

INDEX TO VOLUME 205

This index covers both the *Initial Reports* and *Scientific Results* portions of Volume 205 of the *Proceedings of the Ocean Drilling Program*. References to page numbers in the *Initial Reports* are preceded by "A" followed by the chapter number with a colon (A1:) and to those in the *Scientific Results* (this volume) by "B" followed by the chapter number with a colon (B1:).

The index was prepared by Earth Systems, under subcontract to the Ocean Drilling Program. The index contains two hierarchies of entries: (1) a main entry, defined as a keyword or concept followed by a reference to the page on which that word or concept appears, and (2) a subentry, defined as an elaboration on the main entry followed by a page reference.

The index covers volume text, figures, and tables but not core-description forms ("barrel sheets"), core photographs, smear slide data, or thin section descriptions. Also excluded from the index are bibliographic references, names of individuals, and routine front matter.

The Subject Index follows a standard format. Geographical, geologic, and other terms are referenced only if they are subjects of discussion. A site chapter in the *Initial Reports* is considered the principal reference for that site and is indicated on the first line of the site's listing in the index. Such a reference to Site 1253, for example, is given as "Site 1253, A4:1–184."

The Taxonomic Index is an index relating to significant findings and/or substantive discussions, not of species names *per se*. This index covers three varieties of information: (1) individual genera and species that have been erected or emended formally, (2) biostratigraphic zones, and (3) fossils depicted in illustrations. A taxonomic entry consisting of both genus and species is listed alphabetically by genus and also by species. Biostratigraphic zones are listed alphabetically by genus; zones with letter prefixes are listed under "zones."

SUBJECT INDEX

1/strontium ratio, vs. strontium isotopes, B5:17

A

accretionary prisms, plate tectonics, A1:8–10

acoustic logging, dipole shear sonic tool, B13:15

acoustic waves, fracture density, B13:1–22

Actinobacteria, microbial divergence indexes, B8:9

advection

model parameters, B6:26

See also fluid advection

age, forearc wedges, B1:16

age vs. depth

middle Miocene, B4:16

sedimentation rates, B4:4–5

Site 1254, B14:21

age models, isotope stratigraphy, B4:4–5

alkali index, vs. aluminum oxide, A5:61

alkalinity

geochemical cycles, B6:9

pore water, A4:46; A6:16

vs. depth, B6:20, 23

alteration

gabbro, A4:32–33

gabbro sills, A4:27–28

igneous rocks, B1:12–13; B9:7

photograph, A4:80

photomicrograph, A1:57, 59; A4:90, 92, 108

tephra, A4:23

volcanic glass, A6:10

aluminum. *See also* titanium/aluminum ratio

aluminum/(aluminum + iron + manganese) ratio, vs. depth, B3:10

aluminum oxide

sediments, A4:23; A5:17

tephra, A4:25

vs. alkali index, A5:61

vs. depth, A4:82, 114; A5:58

See also calcium oxide/aluminum oxide ratio

Alvin submersible postcruise visit, CORK-II, A1:36–37; A2:11–13

ammonium

deformation, A5:33

geochemical cycles, B6:9; B7:12

pore water, A4:46; A5:31; A6:16; B1:28

vs. depth, A4:145; A5:85; B6:20; B7:28

vs. time, B1:54

anaerobic methane oxidation, geochemical cycles, B6:1–26

anoxic environment, diffusion, B6:10–11

anteiso branching pentadecanoic acid, gas chromatograms, B8:17

Archaea, sediments, B8:6–11

augite, gabbro sills, A4:27–28

authigenesis, sediments, A4:24; A6:10

B

bacteria

microbial divergence indexes, B8:9
sediments, A4:49–50; A6:20

barite

geochemical cycles, B6:26
sediments, B2:9–10; B3:4

barium

convergent margins, B2:1–22; B5:5–7
correlation of Sites 1040 and 1039, B2:18
décollement zone, A1:13; B2:7
pore water, A4:46–47; A5:31; A6:16; B1:18–19; B2:19
sediments, A4:24; A5:17; A6:10; B5:21
vs. cobalt, B3:13
vs. copper, B3:12
vs. depth, A1:52; A4:83, 114, 147; A5:60, 84; B1:51;
B2:15–17; B5:15–16; B6:23
vs. zinc, B3:11

basalt, cryptocrystalline

contact with gabbro, A4:29–35
photograph, A1:59; A4:97–98
photomicrograph, A4:99

basalt, trace elements, B9:9–10

basement, oceanic

crust, A2:11
fluid flow, B6:9–11
fracture density, B13:1–22

bathymetry, maps, A1:42–44; B1:39; B7:25; B8:15; B10:7;
B14:15

bedding, sediments, A4:35–36

bedding dip

sediments, A5:21
stereographic projection, A5:65, 67
vs. depth, A4:120; A5:65, 67

bedding planes, orientation, A4:122

beryllium-10, vs. depth, A1:48

bioenergetic divergence index

vs. depth, B8:21
vs. microbial divergence index, B8:22

biomarkers, sediments, B1:24; B8:6–11, 23

biosphere, sediments, B8:6–11

biostratigraphy, sedimentary wedges, B1:14–16

bioturbation, photograph, A4:75, 81

bivalves, photomicrograph, A5:55

blocks

photograph, A6:32
re deposition, A6:9
sedimentation, A5:15

borehole diameter

vs. depth, B13:17–20
waveforms, B13:6

boreholes, installation, A4:69

boron

pore water, A4:47
vs. depth, A4:147; A5:84

breccia

lithology, A4:21
quinones, B8:18

breccia, equidimensional, photograph, A5:68

brecciation

photograph, A5:54
plate tectonics, A1:10
sediments, A5:21–22
underthrusting, A6:11
vs. depth, A5:64

brittle shear, photograph, A1:69

bromide

pore fluids and sediments, B5:5–7
vs. depth, B5:10
See also fluoride/bromide ratio

bromide/chloride ratio

pore fluids and sediments, B5:6–7
vs. depth, B5:10

burrows, photograph, A6:34

C

calcarenite, plate tectonics, A1:10

calcite

alteration, A4:33
re deposition, A6:9
sediments, A4:22
tephra, A4:23

calcite cement, sparry, photomicrograph, A5:55

calcium

deformation, A5:33
geochemical cycles, B6:11
pore fluids and sediments, B5:6–7
pore water, A4:46–47; A5:30; A6:15
vs. depth, A1:50–51, 62; A4:70, 146; A5:45, 83; B1:43–
44; B6:20, 22
vs. fluoride, B5:11
See also magnesium/calcium ratio

calcium carbonate

sediments, A4:180; A5:35
vs. depth, A4:149; A5:88
vs. titanium/aluminum ratio, B3:8

calcium oxide

sediments, A5:17
vs. depth, A4:83, 114; A5:60

calcium oxide/aluminum oxide ratio

gabbro, A4:34–35
vs. magnesium number, A4:116
vs. nickel, A4:117

caliper logs, vs. depth, A4:160, 164–167

carbon

fluid mobility tracers, B7:11–12
microbial divergence indexes, B8:10
organic matter, A5:36
wedge sediments, B7:1–38

carbon, inorganic

permeability, B11:13
sediments, A4:180; A5:35, 111; A6:19, 54
sediments and igneous rocks, A4:48–49

carbon, organic

sediments, A6:19; B1:21–23
sediments and igneous rocks, A4:48–49
vs. depth, B6:21

