

CPSGG Faculty Publications 2012-2017

Dr. Younane Abousleiman

Liu, C. and Abousleiman, Y. N. 2017. Shale Dual-Porosity Dual-Permeability Poromechanical and Chemical Properties Extracted from Experimental Pressure Transmission Tests. *Journal of Engineering Mechanics* 143 (9), 04017107. [https://doi.org/10.1061/\(ASCE\)EM.1943-7889.0001333](https://doi.org/10.1061/(ASCE)EM.1943-7889.0001333).

Mehrabian, A. and Abousleiman, Y. N. 2017. Letter to the Editor regarding “A fully dynamic multi-compartmental poroelastic system: Application to aqueductal stenosis,” by D. Chou, J. C. Vardakas, L. Guo, B. J. Tully, and Y. Ventikos. *Journal of Biomechanics* 50: 241-242. <http://dx.doi.org/10.1016/j.jbiomech.2017.01.049>.

Chen, S. L. and Abousleiman, Y. N. 2017. Wellbore stability analysis using strain hardening and/or softening plasticity models. *International Journal of Rock Mechanics and Mining Sciences* 93: 260-268. <https://doi.org/10.1016/j.ijrmms.2017.02.007>.

Mehrabian, A. and Abousleiman, Y. 2017. Wellbore Geomechanics of Extended Drilling Margin and Engineered Lost-Circulation Solutions. *SPE Journal* 22:04. <https://doi.org/10.2118/185945-PA>.

Liu, C., Hoang, S. K., Tran, M. H., Abousleiman, Y.N., and Ewy, R. T. 2017. Poroelastic Dual-Porosity Dual-Permeability Simulation of Pressure Transmission Test on Chemically Active Shale. 2017. *Journal of Engineering Mechanics* 143: (6), 04017016. [https://doi.org/10.1061/\(ASCE\)EM.1943-7889.0001210](https://doi.org/10.1061/(ASCE)EM.1943-7889.0001210).

Hull, K. L., Abousleiman, Y. N., Han, Y., Al-Muntasher, G. A., Hosemann, P., Parker, S. S., and Howard, C. B. 2017. Nanomechanical characterization of the tensile modulus of rupture for kerogen-rich shale. *SPE Journal* 22:04. <https://doi.org/10.2118/177628-PA>.

Liu, C., Mehrabian, A., and Abousleiman, Y. N. 2017. Poroelastic dual-porosity/dual-permeability after-closure pressure-curves analysis in hydraulic fracturing. *SPE Journal* 22 (01): 198-218. <https://doi.org/10.2118/181748-PA>.

Chen, S. L. and Abousleiman, Y. N. 2017. Cavity expansion in strain hardening frictional soils under drained condition. *International Journal for Numerical and Analytical Methods in Geomechanics*. 1-11. <https://doi.org/10.1002/nag.2718>.

Liu, C., Hoang, S. K., and Abousleiman, Y. N. 2017. Responses of chemically active and naturally fractured shale under time-dependent mechanical loading and ionic solution exposure. *International Journal for Numerical and Analytical Methods in Geomechanics* 1-36. <https://doi.org/10.1002/nag.2713>.

Han, Y., Abousleiman, Y. N., Hull, K. L., and Al-Muntasher, G. A. 2017. Numerical Modeling of Elastic Spherical Contact for Mohr-Coulomb Type Failures in Micro-Geomaterials. *Experimental Mechanics* 1-15. <https://doi.org/10.1007/s11340-017-0301-3>.

Abousleiman, Y. N., Hull, K. L., Han, Y., Al-Muntasher, G., Hosemann, P., Parker, S., and Howard, C. B. 2016. The granular and polymer composite nature of kerogen-rich shale. *Acta Geotechnica*: 1-22. <http://dx.doi.org/10.1007/s11440-016-0435-y>.

Chen, S. L. and Abousleiman, Y. N. 2016. Stress analysis of borehole subjected to fluid injection in transversely isotropic poroelastic medium. *Mechanics Research Communications* 73: 63-75.

Chen, S. and Abousleiman, Y. 2015. Drained and undrained analyses of cylindrical cavity contractions by Bounding Surface plasticity. *Canadian Geotechnical Journal* (in press).

Liu, C., Mehrabian, A., and Abousleiman, Y. 2015. Poroelastic Dual-Porosity Dual-Permeability After-Closure Pressure Curves Analysis in Hydraulic Fracturing. *SPE Journal* (in press).

Mehrabian, A. and Abousleiman, Y. N. 2015. Gassmann equations and the constitutive relations for multiple-porosity and multiple-permeability poroelasticity with applications to oil and gas shale. *Int. J. Numer. Anal. Meth. Geomech.* 39 (14): 1547-1569. <http://dx.doi.org/10.1002/nag.2399>.

Mehrabian, A. and Abousleiman, Y. N. 2015. Geertsma's subsidence solution extended to layered stratigraphy. *Journal of Petroleum Science and Engineering* 130: 68-76. <http://dx.doi.org/10.1016/j.petrol.2015.03.007>.

Mehrabian, A., Abousleiman, Y. N., Mapstone, T. B., and El-Amm, C. A. 2015. Dual-porosity poroviscoelasticity and quantitative hydromechanical characterization of the brain tissue with experimental hydrocephalus data. *Journal of Theoretical Biology* 384: 19-32. <http://dx.doi.org/10.1016/j.jtbi.2015.08.001>.

Abousleiman, Y. N., Hoang, S. K., and Liu, C. 2014. Anisotropic porothermoelastic solution and hydro-thermal effects on fracture width in hydraulic fracturing. *Int. J. Numer. Anal. Meth. Geomech.* 38 (5): 493-517. <http://dx.doi.org/10.1002/nag.2216>.

Mehrabian, A. and Abousleiman, Y. N. 2014. Generalized Biot's theory and Mandel's problem of multiple-porosity and multiple-permeability poroelasticity. *Journal of Geophysical Research: Solid Earth* 119 (4): 2745-2763. <http://dx.doi.org/10.1002/2013JB010602>.

Chen, S. L. and Abousleiman, Y. N. 2013. Exact drained solution for cylindrical cavity expansion in modified Cam Clay soil. *Géotechnique* 63 (6): 510-157.

Tran, M. H. and Abousleiman, Y. N. 2013. Anisotropic Porochemoelectroelastic Solution for an Inclined Wellbore Drilled in Shale. *J. Appl. Mech.* 80 (2): 020912-1 – 020912-14. <http://dx.doi.org/10.1115/1.4007925>.

Tran, M. H. and Abousleiman, Y. N. 2013. Anisotropic porochemoelastic Mandel's problem solutions for applications in reservoir modeling and laboratory characterization. *Mechanics Research Communications* 47: 89-96. <http://dx.doi.org/10.1016/j.mechrescom.2012.10.001>.

Mehrabian, A. and Abousleiman, Y. N. 2013. Generalized poroelastic wellbore problem. *Int. J. Numer. Anal. Meth. Geomech.* 37 (16): 2727-2754. <http://dx.doi.org/10.1002/nag.2160>.

Hoang, S. K. and Abousleiman, Y. N. 2012. Correspondence principle between anisotropic poroviscoelasticity and poroelasticity using micromechanics and application to compression of orthotropic rectangular strips. *J. Appl. Phys.* 112 (4): 044907-1 – 044907-15. <http://dx.doi.org/10.1063/1.4748293>.

Chen, S. L., Abousleiman, Y. N., and Muraleetharan, K. K. 2012. Closed-Form Elastoplastic Solution for the Wellbore Problem in Strain Hardening/Softening Rock Formations. *Int. J. Geomech.* 12 (4): 494-507. [http://dx.doi.org/10.1061/\(ASCE\)GM.1943-5622.0000157](http://dx.doi.org/10.1061/(ASCE)GM.1943-5622.0000157).

Deirieh, A., Ortega, J. A., Ulm, F.-J., and Abousleiman, Y. 2012. Nanochemomechanical assessment of shale: a coupled WDS-indentation analysis. *Acta Geotechnica* 7 (4): 271-295. <http://dx.doi.org/10.1007/S11440-012-0185-4>.

Chen, S. L. and Abousleiman, Y. 2012. Exact undrained elasto-plastic solution for cylindrical cavity expansion in modified Cam Clay soil. *Géotechnique* 62 (5): 447-456. <http://dx.doi.org/10.1680/geot.11.P.027>.

Dr. Micheal Behm

Behm, M. (2017) Feasibility of borehole ambient noise interferometry for permanent reservoir monitoring. *Geophysical Prospecting*, 65(2), 563-580

Behm, M., Nakata, N., and Bokelmann, G. (2016) Regional ambient noise tomography in the Eastern Alps of Europe. *Pure and Applied Geophysics* 173(8), 2813-2840

- Planes, T., Mooney, M., Rittgers, J., Parekh, M., Behm, M., and Snieder, R. (2015). Time-lapse monitoring of internal erosion in earthen dams and levees using ambient seismic noise. *Géotechnique* 66(4), 301-312
- Bianchi, I., Behm, M., Rumpfhuber, E., and Bokelmann, G. (2015). A new seismic data set on the Depth of the Moho in the Alps. *Pure and Applied Geophysics*, 172(2), 295-308
- Nakata, N., Snieder, R., and Behm, M. (2014). Body-wave interferometry using regional earthquakes with multi-dimensional deconvolution after wavefield decomposition at free surface. *Geophysical Journal International*(199), 1125-1137
- Behm, M., and Shekar, B. (2014). Blind deconvolution of multichannel recordings by linearized inversion in the spectral domain. *Geophysics*, 79(2), V33–V45.
- Loidl, B., Behm, M., Thybo, H., and Stratford, W. (2014). Three-dimensional seismic model of crustal structure in Southern Norway. *Geophysical Journal International*, 196(3), 1643–1656.
- Behm, M., Leahy, G. M., and Snieder, R. (2014). Retrieval of local surface wave velocities from traffic noise – an example from the La Barge basin (Wyoming). *Geophysical Prospecting*, 62(2), 223–243.
- Behm, M., and Snieder, R. (2013). Love waves from local traffic noise interferometry. *The Leading Edge*, 32(6), 628–632.
- Krainer, K., Mussner, L., Behm, M., and Hausmann H. (2012). Multi-disciplinary investigation of an active rock glacier in the Sella Group (Dolomites; Northern Italy). *Austrian Journal of Earth Sciences*, 105(2): 48-62.
- Dr. Brett Carpenter**
- Kirilova, M V. Toy, N. Timms, A. Halfpenny, C. Menzies, D. Craw, O. Beyssac, R. Sutherland, J. Townend, C. Boulton, B.M. Carpenter, A. Cooper, J. Grieve, T. Little, L. Morales, C. Morgan, H. Mori, K. Sauer, A. Schleicher, and J. Williams (accepted), Textural changes of graphitic carbon by tectonic and hydrothermal processes in an active plate boundary fault zone, Alpine Fault, New Zealand, *Advances in the Characterization of Ore-Forming Systems from Geological, Geochemical and Geophysical Data*.
- Tesei, T., B.M. Carpenter, C. Giorgetti, M. Scuderi, P. Scarlato, and C. Collettini (2017), Friction and scale-dependent deformation processes along large experimental carbonate faults, *J. Struc. Geol.*, 100, 12-23, doi: 10.1016/j.jsg.2017.05.008.
- Sutherland, R., J. Townend, V. Toy, P. Upton, J. Coussens, M. Allen, L-M Baratin, N. Barth, L. Becroft, C. Boese, A. Boles, C. Boulton, N. Broderick, L. Capova, B.M. Carpenter, B. Celierier, C. Chamberlain, A. Cooper, A. Coutts, S. Cox, L. Craw3, M-L. Doan, J. Eccles, D. Faulkner, J. Grieve, J. Grochowski, A. Gulley, A. Hartog, J. Howarth, K. Jacobs, T. Jeppson, N. Kato, S. Keys, M. Kirilova, Y. Kometani, R. Langridge, W. Lin, T. Little, A. Lukacs, D. Mallyon, E. Mariani, C. Massiot, L. Mathewson, B. Melosh, C. Menzies, J. Moore, L. Morales, C. Morgan, H. Mori, A. Niemeijer, O. Nishikawa, D. Prior, K. Sauer, M. Savage, A. Schleicher, D. Schmitt, N. Shigematsu, S.T. Offord, D. Teagle, H. Tobin, R. Valdez, K. Weaver, T. Wiersberg, J. Williams, N. Woodman, and M. Zimmer (2017), Extreme hydrothermal conditions at an active plate-bounding fault, *Nature*, doi: 10.1038/nature22355.
- Kaneko, Y., B.M. Carpenter, and S. Nielsen (2017), Nucleation process of magnitude-2 repeating earthquakes on the San Andreas fault predicted by rate-and-state fault models with SAFOD drill-core data, *Geophys Res. Lett.*, doi:10.1002/2016GL071569.
- Carpenter, B.M., M.J. Ikari, and C. Marone (2016), Laboratory observations of time-dependent frictional strengthening and stress relaxation in natural and synthetic fault gouges, *J. Geophys. Res.*, 121, doi:10.1002/2015JB012136.

