

# Curriculum Vitae for Alisha N. Clark

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## Address:

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## Education:

**Ph.D., Geology** Mar. 2016  
University of California, Davis, CA  
**Dissertation Title:** “Geologic Applications for the Anomalous Elastic and Volumetric Properties of Amorphous Silicates”

**M.S., Geology** Dec. 2011  
University of California, Davis, CA  
**Thesis Title:** “On the Anomalous Compressibility of Vitreous Silica: New Insights from High Pressure X-ray Microtomography and Gigahertz Ultrasonic Interferometry”

**B.S., Geology (Geochemistry emphasis)** March 2007  
University of California, Davis, CA  
**Thesis Title:** “The high pressure viscosity of lithium disilicate and applicability of the Faxén correction for high pressure silicate melts”

## Advisor:

Charles E. Lesher (B.S./M.S./Ph.D.), University of California, Davis 2005-2015

## Appointments:

Assistant Professor August 2019  
*University of Colorado Boulder*  
*Department of Geosciences*

NSF EAR Postdoctoral Fellow June 2017 – June 2019  
*Northwestern University*  
*Scripps Institute of Oceanography*

Postdoctoral Research Fellow (DIM Oxymore) Jan. 2016 – June 2017  
*Institut de minéralogie, de physique des matériaux et de cosmochimie*  
*Université Pierre et Marie Curie, Paris, France*

## Invited Talks:

Aarhus University, Aarhus, Denmark – November 2014  
Bayerisches Geoinstitut (BGI), Bayreuth, Germany – November 2014  
University College London, London, England – May 2016  
Northwestern University – November 2017

University of Illinois at Chicago – November 2017  
 Carnegie Institution for Science (Dept. of Terrestrial Magnetism) – November 2017  
 American Geophysical Union Fall Meeting (Session *DI006*) – December 2017  
 University of Colorado Boulder – February 2018  
 Columbia University – April 2018  
 Carnegie Institution for Science (Geophysical Laboratory) – May 2018  
 University of Utah – November 2019

**Teaching:**

**University of Colorado, Boulder – Department of Geological Sciences**

Introduction to Mineralogy (GEOL 3010) 2019  
 Our Deadly Planet (GEOL 1170) 2020

**Teaching and Course development program participation**

Learning by Design (Active Learning Academy – CU Boulder) 2019

**Professional Affiliations:**

Mineralogical Society of America 2007 - present  
 COMPRES 2009 - present  
 American Geophysical Union 2009 - present  
 Geological Society of America 2010 - present  
 American Ceramic Society 2012 - present  
 Geochemical Society 2014 - present  
 American Physics Society 2019 - present

**Honors, Awards, Grants, and Funding:**

Z-Fundamental Science Proposal: Sandia National Laboratory 2018-2022  
*“Origin of Earth’s water: role of hydrous melts at extreme P-T conditions”*  
 PI: Alisha Clark  
 NSF Earth Science Postdoctoral Fellowship 2017 - 2019  
*“Linking elastic and electrical properties to investigate partial melting in the deep mantle”*  
 PI: Alisha Clark; Mentors: Steven Jacobsen and Anne Pommier  
 APS Science 2016 (Argonne National Laboratory outstanding research result) 2016  
 DIM OxyMORE Postdoctoral Fellowship 2016 - 2017  
*“The anomalous behavior of silicate liquids on densification: A combined X-ray tomography and Raman spectroscopy study at high pressure”*  
 PI: Alisha Clark; Advisor: Guillaume Morard  
 Allen G. Marr Distinguished Dissertation Award Nominee 2016  
 UC Davis Earth and Planetary Sciences Department  
 COMPRES 2015 Springer Poster Award 2015  
 AGU Annual Meeting Outstanding Student Paper Award 2014  
 (Mineral and Rock Physics)  
 University of California, Davis Durrell Funds 2009 - 2015