carbon, pyrolizable, sediments, A5:112

- carbon, total
 permeability, B11:13
 sediments, A4:180; A5:111; A6:54
- carbon, total organic
 effects of storage and pretreatment, B7:21–23, 37
 permeability, B11:13
 sediments, A4:180; A5:35–36, 111–112; A6:19, 54;
 B7:5–14, 34–35
 vs. carbon isotopes, B7:31
 vs. depth, A4:149; A5:88; B7:29
- carbon, total organic/total nitrogen ratio
 diagenesis, B7:6–8
 sediment sources, B7:8–11
 sediments, A4:180; A5:36, 111; A6:19, 54
 vs. depth, B7:29
- carbon-nitrogen evidence
 diagenesis, B7:7–8
 sediment sources, B7:8–11
- carbon isotopes
 seafloor sediments, B7:6–7
 sediments, B7:5–14, 34–35
 subducting pelagic sections, B4:1–18
 vs. depth, B1:50; B4:9–14; B7:29–30
 vs. nitrogen isotopes, B7:32
 vs. total organic carbon, B7:31
- carbon reservoirs, seafloor sediments, B7:6–7
- carbonate compensation depth, lithology, A6:9
- carbonate content
 sediments, A5:111; B7:6
 sediments and igneous rocks, A4:48–49
 vs. depth, B7:30
- carbonates
 fractional porosity, B10:14
 lithology, A6:9
 microbial activity, B8:8
 middle Miocene, B1:14–15
 permeability, B11:13
 photograph, A6:32
 sedimentation, A5:15
- carbonates, biogenic, titanium/aluminum ratio, B3:4
- Caribbean plate, convergent margins, A1:7–8
- Carnegie Ridge, plate tectonics, A1:6–7
- cavity fillings, photomicrograph, A1:61
- cementation, sediments, A5:18
- Central America
 seismogenic zones, A1:5–6
 subduction zones, A1:1–3
- cesium
 pore fluids and sediments, B5:5–7, 21
 vs. depth, B5:12, 14–15
- chalk, nannofossil
 lithology, A4:21; A6:9
 photograph, A4:75, 77, 81, 121; A6:33
 photomicrograph, A4:78; A6:29
- chemical composition, sediments, A4:172
- chilled margins, photograph, A4:97–98
- chloride
 pore water, A4:46; A5:28–29; A6:14–15; B1:28
 vs. depth, A4:144; A5:82
See also bromide/chloride ratio; sodium/chloride ratio
- chlorite
 alteration, A4:32
 gabbro sills, A4:28
See also kaolinite/chlorite ratio
- Chondrites*
 lithology, A4:21
 photograph, A4:75
- chromium
 gabbro, A4:34
 microbial activity, B8:7–8
 vs. depth, A4:114
 vs. zirconium, A4:118
- Chron C5Bn.2n, sediments, A4:42
- Chron C5Cn, sediments, A4:42
- Chron C5Cn.1n, sediments, A4:42
- chrons, gabbro, A4:43
- chrons, normal, igneous units, A4:176
- clasts, lithology, A4:21
- clay mineralogy, sediments, A5:19
- clay minerals, smear slides, A5:14
- clays
 alteration, A4:32–33
 gabbro, A4:29
 gabbro sills, A4:27–28
 parallel laminations, A4:20
 photograph, A1:59; A4:77, 87–88, 93–94, 97–98, 100–104; A6:27
 photomicrograph, A1:57; A4:78, 92, 110
 vs. depth, A4:79; A5:53; A6:28
 X-ray diffraction data, A5:102–103
- clays, detrital, titanium/aluminum ratio, B3:4
- claystone
 photograph, A1:67; A4:80; A5:46, 50, 62; A6:30, 33
 photomicrograph, A4:78; A6:29
 redeposition, A6:9
- claystone, calcite-rich, photograph, A4:76
- claystone, redeposited diatom-rich, photomicrograph, A6:29
- claystone, silty, photomicrograph, A5:51
- clinopyroxene
 gabbro sills, A4:27–28
 photomicrograph, A1:58–59; A4:89–90, 99, 106, 109, 113
 titanium oxide vs. vanadium, B9:25
- cobalt
 sediments, B3:4
 vs. barium, B3:13
- cobbles
 photograph, A5:54; A6:32, 34
 photomicrograph, A5:55
 sedimentation, A5:15
- Cocos-Nazca spreading center
 igneous complex, B9:20
 plate tectonics, A1:6–7
- Cocos plate
 off-axis plume-ridge interaction, B9:1–38
 plate tectonics, A1:6–9; B1:12
- coenzymes, microbial activity, B8:7–8
- cofactors, microbial activity, B8:7–8
- color contrast, photograph, A6:30

compaction
 hydrology, B6:3
 vs. depth, A1:52
compressional wave velocity
 fractures, B13:7
 lithology, A4:39
 vs. depth, A4:134; B13:17
 vs. porosity, A4:134
compressional wave velocity logs, vs. depth, A4:164
concretions, carbonate, photograph, A5:62
concretions, sediments, A5:18
conductivity-temperature-depth, recorder profile,
 A4:153
conglomerate, redeposited, photograph, A6:31
consolidation
 axial displacement, B10:18–24
 subducting sediments, B10:1–24
consolidation system, photograph, B10:8
contamination
 gabbro, A4:183
 seawater, A4:181–182
 sediments, A4:50–53
 tracers, A5:36
convergent margins
 geochemistry, B2:1–22
 hydrology, A1:11–13; B6:3
 hydrothermal alteration, B3:1–16
 microbiology, B8:1–26
 oceanic crust, A1:7–8
 subduction flux, B1:1–54
 subduction zones, A1:1–3
copper
 microbial activity, B8:8
 sediments, B3:4
 vs. barium, B3:12
core recovery, vs. depth, A4:71–73, 105; B1:47; B9:22
CORK-II
 Alvin submersible postcruise visit, A1:36–37
 installation, A1:25–26, 36, 63, 72–74; A2:1–36; A4:11,
 69; A6:4, 25
 installation schematic, A1:53
 monitoring, A2:1–36
corrensites, gabbro sills, A4:28
Costa Rica margin
 calcareous nannofossil biostratigraphy, B14:1–26
 carbon and oxygen isotopes, B4:1–18
 convergent margins, B2:1–22
 CORK-II, A2:1–36
 fracture density, B13:1–21
 geology, A1:1–75
 hydrothermal alteration, B3:1–16
 igneous complex, B9:1–38
 nitrogen flux, B7:12–13
 operations, B1:8–9
 permeability and consolidation, B10:1–24; B11:1–13
 pore fluid geochemistry, B5:1–21
 subduction flux, B1:1–54
 subseafloor sediment habitability, B8:1–26
 temperature, B12:1–20
Costa Rica subduction zone, hydrology, B6:1–26
cristobalite/quartz ratio, X-ray diffraction data, A5:18–19

crystal accumulation
 igneous rocks, B9:7, 11–12
 rare earths, B9:32
cultivation, bacteria, A4:52

D

Davis-Villinger probe, pressure-temperature conditions,
 A4:55–57; A5:37–39; B1:25
debris flows
 redemption, A6:9
 sedimentation, A5:15
décollement zone
 barium, B2:7
 carbon-nitrogen cycles, B7:12–14
 CORK-II, A2:11–12
 deformation, A5:20–22
 geochemistry, A6:17
 lithology and structure, A6:35
 photograph, A5:47; A6:36
 plate tectonics, A1:8–10; B1:29
 quinones, B8:20
 reaction fronts, B6:8–9, 13–14
 scaly fabric, A6:11
 structure and lithology, A5:64
 temperature, B12:19
deep resistivity logs, vs. depth, A4:163
deformation
 alteration, A1:11–13
 carbon-nitrogen evidence, B7:8–11
 photograph, A1:68; A5:47–48
deformation, brittle
 igneous units, A4:36
 sediments, A5:18
deformation bands
 sediments, A5:20
 vs. depth, A5:64
deformation fronts, plate tectonics, A1:8–10
Dehalococcoides, microbial divergence indexes, B8:9
demagnetization
 discrete samples, A4:44; A5:27
 magnetic domains, A4:140–141
 sediments, A5:25–26; A6:13
demagnetization, alternating-field
 gabbro, A4:42
 sediments, A4:41–42
density
 lithology, A4:37–38
 sediments, A5:23–24; A6:12
density, bulk, vs. depth, A4:130–131; A5:70–71, 73;
 A6:37; B9:22
density, grain, vs. depth, A4:132; A5:72; A6:38
density correction logs, vs. depth, A4:162
density logs
 lithology, A4:61
 vs. depth, A1:55–56; A4:71–73, 162–167; B13:13
deoxyribonucleic acid, extraction, A4:52–53; B1:24;
 B8:6–11
dewatering, décollement zone, A1:13
diagenesis
 carbon-nitrogen evidence, B7:7–8