Carpenter, B.M., C. Collettini, C. Viti, and A. Cavallo (2016), The influence of normal stress and sliding velocity on the frictional behavior of calcite at room temperature: Insights from laboratory experiments and microstructural observations, *Geophys. J. Int.*, 205, doi:10.1093/gji/ggw038.

Ikari, M.J., B.M. Carpenter, C. Vogt and A. Kopf (2016), Elevated time-dependent strengthening rates observed in San Andreas Fault drilling samples, *Earth and Planet. Sci. Lett.*, 450, doi:10.1016/j.epsl.2016.06.036.

Ikari, M.J., B.M. Carpenter, and C. Marone (2016), A microphysical interpretation of rate- and state-dependent friction for fault gouge, *Geochem. Geophys. Geosyst.*, 17, doi:10.1002/2016GC006286.

Kaneko, Y., S. Nielsen, and B.M. Carpenter (2016), The onset of laboratory earthquakes explained by nucleating rupture on a rate-and-state fault, *J. Geophys. Res.*, doi:10.1002/2016JB013143.

Wojatchke, J., M.M. Scuderi, L. Warr, B.M. Carpenter, D.M. Saffer, and C. Marone (2016), Experimental constraints on the relationship between clay abundance, clay fabric and frictional behavior for the Central Deforming Zone of the San Andreas Fault, *Geochem. Geophys. Geosyst.*, 17, doi:10.1002/2016GC006500.

Johnson, P.A., J. Carmeliet, H. Savage, M. Scuderi, B.M. Carpenter, R.A. Guyer, E. Daub, and C. Marone (2016), Dynamically triggered slip leading to sustained fault gouge weakening under laboratory shear conditions, *Geophys. Res. Lett.*, 43, doi:10.1002/2015GL067056.

Carpenter, B.M., S. Mollo, C. Viti, and C. Collettini (2015) Influence of calcite decarbonation on the frictional behavior of carbonate-bearing gouge: Implications for the instability of volcanic flanks and fault slip, *Tectonophys.*, 658, doi:10.1016/j.tecto.2015.07.015.

Carpenter, B.M., D.M. Saffer, and C. Marone (2015), Frictional properties of the active San Andreas fault at SAFOD: Implications for fault strength and slip behavior, *J. Geophys. Res.*, 120, doi:10.1002/2015JB011963.

Giorgetti, C, B.M. Carpenter, and C. Collettini (2015), Friction of talc-calcite mixtures, *J. Geophys. Res.*, 120, doi:10.1002/2015JB011970.

Scuderi, M.M., B.M. Carpenter, P.A. Johnson, and C. Marone (2015), Poromechanics of stick-slip frictional sliding and strength recovery on tectonic faults, *J. Geophys. Res.*, 120, doi:10.1002/2015JB011983.

Ikari, M.J., S. Trutner, B.M. Carpenter, and A.J. Kopf (2015), Shear behavior of DFDP-1 borehole samples from the Alpine Fault, New Zealand under a wide range of experimental conditions, *Int. J. Earth Sci.*, 104, doi:10.1007/s00531-014-1115-5.

Scuderi, M.M., H. Kitajima, B.M. Carpenter, D.M. Saffer and C. Marone (2015), Evolution of permeability across the transition from brittle failure to cataclastic flow in porous siltstone, *Geochem. Geophys. Geosyst.*, 16, doi:10.1002/2015GC005932.

Toy, V.G., C.J. Boulton, R. Sutherland, J. Townend, R.J. Norris, T.A. Little, D.J. Prior, E. Mariani, D. Faulkner, C.D. Menzies, H. Scott, and B.M. Carpenter (2015), Fault rock lithologies and architecture of the central Alpine Fault, New Zealand, revealed by DFDP-1 drilling, *Lithosphere*, 7, doi:10.1130/L395.1.

Carpenter, B.M., M.M. Scuderi, C. Collettini, and C. Marone (2014), Frictional heterogeneities on carbonate-bearing normal faults: Insights from the Monte Maggio Fault, Italy, *J. Geophys. Res.*, 119, doi:10.1002/2014JB011337.

Carpenter, B.M., H. Kitajima, R. Sutherland, J. Townend, V.G Toy, and D.M. Saffer (2014), Hydraulic and acoustic properties of the active Alpine Fault, New Zealand: Laboratory measurements on DFDP-1 drill core, *Earth and Planet. Sci. Lett.*, 390, doi:10.1016/j.epsl.2013.12.023.

Collettini, C., B.M. Carpenter, C. Viti, F. Cruciani, S. Mollo, T. Tesei, F. Trippetta, L. Valoroso and L. Chiaraluce (2014), Fault structure and slip localization in carbonate-bearing normal faults: An example from the Northern Apennines of Italy, *J. Struc. Geol.*, 67, doi:10.1016/j.jsg.2014.07.017.

Ikari, M.J., B.M. Carpenter, A. Kopf, and C. Marone (2014), Frictional strength, rate dependence, and healing in DFDP-1 borehole samples from the Alpine Fault, New Zealand, *Tectonophys.*, 630, doi:10.1016/j.tecto.2014.05.005.

Scuderi, M.M., B.M. Carpenter, and C. Marone (2014), Physicochemical processes of frictional healing: Effects of water on stick-slip stress drop and friction of granular fault gouge, *J. Geophys. Res.*, 119, doi:10.1002/2013JB010641.

Collettini, C., G. Di Stefano, B.M. Carpenter, P. Scarlato, T. Tesei, S. Mollo, F. Trippetta, C. Marone, G. Romeo, and L. Chiaraluce (2014), A novel and versatile apparatus for brittle rock deformation, *Int. J. Rock Mech. Mining Sci.*, 66, doi:10.1016/j.ijrmms.2013.12.005i.

Tesei, T., C. Collettini, M.R. Barchi, B.M. Carpenter, and G. Di Stefano (2014), Heterogeneous strength and fault zone complexity of carbonate-bearing thrusts with possible implications for seismicity, *Earth and Planet. Sci. Lett.*, 408, doi:10.1016/j.epsl.2014.10.021.

Warr, L.N., J. Wajatschke, B.M. Carpenter, C. Marone, A. Schleicher, and B. van der Pluijm (2014), A "slice-and-view" (FIB-SEM) study of clay gouge from the SAFOD creeping section of the San Andreas Fault at ~2.7 km depth, *J. Struct. Geol.*, 69, doi: 10.1016/j.jsg.2014.10.006.

Zoet, L., B.M. Carpenter, M. Scuderi, R.B. Alley, S. Anandakrishnan, C. Marone, and M. Jackson (2013), The effects of entrained debris on the basal sliding stability of a glacier, *J. Geophys. Res.*, 118, doi:10.1002/jgrf.20052.

Barth, N.C., C.J. Boulton, B.M. Carpenter, G.E. Bratt, and V.G. Toy (2013), Slip localization on the southern Alpine Fault, New Zealand, *Tectonics*, 32, doi:10.1002/tect.20041.

Carpenter, B.M., D.M. Saffer, and C. Marone (2012), Frictional properties and sliding stability of the San Andreas Fault from deep drill core, *Geology*, 40, doi:10.1130/G33007.1.

Boulton, C., B.M. Carpenter, V.G. Toy, and C. Marone (2012), Physical properties of surface outcrop cataclastic fault rocks, Alpine Fault, New Zealand, *Geochem. Geophys. Geosyst.*, 13, doi:10.1029/2011GC003872.

Johnson, P.A., B.M. Carpenter, M. Knuth, B.M. Kaproth, P-Y. Le Bas, E. Daub, and C. Marone (2012). Nonlinear dynamical triggering of slow slip on simulated earthquake faults with implications to Earth, *J. Geophys. Res.*, 117, doi:10.1029/2011JB008594.

Tesei, T., C. Collettini, B.M. Carpenter, C. Viti, and C. Marone (2012), Frictional strength and healing behaviour of phyllosilicate-rich faults, *J. Geophys. Res.*, 117, doi:10.1029/2012JB009204.

Sutherland, R., V.G. Toy, J. Townend, S.C. Cox, J.D. Eccles, D.R. Faulkner, D.J. Prior, R.J. Norris, E. Mariani, C. Boulton, B.M. Carpenter, C.D. Menzies, T.A. Little, M. Hasting, G.P. De Pascale, R.M. Langridge, H.R. Scott, Z. Reid-Lindroos, B. Fleming, and A.J. Kopf (2012), Drilling reveals fluid control on architecture and rupture of the Alpine Fault, New Zealand, *Geology*, 40, doi:10.1130/G33614.1.

Dr. Xiaowei Chen

Chen, X., N. Nakata, C. Pennington*, J. Haffener*, J. C. Chang, X. He, Z. Zhan, S. Ni, and J. I. Walter (2017), the Pawnee earthquake as a result of the interplay among injection, faults, and foreshocks, *Scientific Reports*, accepted.

Goebel, T. W., M. Weingarten, X. Chen, Haffener, J.* and E. Brodsky (2017), The 2016 Mw5.1 Fairview, Oklahoma earthquakes: evidence for long-range poroelastic triggering at >40 km from fluid disposal wells, *Earth and Planetary Science Letters*, Link.

Chen, X. and N. Nakata (2017), Preface to the Focus section on the 3 September 2016 Pawnee, Oklahoma Earthquake, *Seismological Research Letters*, doi: 10.1785/0220170078. Link

Pennington, C.* and X. Chen (2017), Coulomb stress interactions during the Mw5.8 Pawnee sequence, *Seismological Research Letters*, 88(4), doi:10.1785/0220170011. [Link](#)

Zhang, Q., G. Lin, Z. Zhan, X. Chen, Y. Qin*, and S. Wdowinski (2017), Absence of remote earthquake triggering within the Coso and Salton Sea geothermal production fields, *Geophys. Res. Lett.*, 44, 726–733, doi:10.1002/2016GL071964. [Link](#)

Chen, X., and J. J. McGuire (2016), Measuring earthquake source parameters in the Mendocino triple junction region using a dense OBS array: Implications for fault strength variations, *Earth and Planetary Science Letters*. [Link](#)

Chen, X., and P. M. Shearer (2015), Analysis of foreshock sequences in California and implications for earthquake triggering, *Pure and Applied Geophysics*. [Link](#)

Toomey, D.R., R.M. Allen, A.H. Barclay, S.W. Bell, P.D. Bromirski, R.L. Carlson, X. Chen, J.A. Collins, R.P. Dziak, B. Evers, D.W. Forsyth, P. Gerstoft, E.E.E. Hooft, D. Livelybrooks, J.A. Lodewyk, D.S. Luther, J.J. McGuire, S.Y. Schwartz, M. Tolstoy, A.M. Tréhu, M. Weirathmueller, and W.S.D. Wilcock. (2014). The Cascadia Initiative: A sea change in seismological studies of subduction zones. *Oceanography* 27(2):138–150, [Link](#).

Chen, X., and P. M. Shearer (2013), California foreshock sequences suggest aseismic triggering process, *Geophysical Research Letters*. [Link](#).