## **Service:**

NSF EAR Panel Review Member (Postdoc Fellowship)	2020
COMPRES Facilitates Committee	2019-2022
CU Boulder (Geological Sciences) Space Committee	2019-present
CU Boulder (Geological Sciences) Colloquium Committee	2019-present
Northwestern Nemmers' Prize Seminar Coordinator	2018-2019
Goldschmidt Convener (Session 04f)	2017
Graduate Student Mentor (Jacobsen Laboratory)	2017-2019
Journal Reviewer ( <i>EPSL, PRB, PRL, GRL, JGR, AmMin, NatGeo</i> )	2016-present
COMPRES Student and Postdoc Committee Chair	2015-2016
COMPRES Student and Postdoc Committee	2014-2016
UC Davis Geology Graduate Program Review participant	2010-2011
Undergraduate student mentor (Leshner Laboratory)	2009-2015
UC Davis "What We Do" Graduate Student Seminar Series Coordinator	2009-2010
Member COMPRES Graduate Student and Postdoc Association	2009-2019

## **Collaborators:**

Adam Sarafian (Corning Inc.)	2018-present
Steve Jacobsen (Northwestern University)	2011-present
Anne Pommier (Scripps Institute of Oceanography)	2017-present
Arianna Gleason (Stanford University)	2011-present
Heather Watson (Rensselaer Polytechnic Institute)	2010-2014
Guillaume Morard (IMPMC, Université Pierre et Marie Curie, France)	2009-present
Bryan Jenkins (University of California, Davis)	2007-2012
Alexandra Navrotsky (University of California, Davis)	2006-2014
Akihiro Yamada (Ehime University, Japan)	2007-2009
Sabyasachi Sen (University of California, Davis)	2006-present
Charles E. Leshner (University of California, Davis)	2005-present
Yanbin Wang (University of Chicago)	2005-present

## **Students:**

### **Graduate Students**

Lindsay Harrison (CU Boulder) – Ph.D. Advisor	2019-present
Amanda Alexander (CU Boulder) – Ph.D. Committee	2019-present

## **Geological Employment History:**

**Graduate Student Researcher/ Teaching Assistant** 2008-2015

University of California, Davis

One Shields Ave., Davis, CA, 95616

*Responsibilities:* Conducted research at the Advanced Photon Source, Argonne National Laboratory related to M.S. and Ph.D. research and technique development for X-ray absorption method for melt density determination at extreme conditions. Presented results at professional conferences and prepared manuscripts for publication. Trained undergraduates, graduate students, and post-docs in experimental petrology lab. Performed experiments for Dr. Sen, Dr. Jenkins, Dr. Navrotsky and prepared results. User at McCellan Nuclear Radiation Center for neutron

tomography and radiography. Continued Lab Manager position (below) through 2013. See Teaching section for courses taught.

### **Lab Manager, Experimental Petrology Laboratory**

2006-2008

University of California, Davis

One Shields Ave., Davis, CA, 95616

*Responsibilities:* Designed, built and conducted experiments for the Experimental Petrology lab group as well as for outside researchers. Maintained and repaired experimental apparatuses. Performed multianvil, piston cylinder, Paris-Edinburgh cell, and one-atmosphere Deltech furnace experiments. Performed and analyzed X-ray and neutron tomography, diffraction, and radiography datasets. Prepared results for publications and professional presentations. Machined carbide for experimental use for the Experimental Petrology lab group as well as for outside research groups. Billing, ordering, and shipping responsibilities. Chemical inventory responsibilities. Development of X-ray and neutron microtomography systems and data processing methods.

