W, regional aspects, 250749,
 250753
 sea floor spreading, history, 250675
 tholeiite, low-temperature
 basalt, pyroxene, 590705
 boninite, geothermometry, 600695
 tholeiite, oceanic
 Atlantic Ocean NE, evolution, 411221
 basalt
 Costa Rica Rift Zone, 830205
 Sm, 830205
 Ti, 830205
 biostratigraphy, Mediterranean Sea, 42A1139
 Goban Spur
 basement, 800939
 chalk, 800939
 continental margin, 801131
 crust, continental, 800939
 crust, oceanic, 800939
 evolution, 801204, 801212, 801213
 hyaloclastite, 800939
 K/Ar age, 800939
 lava flow emplacement rate, 800939
 limestone, microfossil-bearing, 800939
 major element, 800939
 mudstone, calcareous, 800939
 ocean-continent boundary, 800939
 pillow, 800939
 Porcupine Plain, 800939
 seaward edge, 801197
 trace elements, 800939
 upper volcanic pile, 800939
 gravity anomaly, modeling, 801143
 Horizon Tablemount, 200668
 lithostratigraphy, Mediterranean Sea,
 42A1139
 mineralogy, chemical characteristics, 670563
 Red Sea, geology, 230816
 regional summary, 020415
 Rio Grande Rise, regional setting, 390960
 seamounts, ridges, volcanic origin, 330783
 tholeiite, olivine
 Atlantic Ocean, 450513
 Atlantic Ocean SE, Cretaceous, 740779
 basalt, altered
 classification, 540686
 geochemistry, 540686, 580793, 580802,
 580810, 580815, 580816, 580822, 580828
 major element, 580875
 petrochemistry, 580793, 580802
 petrology, 540686
 trace elements, 580875
 basalt, sparsely phyrlic
 crystal morphologies, 540624
 ferrobasalt, 540624
 Mid-Atlantic Ridge, 540630, 540631
 petrology, 540628, 540629
 tholeiite, aphyric olivine-poor, 540619

- basement, chemistry, 600622
 boninite, classification, 600698
 carbonate, secondary, vein, 580905
 chemistry, 450447
 Costa Rica Rift Zone, 830201
 crust, oceanic, Costa Rica Rift Zone, 830186, 830196
 distribution, 540837
 East Pacific Rise
 composition, 540841, 540842
 magmatism, axial, 540838
 Emperor Seamounts, petrology, 550535, 550576
 ferrobasalt, MAR, 540846, 540847
 ferrobasalt, oceanic, liquid derivation, 540835
 fracture zone, 540718
 geochemistry, 380720, 540757, 590759
 igneous rocks, 370736, 370748
 island arcs, proximity, 600624, 600629
 glass, 370732
 alkali basalt mixing, 540709
 igneous rocks, geochemistry, 370654
 large ion lithophile elements (LILE), 340194
 lithology, 260029
 magma, mixing, 540842, 540843
 major element
 characteristics, 920438
 composition, 800940
 Mariana Islands, fore arc, 600620
 Mariana Trench, island arcs, proximity, 600620
 Mariana Trough
 arc, 600614
 tholeiite, 600657, 600658
 melting, 450513
 tholeiite, olivine, 450516
 viscosity, 450513, 450514, 450515, 450516
 Mid-Atlantic Ridge, 820503
 mineral chemistry, 550617, 550629, 550630, 550631
 minor element, East Pacific Rise, 650606, 650611
 MORB, comparisons, 920468
 normative mineralogy, 370732
 Pacific Ocean E, ferrobasalt, 540843
 Peter I Island, geology, 350354
 petrochemistry, 270556
 petrography, 920468
 petrology, 580848, 580854, 580861, 590672
 derivation, 540747
 plagioclase, 660716
 rare earth elements, 340194
 Rockall Plateau, basalt, 810802
 seamounts, ridges, volcanic origin, 330783
 Siqueiros Fracture Zone, 540605, 540717, 540718
 basalt, porphyritic, 540611, 540613, 540615
 tholeiite
 basalt, alkali, 540719
 East Pacific Rise, 600705
 Mid-Atlantic Ridge, 600705
 trace elements, 510988
 East Pacific Rise, 650594, 650606, 650611
 Tamayo Fracture Zone, 650594
 viscosity, 450513
 volcanic rocks, petrography, 200691
 Walvis Ridge, basalt, 740743, 740748
 tholeiite, olivine-poor
 basalt, petrography, 920459, 920468
 East Pacific Rise, basalt, 920471
 MORB, comparisons, 920468
 tholeiite, plagioclase, 660716
 basalt
 mineral chemistry, 550617, 550629, 550630, 550631, 550632
 petrology, 590670, 590672
 Bermuda Rise, crystallization, 511040
 melting, 450516
 tholeiite, olivine, 450516
 mineral chemistry, 550629
 petrology, 590670, 590672, 590673
 Rio Grande Rise, 721015
 tholeiite, quartz
 basalt
 geochemistry, 590781
 sill-pillow complex, 610676
 magma, 901164
 major element
 characteristics, 920438
 composition, 800940
 tephra, chemistry, 901164
 Walvis Ridge, basalt, 740746
 tholeiite, subalkalic
 basalt
 K/Ar age, 160651
 LILE element, 340283
 Red Sea, geology, 230816
 tholeiite, transitional
 basalt, chemistry, 450447
 Bauer Basin, basalt, 340239
 Emperor Seamounts, trace elements, 550585
 geochemistry, igneous rocks, 370737
 Nazca Plate, basalt, 340239
 trace elements, 550585
 tholeiite, undifferentiated, geochemistry, igneous rocks, 370736, 370744, 370748, 370749
 tholeiite, Mid-Pacific Mountains, 200667
 Thomas Washington Guyot, 200693
 submergence, 200693
 thomsonite, Atlantic Ocean SE, Cretaceous, 740771
 thorium, 150999, 230943, 230945, 230951, 42B0628, 540727
 alteration, products, 810736
 analyses, 920433
 ash, 870684
 hygromagmatophile (HYG) elements, 870684
 Atlantic Ocean, basalt, 370607
 Atlantic Ocean S, history, 740715, 740718, 740723, 740726, 740727
 Atlantis II Deep
 lead isotope, 230943
 uranium-thorium-lead, 230943
 barite, authigenic
 barite, 410916
 origin, 410920
 basalt, 230943
 Atlantic Ocean, 370607
 chemical variation, 340305, 340306
 chemistry, 150999
 Cretaceous, 150994, 150999, 511087, 511091, 511092
 geochemistry, 490606, 490609, 490625, 550599, 550603, 590754, 590761, 590769, 590776, 590781, 590783, 590790, 590795
 Nazca Plate, 340341
 rare earth, 370581
 basalt, altered
 geochemistry, 580802, 580807, 580811, 580825
 major element, 580875, 580881, 580882, 580883, 580884, 580889, 580892
 petrochemistry, 580802
 trace elements, 580875, 580881, 580882, 580883, 580884, 580889, 580892
 basalt, oceanic, 150999
 basement, geochemistry, 590743, 590745, 590746, 590747, 590748, 590750, 590751
 brine, 230943
 bulk-rock compositions, minor element, 540639
 California, Gulf of, Guaymas Basin, 650614, 650618
 crust, oceanic, hygromagmatophile (HYG) elements, 650623
 Discovery Deep, lead isotope, 230945
 dolerite, Cretaceous, 150994, 150999
 Emperor Seamounts, trace elements, 550586
 Falkland Plateau, basement, 360896, 360897
 galena, 230943
 geochemistry, 600624
 Cenozoic sediments, 42B0543, 42B0544, 42B0594, 42B0599
 fusion, partial, 540645
 magma, 540642, 870699
 origins, basal sediments, 340564
 Rockall Plateau, 810736
 volcanism, 870700
³He/⁴He ratio, 870863
 hematite, 230943
 hygromagmatophile (HYG) elements, 540727
 geochemistry, 650631
 isotopic composition
 K/U ratio, 370607
 magnesium, 370607
 niobium, 370608
¹⁸O, 370608
 potassium, 370607
 ⁸⁶Sr/⁸⁷Sr ratio, 370608
 Th/U ratio, 370608
 uranium, 370607, 370608
 Japan Trench
 minor element, 870649
 trace elements, 870649
 lead isotope, 310602, 340341, 340343, 340346
 low partition coefficient elements, hygromagmatophile (HYG) elements, 600661
 major element, minor element, 500681
 manganese, 230943
 mantle, upper, trace elements, 460247
 Mariana Islands, 600615
 basement, 600615
 fore arc, 600621
 Mariana Trench, 600621
 Mariana Trough, 600614
 melting, partial, 460247
 Mid-Atlantic Ridge
 basalt, 450494, 450496
 isotopes, 450545, 450547, 450549
 minor element
 East Pacific Rise, 650613
 geochemistry, 360930, 360932, 360937
 Nazca Plate, 340341
 basalt, 340341
 physical properties, 040084
 potassium, 42B0629
 rare earth elements
 distribution, 590653
 trace elements, 590666
 tuff, 590659, 590660, 590661
 Red Sea, 230943, 230945
 geochemistry, 230988
 lead isotope, 230945
 uranium-thorium-lead, 230945
 Rockall Plateau, basalt, 810795
 sediment chemistry, trace elements, 350451
 sediments, radioactive elements, 42B0628, 42B0629
 shale, black, chemical composition, 410875
 strontium isotope, 310602
 Suiko Seamount, trace elements, 550561, 550565
 sulfur isotope, minor element, 500681
 thorium isotope, 230951
 trace elements, 370581, 450545, 650594, 810788

- trace elements (Cont.)
 basalt, 810790
 Cretaceous, 511087, 511091, 511092
 East Pacific Rise, 650594, 650613
 geochemistry, 370573
 magnetite, 450549
 plagioclase, 450547
 Tamayo Fracture Zone, 650594
 uranium, disequilibrium, 700304
 uranium isotope, 230951
see also Th
- Thracian Basin, 42B1079
 Black Sea, geophysical framework, 42B1079
 Three Kings Islands, South Fiji Basin, geology, 300619
 Three Kings Rise, 210897, 210900, 300005, 300007, 300008, 300028, 300617, 300619, 300620, 300624, 300626, 300629, 901156
 Lord Howe Rise, pale green laminae, 901156
 Pacific Ocean SW, 210897
 Mesozoic regional evolution, 210902
 Norfolk Ridge, 210897
 regional evolution, 210900
 South Fiji Basin, 210897
 South Fiji Basin
 geology, 300617, 300619, 300620, 300624, 300626, 300628
 history, 300629
- thrust fault
 accretionary complex, Lesser Antilles, 780535, 780537, 780542
 accretionary prism, 780571, 780576, 870798
 accretionary wedge, 870749
 Japan Trench, 870749
 Barbados Ridge, 780573, 780574, 780606, 780619
 deformation, 780535, 780606
- deformation
 Barbados Ridge, 780606
 framework, 870938
 frontal thrust sheet, crustal development, 870931
 gravity tectonics, passive margin, 500759
 Japan Trench, 870749
 Lesser Antilles, 780566, 780573
 accretionary complex, 780535, 780537, 780542
 forearc complex, 780535, 780537, 780542
 Nankai Trough, 870728, 870733, 870802, 870841
 pore fluid pressure, 840767
 pore pressure, 840767
- thrusting, *see also* imbricate thrusting
 Thule, 810786
- Thulean Land Bridge, 380025, 810690
 America, 380025
 Atlantic Ocean NE, 810689
- Thulean Volcanic Province, 810793
 basalt, rare earth, 380749
 evolution, 380741
 Norwegian Sea, 380741
 mineral, primary, pyroxene, 810786
 Rockall Rise, evolution, 810883
 trace elements, basalt, 810793
- thulium, Indian Ocean SE, sediments, 260548
- Thurston Island, 350005, 350011, 350063, 350127, 350378
- Ti, 820041
 abyssal plain, inorganic geochemistry, 801074
 basalt, 820520
 chemistry, 820035
 clinopyroxene, calcic, 820472
 Costa Rica Rift Zone, 830155, 830157, 830161, 830162, 830165, 830205, 830206
 geochemistry, 590778
 midocean ridge, 820401, 820404, 820413, 820414, 820450
 sill-pillow complex, 610675
 tholeiite, oceanic, 830205
 basalt, phyrlic, groundmass composition, 830132
 Brazil Basin, geochemistry, 720421
 Cocos Plate, geochemistry, 660683
 crust, oceanic, 820497
 Costa Rica Rift Zone, 830196
 crystallization, fractional, melting, partial, 370546
 Emperor Seamounts, trace elements, 550586
 geochemical component grouping, 801077
 geochemistry
 Cr, 720430
 Fe, 720430
 manganese, 720430
 V, 660683, 720429, 720430, 720438
 Zr, 720430
 hygromagmaphile element, 820460, 820461, 820462, 820463, 820464, 820467
 Dy, 820460
 inorganic geochemistry, 801079
 mineral, chemical composition, 660713
 mineralogy, hornblende, 660723
 Rio Grande Rise, sediment, 720426
 spinel, 820525
 trace elements, 660731
 Goban Spur, 800943
 trace elements, incompatible, 820487
- Ti/Al ratio
 Bermuda Rise
 crystallization, 511042, 511044
 geochemistry, 511517, 511520
 geochemical history, sedimentation, 710436
 interstitial water, geochemistry, Guaymas Basin, 640689
 major element, chemistry, 330559
 Pacific Ocean SE, 920558
 sediment chemistry, lower part, 350430
 sedimentation, geochemical aspects, 710428
- Ti/Cr ratio
 basalt, altered
 geochemistry, 580793
 petrochemistry, 580793
- Ti/Fe ratio, 730681
 amphiboles, chemical studies, 150966
 basalt, Fe-Ti oxide, 550644
 ilmenite, 690715
 Japan Trench, sediments, 271229
 pyroxene, chemical studies, 150966
 titanomagnetite, 690715, 690719, 690725
 basalt, 690725
- Ti/Hf ratio, basement, geochemistry, 590749
- Ti/N ratio, igneous rocks, 840948
- Ti/V ratio, volcanic sediment, primary
 volcanic material, 901181
- Ti/Y ratio
 geochemistry, 600624
 Meiji Guyot, K/Ar age, 550679
- Ti/Zr ratio, 710399, 710400
 Atlantic Ocean N, mantle, 490846
 basalt, 710398
 geochemistry, 590759, 590774, 590775, 590776, 590777, 590779, 590782, 590785
 midocean ridge, 820399, 820401, 820409, 820411, 820414
 volcanoclastics, 710400
 volcanism, 710402
- basalt, altered
 chemistry, 511324
 geochemistry, 580823, 580824, 580825, 580831
 basalt layer, 710400
 basaltoid hyalophitic material, 710400
- basement
 chemistry, 600622
 geochemistry, 590747, 590749
 boninite, 600741
 trace elements, 600741
 bulk-rock composition, minor element, 540640
 clay, 710398
 continental runoff, product, 710399
 decomposition materials, 710398
 deviation, 710400
 distribution, 710400, 710403
 Falkland Plateau, 710398
 tectonic activity, 710402
 geochemical history
 Albian, 710406
 sedimentation, 710405
 geochemical significance
 Atlantic Ocean, 710398
 basalt, 710397
 clay, 710397
 Pacific Ocean, 710397
 geochemistry, 540757
 fusion, partial, 540642
 igneous rocks, geochemistry, 370656, 370661, 370672, 370674
 increase, 710399
 pelitic sediment, 710400
 rare earth elements, geochemistry, 600737, 600738, 600739
 relic character, 710400
 sediment, content, 710400
 sialic material, 710398
 Suiko Seamount, trace elements, 550564, 550567
 titanium, increase, 710400
 volcanoclastics, acid, 710398
 zeolitized material, 710400
- Tibet, 220407
 plateaus, 42A0944
 Tethys, Mediterranean Sea, 42A0944
- Tiburón Island, 640577, 641291, 641293
 slope, 780064
- Tiburón Rise, 780027, 780030, 780034, 780036, 780039, 780042, 780046, 780049, 780054, 780067, 780071, 780079, 780080, 780107, 780133, 780228, 780250, 780320, 780330, 780364, 780366, 780423, 780573, 780603, 780618
 accretion, 780035
 Barbados Ridge, relation, 780611
 basement, 780081
 deformation, 780066
 morphology, 780065
 ooze, calcareous, slope, 780308
 slope values, 780066
 submarine valley network, 780065
 topography, 780035, 780051, 780064
 underthrusting, 780615
 Tichka Massif, flysch, source area, 500753
 Ticino, Switzerland, 110609
 Tierra del Fuego, 290731, 350266, 350738, 360766, 360888, 710284, 710789, 710802
 Southeast Pacific Basin, evolution, geologic, 350738, 350739
- Tiflis. *See* Tbilisi
- Tilvici Valley, 210819
- Timor, 260773, 270628, 300699, 330801, 660419
 Ashmore Reef, 271051
 Australia W, continental margin, 270578, 270582
 Bobonaro clay, 270567
 Cablac limestone, 270567
 carbonate, shallow-water, 270567
 flank, anticlinal ridge, 270561
 folding, Mataian, 270567
 fringing reefs, 270567

- inception, 270568
limestone, deep-water, 270567
Neogene history, 270567
Ofu, 270851
ooze, deep-water, 270568
Pacific Ocean SW, Cenozoic, 300667
paleogeography, 270568
Ramelaean orogeny, thrust sheets, 270567
reflector, dolomitized surface, 270567
Reflector R1, 270568
Sahul Shelf, 270567
seismic reflection, flank, 270561
Soro Uplift, Miocene, 270567
Suai Formation, 270567
tectonics, 270568
Timor Trough, 270567
uplifting, Pliocene, 270567
Viqueque Formation, 270567
see also Indian Ocean E
Timor Sea, 270193, 270581
Australia W, suspended sediment, 270383
Indian Ocean E, surface currents, 270387
see also Indian Ocean E
Timor Trough, 270380, 38S0887, 640676, 640691, 670610, 720859
ash
dacitic to rhyodacitic composition, 271011
glass, 271011
hornblende, 271011
hypersthene, 271011
mineral, opaque, 271011
ooze interbeds, 271011
plagioclase, 271011
quartz, 271011
calcarenite, dolomitic
calcite, sparry, 271013
mineral, heavy, 271013
quartz, 271013
shallow-water nature, 271013
carbon, organic, diagenesis, 670610
diagenesis
interstitial fluids, 270463
ooze, calcareous, 270463
geochemistry, 270463
geophysical, 270380
Indian Ocean E, lithology, 271002, 271004, 271015, 271020
interstitial water, geochemistry
Baja California, 640676
diagenesis, 640691
limestone, dolomitic
allochems, 271012
aragonite, 271012
calcite, 271011, 271012
foraminifer-rich, 271010
glauconite, 271011
limestone, 271012
micrite, 271012
pyrite, 271011
quartz, 271011
recrystallization, 271012
shallow-water origin, 271012
lithology, folding, 270208
methane, canned core samples, 270453
Middle America Trench, transect, 670610
mineral, heavy
actinolite, 270524
chlorite, 270524
clinopyroxene, 270524
epidote, 270524
garnet, 270524
hornblende, 270524
hypersthene, 270524
Indian Ocean S, 270526
sphene, 270524
terrigenous material, 270524
tourmaline, 270524
zircon, 270524
ooze, calcareous, geochemistry, 270463
ooze, foraminiferal
aragonite, 271011
burrow mottling, 271011
calcite, 271011
carbon, 271011
chlorite, 271011
clay minerals, 271011
glauconite, 271011
lamination, 271011
mica, 271011
pyrite, 271011
quartz, 271011
ooze, nannofossil
aragonite, 271011
carbon, 271011
carbon dioxide, 271011
clay minerals, 271011
glauconite, 271011
laminae, 271010
mica, 271011
pyrite, 271010
quartz, 271011
SiO₂ content, 271011
sorting, 271010
zeolite, 271011
sedimentary sequence, 270567
stratigraphy, foraminiferal, Indian Ocean, 450322
Timor, 270567
see also Indian Ocean E
tin
basalt
alkali metal, 810761
geochemistry, 550599
California, Gulf of, gulf mouth, 650406, 650407, 650410, 650416
chemistry, 650419
clay minerals, microelements, 560987
geochemistry, 390477
Cenozoic sediments, 42B0543, 42B0557, 42B0563, 42B0594, 42B0599
Indian Ocean SE, sediments, 260542, 260547
Japan Trench
clay minerals, 560987
sediments, 271223, 271225, 271228, 571213
major element, minor element, 500680
Melanesian Basin, ash, 610637
mineralogy, 650419
sulfur isotope, minor element, 500680
tetrapyrrole, geochemistry, 630813
Tinian, 590812, 600252
Saipan, 600920
Tintamarre, 780083
Tiny Wiggles Anomaly
magnetic polarity reversal, correlations, 730616
magnetostratigraphy, 730612
titanaugite, 200691
basalt
chemical composition, 320564, 320565, 320567
Middle America Trench, 840805
mineral chemistry, 550611
mineral, secondary, 340406
petrography, 260466, 260467
petrology, 320564, 320565, 320567
basalt, altered, geochemistry, 580823
boninite, crystallization, 600701
East Mariana Basin, sedimentary history, 890668
East Pacific Rise, lithology, 920438
Emperor Seamounts, petrology, 550572, 550576, 550580
Geisha Guyots, 200682
lithology, 320319
Melanesian Basin, ash, 610633
mineral chemistry, pyroxene, 920440
mineralogy, diabase, 220416
Necker Ridge, 200674, 200678
volcanic rocks, ages, 550661
Wake Guyots, 200678, 200679, 200682
titanite
Black Sea, sediments, 42B0378
Ganges Fan, sand, 220711
Indian Ocean W, terrigenous sediment, 241056
lithology, 360020, 410170, 480176
turbidites, 120261
Wharton Basin, sand, 220711
titanium, 330833, 330835, 670570, 860605, 860657, 860658
alteration
basalt, 370563
products, 810739
alteration, low-temperature
basalt, 490710
geochemistry, 460316
alteration minerals, trace elements, 920496
amphiboles, chemical studies, 150963, 150967
Angola Basin, geologic evolution, 750517
Assemblage IB(-), 710394
Assemblage IIA(+), 710395
Assemblage IIIA(+), 710395
Atlantic Ocean
geochemistry, 47B0434
mineralogy, 47B0434
Atlantic Ocean N, mantle, 490841
Atlantic Ocean S, history, 740715, 740718, 740726, 740727
Atlantic Ocean SE, Cretaceous, 740778
basalt, 240781, 690719
basement, 240775
Blake Basin, 760714
California, Gulf of, 650579
chemical variation, 340305
chemistry, 450459, 540676, 540681, 540682, 540684, 920473
chromium, spinel, 450582
Fe-Ti oxide, 550643, 550649
geochemistry, 260567, 350330, 350333, 490601, 540768, 590759, 590766, 590772, 590774, 590776, 590777, 590783, 590784, 590785
K/Ar age, 390551
major element, 511009
Middle America Trench, 670581
mineral assemblage, 511226
mineral chemistry, 550608, 550621, 550633
mineral, opaque, 450562
mineralogy, 540697, 540768
minor element, 490666, 490671, 490681, 490682, 490686
oxidation, 920481
petrochemistry, 670581
petrography, 540697
petrology, 160633, 220463, 350330, 350333, 390551, 580852, 580854, 580856, 590670, 590673, 590675, 590676, 590677, 590678
pyroclastics, 260560, 260563
smectite, 511269
yttrium, 370567, 370569
basalt, altered
chemistry, 511320, 511323, 511324, 511325, 511326
classification, 540685
geochemistry, 540686, 580798, 580800, 580802, 580805, 580808, 580811, 580830, 580834
major element, 580874

