

## Contents

### Preface

MARSHALL, J. D. Diagenesis and sedimentary sequences—introduction	vii
-------------------------------------------------------------------	-----

### Diagenetic processes

GOLDSMITH, I. R. & KING, P. Hydrodynamic modelling of cementation patterns in modern reefs	1
MACHEL, H. G. Some aspects of diagenetic sulphate-hydrocarbon redox reactions	15
PALMER, S. N. & BARTON, M. E. Porosity reduction, microfabric and resultant lithification in UK uncemented sands	29
RAISWELL, R. Non-steady state microbiological diagenesis and the origin of concretions and nodular limestones	41
WARREN, E. A. The application of a solution-mineral equilibrium model to the diagenesis of Carboniferous sandstones, Bothamsall oilfield, East Midlands, England	55

### Early diagenesis

ASTIN, T. R. Petrology (including fluorescence microscopy) of cherts from the Portlandian of Wiltshire, UK—evidence of an episode of meteoric water circulation	73
CARSON, G. A. Silicification fabrics from the Cenomanian and basal Turonian of Devon, England: isotopic results	87
KANTOROWICZ, J. D., BRYANT, I. D. & DAWANS, J. M. Controls on the geometry and distribution of carbonate cements in Jurassic sandstones: Bridport Sands, southern England and Viking Group, Troll Field, Norway	103
PUEYO, MUR, J. J. & INGLÉS URPINELL, M. Magnesite formation in recent playa lakes, Los Monegros, Spain	119
TABERNER, C. & SANTISTEBAN, C. Mixed-water dolomitization in a transgressive beach-ridge system, Eocene Catalan Basin, NE Spain	123
SMITH, R. D. A. Early diagenetic phosphate cements in a turbidite basin	141
ZHAO XUN & FAIRCHILD, I. J. Mixing zone dolomitization of Devonian carbonates, Guangxi, South China	157

### Regional studies and burial diagenesis

BATH, A. H., MIŁODOWSKI, A. E. & SPIRO, B. Diagenesis of carbonate cements in Permo-Triassic sandstones in the Wessex and East Yorkshire-Lincolnshire Basins, UK: a stable isotope study	173
BOLES, J. R. Six million year diagenetic history, North Coles Levee, San Joaquin Basin, California	191
EMERY, D. Trace-element source and mobility during limestone burial diagenesis—an example from the Middle Jurassic of eastern England	201

LAND, L. S. & FISHER, R. S. Wilcox sandstone diagenesis, Texas Gulf Coast: a regional isotopic comparison with the Frio Formation	219
HARRIS, D. C. & MEYERS, W. J. Regional dolomitization of subtidal shelf carbonates: Burlington and Keokuk Formations (Mississippian), Iowa and Illinois	237
HUDSON, J. D. & ANDREWS, J. E. The diagenesis of the Great Estuarine Group, Middle Jurassic, Inner Hebrides, Scotland	259
LONGSTAFFE, F. J. & AYALON, A. Oxygen-isotope studies of clastic diagenesis in the Lower Cretaceous Viking Formation, Alberta: implications for the role of meteoric water	277
PARNELL, J. Secondary porosity in hydrocarbon-bearing transgressive sandstones on an unstable Lower Palaeozoic continental shelf, Welsh Borderland	297
SAIGAL, G. C. & BJØRLYKKE, K. Carbonate cements in clastic reservoir rocks from offshore Norway—relationships between isotopic composition, textural development and burial depth	313
STRONG, G. E. & MIŁODOWSKI, A. E. Aspects of the diagenesis of the Sherwood Sandstones of the Wessex Basin and their influence on reservoir characteristics	325
DE WET, C. B. Deposition and diagenesis in an extensional basin: the Corallian Formation (Jurassic) near Oxford, England	339
INDEX	355