

Academic History

Name: Jason C. Austin

Present Rank: Ph.D., Geology

Highest Degree, Institution, Date: Ph.D. Geology, Magna Cum Laude, University of Georgia, 2012

Dissertation Title: Assessing the viability of pedogenic gibbsite as a proxy for paleo-PCO₂.

Academic Positions:

- 2006 – 2009: **Writing Intensive Program (WIP) Teaching Assistant** Dept. of Geology, University of Georgia
- 2004 – 2008: **Teaching Assistant**, Dept. of Geology, University of Georgia

Resident Instruction and continuing education:

- GEOL 1121L – Earth Processes and Environments lab
- GEOL 3010 WIP – Earth Materials
- GEOL 3020 – Surficial Processes
- GEOL 3020 WIP – Surficial Processes
- GEOL 4020 WIP – Internal Processes
- GEOL 4250 – Hydrogeology
- GEOL 4500 – Sedimentary Geology
- GEOL 4500 WIP – Sedimentary Geology
- GEOL 4700 WIP – Archeological Geology
- GEOL 4750 – Earth Science for Middle School Teachers

Scholarly Activities

Publications

Journal Articles (refereed):

1. **Austin, J.**, 2011, Soil CO₂ efflux simulations using Monte Carlo method and implications for recording paleo-atmospheric pCO₂ in pedogenic gibbsite: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 305, p. 280-285.
2. Schroeder, P. A., **Austin, J. C.**, Dowd, J. F., 2006, Estimating long-term soil respiration rates from carbon isotopes occluded in gibbsite: *Geochimica Et Cosmochimica Acta*, v. 70, p. 5692-5697.

Abstracts (First Authored):

1. **Austin, J. C.**, Schroeder, P. A., 2012, Assessing the viability of pedogenic gibbsite as a proxy for paleo-PCO₂. GSA Abstracts with programs, Paper No. 147-8, Charlotte, NC.
2. **Austin, J. C.**, Schroeder, P. A., Dowd, J. F., 2008, Exploring the sensitivity of paleo-P_{CO2} models based on the $\delta^{13}\text{C}$ of pedogenic gibbsite to changing soil variables with depth using numerical models. SoilCritZone Workshop III, Chania, Crete, Greece. Abstracts with programs.
3. **Austin, J. C.**, Schroeder, P. A., Dowd, J. F., 2008, Determining the sensitivity of paleo-P_{CO2} models using the $\delta^{13}\text{C}$ of carbon occluded in pedogenic gibbsite using Monte Carlo analysis. GSA Abstracts with programs, Paper No. 63-9, Houston, TX.
4. **Austin, J. C.**, Schroeder, Paul A. , and Cox, Julia, 2007, Radiogenic Carbon In Goethite From The Upper Ordovician Neda Formation: Implications For Re-Crystallization, The Clay Minerals Society Annual meeting, Santa Fe, NM. Abstract with programs.
5. **Austin, J. C.**, Schroeder, Paul A., and Dowd, John F., 2006, Aluminum substitution in goethite from the late Ordovician Neda Formation: Implications for environment of formation and post-burial weathering. GSA Abstracts with Programs, Paper No. 221-12, Philadelphia, PA.

Abstracts (Co-authored):

1. Schroeder, P. A., **Austin, J. C.**, Dowd, J. F., 2006 A numerical model for estimating long-term respiration rates from carbon occluded in soil gibbsite. GSA Abstracts with Programs, Paper No. 195-2, Philadelphia, PA.

Grants Received:

1. 2009 – International Association of Mathematical Geologists - \$2000.00
2. 2008 – Watts Wheeler Research Grant - \$500.00
3. 2007 – Geological Society of America Student Research Grant - \$1130.00
4. 2006 – Clay Minerals Society Student Research Grant - \$2350.00
5. 2005 - Watts Wheeler Research Grant - \$500.00