

Index

Page numbers in *italic* denote figures. Page numbers in **bold** denote tables.

- Achab Gneiss 222, **224**, 228
Adélie Craton *see* Terre Adélie Craton; Gawler-Adélie Craton
Africa, southern, IGCP 509
 database system
 time-slice maps 44, 43
 time-space correlation chart 37–44, 40, 41, 42
Akitkan Formation 130
 Nd isotope data **134–135**, 139–140
Akitkan Group
 geochronology 148, 149, 153, 155–156
 geology 146, 147, 148
 palaeomagnetism and U–Pb dates 145–161
Akitkan orogenic belt 128, 129, 130, 146, 147
Aldan superterrane 66, 127, 128, 146, 147
Almora–Askot–Dhramgarh gneiss 284, **285**
Amazonian craton 66
Anabar superterrane 127, 128, 129, 146, 147
Angara orogenic belt 128, 129
anisotropy, magnetic susceptibility, Salla Diabase Dyke 205
Antarctica, Mawson Continent 321, 325–328
Areachap Terrane 221, 226
 granitoids, Sm–Nd data **223**, 225–226
Arenópolis Arc 256
Aroams Gneiss 222, **224**
Arunta Region 320, 321, 333, 334–335, 341, 342
atmosphere, evolution 9–11

baddeleyite, U–Pb dating, Baltic Shield intrusions 172, 173–189
Baikal Group 146
Baikal terrane 128, 129, 130
 crustal growth 140
 Nd isotope data **133–135**, 136, 137, 139–140
baked-contact test, Salla Diabase Dyke 205, 208–209
Baltic Shield 199, 200
 geology 166, 167
 ore-bearing intrusions 165–196
Baltica
 apparent polar wander path 210, 214
 palaeomagnetic data 210, **211**
 virtual geomagnetic pole 209, 210
Baltica–Laurentia reconstruction 199, 209–210, 212–214, 331
Bandal granitoid 283, **285**, 286, 296
SHRIMP U–Pb dating 289–290, **292**
banded iron formation 4, 8, 9–10
 Algoma-type 10
 Superior-type 8, 10
Banks Vlei Gneiss 222, **224**
Bao'an, metamorphism 57
Barramundi Orogeny 330
Beenbreek Gneiss 222, **223**
Bhatwari Gneiss 283, **285**
Birimian Belt, correlation
 Campinorte sequence 265–266
 North Hebei Orogen 64–65
Birusa terrane 128, 129
 crustal growth 140
 Nd isotope data 131, **132**, 136–137
Black Angel Gneiss 336
Black Reef Formation 37
bolides 14
Bomdila Granite Gneiss 284, **285**
Borborema Province, northwest
 crustal growth 271–279
 geology 272–275
 Sm–Nd isotope analysis 275, **277**, 279
 U–Pb dating 275–279
Boromo greenstone belt 234, 235
Brasília Belt, geology 255–256, 256
Bunger Hills 320, 327, 329
Burtons Puts Gneiss 222, **224**
Bushmanland Terrane 221, 226
 granitoids, Sm–Nd data 222, **223**, 225, 228
Bushveld igneous event 40

calcium carbonate, sea-floor 10, 11
Campinorte sequence 255–267, 256
 correlation, Birimian and Transamazonian belts 265–266
 geology 255–258, 256, 257
 metasedimentary rocks 256, 257, 259, 263
 plutonic unit 256–257, 257, 259, 262, 263
 Sm–Nd isotope analysis 259, 263, **264**, 265, 266–267
 U–Pb dating 258–262, **263**, 265, 266–267
'Canfield Ocean' model 10
cap carbonate 13
Cape Hunter Phyllite 325
Capricornia 6
 see also Columbia Supercontinent
 carbon isotope anomaly 10–11
CAT Suite magmatism 321, 341
Ceará Central domain 271, 272, 279
Central Orogenic Belt, North China Craton 52, 53, 57
Chaibasa Formation 301–316, 302
 deformation mechanisms 313–316
Chail Nappe 287
Chail Thrust 287
Chailli gneiss 283, **285**
Chandil Formation 302
Chang Cheng Series 59, 60, 61