- basalt (Cont.)
 petrochemistry, 580798, 580800, 580802
 petrology, 540686
 trace elements, 580874
- basalt, oceanic
 chemistry, 610640
 petrochemistry, 610640, 610641
- basalt, sparsely phyrlic
 ferrobasalt, tholeiitic, 540619
 tholeiite, aphyric olivine-poor, 540619
- basement
 chemistry, 600622
 geochemistry, 590751, 600654
 petrography, 600654
 petrology, 370696
- Bauer Basin, basalt, 340239
- Bermuda Rise
 crystallization, 511040, 511042, 511044
 geochemistry, 511519
- Blake Basin, 760772, 760774
- boninite, 600741
 geothermometry, 600695
 mineralogy, 600691
- bulk-rock compositions, 540639, 540741
- California, Gulf of, gulf mouth, 650363, 650401, 650415
- carbonate, secondary, vein, 580905
- Caribbean Sea, sediments, 150939
- chemical composition
 major element, 600461
 metal, 571259, 571262, 571263, 571264, 571265
- chemistry, 330835, 550685, 650418
 chemistry, bulk, clinopyroxene, 630705
 clay, 860605
 trace elements, 170511, 170512, 170513
- clay minerals, smectite, 511269
- claystone, 330833
 goethite, 330835
 hydroxides, 330835
 illite, 330833
 montmorillonite, 330833
 oxides, 330835
 quartz, 330833
 silica, opaline, 330835
- claystone, radiolarian, 330833
- clinopyroxene, crystallization, 540663
- Colon Ridge, interstitial water, 680467
- comparisons, other volcanic provinces
 aseismic ridges, 540826
 spreading ridge, 540826
- crust, oceanic, hygromagmatophile (HYG) elements, 650623
- crystallization, fractional, melting, partial, 370539, 370540, 370542, 370543, 370545
- diabase, trace elements, 240781
- dolerite, 540663, 630714
- East Pacific Rise
 basement, 540827
 silicate, hydrothermal, 920375
- Emperor Seamounts
 mineralogy, 550469, 550472, 550473
 trace elements, 550586, 550587
- enriched sediments, enrichment, 710400
- factor analysis, sediment, 920368
- Falkland Plateau, basement, 360896, 360897, 360904, 360905, 360910
- feldspar, 600706
- ferromanganese nodules, 280750
- geochemical history
 Albian, 710406
 sedimentation, 710405
- geochemistry, 060841, 260560, 260563, 370696, 390477, 390490, 460316, 540766, 810708
- accumulation rate, 340561
- andesite, 220463
- basalt, 380720
 Cenozoic sediments, 42B0543, 42B0545, 42B0551, 42B0554, 42B0559, 42B0589, 42B0599
 chemical analyses, 340560
 chemistry, 340218, 340220
 claystone, red variegated, 440506, 440509
 comparison, other rock types, 220463
 Cretaceous and Cenozoic sediments, 480708, 480716
 differentiation, 220463
 igneous rocks, 370737, 370743, 370744, 370747, 370748, 370749
 interelement correlations, 810713
 limestone, red, 440505, 440509
 major oxides, 540359
 mathematical treatment, 500701
 mineral chemistry, 160633
 mineral phases, 600624
 mineralogy, 340218
 origins, basal sediments, 340564
 principal component, 810710
 Rockall Plateau, 810739
 trace elements, 060840
- geothermal systems, 330836
- glass
 basalt, 650479, 650482
 chemical variation, 510979, 510982
- glass, volcanic, Mariana Trough W, 600489
- heavy metals, Cenozoic sediments, 450353
- Hess Rise, rocks, 620864
- Hess Rise N, sedimentary sequences, 620762, 620763
- hyaloclastite, 650479
 ash, 650479
 basalt, 650479
 glass, 650482
- hygromagmatophile (HYG) elements
 geochemistry, 650631
 hygromagmatophile behavior, 540729
- igneous rocks, 840948
 chemical composition, 590724
 geochemistry, 370656, 370672
- Indian Ocean SE, sediments, 260542, 260547
- Indian Ocean W
 basalt, 250548
 geochemistry, 250405, 250414
 regional aspects, 250757
- inorganic chemistry, 440576
- inorganic geochemistry, 430679, 440576, 750951
 Angola Basin, 750925
 Fe/Ti ratio, 430680
 Hess Rise, 620692, 620693
 metalliferous trends, 430693
 Mid-Pacific Mountains W, 620685
 Mn/Ti ratio, 430680
 Walvis Ridge, 750925
- iron-rich sediment, spreading, 330835
- isotopic composition
 thorium, 370608
 uranium, 370608
- Japan Trench, sediments, 271219, 271220, 271221, 271224, 271225, 271228, 271229, 271230, 271234, 571213, 571219, 571251, 571253, 571254, 571255, 571256
- Jingu Seamount, volcanics, 550685
- lithologic, chemical stratigraphy, basalt, 510954
- lithology, 430331, 430333, 430334, 440032, 440033
- low partition coefficient elements, hygromagmatophile (HYG) elements, 600662
- magma, tectonic affinities, 810801
- magma chamber, 650628
- magnetic oxides, petrology, 511411
- major element
 argillaceous sediments, 580724
 chemistry, 330557, 920492, 920493
 distribution, 500678
 mineralogy, 600665
- manganese, 291083, 291084
- mantle, upper, trace elements, 460247, 460248
- marcasite, geochemistry, 38S0767
- Mariana Islands, 600615
 basement, 600615
 fore arc, 600621
 Mariana Trench, 600621
 Mariana Trough, 600614
 basalt, 600650
- Meiji Guyot
 comparison, 330836
 K/Ar age, 550679
- Melanesian Basin, ash, 610637, 610639
 melting, partial, 460247, 460248
- metalliferous sediment, Eocene-Oligocene, 850799
- Mid-Atlantic Ridge, basalt, 450496, 460316
 mineral, chemical composition, sediments, 38S0043
 sediment chemistry, 38S0041
 mineral, opaque, petrology, 340358
 mineral, primary, pyroxene, 810786
 mineralogy, 540766, 650418, 850796
 clinopyroxene, 540762, 670561
 Cretaceous and Cenozoic sediments, 480708, 480716
 geochemistry, 600712, 600719
- minor element
 East Pacific Rise, 650613
 geochemistry, 360930
- Nazca Plate, basalt, 340239
- Necker Ridge, 200678
- origin
 circulation, 330836
 crust, oceanic, 330836
- Pacific Ocean
 clay, 330835
 guyots, 620773
- Pacific Ocean E
 modified sediments, 540331
 sediments, 540319
- Pacific Ocean NW, 860657, 860658
 clay, 860605
- Pacific Ocean SE, 920555
 basalt, 340218, 340220
- Patton Escarpment, alteration, 630714
- peridotite, spinel, 370883
- Peter I Island, geology, 350351
- petrogenesis, modeling, 920444
- petrology, 740755
 geochemical variation, 740758
 regional geochemical comparison, 740761
 phenocryst, clinopyroxene, 540657
- Philippine Sea, lithology, 061160, 061243
- physical properties
 ash, 061243
 clay, 061160
- pyrite, geochemistry, 38S0767
- pyroclastics, geochemistry, 260560, 260563
- pyroxene, 600706
 chemical studies, 150963, 150967
- rare earth elements, 850797
- Red Sea, geochemistry, 230977, 230981
- Rockall Plateau
 basalt, 810803
 concretion, fossil polymetallic, 810703
- sandstone
 goethite, 330835

- sandstone (Cont.)
illite, 330833
montmorillonite, 330833
oxides, 330835
quartz, 330833
silica, opaline, 330835
sediment chemistry, 350427, 350434
basalt, 350437
laterite, 550461
lower part, 350430
nondepositional environment, 550460
trace elements, 350451
sedimentation, geochemical aspects, 710428, 710430
sediments, 860657, 860658
Blake Basin, 760446
Blake Ridge, 760420
serpentine, 370563
shale, black, chemical composition, 410875
silicate, ferruginous coating, 291065
Siqueiros Fracture Zone, basalt, 540706
Southeast Pacific Basin, evolution, geologic, 350729
spreading, ridge sediments, 330833, 330835
Sr isotope, 600679
trace elements, 590724
sulfur isotope, major element, 500678
thermomagnetic curve, Curie temperature, 630750
Ti/Zr ratio, 710400
geochemical significance, 710397, 710398
increase, 710400
trace elements, 370569, 650594, 670563, 850785, 850789
calcium, 850786
classification, 370567
distribution, 42A0504
East Pacific Rise, 650613
geochemistry, 370573, 370574, 650628
partitioning, 850796
transition elements, 920495
volcanic sediment
chemistry, 330796
primary volcanic material, 901181
Walvis Ridge, basalt, 740755, 740758, 740761
weathering, submarine, 330836
zoning, 370883, 450582
titanium minerals
basement, geochemistry, 590746, 590751
Cenozoic sediments, mineral composition, 42B0422
titanomaghemite, 540873, 650730, 690715, 830339, 830343
basalt, 690707, 690709
Fe-Ti oxide, 550639, 550640, 550641, 550651
opaque mineralogy, 450409, 450410
basalt, altered, B201286, 511407
Bermuda Rise, basalt, 511399
East Pacific Rise, basalt, 540406
Emperor Seamounts, petrology, 550516
igneous rocks, magnetic properties, 450401
inversion, 830341, 830345
magnetic oxides, petrology, 511427
Mid-Atlantic Ridge, basalt, 280870
mineral, opaque, 450409
Mossbauer spectroscopy study, 950642, 950645
opaque mineralogy, 450409, 450410, 450412
titanomagnetite, 450409
oxidation effects, 620987
thermomagnetic curve, Curie temperature, 630749
titanomagnetite, 260533, 291103, 291104, 300402, 300404, 300410, 340227, 340263, 340271, 340272, 340273, 340278, 340349, 370450, 370857, 411107, 450575, 450576, 450577, 450578, 460151, 460271, 650720, 690712, 690713, 690715, 690716, 690719, 690720, 690722, 690724, 690791, 730668, 730673, 730687, 730695, 730696, 820472, 830343, 830344, 830345, 840948
alteration, 411107, 690705, 690707, 690708, 830338, 830345
alteration, low-temperature, oxides, 411107
alteration, oxidative, 260533
anhysteretic remanent magnetization, NRM, 630743
basalt, altered
crystal morphology change, 600702
geochemistry, 540673, 580792, 580802, 580827
petrochemistry, 580792, 580802
basalt, sparsely phyrlic
basalt, transitional, 540624
ferrobasalt, tholeiitic, 540621
petrology, 540628
tholeiite, aphyric olivine-poor, 540619
basement, 340278
basalt, 340278, 42A0516
magnetic properties, 370490, 370492, 370498
opaque mineralogy, 370857
Bermuda Rise, 511431
basalt, 340461, 340462, 340463, 340518, 340523, 511399
basement, 510087, 511379, 511384, 511388
crystallization, 511044
oxygen, 511177, 511180
Bermuda Triangle, basalt, 511363
Blake Basin, 760687, 760689, 760713
cation, deficiency, 340358
chemical composition, 590720, 590724, 690716, 690719, 690720, 690722, 690724
chemistry, 340378
claystone, basalt, 550707
Cocos Plate, basalt, 660703
coercive force, 690723
composition, 830339, 830352
Costa Rica Rift Zone, 830150
basalt, 830222, 830223, 830230, 830254, 830257, 830259, 830283, 830284
stockwork-like zone, 830268
crystallization, 460271, 460274, 460280, 690720, 830339, 830345
kinetics theory, 460278
Curie temperature, 450576, 450579, 690723, 690724
mineral composition, 370452
East Pacific Rise, 540870
basalt, 540405, 540406
composition, 540842
lithology, 920438
electron microprobe analyses, 920484
Emperor Seamounts
petrology, 550511, 550516, 550522
trace elements, 550586, 550587
Falkland Plateau, basement, 360894, 360904
FAMOUS area, paleomagnetic field intensity, 370461
Fe-Ti oxide, 550639, 550641, 550644, 550649, 550651
FeO, 450577
FeO/TiO₂ ratio, decrease, 450579
ferrobasalt, 820404
East Pacific Rise, 540837
flow, 730687
gabbro, 300410
mineralogy, 300410
Galapagos Fracture Zone, 540870
Galapagos Spreading center, basalt, 700438
geochemistry, mineral chemistry, 160633
glass, volcanic
Mariana Trough, 600494
Tonga, 600494
hydrothermal vein, mineralogy, 340378
ilmenite, exsolution lamellae, 690709
iron
decrease, 450579
oxidation, 540875
Japan Trench, sediments, 271230
Juan de Fuca Ridge, 450579
Layer 2
bulk magnetic intensity, 830298
crust, oceanic, 340764, 340767
lithology, 540756, 800940
basalt, 120407
mineral, opaque, 120370
magnetic mineralogy, oxidation, 340490
magnetic oxides, petrology, 511411, 511420, 511421, 511425, 511426, 511427
magnetic properties, 340774, 450399, 450401, 460371, 511363
Curie temperature, 460374
opaque mineralogy, 460372
oxidation, 460372
oxidation states, 460371, 460374
saturation magnetization, 460374
magnetism, 430773, 430776, 460361, 540870
Curie temperatures, 370451, 370452
ferrimagnetism, 370451, 370453
lattice constants, 370452
paramagnetism, 370451, 370453
superparamagnetism, 370451, 370454
Mariana Trough, basalt, 600650
Mendoza Rise
basalt, 920459
lithology, 920436
petrology, 920613
Mid-Atlantic Ridge, 450575, 450577
basalt, 280869, 490781, 490801, 490805
magnetic observations, 490807
Middle America Trench, 670578
midocean ridge, 820402
mineral, chemical composition, 660713
mineral chemistry, 450469, 460154, 550608, 550615, 550617, 550623, 550626, 550627, 550629, 550631, 550632, 550635
basalt, 340227
cooling, 450470
other phases, 920440
mineral composition, 340227, 340269, 38S0031
ocean basin, 42A0516
mineral, opaque, 450409, 450557, 511431, 511432, 511434, 511436
petrology, 340349, 340352, 340353, 340356, 340357, 340358, 340359
mineral, primary, iron-titanium oxide, 810787
mineral, secondary, 340406, 430418
mineralogy, 291103, 291104, 300402, 300404, 340269, 42A0516, 460154, 460371, 460372, 460374, 291103, 291104, 511101, 511104, 540698, 540700
basalt, nonvesicular, 220425
lithology, 810784
primary mineralogy, 600718
spinel, 800940
MORB, comparisons, 920468
Mossbauer spectroscopy study, 950642
Nazca Plate, 450575
ocean basin, mineralogy, 42A0516
opaque mineralogy, 260533, 450409, 450410, 450412
titanomaghemite, 450409
oxidation, 340485, 540873, 690719, 690723, 690724, 830334, 830335, 830339, 830345, 830355, 920481
iron, 540875

- oxidation effects, 620987
oxidation, low-temperature, 450579
oxidized phases, 450576
Pacific Ocean, basalt, 340485
Pacific Ocean SE, basalt, 340246
paleomagnetism, 160642, 42A0881, 42A0882, 42A0883
pebbles, petrography
petrogenesis, modeling, 920443, 920444
petrography, 340349, 540698, 540700, 670578, 920468, 920469
alteration, 340353, 340358
crystallization, 340349
petrography of opaque phases, 340349, 340358
petrology, 160633, 340227, 450469, 450470, 540794, 580845, 580847, 580848, 590670, 590673
East Pacific Rise, 540637
igneous rocks, 340349, 340358
ilmenite, 540801
mineralogy, 540800
OCP Ridge, 540637
Siqueiros Fracture Zone, 540638
sulfide, 540802
phase chemistry, 460154
petrology, 340246
pyroxene, 590694, 590696, 590697, 590698, 590699, 590703, 590705
Reykjanes Ridge, magnetic observations, 490807
saturation remanent magnetization, 630746
Shikoku Basin, basalt, 580895
sill, chemistry, 300402, 300404
Siqueiros Fracture Zone, basalt, porphyritic, 540611
spreading center, ore minerals, 540789
Sr isotope, 590720
trace elements, 590724
stoichiometric, 690723, 830335, 830339
subspherulitic intergrowths, 291103
thermomagnetic curve, Curie temperature, 630749
thermomagnetic properties, 830341, 830352
tholeiite
crystallization, 600705
magmatism, 540715
mineralogy, 340269
tholeiite, depleted, geochemistry, 810784
Ti/Fe ratio, 690715, 690719, 690725
volcanic rocks, ages, 550661
volcanics, Pacific Ocean C, 291103, 291104
Voring Plateau, mineral composition, 38S0031
titanomagnetite, chromium, basalt, mineral chemistry, 550621, 550622, 550629, 550630, 550633
titanomagnetite, stoichiometric
basalt, 830335, 830339
basement, magnetic properties, 370499
magnetic oxides, petrology, 511423, 511427
titanomagnetite, Ti-poor
magnetic oxides, petrology, 511426, 511427
thermomagnetic curve, Curie temperature, 630749
titanosalite, basalt, petrology, 580852
Tjornes, glaciation, Pliocene-Pleistocene, 120962
Tjornes Fracture Zone, 380748, 380752
Tobago, 151105, 780030, 780031, 780385
volcanic sequence, 780025
Tobago Basin, 780025, 780079, 780302, 780313, 780320, 780567, 780569, 780603
accretion, 780036
deformation, 780031
forearc basins, 780036
origin, 780031
sedimentation, 780006
TOC. *See* carbon, organic
Tocantins River, 140856
Toco Formation, 110570
todorokite
alteration, mineralogy, 460310
alteration, low-temperature, 340415
mineral, secondary, 460310
alteration, nonoxidative, 340415
Atlantic continental margin, mineralogy, 110784
basalt, mineral, secondary, 340413
clay minerals, hydrothermal mounds, 700225
Emperor Seamounts, mineralogy, 550468, 550472
Galapagos Fracture Zone, East Pacific Rise, 540405
Galapagos Islands, hydrothermal mounds, 700201
Galapagos Spreading center, 540377
sediment classification, 540323
geochemistry, 540372
hydrothermal deposits
Galapagos Spreading center, 700236, 700250
manganese hydroxide, 700253
lithology, Cretaceous-Eocene, 110225
metalliferous sediment, mineralogy, 340787
mineral, secondary, 460310
diagenesis, nonoxidative, 340415
mineralization, secondary, mineralogy, 540810
mineralogic facies comparison, manganese oxide, 810708
mineralogy, 850782
hydrothermal environment, 540346
Pacific Ocean N, 540346
Mounds, nontronite, 540384
Mounds Hydrothermal Field, chemistry, 540408
Pacific Ocean SE, mineralogy, 920394
Rockall Plateau, concretion, fossil polymetallic, 810703, 810705, 810706
Tofino Bank, 131420
Tohoku Arc
ash
uplifting, 870685
volcanism, acidic, 870684
volcanism, andesitic, 870684
volcanism, explosive, 870681
evolution model, slab, 870714
glass, volcanic
chemical composition, 870713
petrology, 870711
Japan Trench, geology, 870704, 870707
metal deposit, origin, 870714
Mizuho Orogeny, 870714
morphology, 870713
oil, 870714
orogenic history, 870714
sea level, eustatic, 870714
subduction, 870714
tectonics, 870716
volcanism, 870714, 870715, 870716
volcanism, explosive, Neogene, 870703, 870716, 870718
Tohoku Island, 560457, 870270, 870555
arc, 560449, 560457, 560565
coast, 560449
continental slope, 560054
offshore, 560451
Tokai Basin, 870046, 870054
detrital modal analysis, turbidites, 870624
mud, 870913
Nankai Trough, turbidite, 870913
source, 870924
Tokelau Islands, 071172, 071265, 330744
Tokomuro Formation, 870426
Tokoro belt, 560474
Tokyo, 060010, 060633, 560404
Emperor Seamounts, 200700
Tolbachik River, 550852
toluene
hydrocarbon, 220673, 241165
low molecular weight, 711035, 711040
hydrocarbon, C₁-C₇, 42B0673, 500623
volatile organic compounds, 571350, 571351, 571353, 571355
hydrocarbon, C₁-C₈
Baja California, 640763
generation, 640777
Guaymas Basin, 640765
Patton Escarpment, 630779
hydrocarbon, light, 38S0649
kerogen, 220673, 241165
Mazagan Escarpment, 790745, 790752
Mazagan Plateau, 790740, 790752
organic geochemistry, Guaymas Basin, 640943
sediments, Blake Ridge, 760383
shipboard contamination, acetone, 711043
tetrapyrrole, geochemistry, 630787, 630805, 640810
Vigo Seamount, hydrocarbon, C₂-C₇, 47B0561
toluene/benzene ratio, hydrocarbon, C₁-C₇, 42B0673
toluene/heptane ratio, hydrocarbon, low molecular weight, 711035
Toms Canyon, 950155
tonalite
gabbro
mineralogy, 600590
petrography, 600590
petrography, 600581
polymict breccia, clast, 600649
Tonga, 600488, 600721, 901153
basalt, island arc, 670581
Chatham Rise, seismic stratigraphy, 901326
glass, volcanic
island arc, 600492, 600493, 600494
Mariana Trough, 600494
volcanic, 600488
Indian Ocean S, geologic history, 260937
island arc, 070079, 150217, 220463, 260937, 300629, 590656, 590657, 600488, 600492, 600722
active island arc, 561008
Kermadec Islands, 060686, 210488, 210898, 590794
lavas, 670570
Lord Howe Rise, pale green laminae, 901156, 901157
Pacific Ocean SW
Eastern Marginal Basin Province, 210898, 210904
island arcs, 300702
regional evolution, 210900
rare earth elements, tuff, 590656
ridges, 210061
Kermadec Islands, 210897, 210900
South Fiji Basin, history, 300629
tephra, source, 901153
tholeiite, island arc, 670570
volcanic components, island arc, 210488
volcanics, fore arc, 600721
Tonga Ridge, 151001, 210005, 210017, 210057, 210488, 210646, 300005, 300007, 300028
Kermadec Ridge, 210897, 210900, 600602
Lau Ridge, 210061, 300625, 300630, 300702
lithology, 210021
geologic events, 210038, 210061
Pacific Ocean SW
Cenozoic, 300667
island arcs, 300702
Kermadec Ridge, 210897
regional evolution, 210900

- Pacific Ocean W, volcanic rocks, 210488
 South Fiji Basin
 geology, 300619, 300625, 300627
 history, 300630
 volcanic components, 210488
 Tonga Trench, 210033, 210038, 210041, 210481,
 210644, 210888, 210897, 291157, 300003,
 300005, 300631, 300698, 300703, 350266,
 390903, 901157, 910186, 910207, 910216,
 910271, 910437, 910475, 920520
 Eastern Marginal Basin Province, 210904
 geothermal measurements, 210455
 island arcs, 300698, 300703
 Kermadec Trench, 920520
 lithology, 210041
 geologic events, 210038
 Mariana Islands, island arc, 060682
 Pacific Plate, 210897, 210904
 South Fiji Basin, history, 300631
 Tongue of the Ocean, 110009, 110817
 Bahama Islands, geology, 110886, 110887,
 110888
 Blake Basin, Providence Channel NW, 440181
 Mexico, Gulf of, sediment compared, 770402
 Toolonga calcilutite, 220808
 topaz
 Atlantic Ocean NC, Mesozoic sequences,
 411006
 Falkland Plateau, basement, 360895
 lithology
 clay, zeolitic, 140185
 sand, arkosic, 140185
 mineral, heavy, Arabian Sea, 230498
 ore, deposit, 540802
 Tore-Madeira Rise. *See* Madeira Ridge
 Toro, 330750
 Torres Arch, 400006
 Torres syncline, Brazil, 750539
 Torres Vedras, 131079
 Tors Cove, 120038, 120055
 Tortonian Sea, 42A0938, 42A1084
 Tortonian/Messinian boundary, 42A0936
 Tortuga Island, 150169, 150554, 640632,
 640645, 640711
 California, Gulf of, Guaymas Basin, 650618,
 650619
 geochemistry, Guaymas Basin, 640711
 Tortuga Island, Chile, 640633, 650619
 Tortugas Formation, Baja California, 630584
 Tosa Basin, 870005
 accretionary prism, thrust types, 870947
 Nankai Trough, geologic setting, 870910
 Tosa Terrace, 870037, 870054
 accretionary prism
 faulting, 870953
 thrust types, 870947
 velocity distribution, 870950
 Tosco-Abreojos Fault Zone, 630955, 641089,
 641285
 Baja California S
 movement, 630954
 tectonics, 630957
 California, offshore,
 63090074Tosco-Abreojos Fault Zone
 petroleum generating potential, Magdalena
 Fan, 630958
 tourmaline
 Atlantic Ocean
 geochemistry, 47B0432
 mineralogy, 47B0432
 Atlantic Ocean NC, Mesozoic sequences,
 411006
 basement
 gneiss, 360895
 mineralogy, 291118
 Black Sea
 mineral, terrigenous, 42B0654
 sediments, 42B0378
 California, Gulf of, gulf mouth, 650363
 caprock
 palynology, 010438
 petrology, 010438
 Caribbean Sea, sediments, 150937
 Cenozoic sediments
 lithology, mineralogy, geochemistry,
 450326, 450330
 mineral composition, 42B0418, 42B0423
 continental margin sediments, petrology,
 280736
 detrital to biogenic sediment trends,
 mineral, heavy, 291074
 Falkland Plateau, basement, 360893, 360895,
 360905, 360906, 360907, 360910
 Falkland Plateau E, sedimentation, 360877,
 360880
 flysch, 500752
 Ganges Fan, sand, 220711
 gneiss, mineral composition, 360895, 360905
 Indian Ocean E, abyssal plain sediment,
 271007
 Indian Ocean NW, grain size, 250417,
 250422, 250423
 Indian Ocean W, regional aspects, 250754,
 250755, 250757
 lithology, 040081, 040098, 100126, 150279,
 220196, 220326, 250072, 250265, 280219,
 280370, 290275, 390033, 400043, 400048,
 400049, 400198, 400205, 440032, 480179,
 500129
 clay, red, 120683
 clay, zeolitic, 140185
 mineral, heavy, 100092
 oozes, 120683
 sand, 100121
 sand, arkosic, 140185
 sphene, 400047
 turbidites, 120261, 120683
 Mediterranean Sea, lithostratigraphy, 131033
 mineral, chemical composition, sediments,
 mineral distribution, 38S0032
 mineral composition, gneiss, 360895, 360906
 mineral, heavy
 Arabian Sea, 230498
 Argo Plain, 270524
 Cuvier Plain, 270524, 270525
 Indian Ocean S, 270523, 270524, 270525,
 270526
 Timor Trough, 270524
 mineralogy, basement, 291118
 Mississippi Fan, sediment, 960432
 oil
 palynology, 010438
 petrology, 010438
 ooze, calcareous, ooze, nannofossil, 271008
 palynological residue, crystals,
 crystalline debris, size, 640739
 petrology, sand, 960499
 Rockall Plateau, Paleogene sediments, 810653
 Ross Sea, basement, 280866, 280867
 sediment composition
 sand, 960479
 silt, 960479
 sedimentology, Mexico, Gulf of, 100709
 silicate, 010543
 South Fiji Basin, history, 300629
 terrigenous minerals, mineralogy, 250436,
 250437
 turbidites, bedding, graded, 250444
 Wharton Basin, sand, 220711
 Tournon, France, 131252
 Towada
 ash, tephra, 870707
 volcano, 870272
 Tower Island. *See* Isla de los Estados
 Townsville Trough
 lithology, 210345
 Pacific Ocean SW, Western Marginal Basin
 Province, 210903
 Toyama Bay, fan, submarine, deposits, 310489
 Toyama Seachannel
 lithology, 310411
 physical properties, 310553
 fan, submarine, 310553
 Toyama Trough
 fan, submarine
 bedding, graded, 310490
 clay, 310490
 deposition, 310489
 foreset bedding, 310494
 lamination, parallel, 310490
 planktonic fossils, 310494
 Pleistocene to Recent, 310495
 sand, 310490
 silt, 310490
 turbidites, 310490, 310494
 volcanoclastics, 310490
 lithology, fan, submarine, 310361, 310362,
 310406
 Neogene diatoms, 310783
 Pleistocene, Pliocene foraminifers, 310696
 trace elements, 180935, 180936, 180937,
 180938, 180940, 180942, 220469, 270481,
 270482, 270489, 270553, 270555, 270556,
 300414, 340218, 340220, 340221, 340239,
 340240, 340242, 340277, 340289, 340293,
 370567, 370581, 411103, 42A0509,
 42A0517, 42A0519, 440557, 440559,
 440562, 450541, 450542, 450545, 460241,
 460242, 460244, 490598, 490602, 490618,
 490622, 490897, 511087, 540738, 550585,
 590653, 590673, 650564, 650570, 650593,
 650594, 660731, 670563, 690747, 690749,
 690754, 800943, 801055, 810787, 810788,
 820466, 830130, 850785, 850786, 850789,
 850790, 920439, 920440, 920471, 920493
 abundances, 370582
 abyssal plain, inorganic geochemistry,
 801074
 Aden, Gulf of, diabase, 240871
 Al, distribution correspondence, 850789
 Al₂O₃, 650569
 Al³⁺, 42A0504
 Alboran Basin, basement, 130762
 Alboran Plain, Alboran Basin W, 130762
 alkali element, differences, 660732
 alteration, 370569, 511087, 511088, 511092,
 670564, 670566, 690748, 690753
 alkali metal, 670567
 basalt, 370563
 calcium depletion, 670567
 effect, 660732
 element, alkaline, 670566
 high temperature seawater interaction,
 670567
 hydrothermal fields, 670567
 magma, 670564
 manganese, 670567
 mid ocean ridges, temperatures, 670567
 mineral, 950491
 mineralogy, 370800, 370802
 sulfide, 670567
 tholeiite, 670564, 670567
 zinc, 670567
 alteration, low-temperature, mineralogy,
 370800, 370802
 alteration minerals, chemistry, 920491,
 920495, 920496, 920497
 aluminosilicate, 850785, 850786, 850790