Hauksson, E., J. Stock, R. Bilham, M. Boese, X. Chen, M. Boese, E. J. Fielding, J. Galetzka, K. W. Hudnut, K. Hutton, L. M. Jones, H. Kanamori, P. M. Shearer, J. Steidl, J. Treiman, S. Wei, W. Yang (2013), Report on the August 2012 Brawley earthquake swarm in Imperial Valley, Southern California, *Seismological Research Letters*. [Link](#)

Chen, X., P. M. Shearer, and R. E. Abercrombie (2012), Spatial migration of earthquakes within seismic clusters in Southern California: Evidence for fluid diffusion, *J. Geophys. Res.*, 117, B04301, doi:10.1029/2011JB008973. [Link](#)

Dr. R. Douglas Elmore

Cullen, A., M. Zechmeister, R.D. Elmore, and S. Pannalal, 2012, Paleomagnetism of the Crocker Formation, NW Borneo: Implications for Late Cenozoic Tectonics, *Geosphere*, doi:10.1130/GES00750.1.

Evans. S., R. D. Elmore, D. Dennie, & S. Dulin, 2012, Remagnetization of the Alamo Breccia, Nevada. In: Elmore, R. D., Muxworthy, A. R., Aldana, M. & Mena, M. (eds) Remagnetization and Chemical Alteration of Sedimentary Rocks. Geological Society, London, Special Publications, 371, first published online 22 August 2012, <http://dx.doi.org/10.1144/SP371.8>

Dennie, D., R. D. Elmore, J. Deng, E. Manning & Johari Pannalal, 2012, Palaeomagnetism of the Mississippian Barnett Shale, Fort Worth Basin, Texas. In: Elmore, R. D., Muxworthy, A. R., Aldana, M. & Mena, M. (eds) Remagnetization and Chemical Alteration of Sedimentary Rocks. Geological Society, London, Special Publications, 371, first published online 22 August 2012, <http://dx.doi.org/10.1144/SP371.10>

Zechmeister, M.S., S. Pannalal, & R.D. Elmore, 2012, A multidisciplinary investigation of a complex remagnetization within the Southern Canadian Cordillera, SW Alberta and SE British Columbia. In: Elmore, R. D., Muxworthy, A. R., Aldana, M. & Mena, M. (eds) Remagnetization and Chemical Alteration of Sedimentary Rocks. Geological Society, London, Special Publications, 371, first published online 22 August 2012, <http://dx.doi.org/10.1144/SP371.11>

Manning, E. & R. D. Elmore, 2012, Rock magnetism and identification of remanence components in the Marcellus Shale, Pennsylvania. In: Elmore, R. D., Muxworthy, A. R., Aldana, M. & Mena, M. (eds) Remagnetization and Chemical

Alteration of Sedimentary Rocks. Geological Society, London, Special Publications, 371, first published online 3 September 2012, <http://dx.doi.org/10.1144/SP371.9>

Elmore R. D., Muxworthy, A.R., & Aldana, M., & Mena, M. 2012. Remagnetization and Chemical Alteration of Sedimentary Rocks. In: Elmore, R. D., Muxworthy, A. R., Aldana, M. & Mena, M. (eds) Remagnetization and Chemical Alteration of Sedimentary Rocks, Geological Society, London, Special Publications 371, first published online 7 November 2012, <http://dx.doi.org/10.1144/SP371.15>.

Miller MA, Madden AS, Elwood Madden ME, Elmore RD (2013) Laboratory synthesis of iron-rich 10Å clays from nontronite: implications for magnetite authigenesis, *Clays and Clay Minerals*, v. 60, p. 616-632, doi: 10.1346/CCMN.2012.0600607.

Foster, M. T., Gerilyn S Soreghan, Michael J Soreghan, Kathleen C Benison, Richard D Elmore, 2014, Climatic and Palaeogeographic Significance of Aeolian Sediment in the Middle Permian Dog Creek Shale (Midcontinent U.S), *Palaeogeography, Palaeoclimatology, Palaeoecology*, 402, 12-29.

Osborn. S.G. L. Totten Duffield, W. C. Elliott, J. M. Wampler, R. Douglas Elmore, and M. H. Engel. 2014, The timing of diagenesis and thermal maturation of the Cretaceous Marias River Shale, Disturbed Belt, Montana, *Clays and Clay Minerals*, v. 62, p. 112-125, doi:10.1346/CCMN.2014.0620204.
Hamilton, M., D. Elmore, B. Weaver, and S. Dulin. 2014, Petrology and paleomagnetism of the Long Mountain Granite, Wichita Mountains, Oklahoma, in Igneous Rocks of the southern Oklahoma Aulacogen, OGS guidebook 38, 319-326.

Manning, E. and R. D. Elmore, 2015, An Integrated Paleomagnetic, Rock Magnetic, and Geochemical Study of the Marcellus Shale in the Valley and Ridge province in Pennsylvania and West Virginia, *JGR – Solid Earth*, v. 120, 705-724, doi:10.1002/2014JB011418.

Hamilton, M. E., Elmore, R. D., Weaver, B., Dulin, S., and Jackson, J., 2015, Paleomagnetic and petrologic study of the origin of early and late Paleozoic events in the Long Mountain Granite, Wichita Mountains, Oklahoma. *GSA Bulletin*, v. 128, 187-202, doi:10.1130/B31277.1

Elmore, R. D., Heij, G., Wickard, A. (2016). Paragenesis of mineralized fractures and diagenesis of prominent North American Shales. *Sedimentary Record*, 14, 2-10. SEPM.org.

Elmore, R. D., Haynes, J., Farzaneh, S, and Anzaldua, S., 2017, Integrated paleomagnetic and diagenetic study of the Mississippian Limestone, North Central Oklahoma, Mississippian Reservoirs of the Mid-Continent, AAPG memoir, in press.

Roberts, J. M. and Elmore, R. D., 2017, A Diagenetic Study of the Woodford Shale in the Southeastern Anadarko Basin, Oklahoma, U.S.A: Evidence for Hydrothermal Alteration in Mineralized Fractures, Interpretation, in press.

Dr. Andrew Elwood Madden

Chen X, Elwood Madden AS, Reches Z (2017) The frictional strength of talc gouge in high-velocity shear experiments, *Journal of Geophysical Research – Solid Earth*.

Chen X, Elwood Madden AS, Reches Z (2017) Powder rolling as a mechanism for dynamic fault weakening, in “Fault Zone Properties and Processes during Dynamic Rupture” AGU Geophysical Monograph Series.

Legett, C, Pritchett BN, Elwood Madden AS, Phillips-Lander CM, Elwood Madden ME (2017) Jarosite dissolution rates in perchlorate brine, *Icarus*.

Phillips-Lander CM, Leggett C, Elwood Madden AS, Elwood Madden ME (2017) Can we use pyroxene weathering textures to interpret aqueous alteration? Yes and no, *American Mineralogist*.

Sexton MR, Elwood Madden ME, Swindle AL, Hamilton VE, Bickmore BR, Elwood Madden AS (2017) Considering the formation of hematite spherules on Mars by freezing aqueous hematite nanoparticle suspensions, *Icarus*, 286, 202-211
<http://dx.doi.org/10.1016/j.icarus.2016.10.014>.

Lan Y, Elwood Madden AS, Butler EC (2016) Transformation of Mackinawite to Greigite by Trichloroethylene and Tetrachloroethylene, *Environmental Science: Impacts and Processes* 18, 1266 -1273.

Miller JA, Elwood Madden AS, Phillips-Lander CM, Pritchett BR, Elwood Madden ME (2016) Alunite dissolution rates: Dissolution mechanisms and implications for Mars, *Geochimica et Cosmochimica Acta*, 172: 93-106.

Butler EC, Hansel CM, Krumholz LR, Elwood Madden AS, Chen L, Lan Y (2015) Biological versus mineralogical chromium reduction: Potential for reoxidation by manganese oxide, *Environmental Science: Processes & Impacts* 17:1930-1940. DOI: 10.1039/C5EM00286A.

Munasinghe PS, Elwood Madden ME, Brooks SC, Elwood Madden AS (2015) Dynamic interplay between uranyl phosphate precipitation, sorption, and phase evolution, *Applied Geochemistry* 58, 147-160,
<http://dx.doi.org/10.1016/j.apgeochem.2015.04.008>.

Dixon E, Elwood Madden AS, Hauksson E, Elwood Madden ME (2015) Assessing hydrodynamic effects on jarosite dissolution rates, reaction products, and preservation on Mars, *JGR-Planets*. DOI: 10.1002/2014JE004779.

Swindle AL, Cozzarelli IM, Elwood Madden AS (2015) Using chromate to investigate the impact of natural organics on the surface reactivity of nanoparticulate magnetite, *Environmental Science and Technology* 49(4): 2156 -2162.
<http://dx.doi.org/10.1021/es504831d>.

Swindle AL, Elwood Madden AS, Cozzarelli IM (2014) Size-Dependent Reactivity of Magnetite Nanoparticles: A Field-Laboratory Comparison, *Environmental Science and Technology* 48(19), 11413-11420.
<http://pubs.acs.org/doi/abs/10.1021/es500172p>.

Bement LC, Madden AS, Carter BJ, Simms AR, Swindle AL, Alexander HM, Fine S, Benamara M (2014) Quantifying nanodiamond distribution in deposits along Bull Creek, Oklahoma panhandle, USA, *Proceedings of the National Academy of Science, U.S.A.*, 111(5): 1726-1731, doi: 10.1073/pnas.1309734111.

Ikuma K, Madden AS, Decho AW, Lau BLT (2014) Deposition of nanoparticles onto polysaccharide-coated surfaces: Implications for nanoparticle-biofilm interactions, *Environmental Science: Nano*, 1(2): 117-122 DOI: 10.1039/C3EN00075C.

Lee JH, Madden AS, Kriven WM, Tas AC (2014) Synthetic Aragonite (CaCO_3) as a Potential Additive in Calcium Phosphate Cements: First Evaluation in a Tris-free SBF at 37°C, *Journal of the American Ceramic Society*, 97: 3052-3061, DOI: 10.1111/jace.13124.

Chen X, Madden AS, Bickmore BR, and Reches ZR (2013) Dynamic weakening by nanoscale smoothing during high velocity fault slip, *Geology* 41(7): 739-742.

Kendall MR, Madden AS, Elwood Madden ME, Hu Q (2013) Effects of arsenic incorporation on jarosite dissolution rates and reaction products, *Geochimica et Cosmochimica Acta*, 112: 192-207, <http://dx.doi.org/10.1016/j.gca.2013.02.019>.

Kim C, Kendall MR, Miller MA, Long CL, Larson PR, Humphrey MB, Madden AS, Tas AC (2013) Comparison of titanium soaked in 5M NaOH or 5M KOH solutions, *Materials Science and Engineering C: Materials for Biological Applications*, 33: 327-339.

Larson PR, Madden AS, Tas AC (~2013) Non-stirred synthesis of Na- and Mg-doped, carbonated apatitic calcium phosphate, *Ceramics International*, 39: 1485-1493.

Lau B, Huang R, and Madden AS (2013) Electrostatic adsorption of hematite nanoparticles on self-assembled monolayer surfaces, *Journal of Nanoparticle Research*, 15: 1873.

Learman DR, Voelker BM, Madden AS, Hansel CM (2013) Constraints on superoxide mediated formation of manganese oxides, *Frontiers in Microbiological Chemistry*, 4: 262, doi: 10.3389/fmicb.2013.00262.

Lin B, Cerato AB, Madden AS, and Elwood Madden ME (2013) Effect of Fly Ash on the Behavior of Expansive Soils: Microscopic Analysis. *Environmental and Engineering Geoscience*, 19: 85-94, doi:10.2113/gseegeosci.19.1.85.

Moon J-W, Ivanov IN, Duty CE, Love LJ, Wang W, Rawn CJ, Li Y-L, Madden AS, Mosher JJ, Suresh AK, Rondinone AJ, Rawn CJ, Lauf RJ, Phelps TJ (2013) Scalable economic extracellular synthesis of CdS nanostructured particles by a non-pathogenic thermophile, *Journal of Industrial Microbiology and Biotechnology*. DOI 10.1007/s10295-013-1321-3.