Changzhougou Formation 59
chaotic layers, Chaibasa Formation 305, 312–313
Chaura Thrust 288
Chaya palaeopole 159
Chaya suite 146, 147, 148
 geochronology and palaeomagnetism 149, **150**, 151–153, **154**, 155
Chieress dykes 146
Chirpitiya gneiss 284, **285**
Chor Thrust 287
chromite 179, 191
Chuanlingou Formation 59, 61
Chunatundra intrusion 180, 183, **187**, **192**
Chuya granite complex 128
 crustal growth 140
 Nd isotope data **135**, 137, 139–140
Chuya Group 130
 climate, evolution 11–12
CO₂ fluid inclusions, North China Craton 58–59
Coboop Granite Gneiss 222, **223**
Columbia Supercontinent 6, 7, 49, 50, 51, 73
 correlation, North China Craton 50, 51, 63–66
 Greater India 284, 296
 reconstruction 50
Concordia Granite 222, **224**
cones, contorted laminae, Chaibasa Formation 304, 305, 309–310
Congo Craton 274, 279
continents, emergence of 6
 convection, mantle 3–4
Coompana Block 322, 329, 344
core, evolution 2–3
Cornian Orogeny 322, 338

- crust, continental
 growth 5–6
 northwest Borborema
 Province 271–279
 Siberian craton, Sm–Nd isotope
 analysis 130–140
- Dahongyu Formation 61
- Dalma Lava 301, 302
- Daqingshan, khondalite belt
 geological background 75–76
 tectono-thermal events 73–94
- Daqingshan–Wulashan terrane 54
- Darjeeling–Sikkim Granite Gneiss
 284, **285**
- DateView database 28, 33–35, 43
- deformation
 Lüliang Massif 103, 105–109,
 122
 Man-Leo Shield 234
 Mawson Continent 339, 341, 345
 North China Craton 51, 53, 54, 57
 soft sediment, Chaibasa
 Formation 302, 303, **304**,
 305, 306–316
 metadepositional structures
 311–313
 syndepositional structures
 308–311
- depressions, infilled, Chaibasa
 Formation 310
- Dhalbhum Formation 301, 302
- Dhanjori Formation 301, 302
- Donington Suite 338
- Dunite Block 179, 180, **187**, **194**
- dykes, mafic
 Baikal terrane 129, 130, 140
 North China Craton 56, 57, 59,
 64, 66
 Salla Diabase Dyke 199–214
 Superia 8
- Earth, cooling 3–4
- earthquakes, deformation 307–308,
 313–316
- East Scandinavian Large Igneous
 Province, magma 191, 196
- Eastern Block, North China Craton
 52, 53
- Eburnian Belt, correlation with
 Northern Hebei orogen
 64–65
- Elim Group 37
- enderbite, Médio Coreaú domain 274
- Epupa Complex 65
- eukaryotes, fossil record 12
- evaporites 11
- faults
 penecontemporaneous, Chaibasa
 Formation **304**, 311
 thrust, Lüliang Massif 105
- Fedorov Block 188, 189
 mineralization 191
- Fedorovo-Pansky Layered Complex
 165, 166
 geology and petrology 167–170
 magmatism 186, 188–189
 mineralization **194**
 Sm–Nd analysis 186, **187**, 188,
193, **194**
 U–Pb dating 174, 175, 177,
178, 179, **187**
- Fenno-Karelian Belt 165
 geochronology **187**
 magmatism 189, 195–196
 mineralization 191
- Fennoscandian Shield *see* Baltic
 Shield
- folding, Lüliang Massif 105, 109, **110**
- foliation
 Lüliang Massif 105, **106**
 Man-Leo Shield 234
- Forward Orogeny 343
- Friersdale Charnockites 222, **223**
- Fuping Block 99, **104**, 120, 122
- Fuping Massif, correlation with
 Lüliang Massif 120–122
- Gaoyuzhuang Formation 61
- Garies terrane 222, 226, 227
- Gawler Craton 319, 321, 322–325,
 323, 326, 344
 accretion to North Australian
 Craton 332–333
