Albert Formation 25, 28
Antrim Lava Group 288
apatite fission track analysis 175-6, 176-7
experimental results 177-81
experimental results discussed 181-4
implications of results 184-7
Applecross Formation 98, 106-7
Archaeonassa 221
Arenicolites 221-3, 236
Arran Basin 78, 85-6
Assaroe Lake 459-60
Asteriacites 223-5
Atlantic Basin evolution, North
plate motions 401-5
plate reconstructions 405-10
plate reconstructions discussed 410-17
plate setting 397-401
Atlantic Seaway evolution
Cretaceous 441-3
Jurassic 432-41
Triassic 428-32
Permian 425-8
Palaeozoic 422-5
Aulichnites 225
authigenic minerals 245-8
Bakevillia Sea 428
Ballycastle 243, 245, 455
Ballycotton Group 61
Ballydeenlea outlier 260
Ballymore Beds 205
Ballyshannon Limestone Formation 205, 211, 458
Barents Shelf and Sea 425
Barra Formation 306
Barra Volcanic Ridge System 381
baryte 86, 87
basement, Celtic Sea/Bristol Channel
faults 390-1
impact on Mesozoic 391-2
setting 386-90
bauxite 456
Bay St George Basin 30-1
Bearreraig Sandstone Formation 11, 60, 102, 319
Belfast Harbour borehole Formation 199
Bellavally Formation 196
Benbulben Shale Formation 205, 209, 213, 462
Bergaueria 226
biomarkers and maturity 37-8
methods of study 38-9
results 39-48
results discussed 48
bioturbation 235-6
Blackstones Basin 294, 296-7
Blue Lias Formation 58, 102
Boyle Sandstone Formation 205, 207, 211
Bridgetown 458-9
Bristol Channel basement studies
faults 390
impact on Mesozoic 391
setting 388
Broadford Beds Formation 37, 58, 102, 318, 319, 324
Bundoran 460
Bundoran Shale Formation 205, 208-9, 213
burial histories
N Ireland 250
NW Seaboard 3-5
Scotland 75-7
burrows 234
calcite see carbonates
Caledonian Orogen 422-5
Camasunary Fault 98, 106-7, 114
Canada, continental margin of
lithostratigraphy 191-4
source rocks 28
stratigraphy 25-8
Canice Basin 377, 381
Canna Formation 306
Canso Group 26, 27, 192
Cantabrian Basin 399
cap rocks see seal rocks
carbonates
concretion studies
methods of analysis 145-6
results 149
results discussed 149-52
leaching 85, 246
precipitation 81-3
Carboniferous
source rocks 449, 451
Canada 28
Midland Valley 23
NW Seaboard 7, 7-9, 9-12
stratigraphy
Canada 25-8, 191-4
Hebridies Basin 17
N Ireland 194-9, 203-11, 217, 218-21, 237-9, 449
Carraun Shale Formation 196
Castle Archdale Fault 199
Celtic Sea Basin 424
basement 386-90
faults 390-1
impact on Mesozoic 391-2
Jurassic stratigraphy 58, 59, 61
tectonostratigraphy 345, 399, 413
cementation
Cretaceous 161
Permo-Triassic 81-3
see also carbonates
Chalk 258, 287-8
Charlie Gibbs Fracture Zone 375, 377, 379
chlorite 77, 79, 155
Chromatichnus 226
Chondrites 226
chromatography 10-11, 42-7
<table>
<thead>
<tr>
<th>Index Item</th>
<th>Page Numbers</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clare Lineament</td>
<td>381-2</td>
<td>magmatism</td>
</tr>
<tr>
<td>pathway</td>
<td>379-81</td>
<td></td>
</tr>
<tr>
<td>setting</td>
<td>375-7</td>
<td></td>
</tr>
<tr>
<td>structure</td>
<td>379</td>
<td></td>
</tr>
<tr>
<td>suture links</td>
<td>382-3</td>
<td></td>
</tr>
<tr>
<td>clay minerals in diagenesis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jurassic</td>
<td>155-7</td>
<td></td>
</tr>
<tr>
<td>Permo-Triassic</td>
<td>77-8</td>
<td></td>
</tr>
<tr>
<td>Carboniferous</td>
<td>246</td>
<td></td>
</tr>
<tr>
<td>Clogher Valley Formation</td>