fluid flow, A1:11–13
forearc wedges, A6:10
hydrology, B6:6–7
lithology, A4:21
organic matter, B2:6–7
seafloor sediments, B7:6–7
sediments, A5:18
total organic carbon/total nitrogen ratio, B7:6–8
See also authigenesis; cementation
diatom datums, middle Miocene, B1:15
diatomite, clayey, quinones, B8:19
diatoms
 photograph, A4:75, 81
 photomicrograph, A5:51; A6:29
 sediments, A6:8
 smear slides, A5:14–15
 vs. depth, A4:79; A5:53; A6:28
differentiation, gabbro, A4:31–32
diffusion, fluid flow, B6:10–11
dipole shear sonic tool, acoustic logging, B13:15
Discoasters
 lithology, A6:9
 photomicrograph, A6:29
discrete samples
 demagnetization, A4:44
 paleolatitude, A4:44–45
 Zijderveld diagrams, A4:142
DNA. *See* deoxyribonucleic acid
downhole logging, A1:22–23; A4:7–9, 59–64; B13:13
downhole measurements
 Site 1253, A1:22; A4:7, 53–57
 Site 1255, A1:32–33; A5:7–8, 37–39

E

enzymes, microbial activity, B8:7–8
ethane
 sediments, A5:35
 vs. depth, A5:86–87; A6:43
eubacteria, microbial divergence indexes, B8:9

F

fabric, scaly
 décollement zone, A6:11
 sediments, A5:21
Farallon plate
 convergent margins, A1:7–8
 hotspots, B9:12–13
fatty acid methyl esters, sediments, B8:6–11
fault gouge
 photograph, A1:69; A5:48
 vs. depth, A5:64
fault zones
 barium, B2:9–10
 sediments, A5:21
 vs. depth, A1:51
faults
 alteration, A1:11–13
 vs. depth, A5:64

faults, normal
 photograph, A4:123
 sediments, A4:35–36
faults, reverse
 orientation of conjugate sets, A4:124, 128
 photograph, A4:123
 stereographic projection, A5:66
fecal pellets, sedimentation, A5:15
feldspar, lithology, A6:8–9
fissility dip, sediments, A5:21
fissures, photomicrograph, A4:110
fluid advection
 convergent margins, B1:20
 See also advection
fluid flow
 carbon-nitrogen tracers, B7:11–12
 convergent margins, A1:11–13
 diffusion, B6:10–11
 geochemistry, A6:17
 hydraulic properties, B1:24–25
 hydrology, B6:1–26
 incoming plate, A1:23–24; A4:9; B1:26–28
 prism wedges, B6:7–8, 11–13
 subduction flux, B1:1–54
fluid flow, upward, geochemical cycles, B6:10
fluid flux
 CORK-II, A2:1–36
 subduction zones, A1:1–3
fluoride
 pore fluids and sediments, B5:5–7
 vs. calcium, B5:11
fluoride/bromide ratio, vs. depth, B5:9
foliation
 stereographic projection, A5:66
 vs. depth, A5:64
foraminifer datums, middle Miocene, B1:15
foraminifers
 photograph, A4:77
 photomicrograph, A4:78
forearc prisms
 photograph, A5:46
 underthrusting, B1:5–7, 29
forearc wedges
 age, B1:16
 carbon and nitrogen geochemistry, B7:1–38
 diagenesis, A6:10; B1:5
forearcs, plate tectonics, A1:8–10; B1:5–7
Formation MicroScanner imagery
 igneous units, A1:60
 lithology, A4:63–64
 vs. depth, A4:73, 160, 164–167; B1:48
fractional crystallization, igneous rocks, B9:7, 11–12
fractures
 density, B13:1–21
 gabbro sills, A4:27–28
 igneous units, A1:60; A4:36; B1:13
 photograph, A4:102–103
 vs. depth, A4:73, 87–88, 93–98, 100–104; A5:64;
 B1:48; B13:20

G

gabbro
contamination, A4:183
emplacement, B1:10–12; B9:12–13
magnetic inclination, A4:143
paleomagnetism, A4:42–43
petrography, A4:31–32
petrology, A4:28–35
structures, A4:36
gabbro, fine-grained
lithologic units, A4:26–28
photomicrograph, A4:106
gabbro, holocrystalline
photograph, A1:57; A4:86
photomicrograph, A1:57
gabbro, medium-grained
petrology, A4:28–35
photomicrograph, A4:106
gabbro, microcrystalline
lithologic units, A4:26–28
petrology, A4:28–35
photograph, A4:88, 91, 94, 96, 98, 101, 103
photomicrograph, A1:57–58; A4:89–90, 92, 106–110, 113
gabbro, plagioclase-pyroxene, lithologic units, A4:26–28
gabbro intrusions, magnetic inclination, A4:143
gabbro sills
geochemical data, A4:174–175
lithologic units, A4:26–28
Galapagos hotspot, tephra, A4:26
Galapagos Islands, trace elements, B9:9–10
gamma-ray logs
lithology, A4:60–61
vs. depth, A4:161
gamma rays
lithology, A4:40
sediments, A5:24; A6:12
vs. depth, A6:39
gamma rays, corrected natural, vs. depth, A4:135; A5:74
gases, headspace, composition, A4:179; A5:110; A6:52
gases, Vacutainer, composition, A5:109; A6:53
gastropods, photomicrograph, A5:55
genes, methanogen-specific
sediments, B8:6–11
vs. depth, B8:18–19
geochemical data, gabbro sills, A4:174–175
geochemistry
incoming plate, B1:26–28
rock standards JB-2 and JB-1A, B3:16
sediments, B1:16–17
subduction recycling, B1:23–24
geochemistry, inorganic
Site 1253, A1:20–21; A4:6, 45–48
Site 1254, A1:30–32; A5:5–7, 27–33
Site 1255, A1:35; A6:3, 14–17
geochemistry, organic
Site 1253, A1:21; A4:6, 48–49
Site 1254, A1:32; A5:7, 33–37
Site 1255, A1:34–35; A6:2–3, 18–19
geothermal gradient, potassium, A5:32–33

glass shards
photomicrograph, A4:85; A5:51
tephra, A4:20
glauconite, lithology, A6:8–9
grain size
gabbro, A4:29
permeability, B11:13
photograph, A4:87–88
tephra, A5:15–16
vs. depth, A4:87–88, 93–98, 100–104
growth zoning, plagioclase, photomicrograph, A4:107
Guatemala, subduction factory, A1:5–6

H

habitability, subseafloor sediments, B8:1–26
hafnium, igneous rocks, B9:9–11
hafnium/tantalum ratio
vs. lanthanum/samarium ratio, B1:11–12; B9:30–31
vs. magnesium number, B9:26–27
heat flow
deformation fronts, A1:49; B1:4
plate tectonics, A1:10–11
heat flux, long-term measurements, B12:4–6, 9
hemipelagic environment, photograph, A5:47–48
heptadecanoic acid, gas chromatograms, B8:17
hexadecanoic acid, gas chromatograms, B8:17
hotspots, sill emplacement, B9:12–13
hydraulic properties, B1:24–25
hydrocarbons, kerogen-derived, sediments, A5:112
hydrocarbons, thermogenic, microbial divergence indices, B8:10
hydrocarbons, volatile, sediments, A4:48; A5:34–35, 112; A6:18–19
hydrogen index, sediments, A5:112; A6:19
hydrology
convergent margins, A1:11–13; B1:7–8
CORK-II, A2:1–36
transport-reaction model, B6:1–26
hydrothermal alteration
geochemistry, B1:16–17; B3:1–16
See also authigenesis; cementation
hydrothermal circulation, water budget, B6:11