- amphibolite, stabilization, 220449
andesite, 180937, 180938, 600657
andesite, alkalic, 180937, 180938
 stabilization, 220449, 220450
Angola Basin
 geologic evolution, 750523
 petrochemistry, 751101
anhydrite, 42A0506
aphyric petrography, 650569
As, 42A0504
ash, Valencia Trough, 130772
Atlantic continental margin
 carbonate, 440557
 interstitial water chemistry, 050516,
 140763
Atlantic Ocean, 450493
 basalt, 370563, 450493
 basalt, altered, 370795
 igneous rock, 370573
 MORB, 920440
 serpentine, 370563
Atlantic Ocean N, alteration, 511087
Atlantic Ocean NC, 820035
 basalt, 820035, 820449, 820501
Atlantic Ocean NE
 basalt, 810795
 carbonate, 801055
Atlantic Ocean SE, Cretaceous, 740776
Atlantic Ocean SW, basin, evolution, 361004
Atlantic Ocean W, basalt, 511087
attapulgite, 42A0506
augite, 370569
B, 42A0493, 850785, 850789, 920491
Ba, 370581, 650594, 810788, 850785
 discrete mineral phase, 850789
Barbados Ridge
 basalt, 780395, 780403
 crust, oceanic, 780399
basal metalliferous sediments, formation
 hypothesis, 850790
basalt, 270553, 270555, 270556, 270558,
 300414, 340289, 340293, 370581, 370582,
 450493, 450545, 460181, 460241, 460244,
 460293, 510987, 510988, 510994, 510996,
 510999, 650570, 660732, 810755, 810771,
 810896, 820472, 820497
 Aden, Gulf of, 240781, 240871
 alteration, 810788
 An, 510997
 Atlantic Ocean, 650575
 Atlantic Ocean NC, 820035, 820501
 Barbados Ridge, 780395, 780403
 basalt, altered, 510987, 510988
 basement, 270553, 270555, 270558, 510987
 breccia, 510987
 calcite, 510988
 California, Gulf of, 650591
 CaO, 510988, 510997
 chemical composition, 411108, 411109
 chemical variation, 510994
 chemistry, 300412, 300414, 340190,
 340240, 340242, 340277, 450447, 460181,
 460186, 510989, 510991, 510993, 540674,
 540682, 690775, 820035, 820037, 820038,
 920472, 920476, 920478
 chondritic value, 660732
 chromium, 510997
 clinopyroxene, 510988
 composition, 340239
 Costa Rica Rift Zone, 830153, 830155,
 830161, 830201, 830205, 830212
 Cretaceous, 511087, 511088, 511092
 crystallization, liquid, 660732
 dolerite, 510999
 eruption, 340289
 europium, 510998
 evolutionary history, 340289
 geochemistry, 340218, 340220, 340221,
 370705, 370740, 370800, 370802, 42A0510,
 42A0511, 42A0512, 42A0517, 42A0519,
 460089, 490609, 490623, 540768, 550599,
 550601, 550602, 550603, 550604, 550605,
 590754, 590758, 590759, 590760, 590761,
 590769, 590773, 590774, 590781, 690747,
 690749, 690751, 690754, 690765, 690768,
 690796, 720451, 740739, 810795, 820449
 glass, 180936, 600604, 600607, 820511
 granitophile, 370563
 Hayes Fracture Zone, 820497, 820499
 Hess Rise, 621039
 HREE, 510998
 Indian Ocean W, 240781, 240871
 iron, 510997
 K₂O, 510988, 510996
 Kapingamarangi Rise, 610689
 LIL element, 510996, 510999
 magma, 510998, 830207
 magmatic affinities, 810790, 810792,
 810793
 magmatism, 510999
 major oxides, 510996
 mantle, 820511, 820514
 Melanesian Basin, 610689, 610705, 610706,
 610707
 Mg/(Mg + Fe) ratio, 510998, 510999
 MgO, 510997
 Mid-Atlantic Ridge, 370581, 370707,
 820422, 820423, 820424, 820425, 820426,
 820427, 820429, 820431, 820501, 820502,
 820504, 820505, 820506
 midocean ridge, 820396, 820397, 820412,
 820415, 820416, 820418, 820449, 820451,
 820452, 820454, 820457
 mineral chemistry, 550608
 mineralogy, 540768
 minor element, 490659, 490685
 Na₂O, 510998
 nickel, 510997, 510999
 normative ratio, 510997
 ocean floor, 510987
 ocean ridge, 370582
 olivine, 510988, 510996, 510999
 oxidation, 510988
 Pacific Ocean, 340289
 Pb isotope, 820499
 peridotite, 510998
 petrochemistry, 270553, 270554, 270555,
 270556
 petrogenesis, 370707
 petrology, 180935, 180937, 180938,
 180940, 180942, 180943, 180945, 220459,
 260472, 260483, 340190, 340239, 340277,
 42A0512, 460089, 460181, 460186, 580856,
 580862, 590673
 phenocryst, 510988
 Philippine Sea, 580873
 pillow, 411107, 411108, 460293, 510987
 plagioclase, 370737, 370741, 510988,
 510997, 510999
 potassium, 510999
 potassium-argon age, 42A0533
 pyrite, 510988
 pyroclastics, 260563
 pyroxene, 510998
 quartz, 510997
 rare earth elements, 510998, 510999
 rare earth elements, light, 510996,
 510999, 810789
 sediments, 510987
 silicate, 450452
 sill, 270553, 270555, 270556, 270558
 smectite, 510988
 spinel, 510988
 stabilization, 220449, 220450
 tholeiite, 510996
 TiO₂, 510997
 variations, 580873
 water content, 450542
 weathering, 340291
 yttrium, 370567
 zeolite, 510988
basalt, alkali, 550585, 920440
 Emperor Seamounts, 550585
 stabilization, 220449, 220450
basalt, alkali andesine, 180943, 180945
basalt, altered
 alkali contents, 580892
 alteration, 580875
 Azores, 580892
 basalt, alkali tholeiitic, 580873,
 580874, 580875, 580876, 580877, 580878,
 580881
 basalt, aluminum, 580875, 580892
 Bonin Islands, 580873
 Bransfield Strait, 580874
 calc-alkaline lavas, 580874
 Ce, 580875
 cesium, 580875
 chondrite, 580874
 chromium, 580875
 classification, 540685
 cobalt, 580875
 continental margins, proximity, 580874
 crust, continental, 580892
 crust, oceanic, 580873
 crystal fractionation, 580892
 Daito Basin, 580875, 580881, 580882,
 580883, 580892
 Daito Ridge, 580875
 europium, 580875
 extensional areas, formation, 580873
 Fe, total, 580875
 FeO, 580875, 580892
 gallium, 580875
 geochemistry, 540671, 580806, 580807,
 580808, 580810, 580811, 580819, 580822,
 580828
 hafnium, 580875
 Hakone Volcano, 580875
 Honshu, 580875
 hot spot, 580873
 hydrothermal alteration, 580875
 hygromagmatophile (HYG) elements, 580873,
 580874, 580875, 580892
 hypersthene, 580875
 iron, 580874
 island arcs, affinities, 580892
 island arcs, proximity, 580874, 580892
 Iwo Jima, 580873
 Iwo Jima Ridge, 580875
 Izu, 580875
 Japan, 580874, 580883, 580884, 580885,
 580887, 580888, 580889, 580892
 K, 580874, 580875, 580892
 labradorite, 580875
 Lau Basin, 580873
 magma, 580892
 mantle, 580892
 Mariana Basin, 580873
 Mariana Trough, 580873
 melt, 580892
 Mg/Fe ratio, 580874
 MgO, 580875, 580892
 Mid-Atlantic Ridge, 580892
 MORB, 580873, 580892
 neodymium, 580873
 nickel, 580875
 niobium, 580875, 580892

- basalt (Cont.)
 Oki Archipelago, 580875, 580892
 Oshima, 580875
 Pb isotope, 580873
 petrogenesis, 580889, 580890, 580891, 580892
 Philippine Sea N, 580873, 580892
 radiogenic isotope, 580874
 Rb, 580875
 REE, 580874, 580892
 Reykjanes Ridge, 580892
 scandium, 580875
 Scotia Sea E, 580873
 Shikoku Basin, 580874, 580875, 580881, 580882, 580883, 580892
 Sr isotope, 580873
 strontium, 580875
 tantalum, 580875, 580892
 tectonic conditions, 580874, 580892
 terbium, 580875
 Th/La ratio, 580892
 Th/V ratio, 580873
 tholeiite, 580873, 580874, 580892
 thorium, 580875, 580892
 TiO₂, 580875, 580892
 titanium, 580874
 uranium, 580875
 yttrium, 580875
 zeolite, 370795
 zinc, 580875
 zirconium, 580875
- basalt, aphyric, Cretaceous, 511087, 511088, 511092
 basalt, holocrystalline, 370569
 basalt, midocean ridge, 820041
 basalt, oceanic
 Melanesian Basin, 610662
 petrochemistry, 610642
 basalt, plagioclase, geochemistry, 370737, 370741
 basalt, plagioclase pyritic, 650569
 basaltic phase equilibria, 650570
 basement, 180936, 180937, 180938, 180942, 340277
 Alboran Basin W, 130762
 basalt, 260472, 260483, 340277, 390514, 42A0510, 42A0511, 42A0512, 42A0517, 42A0519, 490607, 490609, 490618, 490622, 490633, 511087
 geochemistry, 590743, 590747, 590750, 600654, 600655, 690749, 690751, 690754, 690777, 690779, 920479
 least-altered rocks, 920472
 petrochemistry, 270553, 270554, 270555, 270556, 270558
 petrography, 600654, 600655
 petrology, 370695
 Bauer Basin, sediment, 850794
 Bermuda Rise
 geochemistry, 511138, 511139, 511140, 511141, 511142, 511143
⁸⁶Sr/⁸⁷Sr ratio, 511137
 Bermuda Rise Formation, 760775
 bimodally distributed elements, 850785
 Blake Basin, 760772, 760774
 Blake Ridge Formation, 760775
 boninite, 600741
 Ti/Zr ratio, 600741
 boron, 920493
 calcium, negative correlation, 850786
 California, Gulf of, 640597
 accretion, 650575
 basalt, 650559, 650632
 Guaymas Basin, 650619
 gulf mouth, 650404, 650406, 650407, 650410, 650416
 magma, 650632
 CaO, 370569
 carbon isotope, 480727
 carbon, organic, geochemistry, 750828, 750829, 750830, 750831, 750833, 750834
 carbonate, 42A0506, 440557, 440559, 440562, 460241, 460247, 801055, 860517
 Atlantic Ocean NE, 801055
 crust, continental, 801070
 crust, oceanic, 801070
 diagenesis, 801070
 geochemistry, 720399, 860513
 Goban Spur, 801055
 hydrothermal activity, 801070
 isotopes, 480727, 480729, 480731
 magnesium, 801070
 Mid-Atlantic Ridge E, 460241
 redox state factor, 801071
 ridge distance, 801071
 sedimentation rate, 801070
 Sr, 801070
 Ce, 370581, 650593, 650594, 850785, 850789
 Cenozoic-Mesozoic differences, 270482
 cesium, 511087, 650594, 660732, 810788
 chemical analyses, 600604
 chemical composition
 calc-alkaline suites, 600461
 Mariana Trench, 600461
 metal, 571263
 REE, 600461
 volcanoclastic products, origin, nature, 600461
 chemical type, 650566
 chemistry, 220449, 260472, 260483, 360896, 511021, 600583, 600585, 650419
 alteration, 950491
 B, 920491
 basalt, 260472, 260483, 270553, 270555, 270556, 270558, 411108
 cooling unit, 511033
 glass, 950570
 gneiss, 360897
 Li, 920491
 microsyenite, 360902
 pegmatite, 360902
 stabilization, 220449, 220450
 chemistry, bulk, 630705
 chert
 geochemistry, 620728
 oxygen isotope, 620750
 petrology, 620728
 chondrite-normalized patterns, 370582, 460243
 chrome spinel, 810788
 chromium, 42A0493, 370581, 370582, 450545, 460243, 650564, 810788, 850785, 850789
 classification, 690758
 alteration, 370567
 crystallization, fractional, 370567
 large ion lithophile elements (LILE), 690751, 690755
 major element/trace element ratio, 370567
 melting, partial, 370567
 clay, 42A0493
 chemistry, 860555
 chert, 170512
 chert, zeolitic, 170513
 chromium, 170511, 170512, 170513
 clinoptilolite, 170512, 170513
 Co, 860555
 copper, 860555
 cristobalite, 170511, 170513
 current, submarine, 170513
 dissolution, 170512
 eolian contribution, 170513
 feldspar, 170513
 lead, 860555
 manganese, 170511, 170512, 170513
 nickel, 170511, 170512, 170513, 860555
 Pacific Ocean N, 170511
 palagonite, 170512
 strontium, 860555
 titanium, 170511, 170512, 170513
 V, 170511, 170512, 170513, 270482, 270494
 volcanic material, 170512
 zirconium, 860555
 clay, green
 distribution, 700218
 Galapagos Hydrothermal Mounds, 700218
 geochemistry, 700220
 clay mineralogy, 960733
 clay minerals, 450543
 chemical analysis, 960695
 claystone, basalt, 550707
 clinopyroxene, 370582, 650566, 650570
 chromium, 450548
 Co, 450548
 europium, 450548
 iron, 450548
 rare earth elements, 450548
 samarium, 450548
 scandium, 450548
 Co, 370581, 370582, 450545, 511087, 660731, 850785, 850789
 magnetite, 370568
 mineral, ferromagnesian, 370568
 varying origin, 370568
 Cocos Plate
 basalt, 660731
 geochemistry, 660683
 lavas, 660732
 tholeiite, 660732
 compatible elements, 650566
 cooling unit, 460293
 chemistry, 511033
 copper, 370581, 370582, 650564, 850785, 850789
 Costa Rica Rift
 basalt, 690747, 690775, 810788
 waters, 690486
 Costa Rica Rift Zone, stockwork-like zone, 830271
 Cr, 660732
 Cretaceous/Tertiary boundary, 860513, 860517
 carbonate, 720402
 clay minerals, 720403
 Cr, 720403
 Fe, 720403
 Gubbio, 720402
 magnesium, 720402
 manganese, 720403
 mineralogy, 620851
 nickel, 720403
 potassium, 720403
 Sr, 720402
 crust, 511087
 crust, oceanic, 820497
 Barbados Ridge, 780399
 Costa Rica Rift Zone, 830185
 hygromagmatophile (HYG) elements, 650623
 crystallization, ferromagnesian mineral, 660732
 crystallization, cotectic, 650570
 crystallization, fractional, 370581, 370582, 460247, 650566, 650570, 660732
 derived liquids, 810788
 cyclic eruptive pattern, 650570
 Danian, 860518
 deep sea sediment, geochemistry, 870643
 deposition, models, 750840, 960739
 deuterium, 450543
 diabase

- diabase (Cont.)
 Aden, Gulf of, 240871
 anorthosite, 240785
 augite, 240784, 240785
 Ba, 240781, 240784
 chromium, 240784, 240785
 Co, 240784
 copper, 240784
 gallium, 240785
 Indian Ocean W, 240871
 iron, 240785
 iron oxide, 240781
 lead, 240781
 nickel, 240784
 olivine, 240781, 240785
 scandium, 240785
 sill, 240784
 stabilization, 220449
 titanium, 240781
 V, 240785
 ytterbium, 240785
 yttrium, 240785
 zirconium, 240784
 diagenesis, 860517
 Cretaceous talus, 770397
 dispersed elements, 370581
 distribution patterns, 370582
 dolerite, 450545
 East Mariana Basin, geochemistry, 890418
 East Pacific Rise, 540638
 accretion, 650575
 alteration, 650594
 Ba, 650594
 Ba/Zr ratio, 650594
 basalt, 650570, 650594, 650601, 650603,
 650606, 650608, 650609, 650610, 650611,
 650612, 650613, 650614
 Ce/Yb ratio, 650596
 chemical type, 650594
 clinopyroxene, 650603
 composition, 540839
 cooling unit, 650594
 crystallization, fractional, 650601,
 650602
 fractionation relationship, 650596
 Galapagos Spreading center, 650602
 glass, 650594
 Guaymas Basin, 650596
 hiatus, 650594
 hygromagmatophile (HYG) elements, 650594,
 650603
 incompatible element ratios, 650603
 K, 650594
 labradorite, 650596
 large ion lithophile elements (LIL),
 650597
 magmatism, 810790
 mantle, 810790
 melting, partial, 650601
 MORB, 650601
 Nazca Plate, 650594
 niobium, 650594
 olivine, 650594
 plagioclase, 650596
 rare earth elements, light, 650594
 Rb, 650594
 Reykjanes Ridge, 650603
 smectite, 650594
 Sr/Zr ratio, 650596
 strontium, 650596
 submarine flows, 650594
 tantalum, 650594
 tholeiite, olivine, 650594
 thorium, 650594
 zirconium, 650598
 Emperor Seamounts
 ankarenite, 550585
 basalt, alkali, 550585
 crystallization, fractional, 550586
 fractionation, 550585, 550587
 hawaiite, 550585
 magmatism, 550585
 mantle, 550585, 550586, 550587
 melting, partial, 550586
 mineralogy, 550468, 550470
 Nintoku Seamount, 550585
 oceanite, 550585
 Ojin Seamount, 550585
 petrologic classification, 550587
 petrology, 550536
 physiochemical properties, 550585, 550586
 Suiko Seamount, 550585
 tantalum, 550586
 tholeiite, 550585
 titanium, 550587
 titanomagnetite, 550587
 transition elements, 550587
 V, 550587
 Eocene-Oligocene deposits, origin
 framework, 850791
 eruption, tectonic conditions, 340289
 euclite, geochemistry, 370741
 europium, 511087, 650594
 anomaly, 370581, 370582, 460243
 negative anomaly, 920440
 exchange, 370569
 Falkland Plateau, 710391
 FAMOUS area, basalt, 460247
 Fe, 660731
 ferrobasalt, 920440
 ferromanganese
 comparable mineralogies, 850790
 diagenetic history, 850790
 group distribution, 850785
 flow, chemical composition, 411108
 flow unit, 340220
 chemistry, 511033
 geochemistry, 490607
 fluorine, 460243
 fractionation, 650570, 690754, 690759,
 690760
 chemistry, 460181, 460186
 closed system, 690759
 magma, 690760
 open-system, 690760
 fractionation series, 650570
 gabbro, geochemistry, 370741
 Galapagos Fracture Zone, East Pacific Rise,
 540400
 Galapagos Hydrothermal Mounds, sediments,
 850791
 Galapagos Spreading center
 basalt, 540738, 540756, 700411, 700412,
 700415
 ferrobasalt, 920440
 gallium, 42A0504
 geochemical component grouping
 concentration differences, 801077
 enrichment, 801077
 precipitation, 801077
 transport, 801077
 geochemical history, sedimentation, 710423
 geochemistry
 accumulates, 370575
 andesite, high-Mg, 600624
 Atlantic Ocean, 930693
 B, 220459
 Ba, 220459
 basalt, 370573, 370574, 370575, 380719,
 930693
 basalt peridotite, 370573
 boninite, 600624
 bulk rock geochemistry, 930693
 California Continental Borderland, 630693
 CaO, 630694
 carbonate, 720829
 Ce, 370573
 celestobarite, 060840
 cesium, 060840
 chemical analyses, 620851
 chromium, 060840, 220459, 370573, 630694,
 650624
 claystone, red variegated, 440508
 clinopyroxene, 650624, 650628
 Co, 220459, 370573
 common parent magma derivation, 630694
 copper, 220459, 630694
 crystallization, fractional, 370575
 differentiation, 370575
 East Pacific Rise, 650624, 930693
 europium, 370573, 370575
 Falkland Plateau, 710391
 fractionation, 650624, 650628
 gabbro, 370573, 370574, 370575
 gadolinium, 370573
 Galapagos Spreading center, 930693
 gallium, 220459
 genetic implications, 370573
 glass, 930693
 hafnium, 370573
 hygromagmatophile (HYG) elements, 650628
 igneous rocks, 370735, 370741
 Indian Ocean E, 270481
 iron, 060840
 iron enrichment, 930693
 Juan de Fuca Ridge, 930693
 kaolinite, 060840
 lanthanum, 370573
 layered oceanic complex, 370575
 Li, 220459
 limestone, red, 440505
 liquid descent line, 630694
 lithium, 060840
 lutetium, 370573
 magma, 370573, 370575, 370661, 370672,
 370674, 870699
 magma chamber, 650628
 major element, 630694
 major oxides, 540359
 manganese, 060840
 Mid-Atlantic Ridge, 650628
 mineral, ferromagnesian, 650624
 molybdenum, 060840, 220459
 montmorillonite, 060840
 sodium, 060840
 neodymium, 370573
 nickel, 220459, 630694, 650624
 ocean floor, 370573
 olivine, 370575, 650624, 650628
 oxide, element variations, 930694
 peridotite, 370573, 370575
 petrogenesis, 370575
 phillipsite, 060840
 plutonic rock, 370575
 potassium, 060840
 primitive liquid composition, 650624,
 650625
 rare earth elements, 220459, 370573,
 370575
 Rockall Plateau, 810795
 rubidium, 060840
 samarium, 370573
 scandium, 220459, 370573
 smectite, 930693
 spinel, 650624, 650628
 strontium, 220459, 630694
 terbium, 370573
 tholeiite, 930693

- geochemistry (Cont.)
 thorium, 370573
 three-phase saturation, low pressures, 930693
 titanium, 060840, 650628
 tuff, 260563
 ultramafic rocks, 370573, 370575
 uranium, 220459
 V, 220459, 260563, 370695, 540372, 540757, 540766, 540768, 660683, 720430, 810795, 810800, 810803, 810804, 810805, 920439
 vanadium, 060840, 630694
 volcanism, 840617
 ytterbium, 370573
 yttrium, 220459, 930694
 zinc, 060840, 630694
 zirconium, 060840, 220459, 630694
 geothermometry
 metamorphic reactions, 450544
 olivine-magnetite, 450544
 peridotite, 450545
 plagioclase, 450544
 seawater interactions, 450544
 glass
 basalt, 650482
 composition, 540710, 540711
 heterogeneity, 630736
 glass, volcanic, Mariana Trough W, 600490
 Goban Spur, 801055
 basalt, 800943, 800944
 seaward edge, 801197
 tholeiite, oceanic, 800939
 gold, 450545
 gypsum, 42A0506
 hafnium, 370581, 450545, 460243, 511087, 650594
 halite, 42A0506
 Hatteras Formation, 760774
 hawaiiite, Emperor Seamounts, 550585
 Hess Rise
 post-Jurassic sedimentation, 620819
 pyrite-marcasite, 620855, 620859
 rocks, 620863, 620864
 Hess Rise N
 post-Jurassic, 620805
 sedimentary sequences, 620761, 620764, 620765
 HFS elements, 650594
 high-partition-coefficient element, 660732
 higher pressure fractionation regimes, 650570
 HREE, abundance, 920439
 hyaloclastite, glass, 650482
 hydrogen, 450543
 hydrothermal activity, ridge crest, 850790
 hydrothermal alteration
 effect, 650594
 sediments, 650420
 HYG element, normalized concentration, 660732
 hygromagmaphile element, transition series, 660732
 hygromagmaphile elements, high partition coefficient, 670567, 670568
 hygromagmatophile (HYG) elements, 540727, 650593, 650594, 690751, 690758, 690760
 depletion, 810788
 igneous rocks
 chemical composition, 590719, 590724
 chemistry, 630733
 geochemistry, 370573, 370577, 370653, 370661, 370662, 370672
 incompatible element abundances, 650566
 incompatible elements enrichment, 920440
 Indian Ocean E, 270481
 geochemistry, 270481
 Indian Ocean W
 basalt, 240781, 240871
 diabase, 240871
 inorganic geochemistry, 620685, 801073, 960738
 Angola Basin, 750929
 chromium, 430682
 Co, 430682
 copper, 430682
 depletion, 801079
 Hess Rise, 620692
 nickel, 430682
 zinc, 430682
 insoluble residue relationship, 440557
 iron, 720402
 magnesium, 720399
 manganese, 720399
 nickel, 720402
 potassium, 720399
 sodium, 720399
 strontium, 720399
 interelement associations, 850790
 interstitial water, 050501
 iron, 42A0504, 440562, 450545, 720402
 Ce, 850786
 chromium, 850786
 Co, 850786
 copper, 850786
 lanthanum, 850786
 nickel, 850786
 vanadium, 850786
 yttrium, 850786
 zinc, 850786
 isotope geochemistry
 Atlantic Ocean N, 720415
¹³C, 720415
 carbonate, 720415
 diagenesis, 720415
¹⁸O, 720415
 Rio Grande Rise, 720399, 720415
 Sr/Na ratio, 720415
 stratigraphic correlation, 720415
 Tethys, 720415
 isotopic anomalies, 370569
 Japan Trench
 geochemistry, 870647, 870649
 sediments, 271223, 271224, 271225, 271226, 271227, 271228, 271230, 571251
 K, 650594
 distribution correspondence, 850789
 La/Sm ratio, 370581, 370582, 460243
 La/Ta ratio, 810789
 La/Yb ratio, 920439
 labradorite, 650594
 lanthanum, 450545, 460243, 511087, 660732, 810788, 850785, 850789
 large ion lithophile elements (LILE), 650594
 laterite, 550461
 lava, isotope geochemistry, 810779
 least-altered rocks, chemistry, 630736
 limestone
 Eocene, 850791
 Hess Rise, 621047
 noncarbonate fraction, 850786
 strontium, 850785
 liquid-line trends, divergence, 650570
 lithium, 850789, 920494
 alteration, 920494
 Li, 920494
 smectite, 920494
 vein, 920494
 lithologic end members, lack of, 850790
 lithology, basalt, 120166, 120407
 lithostratigraphy, 690748
 LOI, 810788
 low Zr types, 370569
 LREE, enrichment, 920440
 mafic phases, 650569, 650570
 magma, 370661, 370672, 370674
 California, Gulf of, 650575
 emplacement, 650575
 evolution, 340289
 mixing, 540063, 650569, 650570
 phenocryst redistribution, 650570
 rare earth elements, 370582
 magma, aphyric, 650570
 magma, arc, 780399
 magmatic fractionation, 460181, 460186
 magmatism, 511088, 511091, 511092
 basalt, 380751, 380752
 early stages ocean opening, 810790
 magnesium, 42A0504, 720402
 magnetite
 calcium, 450548
 chromium, 450548
 Co, 450548
 europium, 450549
 fractionation, 650569
 hafnium, 450549
 nickel, 450548
 rare earth elements, 450549
 tantalum, 450549
 thorium, 450549
 zinc, 450548
 major oxides, 270482
 manganese, 440557, 440561, 440562, 660731, 670563, 720402
 Ce, 850786
 chromium, 850786
 copper, 850786
 distribution, 850789
 iron, 440557, 850786
 lanthanum, 850786
 nickel, 850786
 origins, 440557
 vanadium, 850786
 yttrium, 850786
 zinc, 850786
 zonation, 440557
 mantle, source, 690761, 810790
 mantle, primordial, composition, 920440
 mantle, upper
 convection, 920440
 crystallization, fractional, 460247, 460248, 460249, 460250, 460251
 Mariana Trough
 basalt, 600602
 fore arc, 600657
 marlstone, dolomitic, 42A0506
 mass balance models, 650570
 massive pillowed lavas, pattern, 650570
 Mazagan Escarpment, metagranite, 790552
 Mediterranean Sea, 42A0493
 distribution, 130783, 130784, 130785, 130786, 42A0493
 Meiji Guyot, K/Ar age, 550678
 Melanesian Basin
 ash, 610637
 geological evaluation, 610849
 Mellish Seamount, post-Jurassic sedimentation, 620833
 melting, history, 370569
 melting, partial, 370581, 460247, 650569
 metagranite, Mazagan Escarpment, 790552
 metalliferous sediment, Eocene-Oligocene, 850799
 metamorphic rocks, Alboran Basin W, 130762
 methanogenesis, sediments, 640759
 MgO, 370569
 Mid-Atlantic Ridge, 450541, 460241
 accretion, 650575