<td>457</td>
<td></td>
</tr>
<tr>
<td>Cloghfin Fault</td>
<td>199</td>
<td></td>
</tr>
<tr>
<td>Clonelly</td>
<td>457-8</td>
<td></td>
</tr>
<tr>
<td>Clonelly Sandstone</td>
<td>457</td>
<td></td>
</tr>
<tr>
<td>Cloney Syncline</td>
<td>259-60</td>
<td></td>
</tr>
<tr>
<td>Coalisland</td>
<td>193</td>
<td></td>
</tr>
<tr>
<td>Coalisland coals</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Cocklichnus</td>
<td>222-8</td>
<td></td>
</tr>
<tr>
<td>Cole Bridge</td>
<td>457</td>
<td></td>
</tr>
<tr>
<td>Coll-Tiree Block</td>
<td>293</td>
<td></td>
</tr>
<tr>
<td>Colliery Bay</td>
<td>455</td>
<td></td>
</tr>
<tr>
<td>Colliery Glen Formation</td>
<td>450</td>
<td></td>
</tr>
<tr>
<td>colonization</td>
<td>236</td>
<td></td>
</tr>
<tr>
<td>Colonsay Basin</td>
<td>85, 294</td>
<td></td>
</tr>
<tr>
<td>Colonsay Group</td>
<td>304, 307</td>
<td></td>
</tr>
<tr>
<td>colour alteration index (CAI)</td>
<td>21-3</td>
<td></td>
</tr>
<tr>
<td>concretion studies, Jurassic</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>distribution</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>methods of analysis</td>
<td>145-6</td>
<td></td>
</tr>
<tr>
<td>results</td>
<td>146-9</td>
<td></td>
</tr>
<tr>
<td>results discussed</td>
<td>149-52</td>
<td></td>
</tr>
<tr>
<td>conodonts and colour alteration</td>
<td>21-3</td>
<td></td>
</tr>
<tr>
<td>Conostichus</td>
<td>228</td>
<td></td>
</tr>
<tr>
<td>Cornubian Massif</td>
<td>63, 424</td>
<td></td>
</tr>
<tr>
<td>Cretaceous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>source rocks</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>stratigraphy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Celtic Sea Basin</td>
<td>261-2</td>
<td></td>
</tr>
<tr>
<td>Hebrides Basin</td>
<td>159-60</td>
<td></td>
</tr>
<tr>
<td>Irish Sea Basin</td>
<td>266</td>
<td></td>
</tr>
<tr>
<td>N Atlantic</td>
<td>393</td>
<td></td>
</tr>
<tr>
<td>Porcupine Basin</td>
<td>265, 336-43, 351-2</td>
<td></td>
</tr>
<tr>
<td>Ulster Basin</td>
<td>258, 287-8</td>
<td></td>
</tr>
<tr>
<td>tectonics</td>
<td>441-3</td>
<td></td>
</tr>
<tr>
<td>Croghan Limestone</td>
<td>205</td>
<td></td>
</tr>
<tr>
<td>Croye Formation</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Cruziana</td>
<td>228</td>
<td></td>
</tr>
<tr>
<td>Cullihns Complex</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>Cullaith Shale Formation</td>
<td>9, 35, 37, 113</td>
<td></td>
</tr>
<tr>
<td>Cumberland Basin</td>
<td>30-1</td>
<td></td>
</tr>
<tr>
<td>Cumberland Group</td>
<td>25, 26, 27, 193</td>
<td></td>
</tr>
<tr>
<td>Carvolutus</td>
<td>228</td>
<td></td>
</tr>
<tr>
<td>Cushendall</td>
<td>451-3</td>
<td></td>
</tr>
<tr>
<td>D ratios</td>
<td>157</td>
<td></td>
</tr>
<tr>
<td>Dalradian</td>
<td>449, 453</td>
<td></td>
</tr>
<tr>
<td>Dartry Limestone Formation</td>
<td>194, 205, 210, 213, 462</td>
<td></td>
</tr>
<tr>
<td>De Geer Line</td>
<td>422, 425</td>
<td></td>
</tr>
<tr>
<td>Deer Lake Basin</td>
<td>30-1</td>
<td></td>
</tr>
<tr>
<td>Dergvone Shale Formation</td>
<td>196</td>
<td></td>
</tr>
<tr>
<td>Desertcreat Group</td>
<td>457</td>
<td></td>
</tr>
<tr>
<td>Devonian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>source rocks</td>
<td>5, 12</td>
<td></td>
</tr>
<tr>
<td>stratigraphy</td>
<td>277</td>
