

## Contents

PARNELL, J. Basins on the Atlantic seaboard: introduction	vii
<b>Basin histories and hydrocarbon source rocks</b>	
PARNELL, J. Burial histories and hydrocarbon source rocks on the North West Seaboard	3
STEIN, A. M. Basin development and petroleum potential in The Minches and Sea of the Hebrides Basins	17
DEAN, M. T. Conodont colour maturation indices for the Carboniferous of west-central Scotland	21
MOSSMAN, D. J. Carboniferous source rocks of the Canadian Atlantic margin	25
THRASHER, J. Thermal effect of the Tertiary Cuillins Intrusive Complex in the Jurassic of the Hebrides: an organic geochemical study	35
<b>Introduction to Mesozoic basins on the North West Seaboard</b>	
MORTON, N. Late Triassic to Middle Jurassic stratigraphy, palaeogeography and tectonics west of the British Isles	53
<b>The Hebridean basins and adjacent areas</b>	
McKEEVER, P. Petrography and diagenesis of the Permo-Triassic of Scotland	71
Appendix. McKEEVER, P., CAREY, P. & QUINN, J. Authigenic k-feldspar in the Permo-Triassic of northwest Britain: a pilot oxygen isotope study	93
MORTON, N. Dynamic stratigraphy of the Triassic and Jurassic of the Hebrides Basin, NW Scotland	97
HARRIS, J. P. Mid-Jurassic lagoonal delta systems in the Hebridean basins: thickness and facies distribution patterns of potential reservoir sandbodies	111
WILKINSON, M. Concretionary cements in Jurassic sandstones, Isle of Eigg, Inner Hebrides	145
HAMILTON, P. J., FALICK, A. E., ANDREWS, J. E. & WHITFORD, D. J. Middle Jurassic clay-minerals from the Minch Basin: isotopic tracing of provenance and post-depositional alteration	155
LOWDEN, B., BRALEY, S., HURST, A. & LEWIS, J. Sedimentological studies of the Cretaceous Lochaline Sandstone, NW Scotland	159
ENGLAND, R. W. The role of Palaeocene magmatism in the tectonic evolution of the Sea of the Hebrides Basin: implications for basin evolution on the NW Seaboard	163
LEWIS, C. L. E., CARTER, A. & HURFORD, A. J. Low-temperature effects of the Skye Tertiary intrusions on Mesozoic sediments in the Sea of Hebrides Basin	175
<b>Onshore and offshore North of Ireland</b>	
MITCHELL, W. I. The origin of Upper Palaeozoic sedimentary basins in Northern Ireland and relationships with the Canadian Maritime Provinces	191
PHILCOX, M. E., BAILY, H., CLAYTON, G. & SEVASTOPULO, G. D. Evolution of the Carboniferous Lough Allen Basin, Northwest Ireland	203
BUCKMAN, J. O. Palaeoenvironment of a Lower Carboniferous sandstone succession, northwest Ireland: ichnological and sedimentological studies	217
WANG, W. H. Origin of reddening and secondary porosity in Carboniferous sandstones, Northern Ireland	243
NAYLOR, D. The post-Variscan history of Ireland	255

McCAFFREY, R. J. & McCANN, N. Post-Permian basin history of northeast Ireland	277
DOBSON, M. R. & WHITTINGTON, R. J. Aspects of the geology of the Malin Sea area	291
<b>Offshore west and south of Ireland</b>	
TRUEBLOOD, S. Petroleum geology of the Slyne Trough and adjacent basins	315
WHITE, N., TATE, M. & CONROY, J. J. Lithospheric stretching in the Porcupine Basin, west of Ireland	327
MOORE, J. G. A syn-rift to post-rift transition sequence in the Main Porcupine Basin, offshore western Ireland	333
SHANNON, P. M. Early Tertiary submarine fan deposits in the Porcupine Basin, offshore Ireland	351
TATE, M. P. The Clare Lineament: a relic transform fault west of Ireland	375
RUFFELL, A. H. & COWARD, M. P. Basement tectonics and their relationship to Mesozoic megasequences in the Celtic Seas and Bristol Channel area	385
<b>The Atlantic Seaboard beyond the British Isles</b>	
SRIVASTAVA, S. P. & VERHOEF, J. Evolution of Mesozoic sedimentary basins around the North Central Atlantic: a preliminary plate kinematic solution	397
DORÉ, A. G. Synoptic palaeogeography of the Northeast Atlantic Seaway; late Permian to Cretaceous	421
<b>Excursion guide</b>	
PARNELL, J., MONSON, B. & BUCKMAN, J. O. Basins and petroleum geology in the north of Ireland	449
Index	465