 internal architecture 333, 336
 Mawson Continent assemblage
 328–329
 proto-Gawler Craton 332–333
see also Gawler–Adélie Craton
- Gawler Range Volcanics 325, 336
- Gawler–Adélie Craton, evolution
 329, 333, 334–335, 336, 337,
 342, 343, 344–345
- geodynamo 2–3
- geomagnetic field, palaeointensity 2
- geomagnetic poles, virtual 209, 210,
 212, **213**
- Georgetown Inlier 320, 343–344
 deformation 345
- Ghuttu Gneiss 283, **285**
- glaciation and oxygenation 13–14
- Goiás Magmatic Arc 256
- Goiás Massif 256–257
- gold
 hydrothermal 12
 orogenic 9
- Goloustnaya terrane 128, 129, 130
 crustal growth 140
 Nd isotope data **133**, **137**,
 138–139
- Gondwana, Mawson continent
 320, 322
- granite
 Lüliang Group 103
 Northern Hebei orogen 57
 correlation 65–66
 Siberian craton 129–130, 146
- granitoids
 Man-Leo Shield 234, 235, 236,
 241, **243**, 244, 245,
 246, 247
 Namaqua–Natal Province
 219–228
 pre-Himalayan 283
- Granja Complex **276**, **277**, 279
- Granja Massif 271, 274
- Granjeiro Complex 272
- granulite, North China Craton
 55–58
- Great Oxidation Event 9, 10
- Greater India 284, 285, 293
- greenstone belts, Man-Leo Shield
 232–233, 235, 236–241
- Grenville land 6
- Gromia 12
- Grypania spiralis 12
- Guanghua Group 61–62
- Guiana Shield, correlation,
 Campinorte sequence
 265–266
- Gwalda gneiss 283, **285**
- Hanuman Chatti Gneiss 283, **285**
- Hengshan Massif 54, 57
 correlation with Lüliang Massif
 120–122
- Hidrolina Dome 257
- Higher Himalayan Crystalline
 Belt 283, **285**, 287,
 288–289, 296
- Higher Himalayan Leucogranite
 Belt 283
- Hiltaba Suite 325
- Himalaya, pre-Himalayan history
 283, 284
- Himalaya, northwest 283–296
 geology 284, 285–286
 SHRIMP U–Pb dating
 289–296
- Himalayan Metamorphic Belt
 284, 285
- Himchal Pradesh, anorogenic
 magmatic signatures
 286–296
- Horodyskia* 12
- Hudsonland 6
- Huijiazhuang granite 103
- Hutuo Group, correlation with
 Yejishan Group 120, 122
- hysteresis, Salla Diabase Dyke 204
- ice ages 9, 13
- IGCP 509 database system 27–45
 functionality 32–33
 future development 44, 45
 outputs 33–37
 time-slice maps, southern Africa
 44, 43
 time–space correlation chart,
 southern Africa 37–44,
 40, 41, 42

- Imandra Lopolith 166
 geology and petrology 171–172
 mineralization 189
 Sm–Nd analysis **187**, **193**, 194
 U–Pb dating 174, 183–184, **185**,
 186, **187**
- Indian Plate 285–286
 collision with Eurasian Plate 291
- Inner Mongolia–North Hebei
 Orogenic Belt *see* North
 Hebei Orogenic Belt
- Irkut–Kitoy domain 128, 129
 Nd isotope data **133**, 136,
 137, 138
- iron *see* banded iron formation
- Isan Orogeny 345
- Iskere Gneiss 283, **285**
- Jannelsepan Formation **223**, 225
- Jatuli event *see* Lomagundi–Jatuli
 event
- Jeori Formation 288
- Ji'an Group 61–62
- Jiao–Liao–Ji Belt 52, 53, 54, 61–63
 metamorphism 51, 62
 tectonic models 62–63
- Jiehekou Group 101
- Jining khondalite terrane 54,
 55–56, **92–93**
- Jokinenä, Salla Diabase Dyke 200,
 201
- Josling Granite **223**, 225
- Jourma ophiolite 65
- Jutogh Nappe 286
- Jutogh Thrust 286, 287
- Kaaien Terrane 221, 226
 granitoids, Sm–Nd data **223**,
 225, 226–227
- Kaapvaal Craton 37, 39, 44, 42,