<td></td>
</tr>
<tr>
<td>diagenesis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cretaceous</td>
<td>161</td>
<td></td>
</tr>
<tr>
<td>Permo-Triassic</td>
<td>77-85</td>
<td></td>
</tr>
<tr>
<td>Carboniferous</td>
<td>248-50</td>
<td></td>
</tr>
<tr>
<td>dickite</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>Diplocraterion</td>
<td>229, 236-7</td>
<td></td>
</tr>
<tr>
<td>dolomite</td>
<td>81, 246</td>
<td></td>
</tr>
<tr>
<td>Donegal Basins</td>
<td>56, 294, 299-301, 307</td>
<td></td>
</tr>
<tr>
<td>Donegal Syncline</td>
<td>458</td>
<td></td>
</tr>
<tr>
<td>Dowra Sandstone</td>
<td>205</td>
<td></td>
</tr>
<tr>
<td>Drapersfield</td>
<td>457</td>
<td></td>
</tr>
<tr>
<td>Dumfries and Galloway Basin</td>
<td>78, 85</td>
<td></td>
</tr>
<tr>
<td>Dun Caan Shale</td>
<td>35, 37, 60</td>
<td></td>
</tr>
<tr>
<td>maturity studies</td>
<td>42-7</td>
<td></td>
</tr>
<tr>
<td>Dungarvon Formation</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>Dunrulm Formation</td>
<td>37, 111, 113, 114, 155-7</td>
<td></td>
</tr>
<tr>
<td>Eigg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>concretion studies</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>distribution</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>methods of analysis</td>
<td>145-6</td>
<td></td>
</tr>
<tr>
<td>results</td>
<td>146-9</td>
<td></td>
</tr>
<tr>
<td>results discussed</td>
<td>149-52</td>
<td></td>
</tr>
<tr>
<td>hydrocarbon shows</td>
<td>9, 12</td>
<td></td>
</tr>
<tr>
<td>Elgol Sandstone Formation</td>
<td>9, 113, 319</td>
<td></td>
</tr>
<tr>
<td>eodiagenesis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carboniferous</td>
<td>248</td>
<td></td>
</tr>
<tr>
<td>Permo-Triassic</td>
<td>77-83</td>
<td></td>
</tr>
<tr>
<td>Erris Basin</td>
<td>56, 57</td>
<td></td>
</tr>
<tr>
<td>exploration history</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>facies analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hebrides Basin</td>
<td>118-36</td>
<td></td>
</tr>
<tr>
<td>Porcupine Basin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jurassic</td>
<td>343-4</td>
<td></td>
</tr>
<tr>
<td>Tertiary</td>
<td>356-68</td>
<td></td>
</tr>
<tr>
<td>Fair Head Sill</td>
<td>453</td>
<td></td>
</tr>
<tr>
<td>Faroe-Shetland Basin</td>
<td>3, 7</td>
<td></td>
</tr>
<tr>
<td>feldspar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carboniferous</td>
<td>245</td>
<td></td>
</tr>
<tr>
<td>Permo-Triassic</td>
<td>81, 89-91</td>
<td></td>
</tr>
<tr>
<td>Fermanagh Shales</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Fintona Block</td>
<td>193</td>
<td></td>
</tr>
<tr>
<td>Fintona Group</td>
<td>195</td>
<td></td>
</tr>
<tr>
<td>fission track analysis (FTA) experiments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>principles</td>
<td>175-7</td>
<td></td>
</tr>
<tr>
<td>results</td>
<td>177-81</td>
<td></td>
</tr>
<tr>
<td>results discussed</td>
<td>181-4</td>
<td></td>
</tr>
<tr>
<td>significance</td>
<td>184-7</td>
<td></td>
</tr>
<tr>
<td>fluorate</td>
<td>86, 87</td>
<td></td>
</tr>
<tr>
<td>Foldvik Creek Group</td>
<td>425-8</td>
<td></td>
</tr>
<tr>
<td>Forth Approaches</td>
<td>85-6</td>
<td></td>
</tr>
<tr>
<td>Fundy Basin</td>
<td>30-1</td>
<td></td>
</tr>
<tr>
<td>Galicia Basin</td>
<td>399</td>
<td></td>
</tr>
<tr>