I

igneous complex, source and petrogenesis, B1:10–14; B9:1–38
igneous petrology, A1:18–19; A4:3–4, 27–35
igneous rocks
rock magnetism, A4:43–44
stratigraphy, A1:24–25; A4:9–10; B9:7
trace elements, B9:9–10
X-ray diffraction data, A4:173
illite
sediments, A4:22; A5:19
vs. depth, A5:63
See also smectite-illite clays
ilmenite
gabbro sills, A4:27–28
photomicrograph, A1:57; A4:89, 92

inclusions
 gabbro, A4:31–32
 photomicrograph, A4:90, 108
incoming plate, monitoring, B1:26–29
instruments, CORK-II, A2:7–11
intrusions, remanent magnetization, A4:42–43
iron
 microbial activity, B8:6–11
 pore water, A4:47; A5:31; A6:16
 sediments, B3:4
 vs. depth, A4:145; A5:85
 See also aluminum/(aluminum + iron + manganese)
 ratio
iron-manganese oxides, sediments, B3:4
iron oxide
 alkalis-iron-magnesium diagram, B9:24
 gabbro, A4:34
 microbial activity, B8:7–8
 sediments, A4:24
 tephra, A4:25
 vs. depth, A4:114
 vs. titanium/aluminum ratio, B3:9
iron oxide/magnesium oxide ratio, tephra, A4:25
Isla Floreana, trace elements, B9:9–10
isochrons
 igneous complex, B1:41; B9:20
 magnetic anomalies, A1:45; B7:24
isotope stratigraphy, age models, B4:4–5

J

joints
 contour plots, A4:126
 igneous units, A4:36
 pyroxene gabbro, A4:125

K

kaolinite, sediments, A5:19
kaolinite/chlorite ratio, vs. depth, A5:63

L

laminations, parallel, photograph, A5:52
laminations, photograph, A4:76–77, 121
lanthanum, basalt, B9:9–10
lanthanum/samarium ratio
 vs. hafnium/tantalum ratio, B1:11–12; B9:30–31
 vs. magnesium number, B9:26–27
laumontite, alteration, A4:33
lightness, vs. depth, A4:74; A5:49
limestone
 photograph, A5:54
 photomicrograph, A5:55
limestone, lithified, photograph, A6:32
limestone, peloidal, sedimentation, A5:15
lipids, Archaeal, sediments, B8:6–11
lithification, photograph, A5:54
lithium
 deformation, A5:33
 geochemical cycles, B6:11

 pore water, A4:47; A5:31–32; A6:17
 vs. depth, A1:51, 62; A4:70, 147; A5:45, 84; B1:44;
 B6:22
lithium isotopes
 hydrothermal alteration, B1:17–18; B5:5–7
 pore fluids, B5:20
 vs. depth, B5:18
lithologic units
 Unit U4A, A4:26–28
 Unit U4B, A4:28–33
 Unit U4B-1, A4:29
 Unit U4B-2, A4:29
 Unit U4B-3, A4:29
 Unit U4B-4, A4:29–30
 Unit U4B-5, A4:30
 Unit U4B-6, A4:30
 Unit U4B-7, A4:30–31
 vs. depth, A4:79
 X-ray diffraction data, A6:11
lithology
 décollement zone, A6:35
 summary, A1:46; B1:40; B7:27
 vs. depth, A4:74; A5:45, 49
lithostratigraphy
 Site 1253, A1:17–18; A4:3, 19–26
 Site 1254, A1:27–28; A5:2–3, 13–19
 Site 1255, A1:34; A6:2, 7–11
loss on ignition, igneous rocks, B9:7
Lowrie-Fuller tests, hemipelagic sediments and igneous
 rocks, A4:43–44
Lowrie's tests
 hemipelagic sediments, A4:43
 saturation remanent magnetization, A4:139

M

magmatic contacts
 contour plots, A4:126
 gabbro, A4:29–35
 gabbro sills, A4:27–28
 igneous units, A4:36
 photograph, A4:87–88, 95–98, 100–101
 photomicrograph, A4:109
 pyroxene gabbro, A4:125
 vs. depth, A4:87–88, 93–98, 100–104
magmatism, plate tectonics, B1:12
magnesium
 pore water, A4:46–47; A5:30; A6:15
 sediments, A4:24
 vs. depth, A4:146; A5:83
magnesium/calcium ratio
 pore water, A4:46–47
 vs. depth, A4:146; A5:83
magnesium number
 crystal accumulation, B9:12
 gabbro, A4:34–35
 vs. calcium oxide/aluminum oxide ratio, A4:116
 vs. minor elements, B9:26–27
 vs. trace elements, B9:26–27
magnesium oxide
 alkalis-iron-magnesium diagram, B9:24

- gabbro, A4:34
 - sediments, A5:17
 - vs. depth, A4:83, 114; A5:60
 - See also* iron oxide/magnesium oxide ratio
 - magnetic declination
 - sediments, A5:25–26; A6:13
 - vs. depth, A5:77–78; A6:41
 - magnetic domains
 - demagnetization, A4:140–141
 - magnetization ratio, A4:140–141
 - magnetic field, downhole measurements, A4:64
 - magnetic inclination
 - gabbro, A4:43, 143
 - sediments, A4:42, 143; A5:25–26; A6:13
 - vs. depth, A4:137; A5:76–78; A6:41
 - magnetic intensity
 - gabbro, A4:43
 - isothermal remanent magnetization, A4:139
 - saturation remanent magnetization, A4:139
 - sediments, A5:26; A6:13
 - vs. depth, A4:137–139, 168; A5:77–80; A6:42
 - magnetic intensity, demagnetization/natural remanent ratio, vs. depth, A4:138; A5:79
 - magnetic polarity
 - gabbro, A4:43
 - sediments, A4:41–42; A6:14
 - vs. depth, A4:71–72, 88, 94, 96, 98, 101, 103–104
 - magnetic susceptibility
 - lithology, A4:40
 - sediments, A5:24, 26–27; A6:12–13
 - vs. depth, A4:136; A5:75, 80; A6:40, 42
 - magnetite
 - gabbro, A4:42
 - gabbro sills, A4:27–28
 - photomicrograph, A1:57; A4:89
 - magnetization ratio, magnetic domains, A4:140–141
 - major elements
 - gabbro, A4:33–35
 - igneous rocks, B9:7–8, 35–38
 - sediments, A4:23–24; A6:10; B3:14–15
 - sediments and tephra, A5:94, 16–18
 - tephra, A4:25
 - vs. depth, A4:114
 - manganese
 - microbial activity, B8:6–11
 - microbial divergence indexes, B8:10
 - pore water, A4:47; A5:31; A6:16
 - vs. depth, A4:145; A5:85
 - See also* aluminum/(aluminum + iron + manganese) ratio; iron-manganese oxides
 - manganese oxide
 - microbial activity, B8:7–8
 - sediments, A4:24
 - mantle, upper, hotspots, B9:12–13
 - mass accumulation rates, middle Miocene, B1:14–15
 - mass flows, parallel laminations, A4:20
 - medium resistivity logs, vs. depth, A4:163
 - melting, overprinting, B9:12–13
 - melts, gabbro, A4:31–32
 - menaquinones. *See* ubiquinones/menaquinones ratio
 - mesolite
 - alteration, A4:33
 - photomicrograph, A1:58; A4:113
 - X-ray diffraction data, A4:111
 - metalliferous sediment index, vs. depth, B3:10
 - metamorphic petrology, A1:18–19; A4:3–4, 27–35
 - methane
 - deformation, A5:33
 - geochemical cycles, B6:1–26
 - sediments, A5:34–35; A6:18–19
 - vs. depth, A4:148; A5:86–87; A6:43; B6:23
 - See also* anaerobic methane oxidation
 - methane/propane ratio, sediments, A5:35
 - mica, lithology, A6:8–9
 - microbial activity, sediments, B8:6–11
 - microbial communities, chemosynthetic, organic carbon, B8:10
 - microbial divergence index
 - quinones, B8:9–10
 - vs. bioenergetic divergence index, B8:22
 - vs. depth, B8:21
 - microbiology
 - Site 1253, A1:21; A4:6–7, 49–53
 - Site 1254, A1:32; A5:7, 36
 - Site 1255, A1:35; A6:3, 19–20
 - microfaults, vs. depth, A4:120
 - microspheres, microbiology, A5:113
 - Middle America Subduction Zone, plate tectonics, A1:6–10
 - Middle America Trench
 - bathymetric map, A1:43
 - geochemistry, B5:1–21
 - plate tectonics, A1:10
 - miniaturized temperature loggers
 - calibration, B12:11
 - construction, B12:10
 - installation, B12:1–20
 - minor elements, vs. magnesium number, B9:26–27
 - Miocene
 - geologic timescale, B14:19
 - quinones, B8:18
 - Miocene, middle
 - age vs. depth, B4:16
 - biostratigraphy, B1:14–15
 - isotope stratigraphy, B4:4–5
 - tephra, A4:26
 - Miocene, upper, nannofossil biostratigraphy, B14:1–26
 - MK4, microbial divergence indexes, B8:9
 - MK5, microbial divergence indexes, B8:9
 - multidomain grains, gabbro, A4:42
- N**
- nannofossil datums, middle Miocene, B1:15
 - nannofossils
 - lithology, A6:9
 - smear slides, A5:14–15
 - vs. age, B14:20
 - vs. depth, A4:79; A5:53; A6:28
 - nannofossils, calcareous, biostratigraphy, B14:1–26
 - Nazca plate. *See* Cocos-Nazca spreading center