### **Published Papers:**

- Edmund, E., Miozzi, F., Morard, G., Boulard, E., **Clark, A.N.**, Decremps, F., Garbarino, G., Svitlyk, V., Mezouar, M., & Antonangeli, D. (submitted) Axial compressibility and thermal equation of state of hcp Fe-5wt%Ni-5wt%Si. *Minerals*.
- Edmund, E., Antonangeli, D., Decremps, F., Miozzi, F., Morard, G., Boulard, E., **Clark, A.N.**, Ayrinhac, S., Gauthier, M., Morand, M., & Mezouar, M. (2019) Velocity-Density Systematics of Fe-5wt%Si: Constraints on Si Content in the Earth's Inner Core. *Journal of Geophysical Research: Solid Earth*, 124,3436–3447.
- Miozzi, F., Morard, G., Antonangeli, D., **Clark, A.N.**, Mezouar, M., Dorn, C., Rozel, A., & Fiquet, G. (2018) Equation of state of SiC at extreme conditions: new insight into the interior of carbon rich exoplanets. *Journal of Geophysical Research: Planets*. 123, 2295–2309.
- Boulard, E., King, A., Guignot, N., Deslandes, J.-P., Le Godec, Y., Perrillat, J.-P., **Clark, A.N.**, Morard, G., & Itié, J.-P. (2018) High speed tomography at extreme conditions at the PSICHE Beamline of SOLEIL Synchrotron. *Journal of Synchrotron Radiation*.
- Clark, A. N.**, and Leshner, C. E. (2017) Elastic properties of silicate melts: Implications for low velocity zones at the lithosphere-asthenosphere boundary. *Science Advances*. 3, e1701312.
- Morard, G., Nakajima, Y., Andrault, D., Antonangeli, D., Auzende, A.L., Boulard, E., Cervera, S., **Clark, A.N.**, Lord, O.T., Siebert, J., Svitlyk, V., Garbarino, G., & Mezouar, M. (2017) Structure and density of Fe-C liquid alloys under high pressure. *Journal of Geophysical Research: Solid Earth*. 122(10), 7813-7823.
- Morard, G., Andrault, D., Antonangeli, D., Nakajima, Y., Auzende, A.L., Boulard, E., Cervera, S., **Clark, A.N.**, Lord, O.T., Siebert, J., Svitlyk, V., Garbarino, G., & Mezouar, M. (2017) A volatile-rich Earth's core inferred from melting temperature of core materials. *Earth and Planetary Science Letters*. 437, 94-103.
- Clark, A. N.**, Leshner, C.E., Jacobsen, S.D., & Wang, Y. (2016) Anomalous density and elastic properties of basalt at high pressure: Implications for reduction of seismic velocity in the Earth's crust and upper mantle. *Journal of Geophysical Research: Solid Earth*. 121(6), 4232-4348.
- Clark, A.N.**, Leshner, C.E., Jacobsen, S.D., & Sen, S. (2014) Mechanisms of anomalous compressibility of vitreous silica. *Physical Review B*. 90, 174110

- Wang, Y., Leshner, C.E., Fiquet, G., Rivers, M.L., Nishiyama, N., Siebert, J., Roberts, J., Morard, G., Gaudio, J., **Clark, A.N.**, Watson, H., Menguy, N., & Guyot, F. (2011) In situ high-pressure and temperature x-ray microtomographic imaging during large deformation: A new technique for studying mechanical behavior of multi-phase composites. *Geosphere*. 7(1), 40-53.
- Leshner, C.E., Wang, Y.B., Gaudio, S.J., **Clark, A.N.**, Nishiyama, N., and Rivers, M.L. (2009) Volumetric properties of magnesium silicate glasses and supercooled liquids at high pressure by X-ray microtomography. *Physics of the Earth and Planetary Interiors*.174, 292-301.
- Zhang, P., Navrotsky, A., Guo, B., Kennedy, I., **Clark, A.N.**, Leshner, C., and Liu, Q. (2008) Energetics of Cubic and Monoclinic Yttrium Oxide Polymorphs: Phase Transitions, Surface Enthalpies, and Stability at the Nanoscale. *The Journal of Physical Chemistry C*, 112(4), 932-938.
- Sen, S., Soyer-Uzun, S., Gjersing, E.L., Aitken, B.G., Gaudio, S., **Clark, A.N.**, and Leshner, C.E. (2007) Pressure-induced instabilities of low-dimensional structural units in chalcogenide glasses at ambient temperature. *Journal of Optoelectronics and Advanced Materials*, 9(11), 3553-3557.