Sweet AC, Soreghan GS, Sweet DE, Soreghan MJ, Madden AS (2013) Permian dust in Oklahoma: source and origin for middle Permian (Flowerpot-Blaine) redbeds in western tropical Pangaea, *Sedimentary Geology*, 284-285: 181-196.

Zahrai SK, Elwood Madden ME, Madden AS, Rimstidt JD (2013) Na-jarosite dissolution rates: The effect of mineral composition on jarosite lifetimes. *Icarus*, 223: 438-443.

Elwood Madden ME, Madden AS, Rimstidt JD, Zahrai S, Kendall MR, and Miller MA (2012) Jarosite dissolution rates and nanoscale mineralogy, *Geochimica et Cosmochimica Acta*, 91, 306-321, <http://dx.doi.org/10.1016/j.gca.2012.05.001>.

Madden AS, Swindle AL, Beazley MJ, Moon J-W, Ravel B, Phelps TJ (2012) Long-term solid-phase fate of coprecipitated U(VI)-Fe(III) following biological iron reduction by *Thermoanaerobacter*, *American Mineralogist*, 97, 1641-1652.

Miller MA, Kendall MR, Jain MK, Larson PR, Madden AS, and Tas AC (2012) Testing of brushite ($\text{CaHPO}_4 \cdot 2\text{H}_2\text{O}$) in synthetic biomineralization solutions and in situ crystallization of brushite micro-granules, *Journal of the American Ceramic Society*, 95(7): 2178–2188, doi: 10.1111/j.1551-2916.2012.05186.x.

Miller MA, Madden AS, Elwood Madden ME, Elmore RD (2012) Laboratory-simulated diagenesis of nontronite, *Clays and Clay Minerals* 60(6), 616-632.

Pritchett BN, Elwood Madden ME, Madden AS (2012) Jarosite dissolution rates and maximum lifetimes in high salinity brines: Implications for Earth and Mars, *Earth and Planetary Science Letters*, 357-358: 327-336.

Dr. Megan Elwood Madden

Legett C, Pritchett BN, Elwood Madden AS, Phillips-Lander CM, Elwood Madden, ME (in press). Jarosite dissolution rates in perchlorate brine, *Icarus*.

- Phillips-Lander CM, Legett C, Elwood Madden AS, Elwood Madden ME. (in press) Can we use pyroxene weathering textures to interpret aqueous alteration conditions? Yes and No. *American Mineralogist*.
- Marra K, Elwood Madden M, Soreghan G, Hall B (2017) Chemical Weathering Trends in Fine-Grained Ephemeral Stream Sediments of the McMurdo Dry Valleys, Antarctica Geomorphology.
- Sexton MR, Elwood Madden ME, Swindle AL, Hamilton VE, Bickmore BR, Elwood Madden AS (2017) Considering the formation of hematite spherules on Mars by freezing aqueous hematite nanoparticle suspensions, *Icarus*.
- Steiner MH, Hausrath EM, Elwood Madden ME, Ehlmann BL, Olsen AA, Gainey SR (2016) Dissolution of Nontronite in Low Water Activity Brines and Implications for the Aqueous History of Mars, *Geochimica et Cosmochimica Acta* 195, 259-276.
- Young Ji Joo, Megan E. Elwood Madden, Gerilyn S. Soreghan (2016) Chemical and physical weathering in a hot-arid, tectonically active alluvial system of Anza-Borrego Desert, CA. *Sedimentology* 63, 1065–1083. doi: 10.1111/sed.12249
- Miller, J. L., Madden, A. E., Phillips-Lander, C. M., Pritchett, B. N., & Madden, M. E. (2016). Alunite dissolution rates: Dissolution mechanisms and implications for Mars. *Geochimica et Cosmochimica Acta*, 172, 93-106.
- Gerilyn Soreghan, Young Ji Joo, Megan E Elwood Madden, Sarah VanDeventer (2016). Silt production as a function of climate and lithology under simulated comminution. *Quaternary International*.
- Munasinghe PS, Elwood Madden ME, Brooks SC, Elwood Madden AS (2015) Dynamic interplay between uranyl phosphate precipitation, sorption, and phase evolution, *Applied Geochemistry*, 58, 147-160.
- Dixon E, Elwood Madden AS, Hausrath E, Elwood Madden ME, (2015) Assessing hydrodynamic effects on jarosite dissolution rates, reaction products, and particle lifetimes, *JGR-Planets* DOI: 10.1002/2014JE004779
- Marra, KR, Elwood Madden, ME, Soreghan, GS, Hall, BL (2015) BET surface area distributions in polar stream sediments: implications for silicate weathering in a cold-arid environment, *Applied Geochemistry* 52, 31-42.
- Ambuehl D, Elwood Madden ME (2014) CO₂ Hydrate formation and dissociation rates: Application to Mars. *Icarus*, v. 234, 45-52.
- Marra KR, Soreghan GS, Elwood Madden ME, Keiser LJ, Hall BL (2014) Trends in Grain Size and Surface Area in Cold-Arid vs Warm Semi-Arid Fluvial Systems. *Geomorphology*, v. 206, 483-491.
- Kendall MR, Madden AS, Elwood Madden ME, Hu Q (2013) Rates and products of arsenojarosite dissolution, *Geochimica et Cosmochimica Acta*, v.112, 192-207.
- Zahrai SK, Elwood Madden ME, Madden AS, Rimstidt JD, Miller MA (2013) Na-jarosite dissolution rates: The effect of mineral composition on jarosite lifetimes. *Icarus*, v. 223 438-443.
- Mousis O, Chassefiere E, Chevrier V, Elwood Madden ME, Lakhli A, Lunine JI, Montmessin F, Picaud S, Schmidt F, and Swindle TD (2013) Volatile trapping in Martian clathrates. *Space Science Reviews* v. 173, 213–250.
- Lin B., Cerato, A.B., Madden, A.S., and Elwood Madden, M.E. (2013) Effect of Fly Ash on the Behavior of Expansive Soils: Microscopic Analysis. *Environmental & Engineering Geoscience*, v. 19, p. 85-94, doi:10.2113/gseegeosci.19.1.85
- Miller MA, Madden AS, Elwood Madden ME, Elmore RD (2012) Laboratory synthesis of iron-rich 10Å clays from nontronite: implications for magnetite authigenesis, *Clays and Clay Minerals* V. 60, 616-632.
- Pritchett BN, Elwood Madden ME, Madden AS (2012) Jarosite dissolution rates and maximum lifetimes in high salinity brines: Implications for Earth and Mars. *Earth and Planetary Science Letters*, v. 357–358, 327–336.

Stumpf AR, Elwood Madden ME, Soreghan GS, Hall BL, Keiser LJ, Marra KR (2012) Glacier meltwater stream chemistry in Wright and Taylor Valley, Antarctica: Significant roles of drift, dust, and biological processes in chemical weathering in a polar climate. *Chemical Geology*, 322-323, 79-90.

Elwood Madden ME, Madden AS, Rimstidt JD, Zahrai SK, Kendall MR, and Miller MA (2012) Jarosite dissolution rates and nanoscale mineralogy, *Geochimica et Cosmochimica Acta*, 91, 306-321. <http://dx.doi.org/10.1016/j.gca.2012.05.001>

Gainey SR and Elwood Madden ME (2012) Kinetics of Methane Clathrate Formation and Dissociation Under Mars Relevant Conditions. *Icarus*, 218, 513-524.

Root MJ and Elwood Madden ME (2012) Potential Effects of Obliquity Change on Gas Hydrate Stability Zones on Mars. *Icarus*, 218, 534-544.

Leeman JR, Rawn CJ, Alford J, Phelps TJ, Elwood Madden ME Interpreting Temperature Strain Data from Meso-Scale Clathrate Experiments (2012) *Computers and Geosciences*, v. 38, 62-67.

Dr. Michael Engel

Allen, D.C., C.C. Vaughn, J.F. Kelly, J.T. Cooper and M.H. Engel (2012) Bottom-up biodiversity effects increase resource subsidy flux between ecosystems. *Ecology* 93, 2165-2174.

Engel, M.H. (2012) Origins of the L-amino acid excess in carbonaceous meteorites. In: Instruments, Methods and Missions for Astrobiology XV (R.B. Hoover, G.V. Levin and A.Y. Rozanov, eds.), Proceedings of SPIE (Intl. Assoc. for Optical Engineering), Vol. 8521, pp. 852104-1 to 852104-8.

Engel, M.H. (2013) Impact of pre-biotic synthesis and diagenesis on the distribution, stereochemistry and stable isotope composition of amino acids in carbonaceous meteorites. In: Instruments, Methods and Missions for Astrobiology XVI (R.B. Hoover, G.V. Levin and A.Y. Rozanov, and N.C. Wickramasinghe, eds.), Proceedings of SPIE (Intl. Assoc. for Optical Engineering), Vo., 8865, pp. 886505-1 to 886505-11.

Brown, K.M., Connan, J., Poister, N.W., Vellanoweth, R.L., Zumberge, J.E. and Engel, M.H. (2014) Sourcing archaeological asphaltum (bitumen) from the California Channel Islands to submarine seeps. *Journal of Archaeological Science* 43, 66-76.

Osborn, S.G., Duffield, L.T., Elliott, W.C., Wampler, J.M., Elmore, R.D. and Engel, M.H. (2014) The timing of diagenesis and thermal maturation of the Cretaceous Marias River shale, Disturbed Belt, Montana. *Clays and Clay Minerals* 62, 112-125.

Sephton, M.A., Jiao, D., Engel, M.H., Looy, C.V. and Visscher, H. (2015) Terrestrial acidification during the end-Permian biosphere crisis? *Geology* 43, 159-162.

Ross, J.D., Kelly, J.F., Bridge, E.S., Engel, M.H., Reinking, D.L. and Boyle, W.A. (2015) Pallid bands in feathers and associated stable isotope signatures reveal effects of severe weather stressors on fledgling sparrows. *Peer J.*, 3:e814;DOI 10.7717/peerj.814.

Engel, H.H. (2015) Possible effects if diagenesis on the stable isotope composition of amino acids in carbonaceous meteorites. In: Instruments, Methods and Missions for Astrobiology XVII (R.B. Hoover, G.V. Levin, A.Y. Rozanov and N.C. Wickramasinghe, eds.), Proceedings of SPIE (Intl. Assoc. for Optical Engineering), Vol. 9606, pp. 96060J-1 to 96960J-8.

Managadze, G.G., Engel, M.H., Getty, S., Wurz, P., Brinckerhoff, W.B., Shokolov, A.G., Sholin, G.V., Terent'ev, S.A., Chumicov, A.E., Skalkin, A.S., Blank, V.D., Prokhorov, V.M., Managadze, N.G. and Luchnikov, K.A. (2016) Excess of L-alanine in amino acids synthesized in a plasma torch generated by a hypervelocity meteorite impact reproduced in the laboratory. *Planetary and Space Science*, 131, 70-78.

Dr. Xiaolei Liu

Liu X.-L., Birgel D., Elling F., Sutton P.A., Lipp J.S., Zhu R., Zhang C., Könneke M., Peckmann J., Rowland S.J., Summons R.E., Hinrichs K.-U., 2016. From ether to acid: a plausible degradation pathway of glycerol dialkyl glycerol tetraethers. *Geochimica et Cosmochimica Acta* 183, 138-152.

Liu X.-L., Santiago Torio A.D., Bosak T., Summons R.E., 2016. Novel archaeal tetraether lipids with a cyclohexyl ring identified in Fayetteville Green Lake, NY and other sulfidic lacustrine settings. *Rapid Communications in Mass Spectrometry* 30, 1197–1205.

Liu X.-L., Zhu C., Wakeham S.G., Hinrichs K.-U., 2014. In situ production of branched glycerol dialkyl glycerol tetraethers in anoxic marine water columns. *Marine Chemistry* 166, 1-8.