- Mid-Atlantic Ridge (Cont.)
 basalt, 370581, 370582, 370705, 450493, 450494, 450495, 450496, 450497, 450499, 450500
 chemistry, 450682, 450684, 450687
 isotopes, 450545
 magmatism, 810790
 mantle, 810790
- Middle America Trench, tholeiite, 660732
 mineralization, 220469
 mineralogical reactions, 370569
 mineralogy, 540766, 540768, 650419
 enrichment, 850795
 minerals
 magnetite, 450543
 olivine, 450543
 orthopyroxene, 450543
 peridotite, 450543
 plagioclase, 450543
 pyroxene, 450543
 serpentine, 450543
 minor element, 42A0493, 42A0504
 Mississippi Fan, 960733
 Mn, Co, 850786
 MORB, 690758, 690760, 920439, 920440
 Nankai Trough
 geochemistry, 870644, 870645
 Japan Trench, 870651
 Nazca Plate, basalt, 340239
 Nb/La ratio, 660732
 neodymium, 650594
 Ni/Cr ratio, 650569
 nickel, 42A0493, 370581, 370582, 450545, 511087, 650564, 660731, 660732, 810788, 850785, 850789
 Nintoku Seamount, basalt, 550599
 niobium, 370569, 511087, 650564, 650594, 660731, 810788
 anomaly, 810790
 noncarbonate fraction enrichment, 850786
¹⁸O, hydrogen isotope, 450541
 ocean basin
 geochemistry, 42A0510, 42A0511, 42A0512, 42A0517, 42A0519
 petrology, 42A0512
 OCP Ridge, 540638
 Ojin Seamount, basalt, 550599
 olivine, 370582, 450547, 650566, 650570, 810788
 chromium, 450548
 Co, 450548
 iron, 450548
 nickel, 450548
 rare earth elements, 450548
 scandium, 450548
 zinc, 450548
 ooze, calcareous, 270482, 270489
 open-system mixing, 650575
 oxidation index, 920471
 oxygen isotope, 370569, 450542, 480727
 P-bearing phase, 850789
 Pacific Ocean, 620773
 basalt, 340289
 Pacific Ocean N, clay, 170511
 Pacific Ocean NE, metal-rich basal sediments, 630670, 630675
 Pacific Ocean NW
 carbonate, 860513
 clay, 860555
 geochemical history, 620797
 Pacific Ocean SE, paleoceanography, 920597
 partitioning, 850796
 Pb/Zr ratio, geochemical significance, 710403
 pelagic sediment, 220469
 peridotite, stabilization, 220449, 220452
 peridotite, plagioclase, 370581
 petrogenesis, 650570
 modeling, 920440, 920444, 920445, 920446
 petrography, 690748, 690758
 geochemistry, 370656, 370661, 370672
 petrology, 180936, 180937, 180938, 180940, 180942, 180943, 180945, 540744, 540747
 basement, 42A0512
 igneous rocks, 130762, 130772, 130775
 mobility, 810797
 Philippine Sea, 590653
 basalt, 580873
 geochemistry, 870645, 870646
 Philippine Sea N, basalt, 580873
 phosphorus, 650594, 850789
 correlation, 850786
 picrite, geochemistry, 370740, 370741
 pillow lava, 650569
 chemical composition, 411108
 chemistry, 511033
 plagioclase, 370569, 370582, 650566, 650575
 accumulation rate, 650570
 anorthite, 450545
 chromium, 450547
 Co, 450547
 europium, 450547
 fractionation, 920440
 hafnium, 450547
 iron, 450545
 magnetite, 450547
 rare earth elements, 450545
 scandium, 450547
 thorium, 450547
 zinc, 450547
 Plantagenet Formation, 760775
 polymetallic crusts, diagenesis, 800827
 polymict breccia, clast, 600649
 positive correlations, 810788, 850790
 potassium, 370569
 primary liquid, 660732
 pyroclastics, geochemistry, 260563
 rare earth elements, 340223, 370581, 450545, 590653, 590661, 590667, 690755, 690760
 ash, 590664, 590666
 authigenic minerals, 590664
 Ba, 590666
 cerium, 590663, 590664
 chlorite, 590665
 clay minerals, 590663, 590664
 Co, 590666
 copper, 590666
 dacite, 590664
 derivation, 590666
 distribution, 370581, 590653, 590661, 590665, 590666, 660732
 europium, 590663
 glass, volcanic, 590662, 590663, 590666
 hafnium, 590666
 halmyrolysis, 590665
 hydrothermal products, 590666
 iron, 590664, 590666, 590667
 Kyushu-Palau Ridge, 590662, 590663
 lanthanide, 590661, 590663, 590664, 590665, 590666
 lutetium, 590663
 manganese, 590664
 Mariana Ridge W, 590664
 metalliferous deposits, formation, 590666
 molybdenum, 590666
 multiple origins, 590667
 North America, 590661, 590664
 Pacific Ocean SE, 590666
 Pb, 590666
 phosphorus, 590666
 seawater influence, 590664
 spreading center, 590666
 terrigenous material domination, 590664
 tholeiite, 590664
 thorium, 590666
 volcanic material, 590662
 volcanoclastic material, 590664
 volcanism, 590666
 West Mariana Basin, 590663, 590664, 590666
 ytterbium, 590663
 zeolite, 590662, 590663, 590665
 zinc, 590666
 zirconium, 590666
 rare earth elements, light, 370581, 370582
 rare gas, 660732
 Rb, 370569, 511087, 650564, 650594, 660732, 810788
 alteration, 920495
 celadonite, 920495
 K, 920495
 REE, 650594, 920439, 920472
 REE, heavy, 370581, 370582
 Rio Grande Rise
 basalt, 720451
 basement, volcanic, 720955
 carbonate, 720399
 geochemistry, 720399
 Rockall Plateau, basalt, 810795, 810804
 salt, stabilization, 220449
 Sb, 370581, 450545, 511087, 660731
 scandium, 370581, 450545, 460243, 511087, 660731, 670564, 850785, 850789
 sea floor weathering, 340291
 sediment
 chemical composition, 700272
 geochemistry, 270481
 Wharton Basin, 220469
 sediment chemistry, 350451
 sediment composition, inorganic geochemistry, 960480
 serpentine, 450543
 Atlantic Ocean, 370563
 granitophile, 370563
 serpentinite, 370563
 serpentinization, 450545
 Shikoku Basin, geochemistry, 870645, 870646
 silica, negative correlation, 850790
 sill, 180940
 chemical composition, 411108
 petrochemistry, 270553, 270554, 270555, 270556, 270558
 single-stage, closed-system fractionation models, 650570
 Siqueiros Fracture Zone, 540638
 tholeiite, 660732
 Sm/Yb ratio, 460243
 smectite, 42A0506
 sodium, 720402
 distribution, 850789
 solid-liquid partitioning behavior, 650566
 source composition, 920440
⁸⁶Sr/⁸⁷Sr ratio, 370569
 Sr isotope, 590724
 Sr/Zr ratio, 650569
 stabilization, 220449
 stratigraphic distribution, correspondence, 850785
 stratigraphic plots, 850789
 strontium, 370569, 370581, 370582, 440557, 440562, 460243, 511087, 650564, 720402, 850785, 850789
 anomalous behavior, 920495
 calcite, 920495
 crystallization, fractional, 370568
 gallium, 920495
 high-temperature seawater interaction, 920495

- strontium (Cont.)
 isotope exchange, seawater, 370568
 K/Sr, 370568
 K₂O, 370568
 melting, partial, 370568
 negative anomaly, 920440
 Rb, 920495
 variations, 440559
 yttrium, 920495
 zirconium, 370568
- strontium isotope, 370569
 subparallel patterns, 920440
- Suiko Seamount
 basalt, 550599
 geochemistry, 550559, 550560, 550561,
 550562, 550563, 550564, 550565, 550566,
 550567, 550568
 rare earth elements, 550563, 550564
 sulfide, fractionation, 650566
 superheating, 650570
 Ta, 660732
- Tamayo Fracture Zone, basalt, 650594,
 650596, 650597, 650598, 650601, 650602,
 650603
- tantalum, 370581, 511087, 650594, 810788
 anomaly, 810790
 terbium, 511087
- Tethys, geochemistry comparison, 720399
 Th, 660732
 Th/Ta ratio, 810790
- tholeiite, 180936, 180940, 180942, 370582,
 460243, 511104, 600657, 630695, 660732,
 810787, 920439
 Barbados Ridge, 780403
 British Tertiary Igneous Province, 810788
 chemistry, 260472, 260483
 East Pacific Rise, 660732
 Emperor Seamounts, 550585
 genesis, 660732, 920447, 920449
 geochemistry, 42A0510, 42A0511, 42A0512,
 550559, 590682, 590685, 590692
 oceanic, 780403
 passive margin, 810788
 petrology, 42A0512, 590682, 590685, 590692
 stabilization, 220449, 220450
 tholeiite, liquid, density increase, 650570
 thorium, 370581, 450545, 511087, 650594,
 810788
- Thulean Volcanic Province, basalt, 810793
- titanium, 42A0504, 370569, 650594, 660731,
 670563, 850785, 850789
- trace alkali elements, 810788
- trachyte, Hess Rise, 621040
 transition elements, 920494
 transition metals, 490897
 uranium, 650594, 660731
 distribution, 370553
 V, 511087
- Valencia Trough, 130772
 volcanics, 130772
- vanadium, 42A0493, 460243, 850785, 850789
 variation, 650570
 variation cause, 370569
 variations, 370581, 370582
- volcanic rocks
 ages, 550663
 Valencia Trough, 130772
 volcanics, 180936, 180937, 180938, 180940,
 180942, 180943, 180945, 670563
 distribution, 670557, 670563, 670564,
 670567, 670570
 eruption, 340289
 evolutionary history, 340289
 Pacific Ocean C, 170430
 Valencia Trough, 130772
 weathering, 340291
- Walvis Ridge, basalt, 740739, 740743, 740746
- Wharton Basin, 220469
 sediment, 220469
 whole rock chemistry, 370725
 Y/Tb ratio, 810789
 ytterbium, 370581
 yttrium, 511087, 650564, 650594, 850785,
 850789, 920495
 zinc, 42A0504, 450545, 460243, 650564,
 850785, 850789
 zirconium, 370569, 511087, 650564, 650594
- trace elements, incompatible
 basalt
 Costa Rica Rift Zone, 830165
 Mid-Atlantic Ridge, 820428, 820429,
 820430, 820431, 820442
 midocean ridge, 820397, 820399, 820403,
 820404, 820406, 820408, 820409, 820410,
 820411, 820412, 820414, 820415, 820416,
 820417, 820450, 820452, 820453, 820456,
 820457
- trachyandesite
 Algeria, continental shelf, 42B1183
 basalt, petrology, 580856
 basalt, altered
 major element, 580885
 trace elements, 580885
 Peter I Island, geology, 350347, 350351,
 350352, 350353, 350354, 350356
 Red Sea, geology, 230816
- trachybasalt
 Arabian Sea, history, 231122
 crystallization, 411104
 glass, volcanic, Miocene, 411062
 groundmass, 411104
 Hess Rise, post-Jurassic sedimentation,
 620827
 lithology, 230297
 Mellish Seamount, post-Jurassic
 sedimentation, 620837
- trachyte, 190615, 330767
 Aptian and Albian, paleomagnetism, 620983
 Ascension Island, rare earth elements,
 620957
 ash flow, Walvis Ridge, 390526, 390530,
 390533
 basalt, petrology, 580856
 basalt, altered
 major element, 580885
 trace elements, 580885
 basement, geochemistry, 620863
 chert, oxygen isotope, 620754
 clay minerals, Hess Rise, 620951, 620956
 feldspar, Hess Rise, 620947, 620955, 621040
 Fernando de Noronha, geochemistry, 620956
 geochemistry, magma, 870699
 geologic setting, 620984
 Gough Island
 geochemistry, 620956
 rare earth elements, 620957
 Hess Rise, 620693, 620947, 620953, 620958,
 621035, 621036, 621040
 basement, 620863
 brecciation, 620971
 geochemistry, 620949, 620956
 mineral composition, 620967, 620971,
 621040
 petrology, 620947, 620955
 pyrite-marcasite, 620855, 620857, 620858,
 620859, 620861
 rare earth elements, 620950, 620956,
 621041
 seismic reflection, 621051
 stable-isotope ratios, 620971
 trace elements, 621040
- Hualalai Volcano, geochemistry, 620956
- limestone, Cretaceous, 620885
 lithology, 330308
 oxide, Hess Rise, 620949, 620953, 620956,
 621040
 Peter I Island, geology, 350349, 350354,
 350356
 plagioclase, Hess Rise, 620949, 620955,
 621040
 pyroxene, 190621
 Saint Helena, geochemistry, 620956
 St. Helena, geochemistry, 620956
 sapropel, Cretaceous, 620896
 seamounts, ridges, volcanic origin, 330782
 sediments, Kings Trough, 941251, 941254,
 941258
 smectite, Hess Rise, 620951, 620956
 trace elements, Hess Rise, 621040
 Tristan da Cunha, geochemistry, 620951,
 620956
 tuff, Walvis Ridge, 390526, 390530, 390533
- Volcanic rocks, petrography, 200691
 caps, 200687
 Geisha Guyots, 200682
 volcanics, petrology, 330758, 330767
 Walvis Ridge, 390526, 390530, 390533
- trachyte, altered
 chert
 geochemistry, 620712
 oxygen isotope, 620749
 Hess Rise, pyrite-marcasite, 620855
- trachyte, quartz
 Geisha Guyots, 200682
 pumice, source, 850821
- trade winds
 deposition, eolian, Oligocene, 920331
 eolian record, Southern Hemisphere, 920338
 eolian sedimentation, influence, 860596
 Pacific Ocean NW, eolian sedimentation,
 860596
 Pacific Ocean SE, 920409
 circulation, post-atmospheric, 920331
 eolian input, 920415
 eolian sedimentation, 920331, 920332
 Trans-Mexican Volcanic Belt, 660020, 660033,
 660434, 660683, 660729, 660794, 660827,
 670749
 basement, dioritic, Pliocene-Quaternary,
 660729
 Mexico, magmatic episodes, 660728
 Middle America Trench
 andesite, 660687
 tephra, 660687
 volcanic axis, 641284
- Transantarctic Mountains, 280211, 280234,
 280335, 280341, 280772, 280773, 280890,
 280895, 280906, 280936, 360858, 360926
 Atlantic Ocean SW, basin, evolution, 360998
 climate, 280936
 geology, 280887, 280906
 lithology, 280343, 280926, 280927
 nearshore environment, 280933
 oceanography, 280937
 pebble characteristics, 280773
 Ross Sea SC
 basalt, 280771
 Beacon Group, 280771
 diabase, 280771
 granite, 280771
 Ross Sea W, diabase, 280772
- Transcaspian, 200107, 480447
- transform fault, 490428, 700317
 African Plate, theory, 490391
 anoxia, global, evidence against, 801002
 Atlantic Ocean N
 paleogeography, 121171, 121174
 Paleozoic, 801108

- Atlantic Ocean NE, stable isotope, 480475
 Atlantic Ocean W, 220464
 Bahama Islands, geology, 110883
 basalt
 fracture zone, 540719
 Middle America Trench, 660703
 midocean ridge, 820418
 origin, 660708
 basalt, altered
 geochemistry, 540689
 petrology, 540689
 basalt, high-alumina, 481147
 fault, 481147
 paleodepths, 481147
 Coral Sea E, geology, 300653, 300657, 300659, 300660, 300661
 FAMOUS area, fracture zones, 490391
 Fifteen-Twenty Fracture Zone, 780027
 gabbro
 mineralogy, 600589, 600591
 petrography, 600589, 600591
 gas, interstitial, geochemistry, 640783
 geological, geophysical setting, rifting, 42A0889
 Greenland, Spain, 121174
 Indian Ocean S, geologic history, 260919, 260932
 Indian Ocean W, tropical, 240646
 interstitial water, geochemistry
 Guaymas Basin, 640687
 hydrothermal alteration, 640692
 kerogen, organic geochemistry, 640883
 Labrador Sea S, basement, 121157
 Lesser Antilles, 780027
 Line Islands, tectonics, 330737
 lipid, organic geochemistry, 640883
 Moroccan Basin, margin, 500807, 500809, 500810
 organic geochemistry, Guaymas Basin, 640819, 640942
 Pacific Ocean E, basalt floor, 660708
 Pacific Ocean EC, geologic history, 090921
 Pacific Ocean SW, island arcs, 300696, 300700, 300702
 palynological residue, 640729
 Paratethys, paleogeography, 42A0985
 petrology, chromium, 540801
 protokerogen, hydrothermal effects, 640905
 Red Sea, geology, 230818
 regional summary, 220815
 Indian Ocean E, 220826
 regional tectonics, Rio Grande Rise, 720962
 Rio Grande Rise, regional setting, 390955
 Rockall Plateau W, stratigraphy, 481061, 481062
 Rockall Rise SW, structure, 481065, 481075, 481078, 481079
 sea floor spreading, history, 250663
 seismic stratigraphy, boundary, 901336
 Southeast Pacific Basin, evolution, geologic, 350739
 stratigraphy
 basement, 481065
 crust, oceanic, 481075
 Paleocene interval, 481075
 rifting, 481078
 spreading, 481078
 transform boundary development, 481079
 structural evolution
 morphology, 481061
 tectonic history, 481062
 Tasman Basin S, borderland, 291135
 tholeiite
 geochemistry, 590681
 petrology, 590681
 Vema Fracture Zone, 780027
 transgression, 130489, 360880, 360887, 810650
 Africa
 climate, 411043
 volcanism, 411043
 Africa E, coast, 250682, 250683
 Albian sediment
 geochemistry, 480873
 mineralogy, 480873
 Algeria, continental shelf, 42B1181
 anoxia, global, evidence against, 801003
 Atlantic Ocean, margin, 481102, 481104, 481107
 Atlantic Ocean C, basin, 511507
 Atlantic Ocean N
 oxygen, 801009, 801010
 paleogeography, 121177
 Atlantic Ocean NE
 evolution, 411223, 411225, 411230, 411240
 stable isotope, 480483
 Atlantic Ocean NW
 sea floor spreading, 430872
 sedimentary evolution, 430811
 Atlantic Ocean S, Mesozoic, 751041
 Atlantic Ocean SW, basin, evolution, 360996, 360998, 360999
 Atlantic Ocean W, 500811
 biostratigraphy, Messinian salinity crisis, 42A1140
 Biscay, Bay of N, continental margin, 481042
 Biscay, Bay of, Albian sediments, 480874
 Black Sea, evolution, 42B1148
¹³C, 42B0620
 carbon isotope
 ¹³C, 720415
 continental shelf, 901401
 Neogene, 901402
 Pliocene, 901403
 regression, 720412
 carbonate
 ¹⁸O, 42B0620
 sedimentation, 47B0733
 Chatham Rise, seismic stratigraphy, 901327
 continental shelf, onshore geology, 400968, 400971, 400974, 400975
 Cretaceous sediments
 Domo Formation, 250736
 geologic history, 250736
 deposition, 480164
 bottom water, 250501
 carbonate, 790889
 Essaouira Basin, 500785
 history, 500752
 Falkland Plateau
 Antarctica, 711011
 geochemical relationships, 711011
 Falkland Plateau E, sedimentation, 330880, 360880, 360881, 360884, 360887
 geologic structure, Neogene, 870810
 geological, geophysical setting, 42A0895
 glauconite, Eocene, 810650
 Goban Spur, evolution, 801207, 801213
 Gondwana, dispersal, 260947
 Greenland, 810650
 Jurassic, 360880
 Jurassic sedimentation, facies evolution, 790444
 Jurassic-Cretaceous, carbonate, 790879, 790885
 limestone, Jurassic, 790474
 lithology, 130494
 Jurassic, 360226
 lithostratigraphy, Messinian salinity crisis, 42A1140
 major reflectors, Reflector E, 870746
 Mediterranean Sea E, 42B1202, 42B1220
 history, 42B1196, 42B1199, 42B1206, 42B1208, 42B1210, 42B1212, 42B1214, 42B1218
 Messinian environments
 missing Pliocene sediments, 42A1032
 salinity crisis, 42A1026
 Middle America Trench, Costa Rica, 840555
 Miocene-Pliocene isotope stratigraphy, 901403
 Moroccan Basin, margin, 500808, 500809, 500811, 500812, 500814, 500815, 500816
 Neogene formations, paleogeography, 42A0921
 organic geochemistry
 Guaymas Basin, 640943
 Holocene, 640950
 oxygen isotope
 ¹³C, 720415
 regression, 720412
 Pacific Ocean EC, geologic history, 090919, 090921
 Pacific Ocean SW, paleoceanography, 901503, 901511
 Paratethys, paleogeography, 42A0985, 42A0987, 42A0989
 Philippine Sea, Paleogene-Neogene, 310848, 310850
 postrift sediments, Turonian, 801176
 Quaternary isotopic record, 680462, 680464
 Red Sea, geology, 230814
 Rio Grande Rise, subsidence, 720964, 720969, 720971
 Rio Grande Rise N, regional setting, 250689, 250691, 250692, 250694, 250695, 250697, 250698, 250699
 Rockall Plateau, Paleogene sediments, 810659
 Rockall Rise, 810650
 volcanism, 810918
 Santos Plateau, origin, 390940, 390943
 sapropel, Cretaceous, 620897
 sea level, 621100
 seismic profiles, Jurassic, 360971
 seismic section, tectonics, 870746
 seismic stratigraphy
 erosion, 901334
 Tertiary, 901339
 tectonic, clay, 430811
 Tertiary, 801180
 volcanic rocks, submergence, 200699, 200700
see also sea level
 transition metals, 490897
 alteration, low-temperature, 511105
 Atlantic continental margin, interstitial water chemistry, 040427
 basalt, alteration, 511105
 basement, basalt, 511105
 chemical and mineral composition, 350471
 Japan Trench, sediments, 271220
 Mellish Seamount, post-Jurassic sedimentation, 620835
 metalliferous sediment, Eocene-Oligocene, 850798
 Pacific Ocean C, geochemistry, 850781
 tholeiite, alteration, 511105
 trace elements, 490897
 Transkei, Rio Grande Rise N, regional setting, 250693
 transport, 210041, 230486, 230488, 230489, 340618, 411101, 830298
 alkali metal, 670567
 analysis, grain-shape, 950583
 andesite, alkaline, modes, 360873
 Angola Basin
 geologic evolution, 750524
 turbidity current, 751034
 Antarctica, glaciation, 291039, 291041, 291042
 Arabian Sea