### Abstracts:

- Sarafian, A.R. **Clark, A. N.**, Jacobsen, S.D., Harrison, L., Davis, J.-P., & Tingley, J. (2020) Shockless ramp compression of Mg-silicate glasses: geophysical applications of pulsed power using Thor-64 and the Z-machine. *Glass and Optical Materials Division of the American Ceramic Society Annual Meeting*.
- Edmund, E., Antonangeli, D., Decremps, F., Miozzi, F., Morard, G., Boulard, E., **Clark, A.N.**, Ayrinhac, S., Gauthier, M., Morand, M., & Mezouar, M. (2019) Constraints on Inner Core Composition from the High-Pressure Sound Velocities and Thermal Equations of State of Fe-Si and Fe-Ni-Si Alloys. *AGU Annual Meeting*.
- Morard, G., Antonangeli, D., Bureau H., Miozzi, F., Boulard, E., **Clark, A.N.**, Boccato, S., Bouchet, J., Mezouar, M., Prescher, C., & Greenberg E., (2019) Structural transition in liquid FeO. *AGU Annual Meeting*.
- Miozzi, F., Morard, G., Antonangeli, D., **Clark, A.N.**, Baron, M.A., Mezouar, M., Pakhomova, A., & Fiquet, G. (2019) Phase relations and melting in a Fe-Si-C core: new constraints from experimental data. *AGU Annual Meeting*.
- Davis, J.-P., **Clark, A. N.**, Jacobsen, S.D., Lane, J.M., Cochrane, K.R., Townsend, J.P., & Sarafian, A.R. (2019) Shockless compression of hydrated silicate glasses. *SHOCK19 Meeting of The American Physical Society*.
- Clark, A. N.**, Jacobsen, S.D., & Leshner, C. E. (2018) Physical properties of volatile-rich silicate melts in the Earth and implications for seismic detection. *AGU Annual Meeting*. DI42A-06.
- Guignot, N., Manthilake, G., Boulard, E., Chantel, J., Xie, L., Yamazaki, D., Yoneda, A., **Clark, A.N.**, Perrillat, J.-P., Le Godec, Y., Xu, F., Morard, G., Prat, A., & Itié, J.-P. (2018) Recent Developments in HP-HT Materials Research Using Synchrotron Radiation at the PSICHE Beamline, Synchrotron SOLEIL. *AGU Annual Meeting*. MR21B-0062.