 220, 227
- Kakamas Terrane 221, 226
 granitoids, Sm–Nd data 222, **223**,
 225
- Kalahari–Grunehogna, palaeomag-
 netic data 210, **211**, 212, **213**
- Kalatang granite gneiss 284, **285**
- Kalinjala Shear Zone 333, 338
- Kalkwerf Gneiss **223**, 227
- Kaltygey Cape granulites 148
- Kaoko Belt 65
- Kararan Orogeny 325
- Kenorland 6, 7, 8
- Keurusselkä bolide impact crater 14
- Kheis orogeny 227
- Khibelen suite 146, 147, 148
 geochronology and palaeomag-
 netism **150**, 153, 155–158
- khondalite belt, North China Craton
 53, 54–57
 Daqingshan area 73–94, 74
- Kimban Orogeny 321, 324, 328, 331,
 332–333, 342
- Kimberley Craton 320, 338, 340
- Kimberley Domain 37
- kinzigite, Médio Coreaú domain
 274, 275, 278
- Kitoy granite 129
- Klein Namaqualand Suite 222, **224**
- Kocherikovo granite 146, 148
- Kola Belt 165
 layered intrusions, geology and
 petrology 167–173
 magmatism 186, 189, 195
 mineralization 171, 191, **194**
 Sm–Nd analysis 186, **187**,
188, 194
 U–Pb isotope analysis 173–186
- Kola Peninsula, ore deposits 189, 191
- Kolvitsa intrusion 165, 166
- Koras Group **223**, 226–227
- Kotla Gneiss 283, **285**
- Kulu Thrust 286, 287
- Kulu–Bajura mylonite 283, 288, 296
 SHRIMP U–Pb dating 290, **294**
- Kulu–Bajura Nappe 286, 287, 288
- Kulu–Rampur Window 286, 287
- Kuonamka dykes 146
- lamination, Chaibasa Formation
 302–303, 304, 305, 306, 307,
 309–310
- Landplaas Gneiss 222, **224**
- Lapland Greenstone Belt 199–200
- large igneous provinces 4, 6, 15
 East Scandinavia 191
- Laurentia 7
 link with Australia 342, 343, 345
 Logan Loop 210
 palaeomagnetic data 210, **211**,
 330
- Laurentia–Baltica reconstruction
 199, 209–210, 212–214, 331
- Laurentia–Siberia reconstruction
 146, 159–160
- Leeuwdraai Formation **223**, 226
- Lesser Himalayan Sedimentary Zone
 284, 285, 286, 296
- Liaohe Group 61–62
- life, fossil 12–13
- Limpopo Belt 40–44, 42
- lineation
 Lüliang Massif 105, 107, 109,
 111
 Man–Leo Shield 234
- Lingtse Granite Gneiss 284, **285**
- Logan Loop, Laurentia 210
- Lomagundi sediment 41
- Lomagundi–Jatuli event 10–11,
 13, 14
- Longquanguan Thrust 120
- Low Grade Mafic Unit, Wutaishan
 Massif 120
- Lowrie test, Salla Diabase Dyke
 204–205
- Luchaogou porphyritic granite 103
- Lucknow Unit 37
- Lüliang Complex 56
- Lüliang Group 101, 102, 103
- Lüliang klippe 100, 103, 104, 105,
 109, 120
- Lüliang Massif 99–122, 100
 correlation with Hengshan–
 Wutaishan–Fuping
 massifs 120–122
 deformation 105–109, 122
 foliation 105, 106
 geochronology 109–119
 lithotectonic units 101–103
 metamorphism 109
 shear zones 105, 108
 structural analysis 103–109
 tectonic evolution 122
 U–Pb zircon dating 116–119
 U–Th/Pb EPMA monazite
 dating 111–119
- Lüliang Nappe 103, 105, 108
- Lüliang Ocean 120, 122
- Lüliangshan 99, 100, 103, 104
- Luyashan porphyritic charnockite
 103
- 'magma ocean' 3
- magmatism
 arc-related
 Lüliang Massif 122
 Mawson Continent 322, 344
 Baltic Shield 186–189
 Daqingshan 86–87
 Himalaya 293, 296
 Man–Leo Shield 231–250
 Mawson Continent 336, 338,
 339, 341, 342, 344
 subduction-related
 Australia 320–321
 Mawson Continent 325, 344
- magnetization, remanent, Salla