<td>Galley Head Formation</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Garantiana Clay</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>Garrison Sill</td>
<td>462</td>
<td></td>
</tr>
<tr>
<td>gas chromatography</td>
<td>10-11, 42-7</td>
<td></td>
</tr>
<tr>
<td>geochemistry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>methods of analysis</td>
<td>145-6</td>
<td></td>
</tr>
<tr>
<td>results</td>
<td>149</td>
<td></td>
</tr>
<tr>
<td>results discussed</td>
<td>149-52</td>
<td></td>
</tr>
</tbody>
</table>
INDEX

Giant's Causeway 455–6
Glenade Sandstone Formation 194, 462
Glenar Limestone Formation 196, 205, 209, 213, 462
Glennashoevar 462
goethite 248
Gordia 229
Grand Banks 28, 30–1
Great Estuarine Group 102, 111–14, 319
Great Glen Fault 304–6, 307
Greenan Sandstone Formation 195, 196, 199
Glencairn Limestone Formation 196, 205, 209, 213, 462
Glenriance 462
Gordia 229
Gordia 229
greyfield Formation 209
Gyrochorte 229
Giothite 78, 248
halite 85–6
heavy mineralogy 118
Hebrides Basins 98
Hebrides Islands 9
Hebrides Trough 294, 296–7
Hebrides Formation 306
Hebrides Islands 9
Hebrides Trough 294, 296–7
hematite 78, 248
Hibernian Greensand Formation 258, 287–8
Highland Border Ridge 255, 277
Highland Boundary Fault 281, 424, 425
Highlands of Scotland 63
Hitra Fault Alignment 422, 424, 425
Hopeman Sandstone 78, 81, 86–7, 88
Horton Group 25, 27, 30–1, 191–2
hydrocarbon shows 9–14
hydrogen index 7
hydrogen isotope ratios 157
Iapetus Suture 382–3, 422
ichnology, Carboniferous 221–35
igneous activity
intrusives
Clare Lineament 381–2
Malin Sea 301–3
Sea of the Hebrides 163–7
volcanism 35–7, 167–8, 455–6
illite 77, 80, 83–5, 88, 155
Inner Hebrides Basin see under Hebrides Basins
Inner Moray Firth Basin 81, 87
Irish Massif 63
Irish Sea Basins 265–6
Islay–Donegal Platform 304, 307
isotopic analysis see hydrogen; oxygen; Rb/Sr; Sm/Nd
Jeanne d'Arc Basin 345, 399, 412–13, 415
Jura Formation 306
Jurassic
source rocks 7, 318
stratigraphy
Celtic Sea Basin 262
Hebrides Basin 17, 35, 100–1, 112–14, 118–36
Irish Sea Basins 265–6
N Atlantic 393
NW Seaboard 55–6, 57–62
Porcupine Basin 265, 336–43
Ulster Basin 286–7
tectonics 269–70, 432–41
kaolinite 85, 155, 246–8, 456
kerogen types 7
Kilbryan Limestone Formation 205, 208, 211
Kilcoo Sandstone Formation 206, 211
Kilkhampton Formation 59
Kilmaluag Formation 111, 113, 155–7
Kilskerry Group 194, 195, 198
Kingscourt Graben 258–9
Kingscourt Gypsum Formation 259
Kingscourt Sandstone Formation 259
Kintyre 7
Kish Bank Basin 265–6
Larne 449–51
Lealt Formation 37, 113, 114, 319
Leitrim Group 193, 194, 196, 210–11, 213
lignite 456
Llristock Formation 58
Lisbellaw Inlier 457
Lisgorman Shale 205
lithospheric stretching model, Porcupine Basin 327–30
Little River Group 457
Liverpool Land High 424
Loch Indaal Basin 265
Loch Skerrols Thrust 307
Lochaline Sandstone
diagenesis 161
mineralogy 160–1
reservoir properties 161–2
sedimentology 159–60
Lochmaben Basin 78
Lockeia 229
Longford-Down Massif 449
Lophocentrum 229–30
Lorne Formation 306
Lough Allen Basin 193, 194
evolution 211–13
stratigraphy 204–11
structure 203–4
Lough Navar Forest 462
Lough Neagh Group 258
Lough Neagh-Larne Basin 255, 277, 449
modelling stratigraphy
method 278–81
results 281–8
results discussed 288–9
Lusitanian Basin 345, 399
Magdalen Basin 30–1