- Miozzi, F., Morard, G., Antonangeli, D., **Clark, A.N.**, Dorn, C., Rozel, A., Mezouar, M., Baron, M.A., Pakhomova, A., & Fiquet, G. (2017) Characterization of the Fe-Si-C system at extreme conditions and its application to carbon-rich exoplanets interior. *AGU Annual Meeting*. P42A-05.
- Miozzi, F., Morard, G., Antonangeli, D., **Clark, A.N.**, Dorn, C., Rozel, A., Mezouar, M., Baron, M.A., Pakhomova, A., & Fiquet, G. (2018) An experimental approach to investigate carbon rich exoplanets interior. *European Planetary Science Congress 2018*. EPSC2018-541.
- Clark, A. N.**, & Leshner, C. E. (2017) Experimental constraints on the degree of melting beneath tectonic plates. *AGU Annual Meeting*. DI21B-01.
- Miozzi, F., Morard, G., Antonangeli, D., **Clark, A.N.**, Edmund, E., Fiquet, G., Mezouar, M.A. (2017) On the interior of carbon-rich exoplanets: new insight from Si – C system at ultra-high pressure. *AGU Annual Meeting*. DI23B-07.
- King, A., Guignot, N., Boulard, E., Deslandes, J.-P., **Clark, A.N.**, Morard, G., & Itié, J.-P. (2017). Optimised Combined Angular and Energy Dispersive Diffraction at the PSICHE Beam Line of the SOLEIL Synchrotron for Fast, High Q-range Structure Determination at High Pressure and Temperature. *AGU Annual Meeting*. MR33E-03
- Boulard, E., King, A., Perrillat, J.-P., **Clark, A.N.**, Del Real, P. G., Guignot, N., Le Godec, Y., Morard, G., Deslandes, J.-P., & Itié, J.-P. (2017) High Speed X-ray imaging for studying behavior of liquids at high pressures and high temperatures. *High Pressure Mineral Physics Seminar-9*.
- Clark, A.N.**, Morard, G., Le Godec, Y., Guignot, N., & King, A. (2017) Densification mechanisms of amorphous silicates at high pressure and temperature. *High Pressure Mineral Physics Seminar-9*.
- Miozzi, F., Morard, G., Antonangeli, D., **Clark, A.N.**, Edmund, E., Fiquet, G., Mezouar, M.A. (2017) On the interior of carbon-rich exoplanets: new insight from Si – C system at ultra-high pressure. *High Pressure Mineral Physics Seminar-9*.
- Guignot, N., King, A., **Clark, A.N.**, Perrillat, J.-P., Boulard, E., Sanchez-Valle, C., & Itié, J.-P. (2017) Amorphous and liquid samples structure and density measurements at high pressure – high temperature using diffraction and imaging techniques. *High Pressure Mineral Physics Seminar-9*.
- Clark, A.N.**, Morard, G., Le Godec, Y., Guignot, N., & King, A. (2017) Densification mechanisms of amorphous silicates at high pressure and temperature. *Goldschmidt Annual Meeting*.
- Clark, A. N.**, Jacobsen, S.D., Leshner, C.E., & Wang, Y. (2017) Decoupling of the elastic and volumetric properties of silicate glasses at high pressure. *COMPRES Annual Meeting*.
- Clark, A. N.**, & Leshner, C. E. (2017) Elastic properties of silicate melt at high pressure and implications for seismic low velocity zones at the lithosphere-asthenosphere boundary. *Gordon Research Conference – Interior of the Earth*.
- Guignot, N., King, A., **Clark, A.N.**, Perrillat, J.-P., Boulard, E., Morard, G., Deslandes, J.-P., Itié, J.-P., Ritter, X., & Sanchez-Valle, C. (2016) Amorphous and liquid samples structure and density measurements at high pressure – high temperature using diffraction and imaging techniques. *Eos Trans, AGU, Fall Meeting*, Abstract MR23B.
- Morard, G., Andrault, D., Antonangeli, D., Nakajima, Y., Auzende, A.L., Boulard, E., Cervera, S., **Clark, A.N.**, Lord, O.T., Siebert, J., Svitlyk, V., Garbarino, G., & Mezouar, M. (2016) A volatile-rich Earth's core inferred from melting temperature of core materials. *Eos Trans, AGU, Fall Meeting*, Abstract MR34A.