Liu, X.-L., Summons, R.E., Hinrichs, K.-U., 2012. Extending the known range of glycerol ether lipids in the environment: structural assignments based on MS/MS fragmentation patterns. *Rapid Communications in Mass Spectrometry* 26, 2295–2302.

Liu, X.-L., Lipp, J.S., Simpson, J.H., Lin, Y.-S. Summons, R.E., Hinrichs, K.-U., 2012. Mono- and dihydroxyl Glycerol Dibiphytanyl Glycerol Tetraethers in marine sediments: identification of both core and intact polar lipid forms. *Geochimica et Cosmochimica Acta* 89, 102-115.

Liu, X.-L., Lipp, J. S., Schröder, J. M., Summons, R. E., Hinrichs, K. -U., 2011. Isoprenoidal glycerol dialkanol diethers: a series of novel archaeal lipids in marine sediments. *Organic Geochemistry* 43, 50-55.

Dr. David London

London, D. and Morgan, G.B. VI (2017f), Experimental crystallization of the Macusani obsidian, with applications to lithium-rich granitic pegmatites. *Journal of Petrology*, in press.

London, D. (2017e) Reading pegmatites: what quartz and feldspar say. *Rocks & Minerals*, in press.

Acosta-Vigil, A., London, D., Morgan VI, G.B., Cesare, B., Buick, I., Hermann, J., and Bartoli, O. (2017d) Primary crustal melt compositions: Insights into the controls, mechanisms and timing of generation from kinetics experiments and melt inclusions, *Lithos*, doi:10.1016/j.lithos.2017.05.020.

Maner, J.L. and London, D. (2017c) The boron isotopic evolution of the Little Three pegmatites, Ramona, California. *Chemical Geology*, 460, 70-83.

London, D. (2017b) Reading pegmatites: what lithium minerals say. *Rocks and Minerals*, 92, 144-156.

London, D. (2017a) Hydrothermal quartz from McCurtain County, Oklahoma. *Rocks & Minerals*, 92, 30-35.

- London, D. (2016b) Rare-element granitic pegmatites, in Verplanck, P.L. and Hitzman, M.W. (eds), invited chapter for Rare earth and critical elements in major deposit types, *Reviews in Economic Geology*, Society of Economic Geologists, Inc, Littleton, CO, 18, 165–193.
- London, D. (2016a) Reading pegmatites: what tourmaline says. *Rocks & Minerals*, 91, 132–149.
- London, D. (2015b) Reading pegmatites: what beryl says. *Rocks & Minerals*, 90, 138–149.
- London, D. (2015a) Reply to Thomas and Davidson on "A petrologic assessment of internal zonation in granitic pegmatites" (London, 2014a). *Lithos*, 212–215, 469–484.
- London, D. (2014b) Subsolidus isothermal fractional crystallization. *American Mineralogist*, 99, 543–546.
- London, D. (2014a) A petrologic assessment of internal zonation in granitic pegmatites. Invited review, *Lithos*, 184–187, 74–104.
- London, D. (2013), Crystal-filled cavities in granitic pegmatites: bursting the bubble. *Rocks & Minerals*, 88, 527–534.
- Acosta-Vigil, A., Buick, I., Cesare, B., London, D., and Morgan, G.B. VI (2012k) The extent of equilibration between melt and residuum during regional anatexis and its implications for differentiation of the continental crust: a study of partially melted metapelitic enclaves. *Journal of Petrology*, 53, 1319–1356.
- Galliski, M., London, D., and Novak, M. (2012j) Granitic pegmatites and their minerals: a second tribute to Petr Černý, issue II. *Canadian Mineralogist*, 50, 1441–1444.
- Acosta-Vigil, A., London, D., and Morgan, G.B. VI (2012i) Chemical diffusion of major and minor components in granitic liquids: implications for the rates of homogenization of crustal melts. *Lithos*, 153, 308–323.
- London, D., Morgan, G.B. VI, Paul, K.A., and Guttery, B.M. (2012h) Internal evolution of a miarolitic granitic pegmatite: the Little Three Mine, Ramona, California (USA). *Canadian Mineralogist*, 50, 1025–1054.
- Galliski, M., London, D., and Novak, M. (2012g) Granitic pegmatites and their minerals: a tribute to Petr Černý. *Canadian Mineralogist*, 50, 777–780.
- London, D., Morgan, G.B. VI, and Acosta-Vigil, A. (2012f) Experimental simulations of anatexis and assimilation involving metapelite and granitic melt. Invited keynote address for Hutton VII. *Lithos*, 153, 292–307.
- Černý, P., London, D., and Novak, M. (2012e) Granitic pegmatites as reflections of their sources. *Elements*, 8, 257–261.
- London, D. and Morgan, G.B. VI (2012d) The pegmatite puzzle. *Elements*, 8, 263–268.
- London, D. and Kontak, D.J. (2012c) Granitic pegmatites: scientific wonders and economic bonanzas. *Elements*, 8, 257–261.
- Morgan, G.B. VI and London, D. (2012b) Process of granophyre crystallization in the Long Mountain Granite, southern Oklahoma. *Geological Society of America Bulletin*, 124, 1251–1261.
- Acosta-Vigil, A., Buick, I., Cesare, B., London, D., and Morgan, G.B. VI (2012a) Extent of melt-residuum equilibration during crustal anatexis from the study of partially melted metapelitic enclaves (SE Spain), and implications for crustal differentiation. *Journal of Petrology*, 51, 785–821

Dr. Richard Lupia

Lupia, R., D. G. Wyckoff, and P. Bonefield. in press. Low magnification examination of experimentally heated Frisco chert flakes: light microscopy versus scanning electron microscopy. In *The Calf Creek Horizon: The Archaeology of Mid-Holocene Hunter-Gatherers on the Southern Plains*.

- Lupia, R. 2015. Mid-Cretaceous megaspore floras from Maryland, USA. *Journal of Paleontology*. 89(3):494-521.
- Lupia, R., and J.L. Armitage. 2013. Late Pennsylvanian–Early Permian vegetational transition in Oklahoma: Palynological record. *International Journal of Coal Geology* 119:165-176.
<http://www.sciencedirect.com/science/article/pii/S0166516213001419>

Dr. Kurt Marfurt

- Ha, T., and K. J. Marfurt, 2017, The value of constrained conjugate-gradient least-squares migration in seismic inversion: Application to a fractured-basement play, Texas Panhandle: *Interpretation*, 5, SN13-SN23.
- Infante-Paez, L., and K. J. Marfurt, 2017, Seismic expression and geomorphology of igneous bodies. A Taranaki Basin, New Zealand case study: *Interpretation*, 5, SK121-SK140.
- Sarkar, S. and K. J. Marfurt, 2017, Effect of volcanic bodies on hydrocarbon reservoirs in the northeastern part of the Chicantepec Foredeep, Mexico: *Interpretation*, 5, SK1-SK10.
- Ha, T., and K. J. Marfurt, 2017, Seismic reprocessing and interpretation of a fractured-basement play: Texas Panhandle: *Interpretation*, 5, SK179-SK187.
- Qi, J., G. Machado, and K. Marfurt, 2017, A workflow to skeletonize faults and stratigraphic features: *Geophysics*, 82, 057-O70.
- Zhao, T., F. Li, and K. J. Marfurt, 2017, Constraining self-organizing map facies analysis with stratigraphy: An approach to increase the credibility in automatic seismic facies classification: *Interpretation*, 5, T163-T171.
- Chopra, S., and K. J. Marfurt, 2017, Volumetric fault image enhancement: *Interpretation*, T151-T161.
- Li, F., B. Zhang, R. Zhai, H. Zhou, and K. J. Marfurt, 2017, Depositional sequence characterization based on variational mode decomposition: *Interpretation*, 5, SE97-SE106.
- Liao, Z., H. Liu, Z. Jiang, K. J. Marfurt, and Z. Reches, 2017, Fault damage zone at subsurface: A case study using 3D seismic attributes and a clay model analog for the Anadarko Basin, Oklahoma: *Interpretation*, 5, T143-T150.
- Cahoj, M. P., S. Verma, B. Hutchinson, and K. J. Marfurt, 2016, Pitfalls in seismic processing: An application of seismic modeling to investigate acquisition footprint: *Interpretation*, 4, SG19-SG29.
- El-Mowafy, H., and K. J. Marfurt, 2016, Quantitative seismic geomorphology of the middle Frio fluvial systems, south Texas, United States: *AAPG Bulletin*, 100, 537-564.
- Guo, S., B. Zhang, Q. Wang, A. Cabrales-Vargas, and K. J. Marfurt, 2016, Noise suppression using preconditioned least-squares prestack time migration: Application to the Mississippian Limestone: *Journal of Geophysics and Engineering*, 13, 441-453.
- Guo, S., S. Verma, Q. Wang, B. Zhang, and K. J. Marfurt, 2016, Vector correlation of amplitude variation with azimuth and curvature in a post-hydraulic-fracture Barnett Shale survey: *Interpretation*, 4, SB23-SB35.
- Li, F., S. Verma, H. Zhou, T. Zhao, and K. J. Marfurt, Seismic attenuation attributes with application to conventional and unconventional reservoirs: *Interpretation*, 4, SB63-SB77.
- Lin, T., T. Ha, K. J. Marfurt, and K. L. Deal, 2016, Quantifying the significance of coherence anomalies, *Interpretation*, 4, T205-T213.
- Machado, G. A. Alali, B. Hutchinson, O. Olorunsola, and K. J. Marfurt, 2016, Display and enhancement of volumetric fault images: *Interpretation*, 4, SB51-SB61.

Qi, J. T. Lin, T. Zhao, F. Li, and K. J. Marfurt, 2016, Semisupervised multiattribute seismic facies analysis: Interpretation, 4, SB91-SB106.

Sarkar, S., S. Verma, and K. J. Marfurt, 2016, Seismic-petrophysical reservoir characterization in the northern part of the Chicantepec Basin, Mexico: Interpretation, 4, T403-T417.

Verma, S., S. Guo, and K. J. Marfurt, 2016, Data conditioning of legacy seismic using migration-driven 5D interpolation: Interpretation, 4, SG31-SG-40.

Verma, S., S. Guo, T. Ha, and K. J. Marfurt, 2016, Highly aliased ground-roll suppression using a 3D multiwindow Karhunen Loeve filter: Application to a legacy Mississippi Lime survey; Geophysics, 81, V79-V88.

Verma, S., T. Zhao, K. J. Marfurt, and D. Devegowda, 2016, Estimation of total organic carbon and brittleness volume: Interpretation, 4, T373-T385.

Zhang, B., T. Lin, S. Guo, O. E. Davogusto, and K. J. Marfurt, 2016, Noise suppression of time-migrated gathers using prestack structure-oriented filtering: Interpretation, 4, SG19-SG-29.

Zhao, T., J. Zhang, F. Li and K. J. Marfurt, 2016, Characterizing a turbidite system in Canterbury Basin, New Zealand using seismic attributes and distance-preserving self-organizing maps: Interpretation, 4, SB79-SB89.

Zhao, T., V. Jayaram, A. Roy, and K. J. Marfurt, 2015, A comparison of classification techniques for seismic facies recognition: Interpretation, 3, SAE29-SAE58.

Guo, S., S. Verma, Q. Wang, B. Zhang, and K. J. Marfurt, 2016, Vector correlation of amplitude variation with azimuth and curvature in a post-hydraulic-fracture Barnett Shale survey: Interpretation, 4, SB23-SB35.

Verma, S., S. Guo, T. Ha, and Kurt J. Marfurt, 2016, Highly aliased ground-roll suppression using a 3D multiwindow Karhunen Loeve filter: Application to a legacy Mississippi Lime survey: Geophysics, 81, V79-V88.

Zhang, B., T. Lin, S. Guo, O. E. Davogusto, and K. J. Marfurt, 2016, Noise suppression of time-migrated gathers using prestack structure-oriented filtering: Interpretation, 4, SG19-SG29.

