

Contents

Preface	vii
MOHRIAK, W. U., DANFORTH, A., POST, P. J., BROWN, D. E., TARI, G. C., NEMČOK, M. & SINHA, S. T. Conjugate divergent margins: an introduction	1
South Atlantic	
ALMEIDA, J., DIOS, F., MOHRIAK, W. U., VALERIANO, C. D. M., HEILBRON, M., EIRADO, L. G. & TOMAZZOLI, E. Pre-rift tectonic scenario of the Eo-Cretaceous Gondwana break-up along SE Brazil–SW Africa: insights from tholeiitic mafic dyke swarms	11
GERALDES, M. C., MOTOKI, A., COSTA, A., MOTA, C. E. & MOHRIAK, W. U. Geochronology (Ar/Ar and K–Ar) of the South Atlantic post-break-up magmatism	41
ASLANIAN, D. & MOULIN, M. Palaeogeographic consequences of conservational models in the South Atlantic Ocean	75
MOULIN, M., ASLANIAN, D., RABINEAU, M., PATRIAT, M. & MATIAS, L. Kinematic keys of the Santos–Namibe basins	91
MACGREGOR, D. S. Late Cretaceous–Cenozoic sediment and turbidite reservoir supply to South Atlantic margins	109
USSAMI, N., CHAVES, C. A. M., MARQUES, L. S. & ERNESTO, M. Origin of the Rio Grande Rise–Walvis Ridge reviewed integrating palaeogeographic reconstruction, isotope geochemistry and flexural modelling	129
KUMAR, N., DANFORTH, A., NUTTALL, P., HELWIG, J., BIRD, D. E. & VENKATRAMAN, S. From oceanic crust to exhumed mantle: a 40 year (1970–2010) perspective on the nature of crust under the Santos Basin, SE Brazil	147
BLAICH, O. A., FALEIDE, J. I., TSIKALAS, F., GORDON, A. C. & MOHRIAK, W. Crustal-scale architecture and segmentation of the South Atlantic volcanic margin	167
QUIRK, D. G., HERTLE, M., JEPPESEN, J. W., RAVEN, M., MOHRIAK, W. U., KANN, D. J., NØRGAARD, M., HOWE, M. J., HSU, D., COFFEY, B. & MENDES, M. P. Rifting, subsidence and continental break-up above a mantle plume in the central South Atlantic	185
GORDON, A. C., MOHRIAK, W. U. & BARBOSA, V. C. F. Crustal architecture of the Almada Basin, NE Brazil: an example of a non-volcanic rift segment of the South Atlantic passive margin	215
DAILLY, P., HENDERSON, T., HUDGENS, E., KANSCHAT, K. & LOWRY, P. Exploration for Cretaceous stratigraphic traps in the Gulf of Guinea, West Africa and the discovery of the Jubilee Field: a play opening discovery in the Tano Basin, Offshore Ghana	235
MELLO, M. R., DE AZAMBUJA FILHO, N. C., BENDER, A. A., BARBANTI, S. M., MOHRIAK, W., SCHMITT, P. & DE JESUS, C. L. C. The Namibian and Brazilian southern South Atlantic petroleum systems: are they comparable analogues?	249
North Atlantic	
LOUDEN, K., WU, Y. & TARI, G. Systematic variations in basement morphology and rifting geometry along the Nova Scotia and Morocco conjugate margins	267

DEHLER, S. A. & WELFORD, J. K. Variations in rifting style and structure of the Scotian margin, Atlantic Canada, from 3D gravity inversion	289
WITHJACK, M. O., SCHLISCHE, R. W., MALINCONICO, M. L. & OLSEN, P. E. Rift-basin development: lessons from the Triassic–Jurassic Newark Basin of eastern North America	301
POST, P. J., ELLIOTT, E. T., KLAZYNSKI, R. J., KLOCEK, E. S., DECORT, T. M., RICHES, T. J. JR. & LI, K. US central Atlantic: new plays and petroleum prospectivity	323
TARI, G. & JABOUR, H. Salt tectonics along the Atlantic margin of Morocco	337
HARVEY, P. J. & MACDONALD, D. J. Pre-discovery seismic modelling and prediction of the Deep Panuke Late Jurassic carbonate bank gas discovery, offshore Nova Scotia	355
Continental Break-up Processes	
NEMČOK, M., STUART, C., ROSENDAHL, B. R., WELKER, C., SMITH, S., SHEYA, C., SINHA, S. T., CHOUDHURI, M., ALLEN, R., REEVES, C., SHARMA, S. P., VENKATRAMAN, S. & SINHA, N. Continental break-up mechanism; lessons from intermediate- and fast-extension settings	373
PÉREZ-GUSSINYÉ, M. A tectonic model for hyperextension at magma-poor rifted margins: an example from the West Iberia–Newfoundland conjugate margins	403
SIBUET, J.-C. & TUCHOLKE, B. E. The geodynamic province of transitional lithosphere adjacent to magma-poor continental margins	429
DIREEN, N. G., STAGG, H. M. J., SYMONDS, P. A. & NORTON, I. O. Variations in rift symmetry: cautionary examples from the Southern Rift System (Australia–Antarctica)	453
NEMČOK, M., SINHA, S. T., STUART, C. J., WELKER, C., CHOUDHURI, M., SHARMA, S. P., MISRA, A. A., SINHA, N. & VENKATRAMAN, S. East Indian margin evolution and crustal architecture: integration of deep reflection seismic interpretation and gravity modelling	477
MOHRIAK, W. U. & LEROY, S. Architecture of rifted continental margins and break-up evolution: insights from the South Atlantic, North Atlantic and Red Sea–Gulf of Aden conjugate margins	497
NEMČOK, M., HENK, A., ALLEN, R., SIKORA, P. J. & STUART, C. Continental break-up along strike-slip fault zones; observations from the Equatorial Atlantic	537
Index	557