

Contents

Acknowledgements	vii
Dowey, P. J., Osborne, M. and Volk, H. Application of analytical techniques to petroleum systems: an introduction	1
van Bergen, P. F. and Gordon, M. Production geochemistry: fluids don't lie and the devil is in the detail	9
Bourdet, J. F. R., Heath, C. H. and Kempton, R. H. Adaptation of fluid inclusion techniques for investigating gas charge – examples from the Caswell Sub-basin, Browse Basin, Australia	29
Faiz, M., Zoitsas, A., Altmann, C., Baruch, E. and Close, D. Compositional variations and carbon isotope reversal in coal and shale gas reservoirs of the Bowen and Beetaloo basins, Australia	51
Poetz, S., Kuske, S., Song, Y., Jweda, J., Michael, E. and Horsfield, B. Using polar nitrogen-, sulphur- and oxygen-compound compositions from ultra-high resolution mass spectrometry for petroleum fluid assessment in the Eagle Ford Formation, Texas	71
Doerner, M., Berner, U., Erdmann, M. and Barth, T. Organic geochemical research analytics of the petroleum industry: enhanced data density and method flexibility using gas chromatograph multiple detector coupling	97
Schito, A. and Corrado, S. An automatic approach for characterization of the thermal maturity of dispersed organic matter Raman spectra at low diagenetic stages	107
Walters, C. C. Organic geochemistry at varying scales: from kilometres to ångstroms	121
Meredith, W., Uguna, C. N., Snape, C. E., Carr, A. D. and Scotchman, I. C. Formation of bitumen in the Elgin–Franklin complex, Central Graben, North Sea: implications for hydrocarbon charging	139
Buckman, J., Mahoney, C., Bankole, S., Couples, G., Lewis, H., Wagner, T., März, C., Blanco, V. and Stow, D. Workflow model for the digitization of mudrocks	165
Worden, R. H., Utley, J. E. P., Butcher, A. R., Griffiths, J., Wooldridge, L. J. and Lawan, A. Y. Improved imaging and analysis of chlorite in reservoirs and modern day analogues: new insights for reservoir quality and provenance	189
Misch, D., Klaver, J., Gross, D., Rustamov, J., Sachsenhofer, R. F., Schmatz, J. and Urai, J. L. Pore space characteristics of the Upper Viséan ‘Rudov Beds’: insights from broad ion beam scanning electron microscopy and organic geochemical investigations	205
Osborne, M. and Volk, H. Understanding variations in reservoir porosity in the Eagle Ford Shale using scanning electron microscopy: implications for basin modelling	229
Andrew, M. Comparing organic-hosted and intergranular pore networks: topography and topology in grains, gaps and bubbles	241
Flowerdew, M. J., Fleming, E. J., Morton, A. C., Frei, D., Chew, D. M. and Daly, J. S. Assessing mineral fertility and bias in sedimentary provenance studies: examples from the Barents Shelf	255