Zhou, H., Y. Wang, T. Lin, F. Li, and K. J. Marfurt, 2015, Value of nonstationary wavelet spectral balancing in mapping a faulted fluvial system, Bohai Gulf, China: Interpretation, 3, SS1-SS13.

Verma, S., O. Mutlu, T. Ha, W. Bailey, and K. J. Marfurt, 2015, Calibration of attribute anomalies through prestack seismic modeling: Interpretation, 3, SAC55-SAC70.

Li, F., H. Zhou, N. Jiang, J. Bi, and K. J. Marfurt, 2015, Q estimation from reflection seismic data for hydrocarbon detection using a modified frequency shift method: Journal of Geoscience and Engineering, 12, 577-586.

Zhao, T., V. Jayaram, A. Roy, and K. J. Marfurt, 2015, A comparison of classification techniques for seismic facies recognition: Interpretation, 3, SAE29-SAE58.

Mutlu, O., and K. J. Marfurt, 2015, Improving seismic resolution of prestack time-migrated data: Interpretation, 3, T245-T255.

Verma, S., O. Mutlu, T. Ha, W. Bailey, and K. J. Marfurt, Calibration of attribute anomalies through prestack seismic modeling: Interpretation, 3, SAC55-SAC70.

Perez-Altamar, R., and K. J. Marfurt, 2015, Identification of brittle/ductile areas in unconventional reservoirs using seismic and microseismic data: Applications to the Barnett Shale: Interpretation, 3, T233-T243.

Marfurt, K. J., 2015, Techniques and best practices in multiattribute display: Interpretation, 3, B1-B23.

Zeng, H., and K. J. Marfurt, 2015, Recent progress in analysis of seismically thin beds: Interpretation, 3, SS15-SS22.

Marfurt, K. J., and T. M. Alves, 2015, Pitfalls and limitations in seismic interpretation of tectonic features: Interpretation, 3, SB5-SB15.

Marfurt, K. J., 2015, Seismic attributes and the road ahead, Part 1: Geophysical Society of Houston Journal, September, 11-15.

Marfurt, K. J., 2015, Seismic attributes and the road ahead, Part 2: Geophysical Society of Houston Journal, October, 11-17.

Oyedele, O. A., 2015, Seismic facies analysis and age dating of mid-Pleistocene channel-lobe deposits, Mad Dog Field, Gulf of Mexico: GCAGS Transactions, 65, 301-312.

Chopra, S., and K. J. Marfurt, 2015, Is curvature overrated? No, it depends on the geology: First Break, 33, no. 1, 29-41.

Zhang, B., D. Chang, T. Lin, and K. J. Marfurt, 2015, Improving the quality of prestack inversion by prestack data conditioning: Interpretation, 3, T5-T12.

Zhang, B. T. Zhao, X. Jin, and K. J. Marfurt, 2015, Brittleness evaluation of resource plays by integrating petrophysical and seismic data analysis: Interpretation, 3, T81-T92.

Zhang, B., T. Zhao, J. Qi, and K. J. Marfurt, 2014, Horizon-based semiautomated nonhyperbolic velocity analysis: Geophysics, 79, U15-U23.

Perez-Altamar, R., and K. J. Marfurt, 2014, Mineralogy-based brittleness prediction from surface seismic data: Application to the Barnett Shale, Interpretation, 2, T255-T271.

Qi, J., B. Zhang, H. Zhou, and K. J. Marfurt, 2014, Attribute expression of fault-controlled karst – Fort Worth Basin, Texas: A tutorial: Interpretation, 2, SF91-SF110.

Castro de Matos, M., R. Penna, P. Johann, and K. J. Marfurt, 2014, Relative acoustic impedance from wavelet transforms: Interpretation, 2, SA107-SA118.

Mai, M. T., O. O. Elibiju, and K. J. Marfurt, 2014, Attribute illumination of basement faults, examples from Cuu Long Basin basement, Vietnam, and the Midcontinent USA: Interpretation, 2, SA119-SA126.

Roy, A., A. S. Romero-Palaez, J. T. Kwiatkowski, and K. J. Marfurt, 2014, Generative topographic mapping for seismic facies estimation of a carbonate wash, Veracruz Basin, southern Mexico: Interpretation, 2, SA31-SA47.

Davogustto, O. E., J. T. Kwiatkowski, K. J. Marfurt, S. L. Roche, and J. W. Thomas, 2014, 3D Alford rotation analysis for the Diamond M. Field, Midland Basin, TX: Interpretation, 2, SE63-SE75.

Zhang, K., Y. Guo, B. Zhang, A. M. Trumbo, and K. J. Marfurt, 2013, Seismic azimuthal anisotropy analysis after hydraulic fracturing: Interpretation, 1, SB27-SB36.

Roy, A., B. L. Dowdell, and K. J. Marfurt, 2013, Characterizing a Mississippian tripolitic chert reservoir using 3D unsupervised and supervised multiattribute seismic facies analysis: An example from Osage County, Oklahoma: Interpretation, 1, SB109-SB124.

Gupta, N., S. Sarkar, and K. J. Marfurt, 2013, Seismic attribute driven integrated characterization of the Woodford Shale in west-central Oklahoma: Interpretation, 1, SB85-SB96.

B. L. Dowdell, J. T. Kwiatkowski, K. J. Marfurt, 2013, Seismic characterization of a Mississippi Lime resource play in Osage County, Oklahoma, USA: Interpretation, 1, SB97-SB108.

Verma, S., Y. Del Moro, and K. J. Marfurt, 2013, Pitfalls in prestack inversion of merged seismic surveys, Interpretation, 1, A1-A9.

Khatiwada, M., G. R. Keller, and K. J. Marfurt, 2013, A window into the Proterozoic: Integrating 3D seismic, gravity, and magnetic data to image subbasement structures in the southeast Fort Worth basin: Interpretation, 1, T125-T141.

Davogustto, O., M. Castro de Matos, C. Cabarcas, T. Dao, and K. J. Marfurt, 2013, Resolving subtle stratigraphic features using spectral ridges and phase residues: Interpretation, 1, SA93-SA108.: Geophysics, 78, U9-U18.

Dr. Shankar Mitra

Bose, S., and Mitra, S., 2012, Controls of listric normal fault styles in the northern Gulf of Mexico: Insights from experimental models, Marine and Petroleum Geology, v. 35(1), p. 41-54.

Paul, D., and Mitra, S., 2012, Controls of basement faults on the geometry and evolution of compressional basement-involved structures, A.A.P.G. Bulletin, v. 96, no. 10, p. 1899-1930.

Paul, D., and Mitra, S., 2013, Experimental models of transfer zones in rift systems, AAPG Bulletin, v. 97, p. 759-780.

Mitra, S., and Miller, J., 2013, Strain variation with progressive deformation in basement-involved trishear structures, Journal of Structural Geology, v.53, p. 70-79.

Bose, S., and Mitra, S., 2014. Structural analysis of a salt-cored transfer zone in the South Timbalier block 54, Offshore Gulf of Mexico: Implications for restoration of salt-related extensional structures, A.A.P.G. Bulletin, v.98, no. 4, p. 825-849.

Paul, D., and Mitra, S., 2015, Fault patterns associated with extensional fault-propagation folding, Marine and Petroleum Geology, v.67, p. 120-143.

Mitra, S., and Karam, P., 2015, Controls of Shapes and Evolution of Salt Diapirs: Experimental Studies, Gulf Coast Association of Geological Societies Trans., v. 65, p. 281-292.

Mitra, S., and Karam, P., 2016, Controls of the Geometry and Evolution of Salt Diapirs in Experimental Models and Natural Examples, GCAGS Journal, v. 5 (2016), p. 203–214.

Karam, P., and Mitra, S., 2016, Experimental Studies of the controls of the geometry and evolution of salt diapirs, Marine and Petroleum Geology, v. 77, 1309-1322.

Li, J. and Mitra, S, 2017, Geometry and Evolution of Fold-Thrust Structures at the Boundaries between Frictional and Ductile Detachments, Marine and Petroleum Geology, v. 85, p. 16-34.

Dr. John Pigott

Pigott, John D., Moo-Hee Kang, Hyun-Chul Han, 2013, First Order Seismic Attributes for Clastic Seismic Facies Interpretation: Examples from the East China Sea, Journal of Asian Earth Science, v10, p. 34-54.

Pigott, John D., and Abdel-Fattah,Mohamed I., 2014, Seismic Stratigraphy of the Messinian Nile Delta Coastal Plain: Recognition of the Fluvial Regressive Systems Tract and its Potential for Hydrocarbon Exploration, Journal of African Earth Sciences 95, p. 9-21.

Zhou, Yong, Youliang Ji, John D. Pigott, Qi'an Meng, and Lu Wan, 2014, Tectono-stratigraphy of Lower Cretaceous Tanan-sub-basin, Tamtsag Basin, Mongolia: Sequence architecture, depositional systems and controls on sediment fill, *Marine and Petroleum Geology*, v49, p. 176-202.

Pigott, John D. and Bradley, Bryant W., 2014, Application of production decline curve analysis to clastic reservoir facies characterization within a sequence stratigraphic framework: Example- Frio Formation, South Texas, *GCAGS Journal*, Vol 3, p. 112-133.

Zhou, Yong, Youliang Ji, John D. Pigott, Qi'an Meng, and Lu Wan, 2014, Tectono-stratigraphy of Lower Cretaceous Tanan-sub-basin, Tamtsag Basin, Mongolia: Sequence architecture, depositional systems and controls on sediment fill, *Marine and Petroleum Geology*, v49, p. 176-202.

Pigott, John D. and Mohamed O. Abouelresh, 2016, Basin deconstruction-construction: Seeking thermal-tectonic consistency through the integration of geochemical thermal indicators and seismic fault mechanical stratigraphy-Example from Faras Field, North Western Desert, Egypt, *Journal of African Earth Sciences*, 114, p. 110-124.

Abdel-Fattah, Mohamed I., John D. Pigott, and Zakaria M. Abd-Allah, 2017, Integrative 1D-2D Basin Modeling of the Cretaceous Beni Suef Basin, Western Desert, Egypt, *Journal of Petroleum Science and Engineering*, 153, p. 297.

Harouna, M., J.D. Pigott, and R.P. Philp, 2017, Burial History and Thermal Maturity Evolution of the Termit Basin, Niger, *Journal of Petroleum Geology*, Vol. 40 (3), p. 277-297.

Dr. Nori Nakata

Behm, M., N. Nakata, and G. Bokelmann, Regional ambient noise tomography in the Eastern Alps of Europe, *Pure Appl. Geoophys.*, 173, 2813–2840, 2016.

Brenguier, F., D. Rivet, A. Obermann, N. Nakata, P. Bou'e, T. Lecocq, M. Campillo, and N. Shapiro, 4-d noise-based seismology at volcanoes: Ongoing efforts and perspectives, *J. Volcanol. Geoth. Res.*, 106, 2302–2312, 2016a.

Brenguier, F., et al., Towards 4-D noise-based seismology: First results of a Large-N array experiment on Piton de la Fournaise volcano, *Seismol. Res. Lett.*, 87 (1), 15–25, doi:10.1785/0220150173, 2016b.

C elebi, M., H. S. Ulusoy, and N. Nakata, Responses of a tall building in Los Angeles, California, as inferred from local and distant earthquakes, *Earthquake Spectra*, 32 (3), 1821–1843, 2016.

Chen, X., and N. Nakata, Preface to the focus section on the 3 September 2016 Pawnee, Oklahoma, earthquake, *Seismol. Res. Lett.*, 88 (4), 953–955, 2017.

Chen, X., N. Nakata, C. Pennington, J. Haffener, J. C. Chang, X. He, Z. Zhan, S. Ni, and J. Walter, The Pawnee earthquake as a result of interplay among injection, faults and foreshocks, *Scientific reports*, 7, 4945, 2017.

Czarny, R., H. Marcał, N. Nakata, Z. Pilecki, and Z. Isakow, Monitoring velocity changes caused by underground coal mining using seismic noise, *Pure and Appl. Geophys.*, 173, 1907–1916, 2016.

de Ridder, S., F. Brenguier, F. Forghani, E. Galetti, N. Nakata, and C. Weemstra, Introduction to special section: Ambient noise, *Interpretation*, 4, SJi, 2016.