neodymium isotopes
igneous rocks, B1:11; B9:8–9
metalliferous sediments, B1:17–18
vs. strontium isotopes, B9:29
neutron porosity logs, vs. depth, A1:55–56; A4:71–73,
162
Nicaragua, subduction factory, A1:5–6
nickel
gabbro, A4:34–35
sediments, A6:10
vs. calcium oxide/aluminum oxide ratio, A4:117
Nicoya, subduction factory, A1:5–6
nitrogen
fluid mobility tracers, B7:11–12
organic matter, A5:36
subduction recycling, B1:23–24
wedge sediments, B7:1–38
See also carbon-nitrogen evidence
nitrogen, total
effects of storage and pretreatment, B7:21–23, 38
sediments, A4:180; A5:111; A6:54; B7:5–14, 34–35
vs. depth, B7:28
vs. nitrogen isotopes, B7:31
nitrogen flux, subduction, B7:12–13
nitrogen isotopes
effects of storage and pretreatment, B7:22–23, 36, 38
seafloor sediments, B7:6–7
sediments, B7:5–14, 34–35
vs. carbon isotopes, B7:32
vs. depth, B7:28
vs. total nitrogen, B7:31
nitrogen reservoirs, seafloor sediments, B7:6–7

O

oceanic plates, hydrology, B6:3
octadecanoic acid, gas chromatograms, B8:17
olivine
alteration, A4:32–33
photomicrograph, A1:57; A4:92, 110
titanium oxide vs. vanadium, B9:25
ooze, calcareous, quinones, B8:18
ooze, diatomaceous, quinones, B8:18
opal, diagenesis, A5:18–19
organic matter
composition, A5:36
diagenesis, B2:6–7
sediments, A6:19
orthopyroxene, gabbro sills, A4:27–28
OsmoFlowmeter, CORK-II, A2:5–6, 21–22
OsmoSamplers
CORK-II, A2:3–5, 15–20, 22; B1:14
miniaturized temperature loggers, B12:12
overthrust forearc wedge sequences, redeposition, A6:9
overthrust section, temperature, B12:19
oxidation
geochemical cycles, B6:1–26
See also anaerobic methane oxidation
oxygen isotopes
subducting pelagic sections, B4:1–18
vs. depth, B4:9–13, 15; B7:30

P

Pacific Ocean E central, bathymetric map, A1:42
palagonite
gabbro, A4:31–32
gabbro sills, A4:27–28
redeposition, A6:9
stratigraphy, A5:15–16
palagonitization
igneous rocks, B1:12–13
tephra, A4:20, 25
paleolatitude, discrete samples, A4:44–45
paleomagnetism
gabbro, A4:42–43
sediments, A4:41–42
Site 1253, A1:20; A4:5–6, 41–45
Site 1254, A1:30; A5:5, 25–27
Site 1255, A1:35; A6:3, 13–14
particulate tracers, contamination, A4:51–52
pelagic component, isotope stratigraphy, B4:4–5
pelagic facies, lithology, A4:20
peloids, sedimentation, A5:15
pelsparite, photomicrograph, A5:55
pentadecanoic acid, gas chromatograms, B8:17
perfluorocarbon tracers, contamination, A4:50–51
permeability
flow-through data, B1:29; B10:10, 16–17
geochemical cycles, B6:1–26
Stoneley waves, B13:6–9
subducting sediments, B10:1–24; B11:1–13
test results, B11:11–12
vs. fractional porosity, B10:11–12; B11:10
petrogenesis, igneous rocks, B9:10–11
petrography, gabbro, A4:31–32
phenocrysts
gabbro, A4:31–32
gabbro sills, A4:27–28
phillipsite
alteration, A4:33
X-ray diffraction data, A4:112
phosphate
geochemical cycles, B6:9
vs. depth, B6:20
phospholipid fatty acids
sediments, B8:6–11, 24
vs. depth, B8:18–20
vs. time, B8:17
photoelectric effect logs, vs. depth, A4:161
physical properties
Site 1040, B1:24–25
Site 1253, A1:20; A4:5, 37–41
Site 1254, A1:32; A5:7, 22–25
Site 1255, A1:36; A6:4, 12–13
plagioclase
gabbro, A4:29
photomicrograph, A1:57; A4:89–90, 92, 99, 106–110,
113
tephra, A4:23
titanium oxide vs. vanadium, B9:25
vs. depth, A4:87–88, 93–98, 100–104