- Boulard, E., King, A., Guignot, N., Le Godec, Y., **Clark, A.N.**, & Itié, J.-P. (2016) Tomographie-X ultra-rapide à haute pression et température. *10<sup>ème</sup> forum de technologie des hautes pressions*.
- Clark, A.N.**, Morard, G., Le Godec, Y., Guignot, N., & King, A. (2016) The anomalous behavior of silicate glasses and liquids on densification: A combined X-ray tomography and diffraction study at high pressure. *15<sup>ème</sup> Journées de la Matière Condensée*.
- Clark, A.N.**, Morard, G., Le Godec, Y., Guignot, N., & King, A. (2016) The anomalous behavior of silicate glasses and liquids on densification: A combined X-ray tomography and diffraction study at high pressure. *COMPRES Annual Meeting*.
- Clark, A. N.**, & Leshner, C.E. (2015) Elastic properties of silicate melts at high pressure and implications for low velocity anomalies in the crust and mantle. *AGU Annual Meeting*.
- Leshner, C.E., Gaudio, S., **Clark, A.N.**, & O'Dwyer-Brown, L. (2015) The supercooled liquid at high pressure – the missing link? *Goldschmidt Annual Meeting*.
- Clark, A. N.**, Leshner, C.E., Jacobsen, S.D., Yu, T., & Wang, Y. (2015) Pressure dependent elastic properties of amorphous silicates by GHz frequency ultrasonic interferometry and high pressure X-ray microtomography. *COMPRES Annual Meeting*.
- Clark, A. N.**, Leshner, C.E., Jacobsen, S.D., & Wang, Y. (2015) Anomalous density and elastic properties of basalt at high pressure: Implications for reduction of seismic velocity in the Earth's crust and upper mantle. *Gordon Research Conference – Interior of the Earth*.
- Clark, A. N.**, Leshner, C.E., Jacobsen, S.D., Yu, T., & Wang, Y. (2014) Volumetric and elastic properties of basalt at high pressure by X-ray microtomography and GHz-ultrasonic interferometry. *Eos Trans, AGU, Fall Meeting*, Abstract MR33A-4368.
- Clark, A. N.**, Leshner, C.E., Jacobsen, S.D., & Wang, Y. (2014) Pressure dependent elastic properties of basalt by GHz frequency ultrasonic interferometry and high pressure X-ray microtomography. *COMPRES Annual Meeting*.
- Clark, A. N.**, Jacobsen, S.D., & Leshner, C.E. (2014) Pressure Dependent Elastic Properties of Basalt by GHz Frequency Ultrasonic Interferometry. *Goldschmidt Annual Meeting*.
- Clark, A. N.**, Jacobsen, S.D., Sen, S., Wang, Y., & Leshner, C.E., (2013) The physical and elastic properties of silicate melts at high pressure: New insights from high pressure X-ray microtomography and gigahertz ultrasonic interferometry, *CIDER 2013 Summer Program*
- Clark, A. N.**, Jacobsen, S.D., Sen, S., Wang, Y., & Leshner, C.E., (2012) Time-dependent elastic relaxation in vitreous silica: Combined synchrotron microtomography and diamond anvil cell ultrasonic measurements, *Eos Trans, AGU, Fall Meeting*, Abstract DI13D-2445.
- Clark, A. N.**, Jacobsen, S.D., Sen, S., & Leshner, C.E. (2012) The time-dependent volume relaxation in vitreous silica characterized by Gigahertz ultrasonic interferometry. *COMPRES Annual Meeting*
- Clark, A. N.**, Leshner, C.E., Sen, S., Jacobsen, S.D., & Wang, Y. (2012) Anomalous compressibility of  $\nu$ -SiO<sub>2</sub> illuminated: Polyamorphism and the effect of hydration. *Glass and Optical Materials Division of the American Ceramic Society Annual Meeting*.
- Clark, A.N.**, Leshner, C.E., Sen, S., Jacobsen, S.D., & Wang, Y., (2011) The effect of hydration on the anomalous compressibility of vitreous silica characterized by high pressure X-ray microtomography and GHz ultrasonic interferometry. *AGU Fall Meeting*
- Gleason, A.E., **Clark, A.N.**, Mao, W.L., & Leshner, C.E. (2011) Effect of hydration on elasticity of vitreous silica, *AGU Fall Meeting Abstracts* 1, 03
- Clark, A. N.**, Leshner, C.E., Sen, S., Jacobsen, S.D., & Wang, Y. (2011) Anomalous compressibility of vitreous silica characterized by high pressure X-ray microtomography