Kalkan, E., W. Wen, J. Fletcher, F. Wang, and N. Nakata, Site properties inferred at delaney park downhole array in anchorage alaska, *Bull. Seismol. Soc. Am.* (in press), 2017.

Kamei, R., N. Nakata, and D. Lumley, Introduction to microseismic source mechanisms, *The Leading Edge*, 34 (8), 876–880, 2015.

Nakata, N., Combination of Hi-net and KiK-net data for deconvolution interferometry, Bull. Seismol. Soc. Am., 103 (6), 3073–3082, 2013.

Nakata, N., Near-surface s-wave velocities estimated from traffic-induced love waves using seismic interferometry with double beamforming, Interpretation, 4, SQ23–SQ31, 2016. Nakata, N., and G. C. Beroza, Stochastic characterization of mesoscale seismic velocity heterogeneity in long beach, California, Geophys. J. Int., 203, 2049–2054, doi 10.1093/gji/ggv421, 2015.

Nakata, N., and G. C. Beroza, Reverse-time migration for microseismic sources using the geometric mean as an imaging condition, Geophysics, 81 (2), KS51–KS60, 2016.

Nakata, N., and R. Snieder, Estimating near-surface shear-wave velocities in Japan by applying seismic interferometry to KiK-net data, J. Geophys. Res., 117, B01,308, doi: 10.1029/2011JB008595, 2012a.

Nakata, N., and R. Snieder, Time-lapse change in anisotropy in Japan's near surface after the 2011 Tohoku-Oki earthquake, Geophys. Res. Lett., 39, L11,313, doi: 10.1029/2012GL051979, 2012b.

Nakata, N., and R. Snieder, Monitoring a building using deconvolution interferometry. II: Ambient-vibration analysis, Bull. Seismol. Soc. Am., 104 (1), 204–213, doi: 10.1785/0120130050, 2014.

Nakata, N., R. Snieder, S. Kuroda, S. Ito, T. Aizawa, and T. Kunimi, Monitoring a building using deconvolution interferometry. I: Earthquake-data analysis, Bull. Seismol. Soc. Am., 103 (3), 1662–1678, doi: 10.1785/0120120291, 2013.

Nakata, N., R. Snieder, and M. Behm, Body-wave interferometry using regional earthquakes with multidimensional deconvolution after wavefield decomposition at free surface, Geophys. J. Int., 199, 1125–1137, 2014.

Nakata, N., J. P. Chang, J. F. Lawrence, and P. Bou'e, Body-wave extraction and tomography at Long Beach, California, with ambient-noise interferometry, J. Geophys. Res., 120, 1159–1173, doi: 10.1002/2015JB01870, 2015a.

Nakata, N., W. Tanaka, and Y. Oda, Damage detection of a building caused by the 2011 Tohoku-Oki earthquake with seismic interferometry, Bull. Seismol. Soc. Am., 105 (5), 2411–2419, doi: 10.1785/0120140220, 2015b.

Nakata, N., P. Bou'e, F. Brenguier, P. Roux, V. Ferrazzini, and M. Campillo, Body and surface wave reconstruction from seismic-noise correlations between arrays at Piton de la Fournaise volcano, Geophys. Res. Lett., 43, 1047–1054, doi: 10.1002/2015GL066997, 2016.

Sleep, N. H., and N. Nakata, Nonlinear attenuation from the interaction between different types of seismic waves and interaction of seismic waves with shallow ambient tectonic stress, Geochem. Geophys. Geosyst., 16, 2336–2363, 2015.

Sleep, N. H., and N. Nakata, Nonlinear suppression of high-frequency S waves by strong Rayleigh waves, Bull. Seismol. Soc. Am., 106 (5), 2302–2312, 2016.

Sleep, N. H., and N. Nakata, Nonlinear attenuation of S-waves by frictional failure at shallow depths, Bull. Seismol. Soc. Am. (in press), 2017.

Dr. Matthew Pranter

Turnini, A. M., M. J. Pranter, K. J. Marfurt, accepted, Mississippian limestone and chert reservoirs, Tonkawa Field, north-central Oklahoma, in G. Michael Grammer ed., Mississippian Reservoirs of the Mid-Continent, U.S.A., AAPG Memoir.

Qi, X., J. Snyder, T. Zhao, K. J. Marfurt, and M. J. Pranter, accepted, Correlation of seismic attributes and geo-mechanical properties to the rate of penetration in the Mississippian Limestone, Oklahoma, in G. Michael Grammer ed., Mississippian Reservoirs of the Mid-Continent, U.S.A., AAPG Memoir.

Lindzey, K. M., M. J. Pranter, and K. J. Marfurt, accepted, Lithological and petrophysical controls on production of the Mississippian Limestone, northeastern Woods County, Oklahoma, in G. Michael Grammer ed., Mississippian Reservoirs of the Mid-Continent, U.S.A., AAPG Memoir.

Allen, D. B., and M. J. Pranter, 2016, Geologically constrained electrofacies classification of fluvial deposits: an example from the Cretaceous Mesaverde Group, Uinta and Piceance basins, AAPG Bulletin, v. 100, no. 12 (December 2016), p. 1775-1801.

El Attar, A., and M. J. Pranter, 2016, Regional stratigraphy, elemental chemostratigraphy, and organic richness of the Niobrara Member of the Mancos Shale, Piceance Basin, Colorado, AAPG Bulletin, v. 100, no. 3 (March 2016), p. 345–377.

Keeton, G. I., M. J. Pranter, E. R. (Gus) Gustason, and R. D. Cole, 2015, Stratigraphic architecture of fluvial deposits from borehole images, spectral-gamma-ray response, and outcrop analogs, Piceance Basin, Colorado, AAPG Bulletin, v. 99, No. 10, p. 1929-1956.

Pranter, M. J., A. C. Hewlett, R. D. Cole, H. Wang, and J. R. Gilman, 2014, Fluvial architecture and connectivity of the Williams Fork Formation: use of outcrop analogues for stratigraphic characterisation and reservoir modelling, in T. Good, J. Howell, A. W. Martinus, eds., Sediment-body geometry and heterogeneity: analogue studies for modelling the subsurface, The Geological Society of London, Special Publication, vol. 387, 308 p.

Baytok, S., and M. J. Pranter, 2013, Fault and fracture distribution within a tight-gas sandstone reservoir: Mesaverde Group, Mamm Creek Field, Piceance Basin, Colorado, U.S.A., Petroleum Geoscience, vol. 19, p. 203-222.

Dr. Gerilyn Soreghan

Pfeifer, L.S., Soreghan, G.S., Pochat, S., Van Den Driessche, J., and Thomson, S.N., 2016, Rapid Permian exhumation of the Montagne Noire metamorphic core complex recorded in provenance of upper Paleozoic clastic strata in the Grassessac-Lodéve basin, France: Basin Research, doi:10.1111/bre.12197

Soreghan, G.S., Joo, Y.-J., Elwood Madden, M.E., and Van Deventer, S.C., 2016, Silt production as a function of climate and lithology under simulated comminution: Quaternary International, v. 399, p. 218-227.

Joo, Y.-J., Elwood Madden, M.E., and Soreghan, G.S., 2016, Chemical and physical weathering in a hot-arid, tectonically active alluvial system of Anza Borrego Desert California: Sedimentology, v. 63, p. 1065-1083.

2015

Soreghan, G.S., Heavens, N.G., Hinnov, L.A., Aciego, S.M., and Simpson, C., 2015, Reconstructing the dust cycle in deep time: the case of the Late Paleozoic icehouse, in Polly, P.D., Head, J.J., and Fox, D.L. (eds.): The Paleontological Society Papers, v. 21, p. 83-120.

Sur, S., Owens, J.D., Soreghan, G.S., Lyons, T.W., Raiswell, R., Heavens, N.G., and Mahowald, N.M., 2015, Extreme eolian delivery of reactive iron to late Paleozoic icehouse seas: *Geology*, doi:10.1130/G37226.1

Keiser, L.J., Soreghan, G.S., and Kowalewski, M., 2015, Use of quartz microtextures to assess possible proglacial deposition for the Pennsylvanian-Permian Cutler Formation (Colorado, U.S.A): *Journal of Sedimentary Research*, v. 85, p. 1310-1322.

Soreghan, G.S., Benison, K.C., Foster, T.M., Zambito, J., and Soreghan, M.J., 2015, The paleoclimatic and geochronologic utility of coring red beds and evaporites: A case study from the RKB core (Permian, Kansas, USA): *International Journal of Earth Sciences*, v. 104, p. 1589-1603.

Soreghan, G.S., Sweet, D.E., Thomson, S.N., Kaplan, S.A., Marra, K.R., Balco, G., and Eccles, T.M., 2015, Geology of Unaweep Canyon and its role in the drainage evolution of the northern Colorado Plateau: *Geosphere*, v. 11, p. 320-341, doi: 10.1130/GES01112.1

Marra, K.R., Madden, M.E.E., Soreghan, G.S., and Hall, B.L., 2015, BET surface area distributions in polar stream sediments: Implications for silicate weathering in a cold-arid environment: *Applied Geochemistry*, v. 52, no. C, p. 31–42, doi: 10.1016/j.apgeochem.2014.11.005

Heavens, N.G., Mahowald, N.M., Soreghan, G.S., Soreghan, M.J., and Shields, C.A., 2015, A model-based evalution of tropical climate in Pangaea during the late Palaeozoic icehouse: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 425, no. C, p. 109–127, doi: 10.1016/j.palaeo.2015.02.024

2014

Keiser, K.J., Soreghan, G.S., and Joo, Y.-J., 2014, Effects of drying techniques on grain-size analyses of fine-grained sediment: *Journal of Sedimentary Research*, v. 84, p. 893-896. doi: 10.2110/jsr.2014.68

Soreghan, G.S., Sweet, D.E., and Heavens, N.G., 2014, Upland glaciation in tropical Pangaea: geologic evidence and implications for Late Paleozoic climate modeling: *Journal of Geology*, v. 122, p. 137-163.

Foster, T.M., Soreghan, G.S., Soreghan, M.J., Benison, K.C., and Elmore, R.D., 2014, Climatic and palaeogeographic significance of eolian sediment in the Middle Permian Dog Creek Shale (Midcontinent U.S.): *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 402, p. 12-29.

Soreghan, M.J., Soreghan, G.S., Heavens, N., Link, P.K., and Hamilton, M.A., 2014, Abrupt and high-magnitude changes in atmospheric circulation recorded in the Permian Maroon Formation, tropical Pangaea: Colorado: *Geological Society of America Bulletin*, doi:10.1130/B30840.1

Marra, K.M., Soreghan, G.S., Elwood Madden, M.E., Keiser, L.J., and Hall, B.L., 2014, Trends in grain size and surface area in cold-arid versus warm-semi-arid fluvial systems: *Geomorphology*, v. 206, p. 483-491.

2013

Soreghan, G.S., and Soreghan, M.J., 2013, Tracing Clastic Delivery To the Permian Delaware Basin, U.S.A.: Implications For Paleogeography and Circulation In Westernmost Equatorial Pangea: *Journal of Sedimentary Research*, v. 83, no. 9, p. 786–802, doi: 10.2110/jsr.2013.63.

Benison, K., Zambito, J., IV, Soreghan, G., Soreghan, M., Foster, T.M., and Kane, M.M., 2013, Permian Red Beds and Evaporites of the Amoco Rebecca K. Bounds Core, Greeley County, Kansas: Implications for Science And Industry (J. Tollefson, Ed.) Midcontinent Core Workshop— From Source to Seal: Kansas Geological Survey and Kansas Geological Society Joint Publication, p. 9–14.

Seals, S.C., and Soreghan, G.S., 2013, Late Pennsylvanian sedimentation in the western Orogrande basin (New Mexico): “Icehouse” sedimentation and rapid basin subsidence in the southern Ancestral Rocky Mountains: In, Lucas, S., ed.,

Carboniferous-Permian Transition in Central New Mexico: New Mexico Museum of History and Science Bulletin, v. 59, p. 331-346.