 Diabase Dyke 202–209
- Magondi Belt 41–42, 42
- Main Boundary Thrust 284,
 286, 287
- Main Central Thrust 283, 284,
 285, 287, 296
- Main Frontal Thrust 286
- Main Ridge intrusion 165, 166
 geology and petrology 171
 mineralization **194**
 U–Pb isotope analysis **187**
- Makganyene Formation 13
- Malaya Kosa palaeopole 159
- Malaya Kosa suite 146, 147, 148
 palaeomagnetism 158
- Man–Leo Shield 231–250, 232, 235
 deformation 234
 geochemistry 236–246
 geodynamic evolution model
 246, 248–250
 geology 232–236
 granitoids 234, 235, 236, 241,
243, 244, 245, 246, 247
 greenstone belts 232–233,
 236–241

- Manikaran Quartzite 286, 288
mantle
 depletion events 5
 evolution 3–4
 ‘magma ocean’ 3
mantle plumes 4
 Baltic Shield 165–166,
 191, 196
 Himalaya 296
 Man-Leo Shield 246, 248
 Mawson Continent 345
 North China Craton 63
Mapedi Unit 37
Mara Rosa Magmatic Arc 256, 257
Margate Terrane 227
Mawson Continent 7
 Antarctica 325–328
 assemblage 328–329
 evolution 319–345
 Gawler Craton 322–325
 palaeomagnetic data 329–330
 reconstruction models
 330–345
 western extent 329
Médio Coreau domain 271, 272,
 273, 274
Meidaizhao Group 75, 76
 zircon, SHRIMP dating 80, 82,
 83, **90–91**
Mesoproterozoic, ‘thermal
 catastrophe’ 3, 4
metallogenesis, Baltic Shield 189,
 191
metamorphism
 Jiao-Liao-Ji Belt 61–62, 63
 khondalite belt 55–57, 78,
 86–89
 Limpopo and Magondi belts
 40–44
 Lüliang Massif 109
 Mawson Continent 322,
 324–325, 328, 338,
 339–341, 342, 343, 344
 North China Craton 51
 Siberian craton 129, 130
 ultrahigh temperature
 Daqingshan 88
 Northern Hebei orogen 50,
 53, 54, 57–59
 correlation 64–66
migmatite
 Lüliang Massif 103, 120
 Médio Coreau domain 274
Miller Range 320, 322, 327, 328
 Mawson Continent assemblage
 328–329, 337, 342
Miltalie Gneiss 322
mineralization, Baltic Shield 171,
 172, 186, 187, 188,
 189, 191
minerals 8–9
Modderfontein Gneiss 222, **224**
monazite, U–Th/Pb EPMA dating
 111–119
Monchegorsk Layered Complex
 165, 166
 geology and petrology 170–171
 Sm–Nd analysis **192**
 U–Pb dating 174, 179, 180,
 181–182, 183
Monchepluton
 geology and petrology 170–171
 mineralization 186, 188, 191, **194**
 REE data 190, **190**
 Sm–Nd analysis **187**, **192**,
 193, 194
 U–Pb dating 174, 179, **187**
Monchetundra intrusion 171, 174,
 180, 183, **187**, 188–189,
 192, **193**, 194
Mt Bol’shaya Varaka, U–Pb dating
 183, 184, **185**
Mt Generalskaya intrusion 165, 166
 geology and petrology 167
 Sm–Nd analysis **187**, **193**, 194
 U–Pb dating 173, 174, 175,
 176, **187**
Mt Isa Inlier 320, 338, 339–340, 341
 deformation 345
 sedimentation 343, 344
Mt Nyud 179, 180, **187**
Mt Travyanaya 179, 180, **187**
mud balls, contorted, Chaibasa
 Formation 304, 311–312
Mundinho mylonitic granite
 259, 262
Myally Supersequence 341
mylonite
 Kulu–Bajura Nappe 283, 288,
 290, **294**, 296
 Mundinho mylonitic granite 259,
 262
Mzombe Terrane 227
Naitwar gneiss 283, **285**
Namaqua Sector
 geology 221
 granitoids, Sm–Nd data 220–228
Namaqua–Natal Province, Namaqua
 granitoids 219–228
Namik gneiss 283, **285**
Napier Complex 320, 329, 337
nappes, Lüliang Massif 103, 105,
 108, 122
Natal Sector 227–228
Nd isotope data
