

Nicolaj Mahlstedt

Publication List

Five publications with major impact for the work of GEOS4

Mahlstedt, N., Horsfield, B., Wilkes, H. & Poetz, S. (2016) Tracing the Impact of Fluid Retention on Bulk Petroleum Properties Using Nitrogen-Containing Compounds. *Energy and Fuels*, 30, (8), 6290-6305. <http://dx.doi.org/10.1021/acs.energyfuels.6b00994>

Mahlstedt, N., di Primio, R., Horsfield, B. & Boreham, C.J. (2015) Multi-component kinetics and late gas potential of selected Cooper Basin source rocks. *Record 2015/19*. Geoscience Australia, Canberra. <http://dx.doi.org/10.11636/Record.2015.019>

Han, Y., Mahlstedt, N. & Horsfield, B. (2015) The Barnett Shale: Compositional fractionation associated with intraformational petroleum migration, retention, and expulsion. *AAPG Bulletin*, 99, (12), 2173-2202. <https://doi.org/10.1306/06231514113>

Mahlstedt, N., Hübner, A., di Primio, R. & Horsfield, B. (2014) Think molecular it translates into pay! *GeoExPro*, 11, 2, 74-78.

Mahlstedt, N. & Horsfield, B. (2012) Metagenetic methane generation in gas shales I. Screening protocols using immature samples. *Marine and Petroleum Geology*, 31, 1, p. 27-42. <https://doi.org/10.1016/j.marpetgeo.2011.06.011>

Further Publications in the order of publication date

2017

Han, Y., Horsfield, B., Wirth, R., Mahlstedt, N. & Bernard, S. (2017) Oil retention and porosity evolution in organic-rich shales. *AAPG Bulletin*, 101, 6, p. 807-827. <http://doi.org/10.1306/09221616069>

Ma, Y., Cao, T., Snowdon, L., Qian, M., Jiang, Q., Li, M., Mahlstedt, N. & Horsfield, B. (2017) Impact of Different Experimental Heating Rates on Calculated Hydrocarbon Generation Kinetics. *Energy & Fuels*. <http://doi.org/10.1021/acs.energyfuels.7b01035>

2016

- Abbassi, S., Edwards, D.S., George, S.C., Volk, H., Mahlstedt, N., Primio, R.d. & Horsfield, B. (2016) Petroleum potential and kinetic models for hydrocarbon generation from the Upper Cretaceous to Paleogene Latrobe Group coals and shales in the Gippsland Basin, Australia. *Organic Geochemistry* 91, 54-67. <http://dx.doi.org/10.1016/j.orggeochem.2015.11.001>
- Misch, D., Gross, D., Mahlstedt, N., Makogon, V. & Sachsenhofer, R.F. (2016) Shale gas/shale oil potential of Upper Visean Black Shales in the Dniepr-Donets Basin (Ukraine). *Marine and Petroleum Geology* 75, 203-219. <http://dx.doi.org/10.1016/j.marpetgeo.2016.04.017>
- Yang, S., Horsfield, B., Mahlstedt, N., Stephenson, M. & Könitzer, S. (2016) On the primary and secondary petroleum generating characteristics of the Bowland Shale, northern England. *Journal of the Geological Society*. 173, (2), 292-305. <http://doi.org/10.1144/jgs2015-056>

2015

- Tan, J., Horsfield, B., Mahlstedt, N., Zhang, J., Boreham, C. J. Hippler, D., van Graas, G., Tocher, B. A. (2015) Natural gas potential of Neoproterozoic and lower Palaeozoic marine shales in the Upper Yangtze Platform, South China: geological and organic geochemical characterization. *International Geology Review*, 57/3, 305-326. <http://doi.org/10.1080/00206814.2015.1004200>

2014

- Franz, G., Hippler, D., Rhede, D., Wirth, R., Banerjee, D.M. & Mahlstedt, N. (2014) Diagenetic formation of interlayer-deficient fluorophlogopite as a clay mineral in Early Cambrian phosphorite (Lesser Himalaya, India): The trioctahedral analogue of illite. *American Mineralogist*, 99 (11-12), 2353-2368. <http://dx.doi.org/10.2138/am-2014-4852>
- Han, S., Horsfield, B., Zhang, J., Mahlstedt, N., di Primio, R. & Tang, X. (2014) Source Rock Properties and Hydrocarbon Generating Kinetics of Lacustrine Shales in Ordos Basin, China. Abstracts, AAPG 2014 Annual Convention and Exhibition "Ideas and Innovation: Fuel for the Energy Capital" (Houston, Texas 2014).
- Han, S., Horsfield, B., Zhang, J., Chen, Q., Mahlstedt, N., di Primio, R. & Xiao, G. (2014) Hydrocarbon Generation Kinetics of Lacustrine Yanchang Shale in Southeast Ordos Basin, North China. *Energy & Fuels* 28, 5632-5639. <http://dx.doi.org/10.1021/ef501011b>
- Han, Y., Mahlstedt, N. & Horsfield, B. (2014): A Case Study of Hydrocarbon Generation-Retention-Migration in the Unconventional Barnett Shale System. AAPG Datapages/Search and Discovery Article #90189

Ziegs, V., Mahlstedt, N., Bruns, B., Horsfield, B. (2014) Predicted bulk composition of petroleum generated by Lower Cretaceous Wealden black shales, Lower Saxony Basin, Germany. *International Journal of Earth Sciences*, 1-17. <https://doi.org/10.1007/s00531-014-1081-y>

2013

Rippen, D., Littke, R., Bruns, B. & Mahlstedt, N. (2013) Organic geochemistry and petrography of Lower Cretaceous Wealden black shales of the Lower Saxony Basin: The transition from lacustrine oil shales to gas shales. *Organic Geochemistry* 63, 18-36. <https://doi.org/10.1016/j.orggeochem.2013.07.013>

Tan, J., Horsfield, B., Mahlstedt, N., Zhang, J., di Primio, R., Vu, T. A. T., Boreham, C. J., van Graas, G. & Tocher, B. A. (2013) Physical properties of petroleum formed during maturation of Lower Cambrian shale in the upper Yangtze Platform, South China, as inferred from PhaseKinetics modelling. *Marine and Petroleum Geology*, 48, 47-56. <https://doi.org/10.1016/j.marpetgeo.2013.07.013>

Vu, T. T. A., Horsfield, B., Mahlstedt, N., Schenk, H. J., Kelemen, S. R., Walters, C. C., Kwiatek, P. J. & Sykes, R. (2013) The structural evolution of organic matter during maturation of coals and its impact on petroleum potential and feedstock for the deep biosphere. *Organic Geochemistry*, 62, 17-27. <https://doi.org/10.1016/j.orggeochem.2013.06.011>

2012 and earlier

Mahlstedt, N. (2012) Evaluating the late gas potential of source rocks stemming from different sedimentary environments. Ph.D. Thesis. TU Berlin, urn:nbn:de:kobv:83-opus-37333

Mahlstedt, N. & Horsfield, B. (2011) Gas Generation at High Maturities (> Ro = 2%) in Gas Shales. Adapted from oral presentation at AAPG International Conference and Exhibition, Milan, Italy, October 23-26, 2011 http://www.searchanddiscovery.com/documents/2012/40873mahlstedt/ndx_mahlstedt.pdf

Mahlstedt, N., Horsfield, B., Dieckmann, V. (2008) Second order reactions as a prelude to gas generation at high maturity. *Organic Geochemistry*, 39, 8, 1125-1129.