

## Contents

LAWSON, M., FORMOLO, M. J., SUMMA, L. & EILER, J. M. Geochemical applications in petroleum systems analysis: new constraints and the power of integration	1
<b>Source-rock identification and the temperature/timing of hydrocarbon generation</b>	
STOLPER, D. A., LAWSON, M., FORMOLO, M. J., DAVIS, C. L., DOUGLAS, P. M. J. & EILER, J. M. The utility of methane clumped isotopes to constrain the origins of methane in natural gas accumulations	23
EILER, J. M., CLOG, M., LAWSON, M., LLOYD, M., PIASECKI, A., PONTON, C. & XIE, H. The isotopic structures of geological organic compounds	53
GAO, Y., CASEY, J. F., BERNARDO, L. M., YANG, W. & BISSADA, K. K. (A.) Vanadium isotope composition of crude oil: effects of source, maturation and biodegradation	83
PEDENTCHOUK, N. & TURICH, C. Carbon and hydrogen isotopic compositions of <i>n</i> -alkanes as a tool in petroleum exploration	105
<b>Mechanisms and time-scales associated with hydrocarbon migration, trapping, storage and alteration</b>	
BYRNE, D. J., BARRY, P. H., LAWSON, M. & BALLENTINE, C. J. Noble gases in conventional and unconventional petroleum systems	127
MOORE, M. T., VINSON, D. S., WHYTE, C. J., EYMOLD, W. K., WALSH, T. B. & DARRAH, T. H. Differentiating between biogenic and thermogenic sources of natural gas in coalbed methane reservoirs from the Illinois Basin using noble gas and hydrocarbon geochemistry	151
<b>The impact of fluid flow on reservoir properties</b>	
MACDONALD, J. M., JOHN, C. M. & GIRARD, J.-P. Testing clumped isotopes as a reservoir characterization tool: a comparison with fluid inclusions in a dolomitized sedimentary carbonate reservoir buried to 2–4 km	189
Index	203