 Siberian craton 131–140
 see also Sm–Nd isotope analysis
NENA (Northern Europe–North
 America) 7
Nimrod Group 327, 328–329
Nimrod Orogeny 328
Nornalup Complex 320, 329
North Australian Craton 327, 339
 accretionary margin 331–333
 evolution 336, 337, 338–341,
 342, 343, 344
 palaeomagnetic data 330
North China Craton 49–66, 52,
 73–94
 correlation with Columbia
 Supercontinent 50, 51,
 63–66
 geological evolution 51–59
 Lüliang Massif 99–122
 rifting and breakup 63
 tectonism 53–59, 60
North Himalayan Gneissic Domes
 283
North Korean Peninsula 336, 338
North-Baikal volcano-plutonic belt
 146, 147, 148
Northern Belt see Kola Belt
Northern Hebei orogen 49, 50, 51,
 52, 53, 54, 74
 correlation 64–66
 UHT metamorphism 50, 53, 54,
 57–59
Nuna 2, 6, 7, 8 see also Columbia
 Supercontinent
ocean, evolution 9–11
Okun Group 146, 147
Olanga complex 165
Olarian Orogeny 344
Olenek province 127, 128
Onot-Erma domain 128, 129
 Nd isotope data 136, 137–138
Ooldean Event 324–325
Ordos Terrane 73, 74
orogenesis, Mawson Continent
 344–345, 388
Orthogneiss and Volcanite Unit
 100, 102, 103, 105,
 109, 120
Ostrovsky intrusion 179, 180, **187**,
 192
oxidation, atmospheric 9, 10–11
oxygenation 9
 and glaciation 13–14
palaeointensity, geomagnetic field
 2–3
palaeomagnetism
 Akitkan Group 145–161
 Mawson Continent 329–330
 Salla Diabase Dyke 205, **206**
Palaeopangaea 8
palaeopoles, Siberia 146,
 159–160
Pechenga rift 167
Perovskite–post-perovskite phase
 transition 4
pillow structures, Chaibasa
 Formation 304, 308–309,
 313, 314
Pine Creek Inlier 320, 338
Pinjarra Orogen 320, 329
Piriwiri sediment 41, 42
plate tectonics
 initiation 8
 modelling 4

- Pointe Geologie metasediments 325, 328
- Polisiehoeck Gneiss 222, **223**
- Pretoria Group 37
- Prikhibin 'je, U–Pb dating 183, 184, **185**
- Prince Charles Mountains, southern 320, 327, 329, 337
- prokaryotes, fossil record 12
- proto-Australia 7
- link with Laurentia 342–343, 345
- Protopangaea 8
- pseudonodules, Chaibasa Formation 304, 305, 312, 313
- Pyrshin intrusion 165, 166, 171
- quartzite
- Chaibasa Formation 301
- Manikaran Quartzite 286, 288
- Racklan Orogeny 343
- Rameshwar granitoid 283, **285**
- Ramgarh gneiss 284, **285**
- Rampur Volcanics 286
- Rb–Sr analysis, Baltic Shield intrusions 173, 186, **193**
- Reguibat Shield 231, 232
- remanence *see* magnetization, remanent
- rhythmites, tidal 14
- Richtersveld Subprovince 221, 226
- granitoids, Sm–Nd data 222, **223**
- Riemvasmaak Gneiss 222, **223**
- Rihee-Ganga gneiss 284, **285**
- Rio dos Bois Fault 257
- Rio Grande do Norte domain 271, 272, 274, 279
- Rio Maranhao fault system 257
- Rio Negro-Juruena Belt, correlation with Northern Hebei orogen 64–65
- ripple trains, sagged, Chaibasa Formation 305, 310–311
- Rodinia 6, 7
- reconstruction 284, 330
- Rondonia Belt, correlation with Northern Hebei orogen 64–65
- Ross Orogeny 328
- Rudall Complex 320, 341
- St Peter Suite magmatism 321, 325, 333, 335, 344
- Salla Diabase Dyke
- geology 199–201
- palaeomagnetism 202–209, 212, **213**
- petrophysics 202, **203**
- secular variation 209
- sandstone, Chaibasa Formation 301–307
- Sanggan Group 75–76
- zircon 85, **90–91**