- plagioclase aggregates
 gabbro, A4:28–35
 lithologic units, A4:26–28
 plagioclase morphology, vs. depth, A4:87–88, 93–98, 100–104
- Planolites*
 lithology, A4:21
 photograph, A4:75
- plate tectonics, oceanic, convergent margins, A1:7–8; B1:3–5
- plate tectonics, subduction zones, A1:1–3
- Pleistocene
 forearc wedges, B1:16
 geologic timescale, B14:19
 nannofossil biostratigraphy, B14:1–26
 quinones, B8:19
- Pliocene
 forearc wedges, B1:16
 geologic timescale, B14:19
 nannofossil biostratigraphy, B14:1–26
 quinones, B8:19
- plume-ridge interaction, off-axis, igneous complex, B9:1–38
- plumes, overprinting, B9:12–13
- polymerase chain reaction, contamination, A4:52–53
- pore pressure
 décollement zone, A1:13
 vs. depth, A1:52
- pore water
 geochemistry, A4:46–48, 177–178; A5:28–33, 107–108; A6:14–17, 50–51; B1:18–21; B2:5; B5:1–21
 hydrology, B6:1–26
- porosity
 geochemical cycles, B1:29; B6:1–26
 lithology, A4:37–38
 sediments, A5:23–24; A6:12
 vs. compressional wave velocity, A4:134
 vs. depth, A4:130; A5:45, 70, 73; A6:37; B6:21, 23; B9:22
- porosity, fractional
 carbonates, B10:14
 vs. permeability, B10:11–12; B11:10
- porosity logs
 lithology, A4:61–62
 vs. depth, A1:55–56; A4:71–73, 162; B13:13
See also neutron porosity logs
- potassium
 geothermal gradient, A5:32–33
 pore water, A4:46; A5:29–30; A6:15
 sediments, A4:24
 vs. depth, A4:144; A5:82; B5:13; B6:22
- potassium logs, vs. depth, A4:161
- potassium oxide
 sediments, A4:24; A5:17; A6:10
 tephra, A5:18
 vs. depth, A4:84; A5:59
 vs. magnesium number, B9:26–27
 vs. silica, A5:61
See also sodium oxide + potassium oxide
- pressure
 CORK-II, A2:7–8, 25–26
 Davis-Villinger probe, A4:55–57; A5:37–39
 incoming plate, B1:26–28
 vs. time, A4:155, 157–158; A5:88–91; B1:52–53; B10:10
 pressure-temperature conditions, Davis-Villinger probe, A4:55–57; A5:37–39
- prism fault zones, deformation, A5:20
- prism wedges
 fluid flow, B6:7–8, 11–13
 hydrology, B6:1–26
- productivity index, sediments, A5:112
- propane
 geochemical cycles, B1:20; B6:12
 sediments, A5:35; A6:18–19
 vs. depth, A1:51; A5:45, 86–87; A6:43; B1:44; B6:22
See also methane/propane ratio
- Proteobacteria*, microbial divergence indexes, B8:9
- pyroxene
 gabbro, A4:29
 vs. depth, A4:87–88, 93–98, 100–104
- ## Q
- quartz
 lithology, A6:8–9
 photomicrograph, A5:55
 tephra, A4:23
See also cristobalite/quartz ratio
- quinones
 microbial divergence indexes, B1:24; B8:9–10, 25–26
 sediments, B8:6–11
 vs. depth, B8:18–21
- ## R
- radiolarians, photomicrograph, A5:51
- rare earths
 crystal accumulation, B9:12, 32
 igneous rocks, B9:7
- rare earths, chondrite-normalized, igneous rocks, B9:28
- reaction fronts, décollement, B6:8–9, 13–14
- recrystallization, photograph, A6:32
- redeposition
 blocks, A6:9
 parallel laminations, A4:20
 photograph, A5:54
- Redfield ratio, sediments, A6:19
- remanent magnetization, anhysteretic, hemipelagic sediments and igneous rocks, A4:43–44
- remanent magnetization, isothermal
 magnetic intensity, A4:139
 sediments, A4:41–42
- remanent magnetization, natural
 gabbro, A4:42–43
 sediments, A4:41–42; A5:25–26
 vs. depth, A4:138
- remanent magnetization, postdepositional, sediments, A4:42
- remanent magnetization, saturation, magnetic intensity, A4:139

remanent magnetization, saturation isothermal
 hemipelagic sediments, A4:43
 hemipelagic sediments and igneous rocks, A4:43–44
 remanent magnetization, thermal, hemipelagic sedi-
 ments and igneous rocks, A4:43–44
 resistivity logs
 lithology, A4:62
See also deep resistivity logs; medium resistivity logs;
 shallow resistivity logs
 reverse grading, photograph, A5:56
 Riedel shear surfaces
 sediments, A5:20
 stereographic projection, A5:66
 Rock-Eval data, sediments, A5:112; A6:55
 rock magnetism, sediments and igneous rocks, A4:43–44
 rubidium
 pore fluids and sediments, B5:5–7, 21
 vs. depth, B5:12–15

S

salinity
 geochemical cycles, B6:26
 pore water, A4:46; A5:28–29; A6:14–15
 vs. depth, A5:82
 samarium
 basalt, B9:9–10
See also lanthanum/samarium ratio
 sand
 photograph, A5:52
 vs. depth, A4:79; A5:53; A6:28
 sand, silty, quinones, B8:19
 sand-silt intervals, lithology, A6:8–9
 sandstone, lithology, A6:8–9
 sandstone, micritic, photomicrograph, A5:55
 saponite
 alteration, A4:32–33
 gabbro sills, A4:28
 tephra, A4:23
 scolecite
 alteration, A4:33
 X-ray diffraction data, A4:111
 seawater, contamination, A4:181–182
 sediment sources
 carbon-nitrogen evidence, B7:8–11
 total organic carbon/total nitrogen ratio, B7:8–11
 sedimentation rates, age vs. depth, Site 1053, B4:4–5
 sediments
 barium cycles, B2:8–9, 20–21
 chemical composition, A4:172
 contamination, A4:50–53
 geochemistry, A1:17–18; A5:16–17; A6:10, 45; B1:21–
 23; B5:1–21
 magnetic inclination, A4:143
 paleomagnetism, A4:41–42
 photograph, A6:27
 Rock-Eval data, A6:55
 smear slides, A4:21–22; A5:14–15
 structures, A4:35–36
 X-ray diffraction data, A4:22–23, 170–171; A5:18–19,
 95–103; A6:11, 46–49

sediments, clastic, underthrusting, A6:9
 sediments, forearc prism, photograph, A1:67
 sediments, hemipelagic
 permeability and consolidation, B10:1–24; B11:1–13
 photograph, A1:68
 rock magnetism, A4:43–44
 subduction factory, Central America, A1:5–6
 sediments, metalliferous
 geochemistry, B1:16–17
See also metalliferous sediment index
 sediments, pelagic, permeability and consolidation,
 B10:1–24; B11:1–13
 sediments, subducting, permeability and consolidation,
 B10:1–24; B11:1–13
 sediments, seafloor, habitability, B8:1–26
 sediments, wedge, carbon and nitrogen geochemistry,
 B7:1–38
 seismic profiles
 Middle America Trench, A1:47; B1:4, 42; B6:18; B7:26,
 33; B8:16; B9:21; B10:7; B14:14
 Site 1043, A1:71
 Site 1253, A1:54; A4:68; B2:15; B4:8
 Site 1254, A1:65; A5:44; B2:15
 Site 1255, A1:71; A6:24
 seismogenic zones, subduction zones, A1:5–6; B1:13–14
 sensitivity analysis, geochemical cycles, B6:12
 shallow resistivity logs, vs. depth, A1:55–56; A4:71–72,
 163; B9:22
 shear wave velocity
 fractures, B13:7
 vs. depth, B13:17
 shear wave velocity logs, vs. depth, A4:164
 shear zones
 igneous units, A4:36
 photograph, A5:47–48
 quinones, B8:22
 sediments, A5:20
 shear zones, brittle, stereographic projection, A5:69
 shear zones, conjugate brittle
 photograph, A4:127
 stereographic plot, A4:129
 silica
 diagenesis, A4:21
 gabbro, A4:33
 pore water, A4:47; A5:32; A6:17
 sediments, A4:23; A5:17; A6:10
 tephra, A4:25
 vs. depth, A1:62; A4:70, 82, 147; A5:58
 vs. potassium oxide, A5:61
 vs. sodium oxide + potassium oxide, B9:23
 silica, biogenic, titanium/aluminum ratio, B3:4
 silicon, vs. depth, A5:84
 sills
 age, B1:15–16
 emplacement, B9:12–13
 pore water, A4:47–48
 silt
 photograph, A5:50; A6:30
 redeposition, A6:9
See also sand-silt intervals
 silt, palagonitic, photomicrograph, A6:29

