

Contents

Preface	vii
Magma generation and break-up processes	
WHITE, R. S. Magmatism during and after continental break-up	1
COFFIN, M. F. & ELDHOLM, O. Volcanism and continental break-up: a global compilation of large igneous provinces	17
MENZIES, M. A. The lower lithosphere as a major source for continental flood basalts: a re-appraisal	31
SAUNDERS A. D., STOREY, M., KENT, R. W. & NORRY, M. J. Consequences of plume–lithosphere interactions	41
GIBSON, S. A., THOMPSON, R. N., LEAT, P. T., DICKIN, A. P., MORRISON, M. A., HENDRY, G. L. & MITCHELL, J. G. Asthenosphere-derived magmatism in the Rio Grande rift, western USA: implications for continental break-up	61
BAILEY, D. K. Episodic alkaline igneous activity across Africa: implications for the causes of continental break-up	91
ANDERSON, D. L., YU-SHEN ZHANG & TANIMOTO, T. Plume heads, continental lithosphere, flood basalts and tomography	99
BOTT, M. H. P. The stress regime associated with continental break-up	125
Early stages of Gondwana break-up	
COX, K. G. Karoo igneous activity, and the early stages of the break-up of Gondwanaland	137
STOREY, B. C., ALABASTER, T., HOLE, M. J., PANKHURST, R. J. & WEVER, H. E. Role of subduction–plate boundary forces during the initial stages of Gondwana break-up: evidence from the proto-Pacific margin of Antarctica	149
ELLIOT, D. H. Jurassic magmatism and tectonism associated with Gondwanaland break-up: an Antarctic perspective	165
BREWER, T. S., HERGT, J. M., HAWKESWORTH, C. J., REX, D. & STOREY, B. C. Coats Land dolerites and the generation of Antarctic continental flood basalts	185
RAPELA, C. W. & PANKHURST, R. J. The granites of northern Patagonia and the Gastre Fault System in relation to the break-up of Gondwana	209
South Atlantic opening	
HAWKESWORTH, C. J., GALLAGHER, K., KELLEY, S., MANTOVANI, M., PEATE, D. W., REGELOUS, M. & ROGERS, N. W. Paraná magmatism and the opening of the South Atlantic	221
WILSON, M. Magmatism and continental rifting during the opening of the South Atlantic Ocean: a consequence of Lower Cretaceous super-plume activity?	241
LIGHT, M. P. R., MASLANYJ, M. P. & BANKS, N. L. New geophysical evidence for extensional tectonics on the divergent margin offshore Namibia	257

Northwest Indian Ocean and Gulf of Aden

DEVEY, C. W. & STEPHENS, W. E. Deccan-related magmatism west of the Seychelles–India rift 271

MENZIES, M. A., BAKER, J., BOSENCE, D., DART, C., DAVISON, I., HURFORD, A., AL'KADASI, M. McCLAY, K., NICHOLS, G., AL'SUBBARY, A. & YELLAND, A. The timing of magmatism, uplift and crustal extension: preliminary observations from Yemen 293

North Atlantic opening

SKOGSEID, J., PEDERSEN, T., ELDHOLM, O. & LARSEN, B. T. Tectonism and magmatism during NE Atlantic continental break-up: the Vøring Margin 305

LARSEN, L. M., PEDERSEN, A. K., PEDERSEN, G. K. & PIASECKI, S. Timing and duration of Early Tertiary volcanism in the North Atlantic: new evidence from West Greenland 321

GILL, R. C. O., PEDERSEN, A. K. & LARSEN, J. G. Tertiary picrites in West Greenland: melting at the periphery of a plume? 335

HOLM, P. M., HALD, N. & NIELSEN, T. F. D. Contrasts in composition and evolution of Tertiary CFBs between West and East Greenland and their relations to the establishment of the Icelandic mantle plume 349

LARSEN, H. C. & MARCUSSEN, C. Sill-intrusion, flood basalt emplacement and deep crustal structure of the Scoresby Sund region, East Greenland 365

JOY, A. M. Right place, wrong time: anomalous post-rift subsidence in sedimentary basins around the North Atlantic Ocean 387