magmatism
Clare Lineament 381–2
Malin Sea 301–3
Sea of the Hebrides Basin
dyke emplacement 168–9
extension modelling and implications 169–72
lava distribution 167–8
magma migration 163–6
temperature effects see fission track analysis results
Skye 35–7
Magnesian Limestone 199
Main Limestone 245
Malin Basin 294, 297–9
Malin Formation 306
Malin Sea 291–3
faulting 304–5
history 307–9
intrusives 301–3
Quaternary deposits 306
structure 293–301
Malin Shelf 193–4
Malin Terrace 297
Malin Trough 297
Maritimes Basin 28, 30–1
maturity
Carboniferous sediments 213–14, 266–7
measurement of 37–8
methods 38–9
results 39–48
results discussed 48
Mauchline Basin 78, 85–6
Meenymore Formation 194, 213, 462
Mercia Mudstone Group 283–6, 450
mesodiagenesis
Carboniferous 248
Permo-Triassic 83–5
metamorphism and maturity 39–48
Midland Valley of Scotland 23
Minch Basin 155–7
North 78, 81, 85–6
Minches, The 17–20
mineralogy
Cretaceous 160–1
Jurassic 118
Permo–Triassic 75
Carboniferous 245–8
Mizen Head Group 61
Moine 449
Moncton Basin 30–1
Moray Firth Basin 81, 87, 424
Morocco Basin 399
Morvern 7
Morvern Formation 159
Mourne Plutonic Complex 449
Mull 9
Mullaghmore Head 460–2
Mullaghmore Sandstone Formation 205, 209, 217, 460
environment of deposition 237–9
sedimentology 218–21
Murlough Bay 453–5
Mre Basin 424, 428
Neonereites 230
Neptunist/Plutonist controversy 456
Newfoundland Shelf 28, 30–1
North Antrim coals 28
North Barents Sea Basin 424, 425
North Channel Basin 255
North Minch Basin 78, 81, 85–6
North Novaya Zemlya Basin 424, 425
North Sea 425
Northwest Seaboard
burial history 3–5
hydrocarbons
exploration 14
shows 9–14
sources 5–9
Jurassic Basins
stratigraphy 55–63
tectonics 63–5
Oakport Limestone Formation 205, 208, 213
Oil Shale Group 28
Olivellites 230
Omagh Syncline 458
Orcadian Basin 5–7, 12
Ordovician 449
Orphan Basin 399, 412, 413
Outer Hebrides Platform 63, 293
Outer Isles Fault 17
oxygen isotope fractionation
Jurassic clays 157
Jurassic concretions 145–9
Permo-Triassic sediments 91–4
Pabba Shale 20, 35, 37, 59, 102, 318, 324
palaeogeography
Cretaceous 272, 441–3
Jurassic 54, 62–3, 137–40, 268, 432–41
Permo–Triassic 268, 425–32
Palaeozoic 422–5
Palaeophycus 230
Pembroke Ridge 63
Penarth Group 102, 286
Permian 198–9, 422–3, 449, 451
Permo-Triassic stratigraphy 267–9
Celtic Sea Basin 261–2
Irish coast 258–60
Irish Sea Basins 265–6
N Ireland Basins 265, 449
Porcupine Basin 263
Scottish coast 17, 72, 73
burial history 75–7
diagenesis 77–85
environment of deposition 72–4
mineralogy 75
Ulster Basin 255–8
see also Triassic
petrographic studies 245
Phycodes 232
Pictou Group 25, 27, 30–1, 192–3
plate tectonic reconstructions
North Atlantic 399–401
destretched reconstruction 405–10
destretching procedure 417–18
poles of rotation 401–5
results discussed 410–17
Northeast Atlantic Seaway
Cretaceous 441–3
Jurassic 432–41
Triassic 428–32
Permian 425–8
Palaeozoic 422–5
ploughtrails 234–5
Plutonist/Neptunist controversy 456
Pomeroy 457
Porcupine Abyssal Plain 377
Porcupine Bank 63
Porcupine Basin 376–7
Cenozoic
facies analysis 356–68
history of development 368–72
stratigraphy 351–6
Mesozoic
age relations 344–5
basin relationships 345–7
facies analysis 343–4
hydrocarbons 347–8
stratigraphy 3, 13, 262–5, 334–43, 399
stretching history 327–30
Palaeozoic 7, 193–4