- Hf isotope composition 83–84
- SHRIMP U–Pb dating 76, 77, 78, 79, 80
- São Francisco Craton 274, 279
- São Jose do Campestre Massif 272, 274
- São Luis Craton–West African Craton correlation 271, 279
- sapphirine, Northern Hebei Orogen 57–58
- Sarma Group 130, 146
- Sask Craton 336, 337, 338
- Sayan granite 129
- schist, Chaibasa Formation 301
- Sclavia 7, 8
- secular variation, Salla Diabase Dyke 209
- sedimentation 6
- Jiao-Liao-Ji Belt 61–62
- Limpopo Belt 39–44
- Mawson Continent 342–344
- Seertenshan Group 75
- Segwagwa Group 37
- seismites, Chaibasa Formation 307–308, 313–316
- Senador Pompeu lineament 271, 272
- Shackleton Range 320, 327, 328
- Mawson Continent assemblage 328–329
- shale, Chaibasa Formation 302–307
- chaotic 305, 312–313
- Shang gneiss 283, **285**
- Sharizhlgai terrane 128, 129–130
- crustal growth 140
- Nd isotope data **132**, 136, 137–138
- Shoemaker bolide impact crater 14
- Shumikhin granites 129, 146
- Shumikhin palaeopole 159
- Siberia
- palaeomagnetism 7, 146
- see also* Laurentia–Siberia reconstruction
- Siberian Craton
- Akitkan Group 145–161
- crustal growth 127–140
- geology 128, 129–130, 146, 147, 148
- metamorphism 130
- Sm–Nd isotope analysis 130–140
- Silverton Shale 37
- Simla–Deoban–Garhwal Group 287
- Slave Craton 330, 337, 342
- Sleafordian Orogeny 322, 336, 338
- Sm–Nd isotope analysis
- Baltic Shield intrusions 172–173, 175, 186, **187**, **188**, **192**, **193**
- Campinorte sequence 259, 263, **264**, 265, 266–267
- Namaqua granitoids 220–228
- northwest Borborema Province 275, **277**, 279
- Siberian craton 130–140
- ‘Snowball Earth’ 13
- Sopcherozero chromite deposit 179
- Southern Belt *see* Fenno-Karelian Belt
- Soutpansberg Group 44
- Stafford Event 341
- Stanovoy province 127, 128
- sterane biomarkers 12–13
- Strangways Orogeny 321, 331, 332–333, 342
- StratDB database 28, 29, 30–31, 33–35, 37, 44
- Straussburg Granite **223**, 226
- stromatolites 12
- strontium isotopes, seawater 11
- Sub-Himalayan Tertiary Belt 287
- subduction
- Gawler Craton 344
- Rudall Complex 341
- Warumpi Province 344
- Sudbury bolide impact crater 14
- Suketi Thrust 287
- sulphide 9
- sulphur isotopes,
- non-mass-dependent 9, 13
- Sun, ‘faint young’ 13, 14
- supercontinents 6–8
- Superia 7, 8
- Superior–Siberia reconstruction 159, 160
- Superior–Wyoming–Karelia reconstruction 195
- Sutlej Valley, anorogenic magmatic signatures 286–296
- Svecofennian Belt, correlation with Northern Hebei orogen 64, 65–66
- Swanartz Gneiss **223**, 226, 227
- Swartkopsleepte Formation **223**, 226
- Tanami Event 341
- Tangershang granite 103, 120
- Tarim Block 50, 51
- correlation 64
- tectonism
- Mawson Continent 338–340
- North China Craton 51, 53–59, 60, 62–63
- Terre Adélie Craton 320, 321, 323, 325–328, 326
- Mawson Continent assemblage 328–329
- see also* Gawler–Adélie Craton
- Tethyan Sedimentary Zone 285
- ‘thermal catastrophe’,
- Mesoproterozoic 3, 4
- thermomagnetic analysis, Salla Diabase Dyke 202–203, 204
- tholeiite, Man-Leo Shield 236–241, 242
- Tickalara Arc 338, 340

- time-slice maps, southern Africa, IGCP 509 database system 44, 43