- Arabian Sea (Cont.)
 history, 231122
 sediment history, 230518
- Arabian Sea N, sediment history, 230504, 230505
- ash, 38S0105
 deposition, 38S0105
 distribution, 660692
 Middle America Trench, 660687, 660688
 tephra, 870707
- Atlantic Ocean
 geochemistry, 47B0437
 mineralogy, 47B0437
- Atlantic Ocean C
 hiatuses, 391106
 Sierra Leone Rise, 391123
 Walvis Seamount, 391128
- Atlantic Ocean N
 clay, 481096, 481097
 paleogeography, 121178
- Atlantic Ocean NE, evolution, 411230
- Atlantic Ocean NW
 microfacies, 440492
 regional aspects, 110958, 110960, 110967
- Atlantic Ocean S
 hiatuses, 391106
 Paleogene, 720985
 Quaternary sediments, 720833
 Sierra Leone Rise, 391123
 Walvis Seamount, 391128
- Atlantic Ocean SW, basin, evolution, 360996, 361005, 361006, 361008, 361009
- Australia W, suspended sediment, 270383
- autochthonous sediment, Neogene, 47A0666
- Aves Ridge, mechanism, 040666
- Bahama Islands, geology, 110889
- basalt
 detritus, 340619
 glass, 360873
 basin, desiccation, 42A1007
- bedding, graded
 deposition rate, 230486
 lamination, 230486
 suspension, 230486
- bedding structure, 230489
- Biscay, Bay of, margin, 801137
- Black Sea
 evolution, 42B1148
 organic geochemistry, 42B0763
 organic matter, 42B0683
- Blake Plateau, diatoms, 510851
- bottom current, 230488
- Brazil Basin
 Argentine Basin, 721001
 turbidity current, 040659
 burrow mottling, silt, 291052
- California, continental margin, 630758
- California, Gulf of, 650474
 mouth sediments, 650439
 sedimentation rate, 650474
- carbon, deep-sea sediments, 580745
- carbon, organic, 230489
 downslope, 870878
 hydrocarbon, aliphatic, 740732
 preservation, 711054
- carbonate, carbon, organic, 711054
- Central America, western continental slope, 840934, 840935
- chert
 geochemistry, 620721, 620730
 petrology, 620721, 620730
 turbidity current, 300437
- clay
 stratigraphy, 870640
 suspension, 291052
 clay minerals
- sources, 241058
 stratigraphy, 720383, 720388
 coarse fraction variation, current, 901210
- Colin Ridge, interstitial water, 680467, 680474
- continental margin sedimentation, turbidity current, 280754
- continental shelf, onshore geology, 400970
 contourites, Hatton Drift, 810699
 Costa Rica, continental margin, 840923
 cross-lamination, 230488
 crust, oceanic, heat flow into ocean, 830289
 current turbidity, 230487
 currents, 380168
 Miocene, 901234
- Daito Ridge, sandstone, 580609, 580611
- Davie Ridge, volcanism, 250539
- deposition, 230488, 230490, 47A0034
 continental rise, 47A0503
 current, 230488, 230490
 facies evolution, 300438
 models, 750838, 750840
- depositional history, bottom sediment, 960661
- detrital petrology, 280746
 bottom current, 280746
 ice rafting, 280746
 turbidity current, 280746
- detrital to biogenic sediment trends, current, 291075
- diagenesis, slope sediments, 840582
- distance, 870924
- dolomite, isotope geochemistry, 42A0556
- downslope, 920255
 Cape Bojador, 47A0801
 New Jersey, 950751, 950753, 950757, 950758
- East Pacific Rise
 hydrothermal precipitate, 920384
 sediments, 920371
- East Pacific Rise C, biostratigraphy, 920255
- eolian, 050586, 050608, 061132, 061135, 061137, 061138, 250031, 411050, 411054, 411091, 411101, 42A0036, 47A0695
- Australia W, 270397, 270398
 Cenozoic, 860581
- eolian dust, Indian Ocean E, 270397
- eolian sedimentation, 680410, 860601
 accumulation rate, 860601
 equilibrium grains, 860601
 quartz, 860601
- fan, submarine, 230489
- feldspathic sediment, deposition, 200361
- flow, 230490
 fluvial, 411101
 fluxoturbidites, 130392
- foraminiferal, 230489
- fossils, minerals, rare and unusual, 340618, 340619, 340623
- Geisha Guyots, 200684
- geochemical component grouping, trace elements, 801077
- geochemistry, 720438
 Guaymas Basin, 640708, 640711
 volcanism, 840616
- glacial, 360091, 360146
- glacial sedimentation
 mud, 280761
 Ohio, 280765
 water, 280757
 wind, 280757
- glass, volcanic
 modes, 360873, 360874
 sedimentary modes, 590605
- Goban Spur, 800420
 downslope, 800420
 upper slope, 800757
- grain size
 direction, 870621
 downslope, 920343
 turbidites, 870621
- Guatemala
 offshore sediment, 840621
 slope sediment, 840626
- Guatemala SW, continental slope sediments, 670587
- hemipelagic sediment, subaerial, 580674
- hydrocarbon, potential, 660545
- hydrocarbon, aliphatic
 dust, eolian, 720835
 land-derived materials, 720835
- hydrocarbon, C₁₅-C₂₆, alteration, 800974
- hydrocarbon, extractable, organic petrology, 580759, 630831, 630832, 630833, 640851
- hydrocarbon generation potential, organic matter, 660545, 660546
- hydrothermal activity, Neogene, 920616
- hydrothermal deposits, origin, 540418
- Indian Ocean E
 abyssal plain sediment, 271020
 direct sediment, 270387
 eolian, dust, 270397
 lithology, 271002
- Indian Ocean W
 regional aspects, 250754
 sedimentation rate, 240716
 terrigenous components, 240693
- terrigenous sediment, 241056
- Indus Fan, sand, 230485
- interstitial water, 590627
 sediment relationship, 870872
- intraslope basin, types, 960564
- intraslope basins, Pigmy Basin, 960591
- Japan, fore-arc area, 560554
- Japan Trench
 minerals, 870638
 silt, 561009
- kerogen, organic geochemistry, 640887, 640903
- Labrador Sea S
 basement, 121157
 terrigenous sediment, 121164
- laminae
 deposition, 230488
 eolian material, 230488
 origin, 230488
- land derivation, 230489
- Line Islands, turbulent movement, 330837
- lipid
 acyclic components, 610615
 geochemistry, 610628
 organic geochemistry, 640887, 640903
- lithologies, major
 chalk, 901480
 ooze, 901481
 ooze, calcareous, 901480
- lithologies, minor
 sand, skeletal, 901482
 tephra, vitric, 901483
- Lord Howe Rise C, Neogene evolution, 901449
- lower fan, lower fan lobe, 960469
- maceral, effect, 870881
- Madagascar Plateau, volcanic sediment, 250524
- magnetic anisotropy, 480909
 magnetic susceptibility, 480909, 480910, 480911, 480912, 480913, 480916, 480917
- Manihiki Plateau, deposition, 330888
- Mariana Trough, 600483
- Mediterranean Ridge, mineralogy, 130743
- Mediterranean Sea
 Hellenic Trough, 130668

- Mediterranean Sea (Cont.)
 Ionian Basin, 130668
 Mediterranean Sea E, history, 42B1214
 Messinian environments
 Lago Mare, 42A1020
 Mediterranean Sea, 42A1031
 Mexico S, continental margin, 660447
 Middle America Trench, 840757
 Costa Rica, 840554, 840555
 Guatemala, 670770, 670771, 690771
 Quaternary sediments, 670643
 sedimentology, 670770, 670771
 slope, 840757
 transect, 670611
 mineralogy
 effects, 650391
 Rockall Rise, 801033
 Miocene
 Antarctica, 720986
 Messinian salinity crisis, 720987
 Mississippi Fan
 Coriolis force, 960435
 Eastern Gulf Province, 960435
 Mississippi Canyon, 960435
 sand, 960425, 960533
 Mn, hydrothermal, accumulation, 920586
 modes, 360873
 mud, 870913
 Nankai Trough, 870913
 mud, terrigenous
 deposition, 250457
 organic geochemistry, 42B0752
 Nankai Trough
 Japan Trench, 870651
 turbidite, 870913
 nannofossils, 230489
 Natal Basin, sand, 250727
 Nazca Plate, South America, 340795, 340797
 Neogene formations, paleogeography,
 42A0920, 42A0921
 nepheloid layer, 061132, 070989, 220046,
 340122
 New Jersey, 950751, 950753, 950757, 950758
 continental slope, 950751, 950753,
 950757, 950758
 New Jersey Transect, 950807
 New Zealand, tectonics, 901234
 Nile Fan, mineralogy, 130743
 nitrogen, deep-sea sediments, 580745
 ooze, nannofossil, 230488
 ore, deposit, 540802
 organic chemistry, 870888
 turbidite, 870887
 organic facies origin, turbidity current,
 660545
 organic geochemistry, 640939, 640950, 720824
 distance correlation, 571298
 downslope, 571298
 Japan, 571299
 land-derived organic matter, 640950
 oxidizing water, 571297
 sediments, 750459, 750466
 turbidity current, 630948
 organic matter
 bimacerite, 870882
 Black Sea, 42B0683
 coal, 870882
 debris flow, 870882
 kerogen, 870881
 maceral, 870881
 matured kerogen-containing landmass,
 870882
 Nankai Trough, 870882
 pollen, 870882
 sources, 870882
 swamplike environment, 870882
 Tertiary-Albian, 711021
 vitrinite, 870882
 organic sediments, origin, 660545
 Pacific Ocean, sediments, 920379
 Pacific Ocean N, plate movement, 190899
 Pacific Ocean NE
 lithology, 050586, 050608
 regional aspects, 050635
 Pacific Ocean NW
 eolian, 860581, 860601
 quartz, 860581, 860585
 Pacific Ocean SE
 continental source, 920409
 eolian input, 920415
 land-derived components, 920409
 organic matter, 920409
 Pb isotope, 920399
 rare earth elements, 920388
 sediment composition, 920409
 Pacific Ocean SW
 modern sediment distribution, 901439
 paleoceanography, 901495, 901500, 901512
 Western Marginal Basin Province, 210903
 Pacific Ocean W, noncalcareous sediment,
 070989
 palygorskite
 eolian, 411091, 411101
 fluvial, 411101
 redeposition, 411101
 sepiolite, 411091
 palynological residue, crystals,
 crystalline debris, size, 640739
 palynomorphs, 42A0436
 Panama Basin, sediments, 690389, 690393
 particle, origin, 901227, 901230
 pebble characteristics, circumpolar, 280773
 permeability, downslope, 870843
 petroleum generating potential, organic
 matter, 571327
 petrology, 38S0105
 gravels, 960494
 igneous rocks, 38S0105
 sand, 960494
 Philippine Sea, lithology, 061132
 physical properties, clay, 061132
 phytolith, 901462
 planktonic, 230489
 Pleistocene age, 230489
 pollen, spores, 960644
 Cretaceous-Tertiary, 960644
 Porcupine Plain, Albian-Cenomanian, 800978
 previous work, periodic input, 711053
 pumice, source, 850821, 850822
 pyrolysis-GC results, discussion, 950668
 quartz
 accumulation rate, 860585
 eolian, 860581
 Quaternary isotopic record, sea level,
 680463
 Quaternary nannofossils, reworking,
 reworked coccoliths, 800768
 regional problems
 acoustic stratigraphy, 061303
 carbonate, 061302
 Rio Grande Rise, mineralogy, 720996
 Rockall Plateau, Tertiary deposits, 810669
 saltation, 230486
 San Blas Oceanic Formation, eolian, 090940
 sand, 230488
 Miocene, 47A0692
 sandstone, source, 840932
 sapropel, Mediterranean Sea E, 42A0436
 sediment
 downslope, 950255
 Oligocene-Quaternary, 840944
 sediment reworking, downslope, 920601,
 920604
 sedimentary facies, sedimentation model,
 870624
 sedimentary structure, study material,
 960532
 sedimentation, 230489
 seismic reflections, distribution, 660553
 sepiolite, 411091, 411101
 eolian, 411091, 411101
 fluvial, 411101
 redeposition, 411101
 shale, organic geochemistry, 42B0752
 shale, black, Cretaceous, 751019
 Shikoku Basin
 basalt, 580899
 clay minerals, 580673, 580674
 silt, sorting, 561009
 smectite, origin, 580674
 Somali Basin, sand, 250727
 South Fiji Basin, geology, 300621, 300624
 Southeast Pacific Basin, sediment
 distribution, 350200
 sterane, deposition, 960792
 stratigraphy
 Mariana Trough, 600469
 seismostratigraphy, 801123
 suspended flow, 230489, 230490
 suspension, 230486
 tephra
 Cenozoic, 901170
 source, 901153, 901169
 terrigenous sediment, 280939
 tetrapyrrole, geochemistry, 630815
 trace elements, transition elements, 920494
 traction, 130159
 transport, downslope, East Pacific Rise,
 920273
 triterpane, deposition, 960792
 tuff, modes, 360873
 turbidite
 generation, 670540, 670541, 670542
 mineral composition, 670540, 670541,
 670542
 turbidite, mud, Pliocene, Quaternary, 640518
 turbidites, 220046
 deposition, 250451
 turbidity current, 230486, 230488, 230489,
 270135
 Vema Fracture Zone, Pleistocene sediment,
 040662
 vermiculite, origin, 580673
 volcanoclastics, Eocene, 720957
 volcanism, 340793
 clay, 870638
 island arc, 340618
 Voring Plateau, minerals, 38S0041
 Walvis Ridge
 alkane, 751091
 alkanolic acid, 751093
 climatic, oceanographic evolution, 740679
 sediments, 751081, 751083
 water, 280220
 West Mariana Basin, glass, volcanic, 590605
 wind, 310280
 youngest fan lobe, seismic characteristics,
 960443
 transport, advective
 clay mineralogy, Orca Basin, 960711
 interstitial water, dissolved constituent,
 870865
 Pigmy Basin, interstitial water, 960711
 transport, convective
 Colon Ridge, interstitial water, 680473
 flux, 680474
 transport, diffusive
 Black Sea, interstitial water, 42B0643

- carbonate, secondary, vein, 580908
 clay mineralogy, Orca Basin, 960711
 interstitial water, 650446
 dissolved constituent, 870865
 Pigmy Basin, interstitial water, 960711
 transport, downslope
 Atlantic Ocean S, Paleogene, 720983
 benthic foraminifers, changes,
 Holocene-Pleistocene, 960633
 East Pacific Rise
 biostratigraphic zonation problems, 920273
 grain size, 920274
 higher energy environment, 920274
 oxygen minimum zone, 920274
 postdepositional reworking, 920273
 volcanic activity, 920274
 Pyrenean implications, outer shelf
 material, 960633
 transport, eolian
 ash
 redeposition, 561029
 sedimentation, 561029
 Atlantic Ocean NE, sediments, 941093, 941097
 Cape Bojador, hydrocarbon, extractable,
 47A0519
 carbon, organic, 740736
 Cenozoic sediments, lithology, mineralogy,
 geochemistry, 450330
 Costa Rica Rift, chalk, 690404
 Cretaceous to Cenozoic, 910469
 diagenesis, burial, pelite, 230426
 dust, 270027
 Indian Ocean E, 270397
 Indian Ocean W, terrigenous sediment, 241056
 Japan Trench
 ash, 561029
 minerals, 870638
 Mariana Trough, 600483
 mud, terrigenous, source areas, 250457
 organic matter, 720837
 organic petrology, organic matter, source,
 47A0519
 Pacific Ocean NW, quartz, 860581
 Pacific Ocean SE
 effectiveness, 920409
 trade winds, 920331
 Pacific Ocean SW, 910469
 Pacific Plate, 210904
 Panama Basin, sediments, 690389
 Philippine Sea, Paleogene-Neogene, 310848
 Porcupine Plain, Albian-Cenomanian, 800978
 quartz, Cenozoic, 860581
 sediments
 Atlantic Ocean N, 941093
 Atlantic Ocean NE, 941097
 transport, lateral
 Atlantic Ocean S, Paleogene, 720983
 basalt, glass, 600606
 Challenger Plateau, Quaternary, 901420
 organic facies origin, Middle America
 Trench, 660545
 organic sediments, origin, 660545
 Pacific Ocean SE, Pb isotope, 920399
 transport, water
 East Pacific Rise, carbonate-free material,
 920373
 hydrothermal precipitate, manganese, 920376
 hydrothermal sediment, composition, 920608
 iron, differentiation, 920376
 Pacific Ocean, sediments, 920381
 Panama Basin, sediments, 690389
 Transverse Ranges, 641281, 641293
 Transylvania, 42A0987
 Paratethys, paleogeography, 42A0987, 42A0989
 Trapeza Formation
 lithology, 42A0238
 marl, 42A0909, 42A0912
 Neogene formations, paleogeography,
 42A0909, 42A0912, 42A0913, 42A0919
 Trasimeno Lake, Messinian environments, Lago
 Mare, 42A1023
 Tremblor Formation, 180701
 tremolite
 amphiboles, chemical studies, 150963
 Ganges Fan, sand, 220711
 pyroxene, chemical studies, 150963
 Rockall Plateau, Paleogene sediments, 810653
 Wharton Basin, sand, 220711
 tremolite-actinolite
 Costa Rica Rift Zone, basalt, 830235
 polymict breccia, clast, 600649
 Rockall Plateau, Paleogene sediments, 810655
 Trento Plateau, 760879
 anoxia, global, evidence against, 801002
 deposition, 790885
 Jurassic-Cretaceous, carbonate, 790885
 Tres Marias Escarpment, 630387, 641282
 Tres Marias, Mexico, 630377, 630421, 630455,
 630488, 630539, 630626, 630632, 630922,
 630957, 640032, 640574, 640577, 641108,
 641109, 641114, 641279, 641284, 641285,
 641286, 641292
 crust, isochrons, 630921
 fracture zone, 641283
 mainland, 641112
 Rivera Plate, 630519
 Trevelyan Escarpment, 480035, 480065, 480289,
 480292, 800005, 801162, 801210
 Biscay, Bay of N, continental margin,
 481028, 481038, 481041
 Biscay, Bay of, margin, 801137
 continental margin, structural evolution,
 481045, 481047, 481053, 481059
 Goban Spur
 continental margin, 801162
 evolution, 801210
 Meriadzek, 480291, 800423, 800426, 800427
 Biscay, Bay of, 481015, 481016, 481017,
 481018, 481019, 481020, 481021, 481022,
 481023
 seismic refraction study, 481018
 Trevelyan Plateau, continental margin,
 structural evolution, 481047
 Triangular Nunatales, 810918
 Triangulos reefs, 100025
 tridymite
 Antarctica, mineralogy, 350749, 350750,
 350752
 Argentine Basin, mineralogy, 361019,
 361020, 361022, 361026, 361027
 Atlantic Ocean N, clay, 481094, 481095
 biogenic sediment, diagenesis, 300454,
 300455, 300459
 burrow mottling, silt, 291054, 291055
 chert, 320430
 geochemistry, 620713
 Pacific Ocean W, 070994
 petrology, 620713
 clay
 silicification, 291054
 skeleton condition, 291055
 clay minerals, mineralogy, 140732
 clay, terrigenous, 291148
 on-land equivalents, 291062
 deposition
 chalk, nannofossil, 250497
 ooze, nannofossil, 250497
 geochemistry, Cretaceous and Cenozoic
 sediments, 480716
 Indian Ocean E, abyssal plain sediment,
 271007, 271008
 Indian Ocean W
 interstitial water, 250370
 mineralogy, 170517, 250846, 250848
 regional aspects, 250758
 interstitial water, 090845
 lithology, 210109, 210201, 210336, 210337,
 210375, 230387, 250266, 250294, 260299,
 260331, 290022, 290048, 290230, 310052,
 310443, 330112, 350068, 360095, 360149
 Paleocene red sediments, 120166
 Mariana Trench, petrography, 600720
 Mid-Pacific Mountains W, Aptian sediments,
 620908
 mineralogy, 210725, 210726, 210727, 330541,
 330542, 330543
 Cretaceous and Cenozoic sediments, 480716
 mineral, secondary, 600718
 Mozambique Ridge, volcanic sediment, 250529
 Natal Basin, volcanic sediment, 250526
 Ninetyeast Ridge, dolomite, 220482
 Pacific Ocean, mineralogy, 310886, 310895
 Pacific Ocean C, mineralogy, 330541,
 330542, 330543
 Pacific Ocean EC, stratigraphy, 090934
 Pacific Ocean NW, mineralogy, 320548, 320549
 Pacific Ocean W
 mineralogy, 200324
 volcanic rocks, 210490
 porcellanite, 320430
 Rio Grande Rise, minor sediment components,
 721015
 sediment-interstitial water interaction,
 silica, 571273
 sedimentation, Line Islands, 090934
 silica
 diagenesis, 410893, 410894
 mineralogy, 140732
 silt, terrigenous, 291148
 on-land equivalents, 291062
 Tasman Sea, mineralogy, 300606
 volcanic components, composition of
 volcanic material, 210490
 Trinidad, 020422, 040215, 040592, 040593,
 091063, 100388, 110222, 110545, 110570,
 120424, 120769, 140491, 150770, 151084,
 151100, 151101, 151103, 151105, 180583,
 180584, 210277, 210541, 210558, 220124,
 240969, 260774, 270589, 270667, 330362,
 330391, 390657, 400681, 400729, 400784,
 410661, 720757, 730459, 780385, 800614,
 931358, 950360
 Cretaceous foraminifers, North America,
 440671
 diagenesis, 020422
 Lizard Springs Formation, 360498, 760550
 Miocene, 590557
 mud, diapirism, 780034
 south, 140391
 Trinidad Canyon, 050536
 Trinity Peninsula Series, 350378
 Trinkitat, 230681
 Trionto River, 100645
 Tripoli, 131207, 131216
 Messinian environments
 Messinian fossils, 42A1016
 salinity crisis, 42A1005
 Tripoli Formation, 131063, 131409, 730722,
 730723
 evaporites, Miocene, 131236
 Tripolitania, 131247
 Tristan da Cunha, 170443, 170445, 350355,
 390525, 390530, 390533, 400388, 580856,
 620951, 620953, 620956, 720008, 720010,
 720012, 720189, 720457, 720459, 720461,
 720476, 720960, 730009, 730599, 740014,
 740726, 740739, 740744, 740756, 740761,
 740779, 740781, 740882, 740884, 750483,

- 750517, 751101, 751103
 Angola Basin, petrochemistry, 751102
 Atlantic Ocean S
 Rio Grande Rise, 391127
 Walvis Seamount, 391127
 hot spot, 720008, 720974
 igneous rocks, geochemistry, 620958
 Peter I Island, geology, 350355
 petrology
 basalt, 740755
 regional geochemical comparison, 740759
 regional tectonics
 Eocene activity, 720962
 hot spot, 720960
 swell push forces, 720961
 Rio Grande Rise
 basement, volcanic, 720955
 subsidence, 720974
 trachyte, geochemistry, 620951, 620956
 Walvis Ridge, basalt, 740749, 740753, 740755, 740759
 triterpane, 960789
 Angola Basin, organic geochemistry, 750990
 Atlantic Ocean N, lipid, 480969
 biomarker distribution, 960789
 common source, 960789
 diagenesis, 960792
 distribution, 960789
 hopane, 960789
 hydrocarbon, geochemistry, 960792
 hydrocarbon, aliphatic, cyclic components, 660558
 hydrocarbon, extractable, organic petrology, 630822
 hydrocarbon, immature, diagenetic history, 960792
 hydrocarbon, nonaromatic, composition, 950655
 hydrocarbon, polycyclic, application, 960789
 hydrocarbon, triterpanoid acids, 241160, 241163
 immature fossil source indication, 960789
in situ distribution, 960792
 kerogen
 cyclic molecules, 711008
 organic geochemistry, 640887, 640897, 640899
 limestone, Cretaceous, 620884
 lipid, 610613
 diagenesis, 630771
 hydrocarbon, aliphatic, 640914
 organic geochemistry, 640887, 640897, 640899
 paleoenvironmental assessment, 660567
 mudstone, Eocene, 480936, 480938
 organic geochemistry
 molecular markers, 630844
 specific organic geochemical changes, 960692
 organic matter, source, 380805
 Pigmy Basin, biological markers, 960785
 "preformed" distribution, 960792
 preliminary organic analyses, 160581, 170562, 170563, 170568
 Rockall Plateau, sediments, 810813, 810819
 shale, 960792
 shale, black, Cretaceous, 410868, 480936, 480938
 sterane, 960789, 960792
 distribution, 960789
 transport, deposition, 960792
 unresolved envelope feature, 960792
 unsaturated biological precursor compounds, 960789
 Vigo Seamount, Cretaceous sediments, 47B0569
 Walvis Ridge, sediments, 751077
 weathered fossil source, 960792
 triterpane, pentacyclic
 Black Sea, organic geochemistry, 42B0757, 42B0763
 Cariaco Trench, organic geochemistry, 200929
 organic geochemistry, 200905
 preliminary organic analyses, 100627
 triterpane, saturated
 hydrocarbon, extractable, organic petrology, 630823, 630827, 640846, 640850
 organic geochemistry, hydrocarbon, nonaromatic, 271293, 271296
 triterpane, tetracyclic
 Black Sea, organic geochemistry, 42B0757
 preliminary organic analyses, structures, 111016
 triterpanoic acids
 Atlantic Ocean N, lipid, 480969, 500660
 hydrocarbon, triterpanoid acids, 241160
 triterpene
 Atlantic Ocean N, lipid, 480969
 Black Sea, organic geochemistry, 42B0758, 42B0763
 Guaymas Basin, C₂₈, 790791
 Hess Rise, 790791
 Albian sediment, 620941
 hydrocarbon, extractable, organic petrology, 630822, 630827, 640842, 640846, 640851
 kerogen, organic geochemistry, 640888
 lipid
 diagenesis, 640917
 hydrocarbon, aliphatic, 571372, 640914
 hydrocarbon, cyclic, 630766
 organic geochemistry, 640888
 paleoenvironment, 640916, 660567
 Mazagan Escarpment, 790791, 790792, 790794, 790802, 790813, 790816, 790820, 790822
 organic geochemistry, 271295
 preliminary organic analyses, 160576
 triterpenoic acids, Atlantic Ocean N, lipid, 480969, 500660
 triterpenoid
 Atlantic Ocean N, lipid, 500658
 diagenesis, aromatization, 660568
 Hess Rise, Albian sediment, 620940
 hydrocarbon, extractable, organic petrology, 640838, 640846
 kerogen, organic geochemistry, 640887, 640888, 640890
 laminated/nonlaminated sediments, organic geochemistry, 640922
 limestone, Albian, 620929, 620934
 lipid
 geochemistry, 610628
 hydrocarbon, aromatic, 571373
 molecular markers, 860672
 organic geochemistry, 640887, 640888, 640890
 paleoenvironment, 660567
 Mesozoic sediments, organic geochemistry, 500639
 mud, terrigenous, organic geochemistry, 42B0753
 organic geochemistry
 Baja California, 640942
 Cabo San Lucas, 640879
 Guaymas Basin, 640942, 640944
 gulf mouth, 640879
 molecular markers, 630840, 630844
 Pacific Ocean NW, lipid, 860672
 Patton Escarpment, Monterey shale, 630945
 preliminary organic analyses, compounds, 160585, 170568, 170576, 170577
 San Miguel Island, Monterey shale, 630945
 shale
 geochemistry, 430645
 organic geochemistry, 42B0753
 shale, black, Cretaceous, 751021, 751024, 751026
 Walvis Ridge, sediments, 751073
 triterpenoid acids
 Atlantic Ocean N, lipid, 500653
 cyclic, aromatic components, 660564
 Hess Rise, Albian sediment, 620940
 organic geochemistry, Cabo San Lucas, 640879
 preliminary organic analyses, 100630
 Sigsbee Escarpment, organic analyses, 100630
 triterpenoid, aromatic
 Hess Rise, Albian sediment, 620940
 hydrocarbon, extractable, organic petrology, 640842
 lipid, hydrocarbon, aromatic, 571372
 triterpenoid, autochthonous
 Hess Rise, Albian sediment, 620940
 organic geochemistry, Cabo San Lucas, 640879
 triterpenol
 alcohol, cyclic components, 660562
 lipid, paleoenvironmental assessment, 660567
 triterpenone
 ketone, cyclic components, 660561
 lipid, paleoenvironmental assessment, 660567
 tritium
 Costa Rica Rift
 alkali, 690487
 basalt, 690477, 690479
 waters, 690485
 formation water, origin, 690492
 troctolite
 petrography, 600581
 gabbro, olivine, 600582
 plutonic rock, 370684
 petrochemistry, 370684
 Tromelin, 250667
 sea floor spreading, history, 250667
 Troms, 810919
 Tromsoryggen Formation, 38S0106
 trondhjemite, 460283
 Bermuda Rise, crystallization, 511046
 glass, droplets, 460283, 460286
 La Desirade Island, 780084, 780089, 780093
 Troodos Massif, 130231, 42A0219, 42A0220, 42A0945, 42B1186, 42B1216, 760876
 boninite, mineralogy, 600691
 California, Gulf of
 basalt, 650530, 650664
 Guaymas Basin, 650616
 crystal morphology, boninite, 600683
 evaporites, 42B1186
 Florence Rise, 42A0920
 hydrothermal deposits, origin, 540416
 lava, pillow, 650616
 major element, argillaceous sediments, 580721
 Mediterranean Sea E, history, 42B1216
 Neogene formations, paleogeography, 42A0903, 42A0904, 42A0908, 42A0911, 42A0914, 42A0920, 42A0921
 Pacific Ocean E, ferrobasalt, 540845
 Tethys, Mediterranean Sea, 42A0945, 42A0947
 Troodos ophiolite
 basement, calcite, 920502
 K/Ar age, celadonite, 920511
⁸⁶Sr/⁸⁷Sr ratio, celadonite, 920502
 Trubi Formation, 130692, 131006, 131027, 131206, 131219, 131235, 131236, 131238, 131344, 42A0779
 evaporites, Miocene, 131236, 131238
 marl, 130412, 130424, 131061
 Messinian environments, salinity crisis, 42A1030
 Trucial Coast. *See* United Arab Emirates

