

CLAY MINERALS

VOLUME 29, NUMBER 4, OCTOBER 1994

CONTENTS

| | |
|--|-----|
| EDITORIAL | 413 |
| C. V. JEANS. Clay diagenesis, overpressure and reservoir quality: an introduction | 415 |
| P.L. HALL. Physical and chemical aspects of the development of overpressuring in sedimentary environments | 425 |
| L. WENSAAS, H. F. SHAW, K. GIBBONS, P. AAGAARD and H. DYPVIC. Nature and causes of overpressuring in mudrocks of the Gullfaks Area, North Sea | 439 |
| T. J. KATSUBE and M. A. WILLIAMSON. Effects of diagenesis on shale nano-pore structure and implications for sealing capacity | 451 |
| R. E. SWARBRICK. Reservoir diagenesis and hydrocarbon migration under hydrostatic palaeopressure conditions | 463 |
| M. RAMM and K. BJØRLYKKE. Porosity/depth trends in reservoir sandstones: assessing the quantitative effects of varying pore-pressure, temperature history and mineralogy, Norwegian Shelf data | 475 |
| C. A. CADE, I. J. EVANS and S. L. BRYANT. Analysis of permeability controls: a new approach | 491 |
| P. DE CARITAT, J. D. BLOCH, I. E. HUTCHEON and F. J. LONGSTAFFE. Compositional trends of a Cretaceous foreland basin shale (Belle Fourche Formation, Western Canada Sedimentary Basin): diagenetic and depositional controls | 503 |
| H. LINDGREEN. Ammonium fixation during illite-smectite diagenesis in Upper Jurassic shale, North Sea | 527 |
| J. S. SMALL. Fluid composition, mineralogy and morphological changes associated with the smectite-to-illite reaction: an experimental investigation of the effect of organic acid anions | 539 |
| K. ZIEGLER, B. W. SELLWOOD and A. E. FALLICK. Radiogenic and stable isotope evidence for age and origin of authigenic illites in the Rotliegend, southern North Sea | 555 |
| M. WILKINSON, A. E. FALLICK, G. M. J. KEANEY, R. S. HASZELDINE and W. J. MCHARDY. Stable isotopes in illite: the case for meteoric water flushing within the Upper Jurassic Fulmar Formation sandstones, UK North Sea | 567 |
| C. V. JEANS, J. G. MITCHELL, M. SCHERER and M. J. FISHER. Origin of the Permo-Triassic clay mica assemblage | 575 |
| M. OSBORNE, R. S. HASZELDINE and A. E. FALLICK. Variation in kaolinite morphology with growth temperature in isotopically mixed pore-fluids, Brent Group, UK North Sea | 591 |
| G. E. MCAULAY, S. D. BURLEY, A. E. FALLICK and N. J. KUSZNIR. Palaeohydrodynamic fluid flow regimes during diagenesis of the Brent Group in the Hutton-NW Hutton reservoirs: constraints from oxygen isotope studies of authigenic kaolin and flexural modelling | 609 |
| R.N.T. STEWART, A. E. FALLICK and R. S. HASZELDINE. Kaolinite growth during pore-water mixing: isotopic data from Palaeocene sands, North Sea, UK | 627 |
| P. J. GREENWOOD, H. F. SHAW and A. E. FALLICK. Petrographic and isotopic evidence for diagenetic processes in Middle Jurassic sandstones and mudrocks from the Brae Area, North Sea | 637 |
| Ó. M. MC LAUGHLIN, R. S. HASZELDINE, A. E. FALLICK and G. ROGERS. The case of the missing clay, aluminium loss and secondary porosity, South Brae Oilfield, North Sea | 651 |
| S. HILLIER. Pore-lining chlorites in siliciclastic reservoir sandstones: electron microprobe, SEM and XRD data, and implications for their origin | 665 |
| B. HUMPHREYS, S. J. KEMP, G. K. LOTT, BERMANTO, D. A. DHARMAYANTI and I. SAMSORI. Origin of grain-coating chlorite by smectite transformation: an example from Miocene sandstones, North Sumatra back-arc basin, Indonesia | 681 |
| J. M. HUGGETT. Diagenesis of mudrocks and concretions from the London Clay Formation in the London Basin | 693 |

ISSN 0009-8558

*Typeset and printed by
Black Bear Press Limited, Cambridge, England*