- time-space correlation chart, southern Africa, IGCP 509 database system 37–44, 40, 41, 42
- Timeball Hill Formation 13
- Tocantins Province 255–267, 256
- Tornio intrusion 165
- Tornio-Näränkävåara Belt 165
- tourmaline, Jiao-Liao-Ji Belt 62
- Trans-Hudson Orogen 336, 338
- Trans-North China Belt 73
Lüliang Massif 99–122
tectonic models 99
- Trans-North China Suture 100, 108, 120
- Transamazonian Belt, correlation
Campinorte sequence 265–266
Northern Hebei orogen 64–65
- Transantarctic Mountains 329
- Transbrasiliano lineament 271
- Transvaal Supergroup 37
- Tróia Massif 272
- TTG
Campinorte Sequence 257
Granja Massif 274
Lüliang Massif 101, 122
 migmatite basement 103
 Siberian Craton 129
- Tuanshanzi Formation 61
- Tuguiwula, UHT metamorphism 57–58
- Tungus province 127, 128, 129
- Tunkillia Suite 333
- turbidites, Lüliang Massif 100, 101, 102
- U–Pb dating
Akitkan Group 148–151, 155–156
Baltic Shield intrusions 172–189
Campinorte sequence 258–262, 263, 265, 266–267
Lüliang Massif 116–119
northwest Borborema Province 275–279
northwest Himalaya 289–296
- U–Th/Pb EPMA dating, monazite, Lüliang Massif 111–119
- Umbarechka Block, U–Pb dating 183, 184
- Upper Lüliang Thrust 100, 105, 108, 120
- Upper Wutai Thrust 120
- Uruguay shield 66
- Urik-Iya terrane 128, 129, 130
 crustal growth 140
 Nd isotope data 132, 137, 138
- Uruçu complex 257, 258
- Vaalbara 7–8
- Vaalputs Granite 222, 223
- Vaikrita Group 288–289
- Vaikrita Thrust 283, 289
- Vestfold Hills 320, 329
- Vredefort bolide impact crater 14
- Vryburg Formation 37
- Vurechuaivench Foothills, ore deposits 191
- Wangtu Granitic Complex 283, 285, 288–289, 296
 SHRIMP U–Pb dating 290–291, 293, 295
- Warumpi Province, subduction 321, 344
- Waterberg Group 37, 44
- Wernecke Supergroup 343
- West African Craton 231, 232
 correlation
 Campinorte sequence 265–266, 274, 279
 São Luis Craton 271, 279
- West Australian Craton 341
- Western Block, North China Craton 51, 52, 99
- Western Pansky Block, ore deposits 188, 191
- Wilgenhoutsdrif Group 223, 226–227
- Windmill Islands 320, 327, 329
- Wulashan Group 75–76
 zircon 85–86, 90–91
 Hf isotope composition 84–85, 89
- SHRIMP dating 77, 78, 79, 80, 81, 82, 83
- Wutai Complex 56
- Wutaishan Massif, correlation with Lüliang Massif 120–122
- Yambah Event 341
- Yarrabubba bolide impact crater 14
- Yarva-Varaka intrusion 179, 180, 192
- Yejishan Group 103, 110
 correlation with Hutuo Group 120, 122
- Yinshan Terrane 73, 74
- Yunzhongshan 99, 100, 103, 104, 120
- Zhaertai Group 75
- Zhujiang shear zone 57
- Zimbabwe Craton 42, 44
- Zimvaalbara 7
 zircon
 Akitkan Group, U–Pb dating 148–151, 155–156
 Baltic Shield intrusions, U–Pb dating 172, 173–189
 Campinorte sequence, U–Pb dating 258–262, 263, 265, 266–267
 khondalite belt 55–56
 Lüliang Massif, U–Pb dating 116–119
 Meidaizhao Group 86, 90
 SHRIMP dating 77, 80, 82, 83
- North China Craton, SHRIMP dating 56
- northwest Borborema Province, U–Pb dating 275–279
- northwest Himalaya, SHRIMP dating 289–296
- Sanggan Group 85, 89, 90
 Hf isotope composition 83–84, 89
 SHRIMP dating 76, 77, 78, 79, 80
- Wulashan Group 85–86, 90
 Hf isotope composition 84–85, 89
 SHRIMP dating 77, 78, 79, 80, 81, 82, 83