- Truk Islands, 200074, 42A0648
 Trullin Inlier, Neogene formations, paleogeography, 42A0904
 Tsauchab River, 750766
 Tsiribihina River, 250185
 Tsoumerka Mountains, 131117
 Tsubetsu Group, 190824
 Tsuchima Current, Pleistocene, Pliocene foraminifers, 310695, 310699
 Tuak Anticlinorium, 42B0475
 Tuamotu Archipelago, 090022, 090817, 330005, 330011, 330302, 330318, 330563, 330731, 330735, 330915, 330922, 38S0498, 621104, 920026
 atolls, 330683
 Hiva Oa, 160662
 Line Islands, 550005
 seamount chain, 330301
 tectonics, 330731, 330735
see also Pacific
 Line Islands C
 lithology, 330318
 Pacific Ocean EC, geologic history, 090917
 ridges, 080018
 seamounts, 920217
 synthesis, regional, 330915
 turbidites, 090040
 Tuamotu Ridge, 080018, 170052, 330302, 330391, 330467, 330682, 340163, 340170, 610450, 610451, 621073
 physical properties, 330695
 Tubuai Islands, 920026
 Tucker Cove Formation, 290021, 290057
 lithology, 290048
 tuff, 130768, 210523, 260553, 330753, 360871, 360873, 38S0114, 810634, 810640, 810649
 Africa
 climate, 411034
 volcanism, 411034
 Africa E, coast, 250681
 Africa SE, volcanism, 250532
 Algeria, continental shelf, 42B1183
 alteration
 products, 810735, 810739
 remnant arc debris, 590737, 590739
 altered rocks, 590735
 basalt, 590735
 ash, Valencia Trough, 130768
 ash flow, 210525, 210530
 Atlantic Ocean
 Cenozoic sediments, 140862
 Cretaceous sediment, 140862
 Atlantic Ocean C, Walvis Seamount, 391127, 391128
 Atlantic Ocean N
 carbonate, 801063
 Paleozoic, 801109
 Atlantic Ocean NW, lithology, 110905
 Atlantic Ocean S
 history, 740723
 Walvis Seamount, 391127, 391128
 authigenic minerals, mudstone, 600462
 Baja California, Neogene, 630631
 basalt, 340220, 810747
 geochemistry, 590779, 590788, 590794
 glass, 360873
 pyroclastic rock, 810750
 pyroxene, 590693, 590694, 590699
 basement, petrology, 220423
 biogenic sediment, diagenesis, 300446
 Black Sea, sediments, 42B0375
 breccia, 561091
 breccia, volcanic, Neogene, 630640, 630641, 630642
 California S, Neogene, 630631
 Caroline Abyssal Plain, chalk, 200069, 200071, 200074
 clay minerals, 38S0017, 38S0021, 38S0026, 38S0029
 Cretaceous and Cenozoic, 480711
 Pacific Ocean NW, 200338
 claystone, basalt, 550710
 clinopyroxene, Walvis Ridge, 390526, 390527
 crystallization, Walvis Ridge, 390527
 Emperor Seamounts, mineralogy, 550466
 exotic pebbles, breccia, 561090
 Faroe Islands, 810919
 feldspathic sediment, abyssal, 200359
 geochemistry
 Hatton Ridge, 810739
 Rockall Plateau, 810735
 trace elements, 260563
 glass, volcanic, 360873, 360875
 Goban Spur, evolution, 801209
 Guatemala, offshore sediment, 840620
 hyaloclastic, 38S0114, 38S0117
 Indian Ocean W, regional aspects, 250758
 interstitial water, 590628
 isotopic study, 590631
 carbonate, 590634
 carbonate, disseminated, 590637
 hydrothermal alteration, 590635, 590637
 interstitial water, 590637
 Japan Trench
 ash, 561028
 breccia, 561091
 K/Ar age, 360871, 360873
 Atlantic Ocean S, 390547
 Brazil Basin, 390545
 Walvis Seamount, 390525
 lapilli, 210523, 810633, 810634, 810635, 810639
 celadonite, 810638
 lithology, 210523
 Lord Howe Rise, 210523, 210535
 mineral composition, 210524
 lapilli tuff, vitric, 260553
 geochemistry, 260560
 petrography, 260554, 260557, 260559
 lava, isotope geochemistry, 810778
 lithology, 060044, 060297, 060298, 060559, 070029, 070031, 070612, 210060, 220122, 220216, 260160, 300072, 310194, 310197, 310443, 38S0017, 38S0021, 38S0026, 38S0029, 390377, 390381, 42B0137, 480176, 480179
 chert, 170153
 clast, 310194
 glass, 310194
 grading, 310194
 lapilli, 220122, 310194
 limestone, 170153
 minor sediment types, 47A0028
 phenocrysts, 310194
 plagioclase, 310194
 pyroxene, 310194
 vug, 310194
 zeolite, 310194
 Lord Howe Rise, rhyolite, 210523, 210524
 Madagascar Plateau, volcanic sediment, 250524
 margin, 810892, 810896
 Mariana Trough, acoustic properties, 600803
 microlite, Walvis Ridge, 390527
 Middle America Trench, 660687
 mineralogy
 chemistry, 480780
 palagonite, 38S0119
 Mozambique Ridge, volcanic sediment, 250529
 Neogene
 ash fall, 630639
 Baja California, 630631
 bedding styles, 630633
 California S, 630631
 chemistry, 630651, 630652
 clay minerals, 630646, 630647, 630649, 630650
 deposition, 630636
 diagenesis, 630652, 630653, 630654, 630655
 eruption, 630636
 petrography, 630639, 630640, 630641, 630642, 630643, 630644, 630645
 potassium feldspar, 630650
 reworking, 630636
 scoria, 630636
 sedimentary structure, 630633
 stratigraphy, 630632
 trace fossils, 630636
 turbidity current, 630636
 zeolite, 630650, 630651
 Neogene formations, paleogeography, 42A0912
 Ninetyeast Ridge, 220824
 organic geochemistry
 kerogen, 630849
 lipid, 630839
 porcellanite, 630837
 oxides, Walvis Ridge, 390527
 Pacific Ocean NW, geochemical history, 620799
 Pacific Ocean W, 210486
 equatorial, 071161
 Pacific Plate, volcanic components, 210483
 petrology, Walvis Seamount, 390525
 phenocryst, Walvis Ridge, 390527
 Philippine Sea
 lithology, 061248
 sedimentary structure, 310487
 physical properties, sound velocity, 061248
 potassium-argon age, Walvis Ridge, 390530, 390534
 pyroclastic, Lesser Antilles, 780099
 pyroxene, Walvis Ridge, 390526
 rare earth elements
 age, 590667
 distribution, 590667
 petrochemistry, 590667
 trace elements, 590653, 590654, 590655, 590656, 590657, 590658, 590659, 590660, 590661, 590663, 590664, 590667
 Red Sea, geology, 230816
 refractive index, 360871, 360873
 rhyolite, 210523, 210525, 210530
 Rio Grande Rise N, regional setting, 250694
 Rockall Plateau, volcanogenic sediments, 480780
 Rockall Rise, volcanism, 810917
 Rockall Rise SW, structure, 481063, 481078, 481083
 Sea of Japan, sedimentary structure, 310487
 seamount, Walvis Ridge, 390525, 390530, 390534
 sediment, lithology, 38S0119
 sediments, Kings Trough, 941251, 941258, 941259
 siderite, hydrothermal alteration, 020419
 source, 360873, 360874
 South Fiji Basin, geology, 300625
 Southern California Borderland, volcanic rocks, 630951
 stratigraphy
 Eocene, 481063
 Paleocene-pre-Oligocene interval, 481078
 sea floor spreading, 481083
 tholeiite
 geochemistry, 590682, 590687
 major element, 590707
 petrology, 590682, 590687
 TiO₂, 810640

- Tohoku Arc, geology, 870714
 transport, modes, 360873
 Valencia Trough, 130768
 volcanic sediment
 Oligocene-Eocene, 600455
 petrography, 480773
 Pleistocene, 600455
 volcanics, 210523, 210525, 210530
 Valencia Trough, 130768
 volcanism
 ash, 561028
 Eocene-Oligocene, 901185
 Madagascar, 250532
 volcanism, pyroclastic, Paleogene, 810634, 810640
 Walvis Ridge, 390525, 390530
 chemistry, 390526
 mineralogy, 390526, 390527, 390528
 petrography, 390526, 390530
 potassium-argon age, 390530, 390534
 trachyte, 390526, 390530, 390533
 West Mariana Basin, metallogenesis, 590649, 590650
 tuff, altered
 breccia, volcanic, 630645
 clay, palygorskite sepiolite, 020417
 feldspar, 020417
 glass, fresh, 020417
 mineralogy, Mariana Trench, 600443
 rare earth elements, tuff, 590659
 sedimentology, volcanic sediments, 020415
 tuff, palagonitic, alteration, 020418
 zeolite, 020417
 tuff, andesitic
 isotopic study, 590631
 interstitial water, 590636
 organic geochemistry, Miocene, 630837
 petrology, igneous rocks, 130768
 Philippine Sea, Paleogene-Neogene, 310850
 Valencia Trough, 130768
 plagioclase, 130768
 tuff, aquagene
 breccia, Line Islands, 330753
 seamount chain, volcanism, 220779
 seamounts, 330779, 330780, 330783
 tuff, ash-flow
 Atlantic Ocean S, Walvis Seamount, 391127
 Lord Howe Rise, rhyolite, 210525, 210535
 tuff, basalt
 mineralogy, 38S0118
 Mozambique Ridge, volcanic sediment, 250529
 volcanism
 Madagascar Plateau, 250539
 Mozambique Ridge, 250540
 tuff, carbonate
 clay minerals, mineralogy, 140729
 isotopic study, 590631
 sapropel, Cretaceous, 620895
 silica, mineralogy, 140729
 tuff, green, 560473, 560482
³⁹Ar/⁴⁰Ar age, boulders, 571282
 Philippines, genesis, 310875
 Tohoku Arc, geology, 870714
 tuff, palagonitic
 ash, alteration, 020418
 Atlantic Ocean N, Mediterranean Sea, 110810
 clay, palygorskite sepiolite, redistribution, 020417
 dolomite, alteration, 020419
 tuff, pumiceous
 breccia, volcanic, Neogene, 630649, 630650, 630651, 630652
 lithology, rhyolitic, 210202
 organic geochemistry
 diabase, 630837
 kerogen, 630848
 Pacific Ocean SW, Mesozoic regional evolution, 210902
 volcanic sediment, chemistry, 480779
 tuff, trachytic
 Atlantic Ocean S, 390493
 Walvis Seamount, 391127
 basalt, physical properties, 390493
 tuff, vitric, 561091
 alteration, products, 810735
 basalt
 geochemistry, 590757, 590781
 petrology, 590670, 590672
 breccia, volcanic, Neogene, 630650, 630651, 630652
 conglomerate, clast, gravel, 300431
 exotic pebbles, 561090
 geochemistry, Rockall Plateau, 810735
 Japan Trench, 561091
 Kyushu-Palau Ridge, 590519
 lithology, 210037, 300071, 480175, 480178
 chert nodule, 300241
 Kapingamarangi Rise, 300243
 limestone, radiolarian, 300241
 petrography, 260161
 San Blas Oceanic Formation, 090617
 volcanogenic sediment, 170267
 Madagascar Plateau, volcanic sediment, 250524
 Mariana Islands, 600615
 Mariana Trough, gabbro, 600579
 mineralogy, Mariana Trough, 600440
 organic geochemistry, 590648
 kerogen, 630851
 oxides, major, 810754
 Pacific Ocean NE, cruise synthesis, 151101
 Pacific Ocean SW, Mesozoic regional evolution, 210900
 Pacific Ocean W, volcanic rocks, 210481, 210483
 petrology, igneous rocks, 130768
 Philippine Sea
 Mariana Islands, 600432
 Philippine Sea W, 600429
 West Mariana Basin, 600429
 West Mariana Ridge, 600430
 plant organic matter, 380820
 carbon, organic, 380815
 pyroclastics, petrography, 260554, 260555, 260557, 260559
 rare earth elements, 590653
 tuff, 590653, 590654, 590655
 South Fiji Basin, volcanic components, 210483
 Southern California Borderland, volcanic rocks, 630951
 southwest regional unconformities, 210902
 tuff, Neogene, 630650, 630651, 630652
 Valencia Trough
 biotite, 130768
 olivine, 130768
 plagioclase, 130768
 volcanic components, 210481, 210483
 volcanism, Neogene, 47A0707
 West Mariana Basin, 590525
 tuff, zeolitic
 Caroline Abyssal Plain, chalk, 200071
 East Mariana Basin, sedimentary history, 890654
 tuffite
 Japan Trench, sediments, 271225, 571251, 571253
 mineralogy, 38S0115, 38S0116
 sediment history, 38S0119
 Red Sea, sediment history, 230861
 Tufts Plain, 180979, 180996
 bathymetry, 180987
 geologic setting
 Astoria Fan, 180980
 continental slope, 180980
 gravity anomaly, 180987, 180989
 magnetic anomaly, 180983, 180996
 recent activity, 180983
 Scott Island Fracture Zone, 180987
 sea floor spreading, 180987
 structure, 180980
 Cascadia Basin, 180980
 continental shelf, 180982
 continental slope, 180981
 Tula Fracture Zone, 350025, 350197, 350220, 350224, 350268, 350273, 350276, 350285, 350727, 350730, 350737
 Pacific continental margin, geomorphology, 350285
 Southeast Pacific Basin
 evolution, geologic, 350727, 350730, 350737, 350738
 sediment distribution, 350197, 350198, 350199, 350200, 350205, 350220, 350224
 Tulanshan Formation, Paleogene-Neogene, 310848
 Tumrok Ridge, 550851, 550852, 550853
 tungsten, geochemistry, Cenozoic sediments, 42B0591
 Tunguska, 730758
 Tunisia, 110611, 130691, 130739, 131246, 131248, 150505, 210654, 400746, 42A0596, 42A0969, 730774, 760870, 760871, 760873
 Algeria, continental shelf, 42B1181
 continental margin, 131422
 El Kef, Tunisia, 740472
 Sicily, Italy, 760874
 strait, 131055
 Turayf, Red Sea, geology, 230816
 turbidite
 basement, dioritic, oldest-known, 660729
 Mexico, magmatic episodes, 660728
 turbidite cycle, 42A0231, 410965, 410973
 Nankai Trough, turbidites, 870916
 turbidites, 010523, 010570, 040023, 040098, 040325, 040659, 040660, 040662, 050109, 050170, 050423, 060643, 071009, 071172, 090040, 100009, 100011, 100049, 100075, 100091, 100122, 100301, 100699, 100706, 100711, 110014, 110015, 110317, 110805, 110806, 110810, 110811, 110812, 110814, 110817, 110818, 110819, 110912, 110913, 110939, 120047, 120260, 120261, 120778, 120907, 120909, 130064, 130065, 130122, 130231, 130266, 130369, 130666, 130667, 130668, 130673, 130675, 130686, 130692, 130717, 131027, 131028, 131028, 131031, 131033, 131034, 131036, 131038, 131424, 140261, 140859, 150412, 170052, 170059, 170152, 170414, 180034, 180102, 180241, 180409, 180870, 180908, 190629, 190889, 190891, 200066, 200067, 200074, 200338, 210505, 220046, 220199, 220330, 220492, 220718, 240291, 250265, 250441, 250443, 250445, 250446, 250447, 250458, 270293, 300143, 300424, 300427, 300428, 300429, 300430, 300433, 310133, 310287, 310320, 310354, 310490, 310494, 310511, 310615, 310618, 310619, 310621, 320325, 330034, 350164, 360262, 380027, 38S0119, 38S0195, 38S0202, 38S0205, 38S0207, 38S0214, 38S0216, 38S0224, 38S0225, 38S0235, 38S0241, 38S0242, 38S0251, 38S0259, 38S0261, 38S0262, 38S0264, 38S0266, 38S0267, 38S0268, 38S0285, 38S0041, 38S0067, 38S0116, 38S0942, 390105, 400071, 400072, 400197, 400234, 400460, 400536, 400537, 400989, 400995, 401030, 410497, 410984, 411002, 411004, 411121,

- 411124, 411131, 42B0130, 42A0181, 42A0208, 42A0239, 42A0241, 42A0261, 42B0427, 42B0428, 42B0433, 42B0435, 42B0445, 42B0449, 42A0597, 430208, 430331, 430336, 430395, 430396, 430397, 430398, 430399, 430400, 430407, 430438, 430464, 430472, 430473, 440033, 440162, 440171, 440201, 440815, 440974, 440978, 47B0383, 47B0385, 47B0388, 47B0416, 47B0452, 47A0603, 47A0609, 47A0610, 47A0612, 47A0613, 47B0665, 47B0666, 47A0707, 47B0035, 47B0038, 47B0046, 47B0052, 47B0053, 47B0373, 480068, 480877, 480878, 480892, 490102, 490104, 490115, 490123, 490163, 490167, 490168, 490342, 490425, 500127, 500128, 500129, 500134, 500138, 500143, 500172, 500715, 500716, 500717, 500725, 500733, 500734, 500745, 500746, 670522, 670540, 740649, 750785, 750790, 750794, 751214, 890371
- accretionary prism
trench-fill, 870950
velocity distribution, 870948
- accumulation rate, sea level, 960598
- acoustic basement, 751201
- Africa, continental margin NW, 410965, 410967, 410973, 410984
- Africa E, coast, 250680
- Africa NW
continental margin, 411123, 411124, 411131
sand, 410497
- Alaska, Gulf of, turbidite, silt, 180847, 180848, 180857, 180858, 180859
- alteration, diagenetic, organic matter, 571305
- amphiboles, chemical studies, 150963, 150967
- Angola Basin, 400537, 750785, 751214
biostratigraphy, 750449, 750450
Cretaceous, 751017
geologic evolution, 750515, 750522
sedimentary structure, 400536
- anisotropy, pelitic deposits, 960816
- apron, 310144
- Arabian Sea
geology, 231119
sediment history, 230512, 230513, 230516, 230518
- Arabian Sea N, sediment history, 230506
- ash, Middle America Trench, 660687
- Atlantic continental margin
interstitial water chemistry, 170515
mineralogy, 050441, 050442, 050443, 121130, 121136, 121137
- Atlantic Ocean
grain size, 040295
margin, 481103
- Atlantic Ocean C, basin, 511505
- Atlantic Ocean N
grain size, 020307
Mediterranean Sea, 110806, 110810, 110812, 110814, 110818
oxygen, 801010
sedimentation, 120907, 120909
sediments, 760672, 760675
- Atlantic Ocean NC, Mesozoic sequences, 411004, 411007
- Atlantic Ocean NE, evolution, 411218, 411228, 411230, 411232, 411234, 411237, 411239, 411243
- Atlantic Ocean NW
acoustic stratigraphy, 430832
lithology, 110912, 110913, 110939
regional aspects, 110957, 110970, 110971, 110972
sedimentary evolution, 430815
sedimentation, 440974, 440978
- Atlantic Ocean S, mineralogy, 040325, 040326
- Atlantic Ocean SW, basin, evolution, 361008
- Atlantic Ocean W
Brazil Basin, 040660
Demerara Plain, 040662
mineralogy, 040325, 040326
Vema Fracture Zone, 040662
- Aves Ridge, 040666
- Bahama Islands, geology, 110877, 110887
- Barbados Ridge, 780603, 780618, 780619
- barite, authigenic, 410915
- basal contact, 300428, 300429
- bedding, graded, 250447, 300429
deposition, 250449
fauna, 250443
garnet, 250444
glass, volcanic, 250444
glauconite, 250444
hornblende, 250444
plagioclase, 250444
Pliocene, 250443
potassium feldspar, 250444
pyrite, 250444
quartz, 250444
sand, skeletal, 250443
tourmaline, 250444
volcanic detritus, 250443
- benthic foraminifers, 090040
- Bermuda Rise, 431014
- biogenic, 750789
calcilutite, 750790
biogenic structures, 300427
biostratigraphic record disturbance
factors, reworked, displaced faunas, 800686
- biostratigraphy, Pliocene-Quaternary
history, 42A1140
- bioturbation history, environmental
relationships, Chatham Rise, 901197
- Biscay Plain
abyssal plain, 121189
Miocene-Pliocene-Pleistocene, 121189
- Black Sea
evolution, 42B1141, 42B1148
mineral, terrigenous, 42B0657
sediment, 42B0493, 42B0495
sediments, 42B0389
- Blake Basin, 760685, 760687, 760688, 760691, 760731, 760737, 760741, 760742, 760743, 760747, 760776, 760899
sediments, 760672, 760682
- Blake Ridge Formation, 760765
- Blake Spur, 760901
- bottom current, 090041
erosion, 490864, 490866
sedimentation, 490864, 490866
- Bouma sequence, 250445, 250447, 300427, 300428, 500734
- Bouma sequences, Angola Basin, 751214
- Brazil Basin, 040660, 040668, 390456
sedimentation comparison, 721005
source, 040660
- burrow mottling, 430395, 430396
silt, 291053
- calcareous, 500734, 750786
lamination, 750786
- calcareous nannofossils, biostratigraphy, 920266
- calcutirbidites, 500745, 500746
carbonate, 500738
types, 500734, 550734
- California
continental margin, 630758
offshore, 630960
- California, Gulf of, 650453, 650460, 650462, 650474
- distal, 650465
gulf mouth, 650363
sediment distribution, 650471
sedimentation rate, 650471
Tamayo Fracture Zone, 650464
- Campeche Bank, sediments, 100009
- Cantabria Knoll, Paleocene, 121189
- Cape Basin, 400537
sedimentary structure, 400536
- Cape Hatteras, sedimentation, 930891
- carbon, stable isotopes, 42A0486
- carbon, organic, 430396, 890367, 890375
- clay, 870878
diagenesis, 670610
flow, 870878
- carbonate
diagenesis, 170414, 210505
fossil preservation, 170414
shallow-water, 500733
- Caribbean Sea, sediments, 150933, 150937
- Caroline Abyssal Plain, chalk, 200066, 200067, 200074
- Catoche Knoll, organic analyses, 100301
- Ceara Rise, 140382
- Cenozoic sedimentation, Pacific Ocean N, 190889, 190891
- Cenozoic sediments
lithology, mineralogy, geochemistry, 450331
mineral composition, 42B0417, 42B0422
- Central America, western continental slope, 840935
- chalk, nannofossil, 890367
- channel deposits, 090041
- Chatham Rise, Pliocene-Pleistocene, 901328
- chemical composition, 310615, 310618, 310619
metal, 571265
- chert, 090041, 890367, 890369
- calcareous sediments, 320434
- Cretaceous, 430438
Pliocene, 090041
silica, 090041
- chlorophyll, diagenesis, 571406
- chlorophyll derivatives, geochemistry, 610619
- chondrites, interval, 870924
- clastic sediment, Cretaceous, 401030
- clay, 250445, 430395, 430402, 500733, 500734, 500738, 670541, 890367
clay minerals, 300433
diatoms, 010522
glass, 300433
greensand, 291053
stratigraphy, 870640
- clay mineralogy, 650369
montmorillonite-illite, glauconitic, 650369
petrology control factor, 750862
post-Albian, 750865
stratigraphic evolution, 750863, 750864
- clay minerals, 500715, 500720
Pacific Ocean NW, 200338
stratigraphy, 680391
- clay, terrigenous, 291060
burrow mottling, 291149
deposition, 291060
- claystone, 300424, 430396, 890367, 890368, 890369, 890375
- clinoptilolite, Atlantic Ocean NW, 430464
- Columbia River, 490315
- composition, 42A0389
- conglomerate, channel deposits, 580647
- consolidation
permeability, 870845
shear strength, 960798
- contact, sharp, 090041