Porcupine Median Volcanic Ridge 379, 381
Porcupine Ridge 377
Porcupine Trough 55–6, 57, 61
porosity studies
Carboniferous 243–4, 250–1
Permio-Triassic 87–8
Portmore Formation 450
Portree Shale Formation 35, 37, 59, 102, 318, 324
Portrush 456
pressure solution 83
pyrolysis gas chromatograms 10–11
quartz authigenesis 161, 245–6
Quaternary deposits 306
Raasay Ironstone Formation 59, 102
Rathlin Basin (Trough)
burial history 3
diagenetic history 85–6
stratigraphy 255, 265, 449
stratigraphy modelling
methods 278–81
results 281–8
results discussed 288–9
Ravnefjeld Formation 428
Rb/Sr ratios 155
Red Arch Formation 452
red beds
origins 243
significance 251–3
reservoir properties
Cretaceous 416–2
Jurassic 318–19, 347–8
Permio-Triassic 87–9, 449
Rhyzocorallium 232
Riverdale Group 26, 27, 30–1, 192
Rockall Trough 55–6, 377
Ruadan Ridge 381
Sackville Basin 30–1
St Finnians’ Spur 376
St Kilda Platform 63
Scalarituba 232–3
Scalpa Sandstone Formation 59, 102, 319
Scalpay House Fault 98, 106–7
Schaubcylindrichnus 233
Schull Formation 61
Scoticia 233
Scotian Basin 399
Scottish Highlands 63
Scrabo Hill 449
Screapadal Fault 98, 106–7
Sea of the Hebrides Basin see under Hebrides Basins
Seabight Basin 376, 377
seafloor spreading 399
seal rocks 319–24, 451
seismic stratigraphy, 351–6
facies interpretations 356–68
history of deposition 368–72
Senja-Hornsund Alignment 422, 425
sequence stratigraphy
Hebrides Basin 101–3, 120–36
west coast basins 57–62
Shanmullagh Formation 199
Sherwood Sandstone Group 199, 281–3, 452, 457
Shinnan Hill 458
Skerryvore Bank Block 293
Skerryvore Fault 114
Skerryvore Formation 306
Skerryvore Trough 297
Skolithos 233
Skudiburgh Formation 61, 113
Skye
hydrocarbon shows 9, 12
Jurassic stratigraphy 113, 115, 127–36
Tertiary igneous effects 35–7, 177–87
Slievebane Group 195, 199
Slyne Trough 376
hydrocarbon migration 324–6
reservoir rocks 318–19
seal rocks 319–24
source rocks 318
stratigraphy 56, 57, 59
structure 315–18
Sm/Nd ratios 157
smectite 77, 78, 79, 155
source rocks 5–9
Carboniferous 28, 449
Jurassic 318, 347–8
South Barents Sea Basin 424, 425
South Wales Ridge 63
Southern Uplands Fault 281
87Sr/86Sr ratios 155
Staffin Bay Formation 61, 102, 319
Staffin Shale Formation 35, 37, 102
Stanton Bank Block 293
Stanton Formation 306
Stanton Trough 293–4
Stellarton Basin 30–1
Stranraer Basin 78
INDEX

Strathaird 113
Stratton Formation 59
Sydney Basin 30–1

Taenidium 233–4
tectonic history
N Ireland 199–200
NW Seaboard 63–5
Tedd Formation 193, 199
Teichichnus 234
telodiagenesis
Carboniferous 248–50
Permo-Triassic 85
temperature effects
burial 75
intrusion 186–7
Tertiary
magmatism
dyke/sill emplacement 168–9, 449
lava distribution 167–8, 455
magma migration 163–6
temperature effects see fission track analysis results
see also FTA
source rocks 7, 9
stratigraphy
Celtic Sea Basin 262
Hebrides Basins 17
Ireland 260–1, 449
Porcupine Basin 352–68
Ulster Basin 258
tectonics 432–41
thermal metamorphism and maturity 39–48
Thornhill Basin 78
Thornhill Sandstone Formation 89–91
tiering 236
TOC 37, 318
Tornquist Alignment 422, 424
Torradian Sandstone 9
total organic carbon (TOC) 37, 318
Tow Valley Fault 280
trace fossils 221–37, 462
trackways 235
transform faults 390–1
transition sequence studies, Porcupine Basin 334–43
Triassic
hydrocarbon potential 9, 449, 451