- and GHz ultrasonic interferometry. *COMPRES Annual Meeting*.
- Clark, A. N.**, Leshner, C.E., Sen, S., Gaudio, S.J., & Wang, Y. (2010) Compressibility of vitreous silica by high pressure X-ray microtomography, *Eos Trans, AGU, Fall Meeting*, Abstract MR31A-1975
- Leshner, C.E., Gaudio, S., Brown, L. O., **Clark, A.**, Sen, S., Yamada, A., & Wang, Y. (2010) On the transport properties of silicate melts at high pressure, *Eos Trans, AGU*, 91 (26), *West. Pac. Geophys. Meet. Suppl.*, Abstract V33C-06
- Clark, A. N.**, Leshner, C.E., Gaudio, S.J., & Wang, Y. (2010) Compressibility of Vitreous Silica by High Pressure X-ray Microtomography. *COMPRES Annual Meeting*
- Clark, A. N.**, Leshner, C.E., Gaudio, S.J., Yamada, A., & Wang, Y. (2009) Density of BCR-2 basalt glass at high pressure by X-ray Absorption Microtomography, *Eos Trans, AGU*, 90 (52), *Fall Meet. Suppl.*, Abstract MR13A-1669
- Clark, A. N.**, Leshner, C.E., Gaudio, S.J., & Wang, Y. (2009) Density determinations using high pressure X-ray microtomography. *COMPRES Annual Meeting*.
- Yamada, A., Leshner, C.E., Wang, Y., Gaudio, S.J., **Clark, A.**, & Sanehira, T. (2009) Volumetric property of MgSiO<sub>3</sub> glass with pressure. *AIRAPT Conference*.
- Leshner, C.E., Wang, Y., Gaudio, S., **Clark, A.**, Yamada, A., Sanehira, T. & Rivers, M. (2009) X-ray microtomography at high pressure. *AGU Spring Meeting Abstracts 1*, 04.
- Watson, H.C., Roberts, J.J., Wang, Y., Leshner, C.E., **Clark, A.**, Hilairret, N., & Sanehira, T. (2009) Rapid segregation of core-forming melts; X-ray tomographic imaging of melt geometry. *AGU Spring Meeting Abstracts 1*, 03.
- Leshner, C.E., **Clark, A.**, Walker, R., Egbert, H., Wang, Y., Zhang, J., & Zhao Y. (2009) Opportunities for neutron radiography and tomography in the Earth Sciences. *AGU Spring Meeting Abstracts 1*, 03.
- Wang, Y., Leshner, C.E., Gaudio, S., Clark, A., Roberts, J., Sanehira, T., & Watson, H. (2008) High pressure tomography in studies of core formation mechanisms. *AGU Fall Meeting Abstracts 1*, 1800.
- Leshner, C.E., Wang, Y., Gaudio, S.J., **Clark, A.**, Sanehira, T., Yamada, A., & Roberts, J. (2008) X-ray microtomography under extreme conditions. *Goldschmidt Conference*.
- Leshner, C.E., Wang, Y., Gaudio, S.J., **Clark, A.**, & Rivers, M. (2007) PVT equation of state of glasses and melts by X-ray microtomography and absorption. *Goldschmidt Conference*.
- Condrón, C.L., Varga, T., **Clark, A.**, Leshner, C.E., Navrotsky, A., Kauzlarich, S.M. (2006) INOR 361-Thermodynamics of the silicon type I clathrates: Ba<sub>8</sub>Si<sub>46</sub> and Na<sub>8</sub>Si<sub>46</sub>. Abstract of the papers of the *American Chemical Society*. 232.
- O'Dwyer, L., Leshner, C.E., Baxter, G., **Clark, A.**, Fuss, T., Tangeman, J. & Wang, Y. (2005) Rheological Studies of Komatiite Liquids by In-Situ Falling Sphere Viscometry. *AGU American Fall Meet. Suppl.*, Abstract MR13A-0062