- continental assemblages, 040326
continental margin
paleoenvironment, 630947
sedimentation, 280728, 280754
structural evolution, 481058
continental margin sediments, clay, 280736
Coral Sea E, geology, 300650, 300661
Cretaceous, cyclic sedimentation, 770369
Cretaceous-Jurassic, 751229
cross-lamination
parallel laminae interbed, 300430
sand, 300428
crystal morphology, 600681
Cyprus, evaporites, 42B1186, 42B1188, 42B1191
Daito Ridge, deposition, 580647
deep-sea trench, sedimentary facies, 670609
Demerara Plain N, Pliocene, 040662
deposition, 300429, 300438, 300440, 310406, 320299, 500734
chalk, nannofossil, 250493
conglomerate, 580647
current, 080730, 280729, 280730
deposition rate, 300429
dissolution, 300429
facies evolution, 300439
Goban Spur, 800870, 800871, 800876
laminar, parallel, 300430
laminite, 250454
Lesser Antilles, 780307, 780313, 780321
marginal basin, 300439
models, 750838
ooze, nannofossil, 250493
Portugal, 47B0373, 47B0383, 47B0384, 47B0385, 47B0388, 47B0389
rapid influx, 300429
reworked sediments, 300429
sand, 250451, 250453, 250454, 250458
turbidity current, 300429
detrital modal analysis
sand, 870621, 870622, 870623, 870624
turbidites, 870623
detrital sediment, origin, 670511
dewatering pipe, 300429
diagenesis, 250449, 310621
bedding, graded, 250449
compaction, 250449
flysch, 250458
lithification, 250449
organic matter, 870877
pyrite, 250449
recrystallization, 250449
sediments, 750861
siliceous sediments, 500725
dissolution, carbonate, 400989, 400995
East Mariana Basin, 890365
sedimentary history, 890657, 890666, 890667, 890668
East Pacific Rise, sediments, 650376, 650377, 650425
Eocene, 090040, 300424
sand, 010523
silt, 010523
equatorial sediment bulge, 850977
seamount, 850977
evaporites
Messinian, 42A0597
Miocene, 131236, 131239
Exuma Sound, 760742
fan, transition, 960467
fan, submarine, 300430, 750792, 750793
conglomerate, 300430
Cretaceous to Recent, 750772, 750777, 750780
deposition rate, 300430
green, 750790, 750791
Toyama Trough, 310490, 310494
turbidity current, 300430
ferromanganese sediment, lithologies, 190629
flocculation, 430398
flow, 47B0389
flysch, 250443, 250444, 250445, 250447, 500751
foraminifers, benthic, 890368
Galicia Bank, tectonics, 47B0666
Ganges Fan, 220825
gas, pelagite, 870884
gas, interstitial
geochemistry, 640782, 640783
stable isotopes, 640815
general synthesis, accumulation rate, 280930
generation
transport, 670540, 670541, 670542
trench slope, 670540
turbidity current, 670541, 670542
geochemistry
carbon, organic, 390488
Cenozoic sediments, 42B0545, 42B0551, 42B0561, 42B0598
Guaymas Basin, 640708
mud, 640713
geologic history
biogenic detritus, Neogene to Paleogene, 250460
deposition, 250459
sand, 250460
geologic setting, 840921
arc-derived, 840923
geology, 660581
geosynclinal sequences
flysch, 250461
models, 250461
orogenic episode, 250460
rifting, 250460
sediment source, 250461
Gilbert Ridge, 071172
Goban Spur, evolution, 801212
graded sequences, 300433
grading, 090041, 430401
grain size, 010325, 010326, 010333
current-sorted distribution, 870620
Kokumoto Formation, 870620
Nankai Trough, 870620, 870621
origin, 010326
Pico Formation, 870620
replacement, 870621
ripple lamination, 870621
sorting, 870620
transport, 870621
gravity flow, Exuma Sound, 960544
graywacke, 670541
diagenesis, 670541
sand, 670541
Guatemala
continental margin, 840924, 840925
mid-slope continental margin, 840929
Pacific margin sediments, 670595
trench, 670522, 670525
upper slope, 840925, 840928, 840929
Hatteras Plain, 510028
heavy metals, Cenozoic sediments, 450350
Hess Rise, post-Jurassic sedimentation, 620826, 620827
Hudson Fan, 950607
hydrocarbon, extractable, organic
petrology, 630831, 640837, 640849, 640851
hydrocarbon generation potential
organic facies, 640865, 640869
organic matter, 670595, 670598
hydrothermal activity, Guaymas Basin, 641161
ice rafting
glaciation, 280739
sedimentation rate, 280746
igneous rocks, Melanesian Basin, 610673
Indian Ocean, 250441
Indian Ocean C, noncarbonate sediment, 220492
Indian Ocean E, grain size, 270519
Indian Ocean NW, grain size, 250423
Indian Ocean W
interstitial water, 250371
lithology, 250740
regional aspects, 250754, 250755
Somali Basin, 241049
tropical, 240646
Indus Fan, 230506
inorganic geochemistry, sediments, rocks, Angola Basin, 750924
interstitial water, 350408
interstitial water, geochemistry, Guaymas Basin, 640687, 640689
intraslope basin, sediments, 960819
intraslope basin organic matter, 960753
isotopes, stable oxygen, carbonate, 42A0486
Italy, Sicily, 47B0405
Japan Trench
geology, 870704, 870707
magnetic fabric, 870611
sedimentation, 870611
sediments, 271214, 271220, 271221, 271225, 271228, 271230, 870897
silt, 561005
Jurassic deposits, 500733
Jurassic sedimentation
claystone, 760845
marl, 760845
kerogen, organic geochemistry, 640887, 640895
Komandorskiye Basin, 190575
deposition, 190575
laminar, parallel, 300429
lamination, 890367, 890368
laminite, 250444
Lansdowne Bank, seismic facies, 901339
limestone, 320545
Caribbean Sea C, 150775
Jurassic, 790465
shallow-water, 500733
limestone, siliceous, 890367
Line Islands, tectonics, 330731, 330735
lipid
geochemistry, 610627, 610628
organic geochemistry, 640887, 640895
lithologies, minor, chalk, 901482, 901483
lithology, 040023, 040081, 040097, 040098, 070620, 070729, 100051, 100092, 100096, 100117, 100118, 100121, 100125, 100127, 100171, 100297, 100311, 120683, 120695, 120763, 130069, 130121, 140261, 150279, 150307, 150368, 150408, 170060, 170062, 170063, 170064, 170266, 180172, 180236, 180289, 180295, 180378, 180408, 180411, 210372, 220276, 240286, 240291, 250031, 250072, 250095, 250484, 270134, 270135, 280157, 280159, 280183, 290048, 290202, 310136, 310142, 310280, 310320, 310355, 310362, 320298, 320315, 320316, 320318, 330034, 330045, 330061, 380172, 380178, 380391, 380453, 380525, 380528, 380539, 380656, 390039, 390040, 390110, 390162, 410239, 410251, 410427, 410428, 410435, 42B0034, 42B0036, 42B0125, 42B0133, 42A0180, 42A0230, 42A0231, 42A0233, 42A0234, 42A0238, 42A0260, 42B0294, 42A0308, 42A0328, 430037, 430038, 430056, 430166, 430201, 430204, 430206, 430213, 430215, 430234, 430334, 440030,

- lithology (Cont.)
 440205, 450138, 490102, 490104, 490123,
 490163, 490342, 500126, 500127, 500128,
 500129, 500143, 870613, 870617, 870811,
 890365
 abyssal plain sediments, 120683
 apron, 310144
 Aquitaine Basin, 120764
 Aquitaine, Gulf of, 120683
 augite, 120683
 basin, 150412
 bedding, convolute, 120763
 biotite, 120683
 Brittany, 120683
 burrows, 120764
 calcarenite, 120763
 calcareous sediment, 120763
 Campanian, 110014, 110015
 carbonate, 120765
 Cenozoic, 500174
 Cenozoic deposits, 47B0046, 47B0047,
 47B0048
 chert, 170152
 clay, 120261, 120683, 120764, 120765
 clay minerals, 120765
 compaction, 120765
 Coniacian, 320325
 continental shelves, 120683
 Coral Sea Basin, 300143
 deposition, 100075, 180241, 310287,
 310406, 320299, 320301, 400197, 400234,
 430336, 440033, 480068, 870615, 870617
 distal, 220199, 310133, 310280, 310354,
 310355, 310362, 360262, 380027, 390105,
 430038, 440171, 500128
 distal channel, 870617
 emplacement, 870617
 Eocene, 120764
 erosion, 120683
 feldspar, 120683
 foraminifers, 120683, 120763
 glass, volcanic, 120764
 glauconite, 120683
 grading, 120763
 grading, double, 120683
 hematite, 120765
 hemipelagite, 870617
 hornblende, 120683
 interbedding, 120683
 Kokumoto Formation, 870615
 kyanite, 120683
 lamination, 120763
 limestone, 120763, 170059, 170152
 limonite, 120765
 load cast, 120763
 marl, 120763, 120764
 maxima, 310411
 Mesozoic deposits, 47B0053
 metamorphism, 120683, 120764
 Miocene, 100121, 100122, 440201
 mud, terrigenous black, 130369
 mudstone, 120260
 nannofossils, 120764
 ooze, 130266
 ooze, nannofossil, 130122
 origin, 050170, 250265
 paleoenvironment, 490036, 490115, 490167,
 490168, 500174
 Pleistocene, 110317, 120683
 Pliocene, 120260, 120261
 Pliocene-Quaternary, 430056
 preturbidite sediment, 310136, 310144
 pulsed, 220330
 Pyrenees, 120683
 pyrite, 120764
 quartz, 120683, 120764
 recrystallization, 120763
 river mouth environments, 870617
 sand, 120683, 130122, 130266
 sand, carbonate, 120683
 sand, terrigenous, 180034
 sand, turbidite, 130065
 sandstone, 120047, 130065, 400071, 400072
 sandstone, terrigenous, 130369
 sedimentation, 350164
 sedimentology, 100009, 100049
 shale, 120047, 400071, 400072
 shelf deposits, 120764
 Shimanto Belt, 870615
 silt, 120683
 slickensides, 120764
 sponge spicules, 120683
 staurolite, 120683
 stratification, 430331
 Tertiary, 120683
 tourmaline, 120683
 transport, 220046
 unconsolidated oozes, 170052
 uplifting, 120778
 volcanic sediment, 170059
 volcanism, 120766
 wedge, 100011, 310328, 310330, 310331
 zircon, 120683
 lithology, Tertiary, Eocene, 380763
 lithostratigraphy
 Horizon A, 430832
 Pliocene-Quaternary history, 42A1140
 Lofoten Islands, 38S0067
 low velocity layer, wedge, trench, 870733
 lower fan, 960469, 960763
 organic matter, 960748
 magnetic fabric
 Japan Trench, 870611
 paleocurrent analysis, 870619
 magnetic fabric analysis, Japan Trench,
 870611
 magnetic remanence
 mineralogy, 730663
 natural remanent magnetization, 730664
 magnetostratigraphy
 Chatham Rise, 901291
 Cretaceous sediments, 400460
 manganese nodule, 090040
 Mariana Ridge, 590356
 maxima, 310411
 Mediterranean Sea, 42A0389
 Alboran Sea, 130666
 evaporites, 131212
 Hellenic Trough, 130668
 Ionian Basin, 130668
 Levantine Basin, 130668, 130669
 lithostratigraphy, 131027, 131028,
 131029, 131031, 131032, 131033, 131034,
 131036, 131038, 131039
 Mediterranean Basin, 130667
 Messinian, 130673, 130675, 130686, 130692
 Mexico, Gulf of, regional aspects, 010625,
 010626, 010628, 010629, 010633, 010637,
 010640, 100737, 100738, 100742, 100745,
 100747
 Mexico S, continental, 660442
 Mid-Labrador Sea Ridge, 121181
 glaciation, 121186
 Mid-Pacific Mountains W, Aptian sediments,
 620905
 Middle America Trench, 670537
 grain size, 670537
 Guatemala, 670766
 mineralogy, 670537
 sedimentary facies, 670603
 sedimentology, 670766
 mineral composition
 clay, 670541
 Cocos Plate, 670538, 670539, 670540
 Guatemala, 670537
 Japan, 670537
 Pacific Plate, 670537
 transport, 670541, 670542
 trench deposits, 670537
 mineral, terrigenous, 670538
 mineralogy, 38S0117, 650391, 650395, 730663
 magnetite, 730663
 sapropelite, 130714, 130716, 130717
 sediment history, 38S0119
 Miocene, 090041
 Miocene to Pleistocene, 300433
 Mississippi Fan, 960508, 960712
 accumulation rate, 960596
 ancient, 960434
 ancient basin deposit, 960435
 debris flow, 960435
 deposition, 960811
 organic matter, 960752, 960758
 sandier components, 960434
 seismic characteristics, 960443
 systems, 960425
 models, 750793
 Bouma sequence, 750793
 Moroccan Basin, 500174, 790889
 margin, 500814, 500815, 500816, 500818
 Morocco
 acoustic anisotropy, 751229
 acoustic impedance, 751229
 coast, 751229, 790243
 porosity, 751229
 reflection coefficients, 751229
 sound velocity, 751229
 wet-bulk density, 751229
 mud, 180858, 180870, 500734, 750787, 750788
 mud, diatomaceous, 42B0486
 mud, nannofossil, 500734
 mudstone, petrology, 180909
 Nankai Trough, 870733, 870761, 870762,
 870780, 870791, 870795, 870915
 accretion, 870611
 accumulation rate, 870927
 Antarctica, 870916
 ash, 870916
 bedding dips, 870916
 burial, rapid, 870913
 carbonate nodule, 870916
 clast, pumice, 870916
 clay minerals, 870635, 870636, 870913
 deformation, 870916
 detrital modal analysis, 870611
 fault, thrust, 870916
 faunal diversity, 870913
 fracture, 870916
 gas, 870913, 870915
 graded beds, 870913
 grain orientation, 870913
 heat flow, 870611
 heavy minerals, 870913
 methane/ethane ratio, 870916
 physical properties, 870916
 provenance, 870611
 Quaternary, oldest sediment, 870916
 regional stratigraphy, 870915, 870917
 sand, 870913
 sediment, 870827
 sediment origin, 870916
 sedimentary structure, 870916
 shallow trench, 870611
 Shikoku Basin, 870611
 silt, 870913
 subduction, 870611
 surface water, 870913
 tilting, 870916

- Nankai Trough (Cont.)
 transport, 870913
 trench sedimentation, 870611
 volcanic arc development, 871611
 wedge, trench, 870733
 nanofossils, 090041
 Nares Plain, 510028
 Natal Trough, sedimentation, 870611
 natural remanent magnetization, 730664
 Neogene formations, paleogeography,
 42A0908, 42A0910, 42A0913, 42A0914,
 42A0917, 42A0919, 42A0921
 Neogene sedimentation
 lithology, 47A0610
 sediment evolution and sources, 47A0613
 New Jersey Transect, stratigraphy, 950772
 Norwegian Basin, 38S0067
 Norwegian Sea, 38S0216, 38S0224, 38S0235
 basalt, 38S0241, 38S0242
 clast, 38S0224
 geologic setting, 38S0195, 38S0205,
 38S0207, 38S0214
 Greenland Sea, 38S0259, 38S0261, 38S0262,
 38S0263, 38S0264, 38S0265, 38S0266,
 38S0267, 38S0268, 38S0269, 38S0270,
 38S0271, 38S0272, 38S0273, 38S0275,
 38S0276, 38S0278, 38S0279, 38S0281,
 38S0282, 38S0284, 38S0285, 38S0286
 regional conclusions, 38S0251
 structure, 38S0225
 Voring Plateau, 38S0202
 Oligocene-Pleistocene sediments
 crust, 920293
 East Pacific Rise W, 920293
 ooze, carbonate, 890367
 ooze, nanofossil, 890367
 glass, volcanic, 300433
 zeolite, 300433
 organic geochemistry
 Baja California, 640940, 640941
 deposition, 640939
 Goban Spur, 800949
 Guaymas Basin, 640942, 640943
 Porcupine Plain, 800956
 terrigenous influence, 800963
 transport, 870887
 organic matter, 670598
 geochemistry, 640855
 Guatemala, 670598
 slump, 960763
 trench-fill facies, 670595
 origin, 300430
 anoxic environment, 890375
 carbonate, 890374, 890376
 deposition, 890373
 East Mariana Basin, 890373
 eruption, 890373, 890376
 Ita Mai Tai Guyot, 890373
 ooids, 890373
 reworking, 890376
 sedimentation rate, 890373, 890374
 origins, 650690
 Pacific Ocean, guyots, 620775
 Pacific Ocean C, 071009, 850916
 Pacific Ocean N
 Aleutian Plain, 190897
 Bering Sea, 190909
 Bowers Ridge, 190905
 chalk, 190908
 Meiji Guyot, 190900
 plate movement, 190897, 190898, 190899
 sedimentation, 190897, 190906, 190908
 Pacific Ocean NE, 060643
 grain size, 050421
 lithology, 050605
 regional aspects, 050626, 050635
 Pacific Ocean NW, stratigraphy, 200733
 Pacific Ocean SW, island arcs, 300693,
 300696
 Pacific Ocean W
 bedding, graded, 071009
 bottom current, 071009, 071010
 equatorial, 071172
 lamination, 071009
 slumping, 071009, 071010
 tectonic activity, 071010
 paleobathymetry, 42A0389
 paleoceanography, Reflector Green, 850966
 Paleocene to Pliocene, 090040
 paleoenvironment, 47B0416
 Hauterivian to Cenomanian, 47B0405
 paleomagnetic results, 870780
 palygorskite, paragenesis, 250458
 palynological residue, 640751, 640752
 deposition, 640754
 Guaymas Basin, 640731, 640739
 gulf mouth, 640737, 640739, 640748
 petroleum, source bed, 240793
 petrology, 740649, 740659
 feldspar, 300424
 glass, 300424
 hornblende, 300424
 magnetite, 300424
 micarb, 300424
 pyrite, 300424
 zeolite, 300424
 Philippine Basin, genesis, 310859, 310863,
 310868
 Philippine Basin W, structure, 310615,
 310618, 310619
 Philippine Sea, Paleogene-Neogene, 310842,
 310851, 310852
 Philippines, genesis, 310874
 phillipsite, Atlantic Ocean NW, 430464
 physical properties, 430757, 650675, 870811
 distal, 870829
 Pliocene-Quaternary sediments, 640541
 sonic velocity, 870835
 Pigmy Basin
 carbonate, 960671
 lithology, 960567
 seismic/lithologic facies, comparison,
 960570
 Wisconsin age basin evolution, 960572,
 960573
 planktonic foraminifers, 090040
 Pleistocene sequence, origin, 010522
 Pliocene, 090041
 Pliocene-Miocene sediment, 870670
 ponded, 290202, 490036
 porcellanite
 chert, 320434
 Eocene, 430438
 Porcupine Plain, unconformities, 801173
 porosity, Morocco, 751229
 preliminary organic analyses, 100636
 preturbidite sediment, 310136, 310144
 prot thrust zone, 870929
 Provo interval correlation, 300429
 pyrite, burrow fill, 300433
 pyritization, 890368, 890375, 890376
 pyroxene, chemical studies, 150963, 150967
 radiolarians, 890367, 890368, 890369, 890375
 red beds
 ash, 38S0271
 Bouma sequence, 38S0269, 38S0270, 38S0271
 breccia, rip-up, 38S0270
 clast, rip-up, 38S0269, 38S0271
 clay, 38S0269
 claystone, 38S0269
 conglomerate, 38S0268, 38S0270
 cross-lamination, 38S0270
 deformation, 38S0269, 38S0271
 dish structure, 38S0271
 faulting, 38S0270
 grading, 38S0269, 38S0270, 38S0271
 ice rafting, 38S0269, 38S0270
 interflows, 38S0270
 Jan Mayen Ridge, 38S0270
 Knipovich Ridge, 38S0270
 load cast, 38S0270
 Lofoten Basin, 38S0270
 mud, 38S0269, 38S0270
 mudstone, 38S0268, 38S0269, 38S0270,
 38S0271
 ooze, biogenic, 38S0269
 overflows, 38S0270
 preconsolidated deformation structures,
 38S0269
 pyrite nodule, 38S0270
 sand, volcanic, 38S0269
 sandstone, 38S0268, 38S0269, 38S0270,
 38S0271
 sediment history, 38S0285
 sedimentary structure, 38S0261, 38S0262,
 38S0263, 38S0264
 sedimentary structure, secondary,
 38S0266, 38S0267, 38S0268
 silt, 38S0270
 siltstone, 38S0268, 38S0269, 38S0270
 terrigenous origin, 38S0269
 Voring Plateau, 38S0270
 reflection coefficients, Morocco, 751229
 reflection horizon, Horizon A, 040671
 reflector, correlation with lithology,
 220397
 regional problems
 acoustic stratigraphy, 061303
 chert, 061304
 seamount chain, 170916
 regional setting, 870798
 regional summary
 Ganges Fan, 220818, 220825
 Wharton Basin, 220818, 220822
 reworking, 890365
 rhythmite, 300424
 Rio Grande Rise, 720512, 720514, 720515,
 720516
 sediment, 720426
 subsidence, 720966, 720968, 720974
 Rio Grande Rise N, regional setting, 250694
 sampling strategy, frequency, 960813
 sand, 090040, 250447, 300428, 300429, 430395
 ash, feldspar-rich, 300433
 clay, 250444
 cohesiveness, 250443
 feldspar, 250444
 garnet, 250444
 genetic classification, 41S0951
 granite, 250444
 hematite, 250444
 hornblende, 250444
 magnetite, 250444
 microcline, 250444
 mineral, heavy, 300433
 orthoclase, 250444
 orthopyroxene, 250444
 Pacific Ocean NW, 310511
 petrology, 280746
 plagioclase, 250444
 quartz, 250444
 zircon, 250444
 sand, basaltic, origin, 490425
 sand, carbonate, 500734
 sand, glauconitic, greensand, 291152
 sand, quartzose, 500734
 sandstone, 300424, 320540, 320542
 sandstone, volcanic, 750785

- sapropel, petrography, 130714, 130716, 130717
 sapropelite, 130713
 Scan III survey, Hawaiian Ridge, 060643
 Seabeam bathymetric surveys, diagenetic horizons, 850837
 seaward-dipping, 870924
 sediment
 interpretation, 960484
 lithology, 38S0117, 38S0119
 physical properties, 010576, 010577, 010580
 sediment accumulation
 deposition, 960599
 frequency, 960599
 sea level, 960599
 sediment basin, geology, 47A0764
 sediment supply volume, 300428
 sedimentary cycles, 740649, 740659
 sedimentary facies, 670609
 sedimentation model, 870624, 870626
 sedimentary structure
 antidune cross-stratification, 300425
 bedding, graded, 250448, 250449, 300426
 bedding, massive, 250448, 300426
 Bouma sequence, 250448
 clast, rip-up, 250449
 clay, 960530
 convolute lamination, 250448
 cross-bedding, 250448
 cross-lamination, 250449, 300424
 dewatering pipe, 300427
 flame structure, 300427
 flysch, 250448
 laminae, 250449
 laminae, parallel, 300425
 lamination, parallel, 250448
 Mississippi Fan, 960433
 mud, 960530
 ripple bedforms, 300425
 sand, 250448, 960524
 sandstone, calcareous, 250448
 sequence model, 960530
 silt, 960524
 slump fold, 250448, 300425
 sole marks, 250448
 sedimentation, 920355
 accretionary prism, 870627
 acoustic stratigraphy, 47B0666
 Cretaceous, 930891
 emplacement, 870627
 Fuji River, 870627
 Izu, 870627
 Japan Trench, 870611
 magnetic fabric, 870627
 noncarbonate fractions, 42B0610
 seismic coherence, 870611
 tectonics, 47B0666
 trench sedimentation, 870627
 sedimentology
 abyssal plain, 100700, 100701
 abyssal plain terrigenous sediment, 100699
 East Mariana Basin, 890365
 Mexico, Gulf of, 100706
 physical properties, 100712
 sediments, 751191
 Blake Basin, 760731, 760737, 760741, 760742, 760743, 760747, 760899
 seismic profiles, 220351
 Argo Plain, 220351
 Cocos Basin, 220365
 seismic reflection, correlation, 210463
 seismic stratigraphy, 890384, 901330
 erosion, 901334
 Hikurangi Trench S, 901333
 Miocene reflectors, 440529
 seismic velocity, wedge, trench, 870727
 sequence, graded, 890369, 890377
 sequences, 47B0405
 shale, black
 Biscay, Bay of, 480892
 Cretaceous, 751027
 deposition, 750825
 shale-sandstone-limestone cycle, 500733
 Shikoku Basin, 870761
 intensity, 870758
 Shiono-Misaki Canyon, 870941
 shrinkage anisotropy, 960815
 siliceous sediment, 500725
 siliclastic detritus, 500734
 silicification, 430401, 890367
 sill, carbonate, 500734
 silt, 180870, 250445, 300424, 300433, 430395, 430402, 750787, 750788
 feldspar-rich, 300433
 Miocene, 561005
 silt, quartzose, continental margin, 020419
 silt, terrigenous, 291060
 burrow mottling, 291149
 deposition, 291060
 siltstone, 300424, 300428, 300429, 890369
 small basins, 750795
 sonic velocity, 320962
 sound velocity, Morocco, 751229
 source, 42A0389
 source areas
 basement, crystalline, 250454
 channel deposits, 250454
 faunal environments, 250454
 gneiss, 250454
 igneous rocks, 250454
 volcanic provenance, 250454
 South Fiji Basin, history, 300629
 Southeast Pacific Basin
 evolution, geologic, 350735
 sediment distribution, 350206, 350218, 350220, 350222, 350226
 spacing, 210381
 Spain, 47B0405
 stratigraphy and evolution, composite, 801184
 strontium, noncarbonate fractions, 42B0610
 subduction rate
 geologic constraint, 870795
 Shikoku Basin, 870791
 trench, 870790
 trench wedge geometry, 870791
 suspension, 670542
 systems, Mississippi Fan, 960425
 Tasman Basin S, borderland, 291136
 tectonic, Eocene siliceous sedimentation, 430815
 tectonic history, Cascadia Basin, 180961
 terrigenous sediment, 500733
 Tertiary
 Miocene, 801180
 Paleocene, 801177
 Tithonian-Hauterivian, 500734
 transport, laminae, 230488
 trench-fill facies, Middle America Trench, 670595
 Tuamotu Archipelago, 090040
 turbidites, 500734
 upper slope
 displaced faunas, 800732
 sand, quartz, 800732
 Vema Fracture Zone, 040662
 Venezuelan Basin, 040665
 burial, 040666
 Vigo Seamount, sedimentation, 47B0047
 volcanic deposit, 901181
 volcanoclastic
 Eocene, 720957
 mineral, heavy, 430407
 volcanism
 clay, 870636
 mineral evolution, 600450
 Neogene, 47A0707
 volcano, 090040
 Voring Plateau, bulk mineral distribution (X-ray), 38S0041
 Walvis Ridge, 751089
 Angola Basin, 750973
 sediments, 751069, 751077
 transect, 740649, 740654, 740658
 wedge, 310320
 wedge, trench, Nankai Trough, 870733
 wet-bulk density, Morocco, 751229
 zeolite, 390427, 390431
see also calciturbidites
 turbidites, bioclastic
 Atlantic Ocean
 Cenozoic sediments, 140859
 Cretaceous sediment, 140859
 Atlantic Ocean S, Malvinas Outer Basin, 391110
 Bahama Islands, geology, 110877, 110887, 110890
 lithology, 390105
 Campanian-Santonian, 110015
 Neogene formations, paleogeography, 42A0915
 turbidites, calcareous
 clinoptilolite, Atlantic Ocean NW, 430472, 430473
 lithology, 270135, 270293, 430201, 430204, 430208
 Mexico, Gulf of, regional aspects, 010628
 Moroccan Basin, margin, 500812
 phillipsite, Atlantic Ocean NW, 430472, 430473
 turbidites, carbonate
 Atlantic Ocean N, Mediterranean Sea, 110805, 110811, 110820
 Brazil Basin, zeolite, 721005, 721006
 calcareous nannofossils, biostratigraphy, 920265
 clay mineralogy
 diagenetic history, 750865
 stratigraphic evolution, 750864
 diagenesis, sediments, 750860
 Goban Spur, evolution, 801207
 Indian Ocean E, grain size, 270518
 lithology, 010570, 130231, 500138
 Mellish Seamount, post-Jurassic sedimentation, 620840
 Mexico, Gulf of, regional aspects, 010634
 New Jersey Transect, 950807
 organic geochemistry, black-colored sediments, depositional model, 800966
 Rio Grande Rise, subsidence, 720974
 sediment, physical properties, 010579, 010581
 stratigraphy and evolution, Porcupine Plain, 801183
 turbidite, graywacke, 670541
 turbidites, 500734
 volcanoclastics, Eocene, 720957
 turbidites, chalk
 deposition, Portugal, 47B0388
 Philippine Sea, Mariana Islands, 600435
 turbidites, diatom
 gas, interstitial, geochemistry, 640783
 hydrocarbon, extractable, organic petrology, 640837
 kerogen, organic geochemistry, 640883
 lipid, organic geochemistry, 640883
 organic geochemistry, Quaternary, 640819
 protokerogen, hydrothermal effects, 640905