Soreghan, G.S., and Sweet, D.E., 2013, New views on Late Paleozoic climate and tectonics in the Ancestral Rocky Mountains, in Abbott, L.D., and Hancock, G.S., eds., Classic Concepts and New Directions: Exploring 125 Years of GSA Discoveries in the Rocky Mountain Region: Geological Society of America Field Guide v. 33, p. 295–330.

Giles, J.M., Soreghan, M.J., Benison, K.C., Soreghan, G.S., and Hasiotis, S.T., 2013, Lakes loess and paleosols in the Permian Wellington Formation of Oklahoma, U.S.A.: Implications for paleoclimate and paleogeography of the midcontinent: Journal of Sedimentary Research, v. 83, p. 825-846.

Balco, G., Soreghan, G.S., Sweet, D.E., Marra, K.R., and Biermand, P.R., 2013, Cosmogenic-nuclide burial ages for Pleistocene sedimentary fill in Unaweep Canyon, Colorado, USA: Quaternary Geochronology, v. 18, p. 149-157.

Sweet, A.C., Soreghan, G.S., Sweet, D.E., Soreghan, M.J., and Madden, A.S., 2013, Permian dust in Oklahoma: Source and origin for Middle Permian (Flowerpot-Blaine) redbeds in western Tropical Pangaea: Sedimentary Geology, v. 284-285, p. 181-196.

2012

Heavens, N.G., Mahowald, N.M., Soreghan, G.S., Soreghan, M.J., & Shields, C.A., 2012, Glacial-interglacial variability in Tropical Pangaean Precipitation during the Late Paleozoic Ice Age: simulations with the Community Climate System Model: Climate of the Past Discussions, v. 8, p. 1915-1972 doi:10.5194/cpd-8-1915-2012

Sweet, D.E., Soreghan, G.S., 2012, Estimating magnitudes of relative sea-level change in a coarse-grained fan-delta system: Implications for Pennsylvanian glacioeustasy: Geology, v. 40, p. 979-982.

Stumpf, A.R., Elwood Madden, M.E., Soreghan, G.S., Hall, B.L., Keiser, L.J., 2012, Glacier meltwater stream chemistry in Wright and Taylor Valley, Antarctica: Assessing magnitude and sources of chemical weathering in a polar climate: Chemical Geology, 322-323, 79-90.

Soreghan, G.S., Keller, G.R., Gilbert, M.C., Chase, C.G., and Sweet, D.E., 2012, Load-induced subsidence of the Ancestral Rocky Mountains recorded by preservation of Permian landscapes: Geosphere, v. 8, p. 654-668.

Dr. Michael Soreghan

Soreghan, M.J., 2016, Modern sedimentation on a littoral, shell-rich platform of Lake Tanganyika (Kigoma, TZ) and its potential impacts on benthic habitats and endemic fauna.. Journal of Environmental Earth Sciences, v. 75, 13 p.

Evans, J. and Soreghan, M.J., 2015, Long-distance sediment transport and episodic re-sedimentation of Pennsylvanian dust (eolian silt) in cave passages of the Mississippian Leadville Limestone, southwestern Colorado, U.S.A. in J. Feinberg and Y. Gao (eds.), Caves and Karst Across Time, Geological Society of America, Special Paper. v. 516, p. 263-284.

Heavens, N.G, Mahowald, N.M., Soreghan, G.S., Soreghan, M.J., Shields, C.A., 2015, A model-based evaluation of tropical climate in Pangaea during the late Paleozoic icehouse, Palaeogeography, Palaeoclimatology, Palaeoecology, v. 425, p. 109-127.

Soreghan, M.J., Heavens, N.G., Soreghan, G.S., Link, P.K., and Hamilton, M.A., 2014, Abrupt and high-magnitude changes in atmospheric circulation recorded in the Permian Maroon Formation, tropical Pangaea: Geological Society of America Bulletin, p. 1-16. DOI: 10.1130/B30840.1

Soreghan, G.S., Benison, K.C., Foster, T.M., Zambito, J.J., and Soreghan, M.J., 2014, The paleoclimatic and geochronologic utility of coring redbeds and evaporites: A case study from the RKB core (Permian, Kansas, USA): International Journal of Earth Sciences, p. 1-17. DOI 10.1007/s00531-014-1070-1

Foster, T.M., Soreghan, G.S., Soreghan, M.J., Benison, K.C., and Elmore, R.D., 2014, Climatic and paleogeographic significance of eolian sediment in the Middle Permian Dog Creek Shale (Midcontinent U.S.): Palaeogeography, Palaeoclimatology, Palaeoecology, v. 402, p. 12-29. DOI: 10.1016/j.palaeo.2014.02.031

Giles, J.A., Soreghan M.J., Benison, K.C., Soreghan, G.S., Hasiotis, S.T., 2013, Lakes, loess, and paleosols in the Permian Wellington Formation of Oklahoma, U.S.A.: Implications for paleoclimate and paleogeography of the midcontinent, Journal of Sedimentary Research, v. 83, p. 825-846.

Soreghan, G.S., and Soreghan, M.J., 2013, Tracing clastic delivery to the Permian Delaware Basin, U.S.A.: Implications for paleogeography and circulation in westernmost equatorial Pangaea, Journal of Sedimentary Research, v. 83, 786-802.

Zambito, J. J., Benison, K.C., Foster, T.M. Soreghan, G.S., Soreghan, M.J., and Kane, M., 2012, Lithostratigraphy of Permian Red Beds and Evaporites in the Rebecca K. Bounds Core, Greeley County, Kansas: Kansas Geological Survey Open-File Report, v. 2012-15, p. 1-45.

Heavens, N. G., Mahowald, N. M., Soreghan, G. S., Soreghan, M. J., and Shields, C. A., 2012, Glacial-interglacial variability in Tropical Pangaean Precipitation during the Late Paleozoic Ice Age: simulations with the Community Climate System Model, Climate of the Past Discussions, v. 8, 1915-1972, doi:10.5194/cpd-8-1915-2012.

Burnett, A.P., Soreghan, M.J., Scholz, C.A., Brown, E.T., 2011, Tropical East African climate change and its relation to global climate: A record from Lake Tanganyika, Tropical East Africa, over the past 90+ kyr, Palaeogeography, Palaeoclimatology, Palaeoecology, v. 303, no. 1-4, p. 155-167.

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Westrop, S.R., and Dengler, A.A. 2017. The mid-Cambrian (Series 3, Drumian–Guzhangian; Marjuman) trilobite Holmdalia Robison, 1988 in western Newfoundland and its biostratigraphic significance. Canadian Journal of Earth Sciences, 54, 113-128.

Adrain, J. M., and Westrop, S. R. 2016. Testing for taphonomic bias in deep time using trilobite sclerite ratios. Palaeogeography, Palaeoclimatology, Palaeoecology, 463, 205–215.

Westrop, S. R., and Landing, E. 2016. The agnostoid arthropod *Lotagnostus* Whitehouse, 1936 (late Cambrian; Furongian) from Avalonian Cape Breton Island (Nova Scotia, Canada) and its significance for international correlation. Geological Magazine, 21 pp. DOI: 10.1017/S0016756816000571.

Swisher, R. E., Westrop, S. R., and Amati, L. 2016. Systematics and paleobiogeographic significance of the Upper Ordovician pterygometopine trilobite *Achatella* Delo, 1935. Journal of Paleontology, 90, 59–77.

Westrop, S. R., and Adrain, J. M. 2016. Revision of *Irvingella tropica* Öpik, 1963 from Australia and related species from North America: implications for correlation of the base of the Jiangshanian Stage (Cambrian, Furongian). Australasian Palaeontological Memoirs, 49, 395–432.

- Wernette, S. J., and Westrop, S. R. 2016. The mid-Cambrian (Drumian; Marjuman) trilobites *Athabaskiella* Kobayashi 1942 and *Bathyuriscidella* Rasetti 1948 (Dolichometopidae) from Quebec and Newfoundland, eastern Canada. *Australasian Palaeontological Memoirs*, 49, 145–180.
- Carlucci, J.R., and Westrop, S.R. 2015. Trilobite biofacies and sequence stratigraphy: an example from the Upper Ordovician of Oklahoma. *Lethaia*, 48, 309–325.
- Landing, E., and Westrop, S. R. 2015. Late Cambrian (middle Furongian) shallow-marine, dysoxic mudstone with calcrete and brachiopod-olenid-Lotagnostus faunas in Avalonian Cape Breton Island, Nova Scotia. *Geological Magazine*, 152, 973–992.
- Saltzman, M. R., Edwards, C. T., Adrain, J. M., and Westrop, S. R. 2015. Persistent oceanic anoxia and elevated extinction rates separate the Cambrian and Ordovician radiations. *Geology*, 43, 807–810.
- Swisher, R. E., Westrop, S. R., and Amati, L. M. 2015. The Upper Ordovician trilobite *Raymondites Sinclair*, 1944 in North America. *Journal of Paleontology*, 89, 110–134.
- Adrain, J.M., Karim, T. and Westrop, S.R. 2014. The Lower Ordovician (upper Tremadocian; Stairsian) dimeropygid trilobite *Pseudohystricurus* Ross. *Australasian Association of Palaeontologists Memoir* 45: 215–232.
- Adrain, J.M., Karim, T. and Westrop, S.R. 2014. The Lower Ordovician (Floian) bathyurid trilobite genera *Jeffersononia*, *Cullisonia*, and *Bathyurina*. *Australasian Association of Palaeontologists Memoir* 45: 305–347
- Adrain, J.M., Westrop, S.R., Karim, T. and Landing, E. 2014. Trilobite biostratigraphy of the Stairsian Stage (upper Tremadocian) of the Ibexian Series, Lower Ordovician, western United States. *Australasian Association of Palaeontologists Memoir* 45: 167–214
- Carlucci, J.R., Westrop, S.R., Brett, C.E., and Burkhalter, R. 2014. Facies architecture and sequence stratigraphy of the Ordovician Bromide Formation (Oklahoma): A new perspective on a mixed carbonate-siliciclastic ramp. *Facies*, 60, 987–1012.
- Moss, D.K., and Westrop, S.R. 2014. Systematics of some late Ordovician encrinurine trilobites from Laurentian North America. *Journal of Paleontology*, 88: 1095–1119
- Westrop, S.R., and Adrain, J.M. 2014. The missisquoiid trilobite *Parakoldinioidia* Endo, 1937 in the uppermost Cambrian of Oklahoma and Texas, and its biostratigraphic significance. *Australasian Association of Palaeontologists Memoir*, 45: 117–152.
- Westrop, S.R., and Dengler, A.A. 2014. The mid-Cambrian (Guzhangian; Marjuman) trilobite genus *Catillicephalia* Raymond, 1938 (Catillicephalidae) from the Cow Head Group and correlatives in eastern Canada. *Australasian Association of Palaeontologists Memoir* 45, 89–116.
- Westrop, S.R., and Dengler, A.A. 2014. The mid-Cambrian (Series 3, Guzhangian; Marjuman) trilobite *Deiracephalus* Resser, 1935 from western Newfoundland. *Canadian Journal of Earth Sciences*, 51: 682–700.
- Landing, E., Westrop, S.R., and Bowring, S.A. 2013. Reconstructing the Avalonia palaeocontinent in the Cambrian: a 519 Ma caliche in South Wales and transcontinental middle Terreneuvian sandstones. *Geological Magazine*, 150, 1022–1046.
- Westrop, S.R. 2013. The Late Cambrian (Furongian) trilobite *Tangshanaspis* Zhou and Zhang, 1978 in North America. *Canadian Journal of Earth Sciences*, 50, 797–807
- Westrop, S.R., and Adrain, J.M. 2013. Biogeographic shifts in a transgressive succession: the Cambrian (Furongian: Jianshanian: latest Steptoean-earliest Sunwaptan) agnostoid arthropods *Kormagnostella* Romanenko and *Biciragnostus* Ergaliev in North America. *Journal of Paleontology*, 87, 804–817.