- silt, volcanic, photomicrograph, A6:29
siltstone
 diagenesis, A6:10
 photomicrograph, A5:51; A6:29
siltstone, lithified, photograph, A6:34
Site 574, stable isotopes, B4:14–15
Site 1039
 barium, B2:16
 carbon and oxygen isotopes, B4:1–18
 pore fluid geochemistry, B1:43
 seismic profiles, A1:54
 stable isotopes, B4:1–18
 stratigraphy, B14:16
Site 1039/Site 1253
 lithology, B6:19
 pore fluid geochemistry, B5:3–4
 stratigraphy, B14:16
 sulfate, B6:21
Site 1040
 barium, B2:16
 carbon and nitrogen geochemistry of wedge sedi-
 ments, B7:1–38
 carbon and oxygen isotopes, B4:1–18
 permeability, B11:1–13
 seismic profiles, A1:65
 stratigraphy, B14:17
Site 1040/Site 1254
 lithology, B6:19
 pore fluid geochemistry, B5:4
 pore water data, B6:22
 reaction fronts, B6:23
 stratigraphy, B14:17
Site 1043
 seismic profiles, A1:71
 stratigraphy, B14:18
Site 1043/Site 1255
 fluid flow, B6:22
 lithology, B6:19
 pore fluid geochemistry, B5:4
 pore water data, B6:22
 reaction fronts, B6:23
 stratigraphy, B14:18
 underthrust sediments, B6:22
Site 1253, A4:1–184
 alteration, A1:18–19
 altered sediments, B3:1–16
 Alvin submersible postcruise visit to CORK-II, A1:36–
 37; A2:12–13
 barium, B2:16
 borehole installation, B1:45
 calcareous nannofossil biostratigraphy, B14:1–26
 calcareous nannofossil range and zonation, B14:22
 carbon and oxygen isotopes, B4:1–18
 coring summary, A4:169
 CORK-II, A1:25–26; A2:11; A4:11
 downhole logging, A1:22–23; A4:7–9, 58–64; B13:13
 downhole measurements, A1:22; A4:7, 53–57
 fluid flow, A1:23–24; A4:9
 igneous and metamorphic petrology, A1:18–19; A4:3–
 4, 27–35
 igneous stratigraphy, A1:24–25; A4:9–10; B9:1–38
 inorganic geochemistry, A1:20–21; A4:6, 45–48
 lithostratigraphy, A1:17–18; A4:3, 19–26
 location, A4:67
 microbiology, A1:21; A4:6–7, 49–53
 monitoring of incoming plate, B1:26–28
 operations, A4:11–19
 organic geochemistry, A1:21; A4:6, 48–49
 paleomagnetism, A1:20; A4:5–6, 41–45
 permeability and consolidation, B10:1–24; B11:1–13
 phospholipid fatty acids, B8:18
 physical properties, A1:20; A4:5, 37–41
 reference site, A1:13–15
 science objectives, A1:13–15
 sediment geochemistry, A1:17–18; A4:3
 seismic profiles, A1:54
 site description, A4:1–184
 site summary, A1:16–26; A4:1–11
 stratigraphy, B14:16
 structural geology, A1:19; A4:4–5, 35–36
 temperature, B12:1–20
Site 1254, A5:1–113
 Alvin submersible postcruise visit to CORK-II, A2:12–13
 barium, B2:16
 calcareous nannofossil biostratigraphy, B14:1–26
 calcareous nannofossil range and zonation, B14:23–
 24
 coring summary, A5:92
 data summary, A1:66
 downhole measurements, A1:32–33; A5:7–8, 37–39
 inorganic geochemistry, A1:30–32; A5:5–7, 27–33
 lithostratigraphy, A1:27–28; A5:2–3, 13–19
 location, A1:64; A5:42–43
 microbiology, A1:32; A5:7, 36
 operations, A5:8–13
 organic geochemistry, A1:32; A5:7, 33–36
 paleomagnetism, A1:30; A5:5, 25–27
 permeability and consolidation, B10:1–24
 phospholipid fatty acids, B8:19
 physical properties, A1:32; A5:7, 22–25
 quinones, B8:21
 science objectives, A1:15–16
 seismic profiles, A1:65
 site description, A5:1–113
 site summary, A5:1–8
 stratigraphy, B14:17
 structural geology, A1:28–30; A5:3–5, 20–22
Site 1255, A6:1–55
 Alvin submersible postcruise visit to CORK-II, A1:36–37
 borehole installation, B1:46
 calcareous nannofossil biostratigraphy, B14:1–26
 calcareous nannofossil range and zonation, B14:25
 coring summary, A6:44
 CORK-II, A1:36; A2:11–12; A6:4, 26
 inorganic geochemistry, A1:35; A6:3, 14–17
 lithostratigraphy, A1:34; A6:2, 7–11
 location, A1:70; A6:22–23
 microbiology, A1:35; A6:3, 19–20
 operations, A6:4–7
 organic geochemistry, A1:34–35; A6:2–3, 18–19
 paleomagnetism, A1:35; A6:3, 13
 permeability and consolidation, B10:1–24; B11:1–13

phospholipid fatty acids, B8:20
physical properties, A1:36; A6:4, 12
science objectives, A1:15–16
seismic profiles, A1:71
site description, A6:1–55
site summary, A6:1–4
stratigraphy, B14:18
structural geology, A1:34; A6:2, 11
temperature, B12:1–20
slickenlines, vs. depth, A5:64
slickensides, vs. depth, A5:64
smear slides, sediments, A4:21–22; A5:14–15
smectite
 sediments, A4:22; A5:19
 tephra, A4:23
 vs. depth, A5:63
smectite-illite clays, sediments, A4:22
sodium
 pore water, A4:46; A5:29; A6:15
 vs. depth, A4:144; A5:82
sodium/chloride ratio
 pore water, A5:29
 vs. depth, A4:144
sodium oxide
 gabbro, A4:34
 sediments, A4:24
 vs. depth, A4:84, 114; A5:59
 vs. strontium, A4:119
sodium oxide + potassium oxide
 alkalis-iron-magnesium diagram, B9:24
 vs. silica, B9:23
sponge spicules
 photograph, A4:77
 photomicrograph, A4:78
stable isotopes
 sediments, B1:21–23
 subducting pelagic sections, B4:1–18
stilbite
 alteration, A4:33
 photomicrograph, A1:61; A4:113
 X-ray diffraction data, A4:112
Stoneley velocity logs, vs. depth, A4:164; B1:48
Stoneley wave energy estimated loss, vs. depth, B13:18–20
Stoneley wave velocity, vs. depth, B13:18–19
Stoneley waves
 fracture density, B13:1–22
 permeability, B13:6–9
stratigraphy, igneous rocks, B9:7
stress, effective
 test results, B11:11–12
 vs. void ratio, B10:9
strontium
 pore water, A4:46–47; A5:30; A6:15–16
 sediments, A4:24; A5:17
 vs. depth, A1:50, 62; A4:70, 83, 114, 146; A5:60, 83; B1:43; B6:20
 vs. sodium oxide, A4:119
strontium isotopes
 igneous rocks, B1:13; B9:8–9
 pore fluids, B5:5–7, 20

pore water, B1:43
vs. 1/strontium ratio, B5:17
vs. depth, A1:50; B1:43, 49; B5:19
vs. neodymium isotopes, B9:29
structural geology
 Site 1253, A1:19; A4:4–5, 35–36
 Site 1254, A1:28–30; A5:3–5, 20–22
 Site 1255, A1:34; A6:2, 11
structures
 décollement zone, A6:35
 gabbro, A4:36
 sediments, A4:35–36; A5:104–106
 vs. depth, A5:64; B1:44
subduction factory
 nitrogen flux, B7:12–13
 seismogenic zones, A1:5–6; B1:13–14, 28–29
subduction flux, fluid flow, B1:1–54
subduction recycling, geochemistry, B1:23–24
subduction zones
 calcareous nannofossil biostratigraphy, B14:1–26
 Central America, A1:1–3
 CORK-II, A2:1–36
 seismogenic zones, A1:5–6
sulfate
 geochemical cycles, B6:9–14
 microbial divergence indexes, B8:10
 pore water, A4:46; A5:30–31; A6:16; B1:18–19
 vs. depth, A1:62; A4:70, 145; A5:85; B1:51; B2:16; B6:20–21, 23
sulfate depletion zone
 barium, B2:7
 pore water, A5:30–31
sulfur, total
 sediments, A4:180; A5:35, 111; A6:19, 54
 sediments and igneous rocks, A4:48–49
sulfur, vs. depth, A4:149; A5:88