- turbidites, eolian-sand
distribution, 41S0954
glaciation, 41S0952
Neogene, 41S0952
paleoclimate, 41S0953, 41S0954
sea level, Sahara, 41S0953, 41S0955
- turbidites, lime
Atlantic Ocean N, Mediterranean Sea, 110814, 110817
Jurassic sedimentation, 760852
micrite, 760853
microsparite, bioclastic, 760853, 760854
pelmicrite, bioclastic, 760852
- turbidites, mud, 130268, 180858
- Angola Basin
biostratigraphy, 750449
geologic evolution, 750518
California, Gulf of, 650468
Pliocene, Quaternary, 640511
deposition, Portugal, 47B0383, 47B0385
geochemistry
California, Gulf of, 640698
Guaymas Basin, 640699, 640712
Guaymas Basin, 640512
interstitial water, organic geochemistry, California, Gulf of, 640934
intraslope basin, sediments, 960819
Japan Trench, stratigraphy, 870923, 870924
lithology, 130268
Mesozoic deposits, 47B0052, 47B0053
middle fan, organic matter, 960752
Mississippi Fan, fine-scale morphology, 960435
- Nankai Trough, 870644
major element, 870644
- Neogene sedimentation
intercalated, 47A0603
lithology, 47A0609
sediment evolution and sources, 47A0612
- palynological residue
gulf mouth, 640731, 640736
pyrite, 640739
- pelagic mud distinguished, 180858
- Philippine Sea, Mariana Trough, 600431
physical properties, Pliocene-Quaternary sediments, 640541
- Pigmy Basin, lithology, 960566
- Pliocene, Quaternary
bed thickness, 640523
morphologic setting, 640512
physical properties, 640519, 640524
sedimentology, 640513, 640514, 640515, 640518
slumping, 640524
sources, 640522, 640523
structural setting, 640525
turbidites, 640524
- shale, black, Biscay, Bay of, 480877, 480879
- turbidites, mudstone, 500715
- Angola Basin, geologic evolution, 750518
lithology, Mesozoic deposits, 47B0053
Neogene sedimentation, sediment evolution and sources, 47A0612
organic geochemistry, 640819
- turbidites, quartzose
Brazil Basin, 040660
diagenesis, sediments, 750858
lithology, 100297, 100301, 440171
petroleum generating potential, Magdalena Fan, 630958
- turbidites, sand
gas, interstitial, geochemistry, 640783
turbidite, mineral composition, 670541
- turbidites, sandstone, 500715
accumulation rate, California Borderland S, 630950
- Angola Basin, geologic evolution, 750514
Galicia Bank, tectonics, 47B0665
lithology, 100091, 290048
Mesozoic deposits, 47B0053
Neogene sedimentation, sediment evolution and sources, 47A0612
Norwegian Sea, Greenland Sea, 38S0266
red beds, sedimentary structure, secondary, 38S0266
sedimentation, acoustic stratigraphy, 47B0665
- turbidites, siliceous
chert, Cretaceous, 430443
clinoptilolite, Atlantic Ocean NW, 430472
interstitial water, 430671
lithology, 430206, 430331
phillipsite, Atlantic Ocean NW, 430472
porcellanite, Eocene, 430443
- turbidites, silt, 180847
Africa, continental margin NW, 410967
Alaska, Gulf of, 180847
sedimentology, 180847, 180848, 180851, 180853, 180855, 180857, 180858, 180859, 180861
continental margin sedimentation, 280731
progradation, 280754
continental margin sediments, 280736
deposition, Portugal, 47B0383
lithology, deposition, 180409
Philippine Sea, Paleogene-Neogene, 310851
reflection horizon, Horizon A, 040671
sedimentary structure, grading, 960530
sedimentology, 180847
Alaska, Gulf of, 180847
- turbidites, siltstone
Angola Basin, geologic evolution, 750518
lithology, 42A0230
Mesozoic deposits, 47B0053
- turbidites, terrigenous
Atlantic Ocean
Cenozoic sediments, 140859
Cretaceous sediment, 140859
Atlantic Ocean NC, Mesozoic sequences, 411002
Atlantic Ocean NE, evolution, 411216, 411223, 411239
Cenozoic sediments, mineral composition, 42B0413
lithology, 140261, 500138
Mediterranean Sea, lithostratigraphy, 131029
Moroccan Basin, margin, 500811
Nankai Trough, heat flow, 870741
Neogene formations, paleogeography, 42A0915
Norwegian Sea, Greenland Sea, 38S0267
organic matter, 500570
palynological residue, 640751
Guaymas Basin, 640731, 640749
red beds, sedimentary structure, secondary, 38S0267
- Tasman Basin S, borderland, 291136
- turbidites, 500734
Wisconsin age, 960812
- turbidites, volcanic, 890369, 890370
alteration, low-temperature, 901483
Bouma sequence, 890370
Challenger Plateau, 901483
clast, 890369, 890371
carbonate, 890369
clay, 890370
continental rift system formation, 901483
Coral Sea E, geology, 300659, 300660
currents, Eocene-Oligocene, 901231
debris flows, 901483
diagenesis, 901483
aspects, 901486
East Mariana Basin, sedimentary history, 890656
extension, 901483
grading, coarse-tail, 890369
inorganic geochemistry, sediments, rocks, 750951
Lalitha Pinnacle, 901483
lithology, 320298
lithostratigraphy, 901473
load cast, 890370
magnetostratigraphy, Challenger Plateau, 901289, 901296
Miocene-Oligocene, 600455
mudstone, volcanic, 901483
New Zealand
Cenozoic changes, 901230
tectonics, 901231
ooids, 890369
palagonitization, 901483
particle, origin, 901226
sandstone, 890370
scouring, 890370
South Island, New Zealand, 901483
Southeast Indian Ridge, 901483
Tasman Sea, 901483
volcanism, off-axis, 901483
Walvis Ridge, transect, 740649
- turbidites, volcanoclastic, 430407, 430409, 430816
apatite, 430407
Atlantic Ocean NW
acoustic stratigraphy, 430829
sedimentary evolution, 430816
Bermuda, 430408
clinoptilolite, Atlantic Ocean NW, 430472
clinopyroxene, 430407
Coral Sea E, geology, 300660
deposition, 300438
facies evolution, 300438
epidote, 430407
garnet, 430407
gravity separation, 430407
heavy mineralogy, 430407
hornblende, 430407
isotopic analysis results, Challenger Plateau, 901350
lithology, 430201, 430204
lithostratigraphy, Horizon A, 430829
mica, 430407
mineral, heavy, 430407
mineralogy
Mariana Islands, 600458
Mariana Trench, 600458
phillipsite, Atlantic Ocean NW, 430472
ribbon, 430407
source, 430407
tectonic, Eocene siliceous sedimentation, 430816
turbidity current, 430408
turbidity current, 010576, 040659, 040660, 040662, 050423, 050574, 050605, 110014, 110918, 110937, 110944, 110947, 120260, 120265, 120369, 120372, 120766, 120907, 120930, 130064, 130066, 130102, 130125, 130264, 130268, 130743, 140865, 170059, 180861, 190889, 210376, 220723, 270135, 310510, 350031, 350131, 350132, 38S0250, 38S0251, 38S0285, 380391, 380656, 390110, 400069, 401028, 410240, 410498, 410974, 410998, 411002, 411044, 411045, 411090, 411097, 42B0427, 42B0428, 42B0449, 430336, 430395, 430408, 430413, 430816, 440483, 440485, 440489, 440493, 440974, 440978, 47A0036, 47B0047, 47B0048, 47B0053, 47B0383, 47B0404, 47B0405, 47A0608, 47A0034, 47A0035, 490036, 490113, 490319, 500173

- accumulation rate, deposition, 960599
acoustic facies, sedimentology, 960471
Africa
 climate, 411044, 411045
 volcanism, 411044, 411045
Alaska, Gulf of, turbidite, silt, 180861
Angola Basin
 Cretaceous, 751010
 transport, 751034
anoxia, global, evidence against, 801002, 801003
Arabian Sea, history, 231122
ash, 870709
 geochemistry, 660690, 660691
 Middle America Trench, 660688
Atlantic Ocean N
 Mediterranean Sea, 110817
 sedimentation, 120906, 120907, 120909, 120930
Atlantic Ocean NC, Mesozoic sequences, 411002
Atlantic Ocean NE, evolution, 411216, 411233, 411239
Atlantic Ocean NW
 lithology, 110918, 110937, 110947
 microfacies, 440483, 440485, 440493
 regional aspects, 110957, 110966, 110971
 sedimentary evolution, 430816
 sedimentation, 440974, 440978
Atlantic Ocean S, Mesozoic, 751040
Atlantic Ocean SE, paleoenvironmental evolution, 740672
Atlantic Ocean W
 Brazil Basin, 040659, 040660
 Vema Fracture Zone, 040662
Bahama Islands, geology, 110887
Baja California S, deposition, 630957
Biscay, Bay of N, continental margin, 481039
Brazil Basin, transport, 040659
breccia, volcanic, Neogene, 630636
California, Gulf of, 650471, 650475
 deposition, 650474
 mouth sediments, 650439
 Salado-Vinorama, 641071
carbon, geochemistry, 610624
carbonate, origin, 010554
Cenozoic sedimentation
 Bering Sea, 190889
 Pacific Ocean N, 190889
chalk, nannofossil
 calcarenite, 010521
 calcisiltite, 010521
chert
 siltstone-carbonate cycle, 300437
 transport, 300437
clastic sediment, Cretaceous, 401028
clay, origin, 020418
clay mineralogy, 650371, 750862
 montmorillonite-illite-chlorite assemblage, 650369
clay, terrigenous, deposition, 291060
conglomerate, deposition, 580647
continental margin sedimentation, initiation, 280754
continental margin sediments, 280738
Coral Sea E, geology, 300653
Cretaceous sediments, microfacies and microfabrics, 410498
currents, 480758
Daito Ridge, sandstone, 580609
deposition
 chalk, nannofossil, 250493
 current, 280729
 Equatorial Plateau, 300440
 models, 750837, 750838, 750839, 750841, 960738
 ooze, nannofossil, 250493
 Portugal, 47B0383
 detrital petrology, transport, 280746
 diagenesis, slope sediments, 840582
 fan, submarine, deposits, 310489
 feldspathic sediment, geologic setting, 200359
 Feni Ridge, 941239
 Ganges Fan, history, 220406, 220410
 Gardar Ridge, 941239
 general synthesis
 accumulation rate, 280930
 biostratigraphy, 280922, 280925
 lithology, 280922, 280925
 glacial sedimentation, 280760
 grain size, turbidites, 870620
 gravity flow
 deposition, 960543
 evolution, 960543
 hydrocarbon, extractable, organic petrology, 580755
 hydrocarbon generation potential
 coastal origin, 660545
 organic facies, 640869
 Iberian margin W, evolution, 47B0761, 47B0766
 Iceland Basin, deposits, 121188
 Indian Ocean NE
 Cretaceous, 220723
 sediment history, 220723
 Indian Ocean W, regional aspects, 250754, 250758
 Indus Fan, sedimentation, 230490
 intraslope basin, types, 960564
 Labrador Sea S, terrigenous sediment, 121164
 Lansdowne Bank, seismic facies, 901339
 lithology, 060588, 100060, 100071, 100072, 100089, 100091, 100092, 100093, 100096, 100169, 100189, 100297, 100298, 100301, 110318, 120264, 120267, 130053, 130113, 130124, 130125, 130149, 130158, 130231, 130243, 130270, 130370, 130390, 140025, 140141, 180175, 180295, 180382, 180413, 180456, 210373, 210374, 220330, 250032, 250093, 250095, 250184, 250185, 250267, 270020, 270285, 280130, 280185, 280217, 280220, 280340, 300073, 300075, 310280, 310320, 310411, 320319, 330318, 350073, 350086, 350161, 350171, 360022, 380391, 380656, 390032, 390033, 390109, 390118, 400205, 400234, 410240, 42A0036, 42B0124, 42A0238, 430046, 430101, 430102, 430210, 430213, 440162, 490026, 490102, 500144
 breccia, 120260, 120265
 Campanian, 110014
 Cenozoic deposits, 47B0047, 47B0048
 clay, 120766, 300138, 300140
 Cretaceous water depths, 400069
 deposition, 430336, 47A0034, 47A0035
 energy, 870615
 geologic events, 210376
 limestone, 170059
 marl, 130066
 Mesozoic deposits, 47B0053
 ooze, 130264
 ooze, foraminiferal, 130486
 ooze, marl, 130064
 ooze, nannofossil, 130102
 paleoenvironment, 490036, 490113, 490319, 500173
 sand, 130102, 130264
 sandstone, 120372, 130066
 sandstone, volcanic, 120369
 sedimentation, 350031, 350032, 350131, 350132
 silt, 300138, 300140
 suspension load, 660683
 transport, 270135
 volcanic sediment, 170059
magnetic fabric, paleocurrent analysis, 870619
Mariana Basin, history, 890378
Mexico, Gulf of, regional aspects, 010634, 100743
Mid-Atlantic Ridge, 450042
Middle America Trench, Costa Rica, 840551, 840554
Mississippi Fan, 960443, 960716
 acoustic facies, 960459
 carbonate, 960541
 deposition, 960435
 lithology, 960433
 organic matter, 960748
 sediment, 960457, 960519
 seismic characteristics, 960441
Moroccan Basin, margin, 500813
mud, bottom water, 870913
mud, terrigenous, deposition, 250458
mudstone, black, sand, radiolarian, 430413
mudstone, green, sand, radiolarian, 430413
Nankai Trough
 regional stratigraphy, 870917
 turbidite, 870913
Natal Basin, sand, 250727
Neogene formations, paleogeography, 42A0910, 42A0920
Neogene sedimentation, lithology, 47A0608
New Jersey Transect, 950805, 950809
Norwegian Sea
 Greenland Sea, 38S0285
 regional conclusions, 38S0251
ooze, nannofossil, deposition, 300432
organic facies origin
 Guaymas Basin, 660545
 Mississippi Fan, 660545
 transport, 660545
organic geochemistry, 630948, 640950
 Guaymas Basin, 640943
 transport, 630948
organic matter
 migration, 630943
 origin, 670598
 trench sediments, 660541
organic sediments, origin, 660545
Pacific Ocean NE
 grain size, 050423
 lithology, 050574, 050605
 regional aspects, 050635
Pacific Ocean SW, island arcs, 300693
paleoenvironment, Hauterivian to Cenomanian, 47B0404, 47B0405
palygorskite, 411090, 411097
pelagic sedimentation, 010576
Porcupine Plain, Albian-Cenomanian, 800978
red beds, sediment history, 38S0285
regional problems, carbonate, 061302
Rio Grande Rise, subsidence, 720971
Rio Grande Rise N, regional setting, 250693, 250698
San Jose Canyon, erosion, 840930
sand
 origin, 010564, 020418
 Pacific Ocean NW, 310510
sand, glauconitic, sandstone, 291152
sand, turbidite, 010576
sandstone, source, 840932
sediment
 interpretation, 960484
 physical properties, 010579
sediment accumulation, flow characteristics, 960599

- sediment dispersal, 390403, 390404
 sediment source
 channel levees, 960485
 deposition, 960485
 sediment waves, 941238
 sedimentary environments, Atlantic Ocean N, 440979
 sedimentary evolution, Eocene sediments, 430816
 sedimentary facies, sedimentation model, 870627
 sedimentary processes, 840558
 sedimentary structure
 clay, 960530
 deposition, 960530
 mud, 960530
 mud, silt-laminated, 960525
 silt, 960524
 seismic profiles, 200547
 sepiolite, 411090, 411097
 shrinkage anisotropy, influence, 960815
 silica, opaline, transformation, 480758
 silt, terrigenous, deposition, 291060
 siltstone, 320542
 Somali Basin, sand, 250727
 sonic velocity, anisotropy, 960816
 South Fiji Basin
 geology, 300621, 300624
 history, 300629
 Southeast Pacific Basin
 evolution, geologic, 350730, 350735, 350738, 350739
 sediment distribution, 350205, 350206, 350218, 350223, 350226
 stratification, pulses, 960517
 stratigraphy, foraminiferal, pond, 450322
 tectonic, Eocene siliceous sedimentation, 430816
 transport, 230486, 230488, 230489
 tuff, Neogene, 630636
 turbidites, 300430, 300433, 430395
 bedding, graded, 250449
 calciturbidites, 300433
 deposition, 250453, 250454, 300429
 fan, submarine, 300430
 foraminifers, 300433
 generation, 670541, 670542
 mineral composition, 670542
 New Guinea, 300433
 ooze, nannofossil, 300433
 scouring, 300433
 sedimentation, 870627
 turbidites, volcanoclastic, 430408
 varve, sedimentation rate, 42B0501
 Vema Fracture Zone, 040662
 volcanic deposit, 901185
 volcanic sediment
 lithostratigraphy, 901176
 source, 330792
 Voring Plateau, sedimentary/tectonic history, 380782
 turbidity current, high-density
 carbonate, gravity-flow deposit, 960546
 intraslope basin, types, 960564
 Mississippi Fan
 carbonate, 960541
 sediment, 960432
 turbidity current, low-density
 sedimentary structure
 clay, 960530
 mud, 960530
 Turgay, 38S0301, 38I174
 Turin Hills, Messinian environments, salinity crisis, 42A1005
 Turkey, 110802, 130231, 130357, 130669, 130691, 130739, 130973, 131203, 131224, 131258, 410991, 42A0219, 42B0359, 42B0453, 42B0462, 42B0518, 42A0870, 42A0903, 42A0944, 42A0953, 42A0974, 42A0975, 42A0985, 42B1157, 42B1174, 660661, 760875
 Atlantic Ocean N, Mediterranean Sea, 110802
 Balkan Peninsula, block, 760874
 coast, 42B0469
 hinterland, 42B0389
 margin, 42B1079
 Messinian environments, Lago Mare, 42A1031
 Neogene formations, paleogeography, 42A0903, 42A0906, 42A0915, 42A0918, 42A0921
 Paratethys, paleogeography, 42A0985
 plate, 42A0903, 42A0906, 42A0988
 rivers, 42B0499
 slopes, 42B1158
 south, 130971
 southern coast, 130982
 Tethys, Mediterranean Sea, 42A0944
 Turkmenistan W, magnetic polarity reversal, 720589
 Tuscany, 131227, 131406, 42A1074, 760642, 760873
 gabbro, 131063
 Messinian environments, Lago Mare, 42A1026
 Tutuila, American Samoa, volcanic origin, 330779
 Tuxtla, uplifting, 100071
 Tyrrhenian Basin, 110806, 130005, 130158, 130180, 130268, 130335, 130403, 130405, 130412, 130466, 130581, 130587, 130596, 130599, 130608, 130689, 130789, 130796, 130798, 130817, 131002, 131034, 131047, 131207, 131263, 131279, 131284, 131288, 131295, 131343, 131353, 131385, 131387, 131393, 131402, 131405, 131412, 160718, 42A0003, 42A0515, 42B0517
 Alboran Basin W, 130581
 anhydrite, compressional wave velocities, 130596
 biostratigraphy
 heat flow, 42A1140
 Mediterranean Sea, 42A1139
 Bonin Trench, 200505
 carbon isotope, carbonate, 130796
 carbonate
 carbon isotope, 130796
 oxygen isotope, 130796
 circulation, oceanic, 131402
 isotopic evidence, 131400
 clastics, calcareous biogenic, 130667
 clay, 130667
 compression, Mediterranean Sea, 131011
 dolomite, 42A0541
 isotope geochemistry, 42A0541
 origin, 42A0541
 petrology, 42A0541
 evaporites, 130667
 Mediterranean Sea, 130700, 130701, 130702, 130706
 extension, 131011
 geophysical surveys, 130581
 Gorringer Ridge, 130581
 gypsum, 130667
 compressional wave velocities, 130596
 interbedding, 130667
 Ionian Basin, 131288, 131290, 131291, 131293, 131294
 limestone
 compressional wave velocities, 130596
 isotope geochemistry, 42A0541
 origin, 450541
 petrology, 42A0541
 lithostratigraphy, 42A1139
 heat flow, 42A1140
 Makarov Seamount, 200505
 marl, dolomitic, 130667
 marl ooze, 130667
 Messinian environments
 Lago Mare, 42A1025
 Mediterranean Sea, 42A1031
 Messinian fossils, 42A1017
 salinity crisis, 42A1026
 mineralogy, 130667
 oxygen isotope, foraminifers, 130798
 paleomagnetic stratigraphy, Ionian Basin, 131385
 paleomagnetism, 130599
 Pliocene, 130667
 quartz, 130667
 Quaternary, 130667, 131263
 Mediterranean Sea, 131263
 tectonics, 131011
 Tethys, 42A0947
 Mediterranean Sea, 42A0947, 42A0948
 Tyrrhenian Plain, 130010, 42A0004, 42A0531, 42A0862
 basalt, 42A0509
 biostratigraphy, 42A1139
 Tyrrhenian Rise, 130403, 131341, 131380
 carbonate
 carbon isotope, stable, 130796
 diagenesis, 130796
 oxygen isotope, stable, 130796
 circulation, oceanic, 131404
 barriers, 131403
 changes, 131400
 isotopic exchange, 131402
 sill, 131403
 Tyrrhenian Basin, 131402
 evaporite mineral, stable isotopes, 130788
 interstitial water
 anhydrite, 130807
 calcium sulfate, 130808
 evaporites, 130806
 gypsum, 130808
 halite, 130807
 magnesium, 130806
 strontium, 130807
 sulfate, 130806
 lithology, 130428
 Messinian environments
 Messinian fossils, 42A1017
 salinity crisis, 42A1026
 mineralogy
 anhydrite, 130608
 calcite, 130608
 chlorite, 130667
 clay, 130681
 dolomite, 130681
 feldspar, 130681
 goethite, 130608
 gypsum, 130608, 130680
 hematite, 130608, 130667
 illite, 130608
 iron oxide, 130667
 Kaolinite, 130608, 130667
 marl, 130681, 130682
 mica, 130608, 130667
 montmorillonite, 130608, 130667
 ooze, nannofossil, 130682
 palygorskite, 130608
 phillipsite, 130667
 quartz, 130681
 sedimentation rate, 130608
 oxygen isotope, 130794, 130798
 paleomagnetic stratigraphy, 131380
 paleomagnetism, 130599, 130600
 spinning, 130599
 reflection profile correlations, 130587
 sulfate mineral, 130794

sulfate mineral (Cont.)
interstitial water, 130794
Tyrrhenian Sea, 110802, 130057, 130412,
130587, 130609, 130667, 130680, 130689,
130719, 130806, 131021, 131027, 131034,
131407, 42A0151, 42A0395
biostratigraphy, Mediterranean Sea, 42A1139
central, 42A0515
deep currents, 130591
evaporites, Miocene, 130591
heat flow, 42A0863
interval velocities, 130587
lithologic break, 130590
Mediterranean Sea
lithostratigraphy, 131027, 131034, 131035
Messinian, 130680, 130681, 130682, 130690
mineralogy, 130680
Pliocene interval, 130591
Proto-Tyrrhenian, intrasutural basin,
42A0977
Quaternary, 130591
Reflector M, 130590
seamounts, 42A0515
temperature, heat flow, 42A0857, 42A0863
Tyushevsk Formation, 190822