

## Selected Highlight 2013 Publications of CSU Geosciences

*CSU Faculty, students, and staff indicated in **bold**. Student authors are indicated with asterisks*

### *Parameter Estimation and Inverse Problems*

**R. Aster**, B. Borchers, C. Thurber  
Elsevier Academic Press, 360 pp., 2013.

A thin and weak plate-boundary decollement in the region of maximum slip, 2011 Tohoku-oki earthquake

F.D. Chester, C.D. Rowe, K. Ujiie, **J.D. Kirkpatrick**, C. Regalla, F. Remitti, J.C. Moore, V. Toy, M. Wolfson-Schwehr, S. Bose, J. Kameda, J.J. Mori, E. Brodsky, N. Eguchi, and S. Toczko  
*Science*, 342 (6163), 1208-1211, doi:10.1126/science.1243719, 2013.

Geology, mineralization, and geochronological constraints of the Mirador Cu-Au porphyry district, southeast Ecuador

J. Drobe, D. Lindsay, **H. Stein**, and J. Gabites  
*Economic Geology*, 108, p. 11-35, 2013.  
[[www.airieprogram.org](http://www.airieprogram.org)].

Relationships between block quarrying, bed shear stress, and stream power: a physical model of block quarrying of a jointed bedrock channel

**I. Dubinski\*** and **E. Wohl**  
*Geomorphology*, 180-181, 66-81, 2013.

Traces in the dark—sedimentary processes and facies gradients in the upper shale member of the Upper Devonian-Lower Mississippian Bakken Formation, Williston Basin, North Dakota, USA.

**S. Egenhoff** and N. Fishman  
*Journal of Sedimentary Research*, 83, 803-824, 2013.

Gas storage in the Upper Devonian-Lower Mississippian Woodford Shale, Arbuckle Mountains, Oklahoma: how much of a role do the cherts play?

N.S. Fishman, G.S. Ellis, S.T. Paxton, A.R. Boehlke, and **S.O. Egenhoff**  
*Critical Assessment of Shale Resource Plays*; Chatellier, J. and Jarvie, D. (eds.), AAPG Memoir 103, 81-107, 2013.

Rhenium variations in molybdenite (MoS<sub>2</sub>): Evidence for progressive subsurface oxidation

J. Golden, M. McMillan, R.T. Downs, G. Hystad, I. Goldstein, **H.J. Stein**, **A. Zimmerman**, D.A. Sverjensky, J.T. Armstrong, and R.M. Hazen  
*Earth and Planetary Science Letters*, 366, 1-5, 2013.  
[[www.airieprogram.org](http://www.airieprogram.org)].

Scale-dependent influence of pre-existing basement shear zones on rift faulting: a case study from NE Brazil

**J.D. Kirkpatrick**, F.H.R. Bezerra, Z.K. Shipton, A.F. do Nascimento, S.I. Pytharouli, R.J. Lunn, and A.M. Soden

*J. Geol. Soc., London*, 170, 237-247, doi: 10.1144/jgs2012-043, 2013.

Silica gel formation during fault slip: Evidence from the rock record

**J.D. Kirkpatrick**, C.D. Rowe, J.C. White, and E.E. Brodsky

*Geology*, 41(9), 1015-1018, doi:10.1130/G34483.1, 2013.

Seismic detection of an active subglacial magmatic complex in Marie Byrd Land, Antarctica

A. Lough\*, D. Wiens, C.G. Barcheck, S. Anandakrishnan, **R. Aster**, D. Blankenship, A. Huerta, A. Nyblade, D. Young, T. Wilson

*Nature Geoscience*, 6, 1031–1035, 2013.

Mass-independently fractionated sulfur in Archean paleosols: A large reservoir of  $\Delta^{33}\text{S}$  anomaly on the early Earth

J.B. Maynard, **S.J. Sutton**, D. Rumble, A. Bekker

*Chemical Geology*, 362, 74-81, 2013.

Evaluating channel response to an extreme sedimentation event in the context of historical range of variability: Upper Colorado River, Rocky Mountain National Park, Colorado

**S. Rathburn**, Z. Rubin, and **E. Wohl**

*Earth Surface Processes and Landforms*, DOI:1002/esp.3329, 2013.

Water Education in the Warner College of Natural Resources: Fostering Learning of Our watershed

**S. Rathburn**, **M. Ronayne**, S. Kampf, and M. Laituri

*Colorado Water*, 30(1). Colorado Water Institute Newsletter, 2013.

*Ore Deposit Geology*

**J. Ridley**

Cambridge University Press, Cambridge, 398 pp. 2013.

Influence of conduit network geometry on solute transport in karst aquifers with a permeable matrix

**M.J. Ronayne**

*Advances in Water Resources*, 56, 2013.

Re-evaluating genetic models for porphyry Mo mineralization at Questa, New Mexico: Implications for ore deposition following silicic ignimbrite eruption

J.M. Rosera, D.S. Coleman, and **H.J. Stein**

*Geochemistry, Geophysics, Geosystems* 14 (4) 787-805. DOI:10.1002/ggge.20048, 2013. [[www.airieprogram.org](http://www.airieprogram.org)].

Comparison of a karst groundwater model with and without discrete conduit flow  
**S.P. Saller\***, **M.J. Ronayne**, and A.J. Long  
*Hydrogeology Journal*, 21(7), 2013.

Multiple fluvial processes detected by riverside seismic and infrasound monitoring of a controlled flood in the Grand Canyon  
B. Schmandt, **R. Aster**, D. Scherler, V. Tsai, K. Karlstrom  
*Geophysical Research Letter*, 40 (18), 2013.

Floodplains and wood  
**E. Wohl**  
*Earth-Science Reviews*, 123, 194-212. 2013.

Guest Editorial: Introduction to special issue on historical range of variability  
**E. Wohl** and **S. Rathburn**  
*Earth Surface Processes and Landforms*, DOI:10.1002/esp.3357, 2013.

Landscape-scale carbon storage associated with beaver dams  
**E. Wohl**  
*Geophysical Research Letters*, 40, 1-6. 2013.