T

tantalum
 igneous rocks, B9:9–11
 See also hafnium/tantalum ratio
temperature
 CORK-II, A2:6–7, 23
 data logger, A4:154
 Davis-Villinger probe, A4:55–57; A5:37–39
 high-resolution methods, A4:53–55
 incoming plate, B1:26–28
 long-term measurements, B12:1–20
 vs. depth, A4:156
 vs. time, A4:152, 155, 157–158; A5:88–91; B1:52; B12:14–18
 vs. water depth, A4:153
 See also conductivity-temperature-depth; pressure-temperature conditions
temperature events, long-term measurements, B12:5–6
tephra
 geochemistry, B1:17–18
 grain size, A5:57
 lithology, A4:20; A6:10
 location, A5:93

photograph, A5:56
photomicrograph, A4:85
stratigraphy, A5:15–16
tholeiite, A5:61
textures, gabbro sills, A4:27–28
thermal conductivity
 lithology, A4:38–39
 vs. depth, A4:133
tholeiite, tephra, A5:61
thomsonite
 alteration, A4:33
 photomicrograph, A1:58; A4:113
thorium logs, vs. depth, A4:161
titanium, sediments, B3:4
titanium/aluminum ratio
 sediments, A4:23; A5:17; B3:4
 vs. calcium carbonate, B3:8
 vs. depth, A4:82; A5:58; B3:7
 vs. iron oxide, B3:9
titanium oxide
 gabbro, A4:34
 sediments, A4:23; A5:17
 tephra, A4:25
 vs. depth, A4:82, 114; A5:58
 vs. vanadium, A4:115; B9:25
 See also vanadium/titanium oxide ratio
trace elements
 gabbro, A4:33–35
 igneous rocks, B1:14; B9:9–10, 35–38
 sediments, A4:23–24; A6:10; B3:14–15
 sediments and tephra, A5:94, 16–18
 tephra, A4:25
 vs. depth, A4:114
 vs. magnesium number, B9:26–27
trace fossils, lithology, A4:21
transition metals, sediments, B3:4
transport-reaction model, hydrology, B6:1–26
turbidite, trench, photograph, A6:31

U

ubiquinones, microbial divergence indexes, B8:9–10
ubiquinones/menaquinones ratio, vs. depth, B8:18–20
underplating, plate tectonics, A1:8–10; B1:6
underthrusting
 brecciation, A6:11
 clastic sediments, A6:9
 hydrology, B1:5–7; B6:4–5
 photograph, A1:67; A5:46
 quinones, B8:20
uranium logs, vs. depth, A4:161

V

vanadium
 gabbro, A4:34
 sediments, B3:4
 vs. depth, A4:114
 vs. titanium oxide, A4:115; B9:25
vanadium/titanium oxide ratio, vs. magnesium number,
 B9:26–27

veins
 gabbro, A4:29
 gabbro sills, A4:27–28
 photograph, A4:87–88, 91, 93–96, 100–101, 104
 photomicrograph, A1:58, 61
 vs. depth, A4:87–88, 93–98, 100–104
veins, magmatic
 contour plots, A4:126
 pyroxene gabbro, A4:125
velocity, acoustic, lithology, A4:39
velocity logs
 lithology, A4:62–63
 vs. depth, A1:55–56; A4:71–73, 162, 164; B9:22;
 B13:13
 See also compressional wave velocity logs
void ratio, vs. effective stress, B10:9
voids
 gabbro, A4:29
 gabbro sills, A4:27–28
 photograph, A4:93–94, 97–98, 102–103
 vs. depth, A4:87–88, 93–98, 100–104
volcanic ash
 alteration, A1:11–13
 geochemistry, B1:17–18
 photograph, A4:80
 photomicrograph, A4:78; A5:51
 stratigraphy, A5:15–16
 titanium/aluminum ratio, B3:4
volcanic ash, altered, photograph, A5:50
volcanic glass
 alteration, A4:32–33; A6:10
 lithology, A6:9
 photomicrograph, A4:90, 108
 tephra, A4:20
 vs. depth, A4:79; A5:53; A6:28
volcanic glass, altered, gabbro sills, A4:27–28
volcanic glass, palagonitized, photomicrograph, A4:85
volcanic glass, xenomorphic, gabbro sills, A4:27–28
volcanic rocks, altered, photomicrograph, A5:55
volcanics, lithology, A6:10
volcanism
 subduction factory, A1:5–6
 tephra, A4:26

W

wackestone fragments, redeposition, A6:9
water budget, hydrothermal circulation, B6:11
waveforms, borehole diameter, B13:6
weathering, photomicrograph, A4:110
well-logging
 summary diagram, A4:159, 184
 See also downhole logging

X

X-ray diffraction data
 clays, A5:102–103
 igneous rocks, A4:173
 sediments, A4:22–23, 170–171; A5:18–19, 95–103;
 A6:11, 46–49

Y

yttrium, vs. depth, A4:114

Z

zeolites

- alteration, A4:33
- gabbro sills, A4:28
- photograph, A1:58–59; A4:80, 87–88, 95–98
- photomicrograph, A1:61; A4:78, 113
- X-ray diffraction data, A4:111–112

Zijderveld diagrams, discrete samples, A4:142; A5:81

zinc

- sediments, B3:4
- vs. barium, B3:11

zirconium

- gabbro, A4:34–35
- vs. chromium, A4:118
- vs. depth, A4:114

Zoophycos

- lithology, A4:21
- photograph, A4:81

TAXONOMIC INDEX

A

ampliaperta, *Helicosphaera*, Site 1253, B14:6

B

belemnos, *Sphenolithus*, Site 1253, B14:6
brouweri, *Discoaster*, Site 1254, B14:7–8

C

Calcidiscus macintyreii, Site 1254, B14:8
caribbeanica, *Gephyrocapsa*, Site 1255, B14:8

D

Discoaster brouweri, Site 1254, B14:7–8
Discoaster pentaradiatus, Site 1254, B14:7–8

G

Gephyrocapsa caribbeanica, Site 1255, B14:8
Gephyrocapsa oceanica, Site 1255, B14:8

H

Helicosphaera ampliaperta, Site 1253, B14:6
Helicosphaera sellii, Site 1255, B14:8
heteromorphus, *Sphenolithus*, Site 1253, B14:6

L

lacunosa, *Pseudoemiliana*
Site 1254, B14:7

Site 1255, B14:8

M

macintyreii, *Calcidiscus*, Site 1254, B14:8

O

oceanica, *Gephyrocapsa*, Site 1255, B14:8

P

pentaradiatus, *Discoaster*, Site 1254, B14:7–8
Pseudoemiliana lacunosa
Site 1254, B14:7
Site 1255, B14:8
pseudoumbilica, *Reticulofenestra*, Site 1254, B14:7–8

R

Reticulofenestra pseudoumbilica, Site 1254, B14:7–8

S

sellii, *Helicosphaera*, Site 1255, B14:8
Sphenolithus belemnos, Site 1253, B14:6
Sphenolithus heteromorphus, Site 1253, B14:6
Sphenolithus spp., Site 1254, B14:7–8

Z

zones (with letter prefixes)
NN4, Site 1253, B14:6