

PHILIP S. NEUHOFF

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EDUCATION

Ph.D. Geological and Environmental Sciences, Stanford University, Stanford, CA 2000
 B.S. Geology (Highest Honors), The University of Iowa, Iowa City, Iowa 1993

AWARDS

U. S. Environmental Protection Agency S.T.A.R. Graduate Fellow 1997-1999
 National Science Foundation Graduate Fellow 1993-1996
 Geological Society of America Research Award 1995
 Loudon Award (top undergraduate field geology student, University of Iowa) 1993
 Mineralogical Society of America Undergraduate Award 1992
 Phi Beta Kappa 1992

POSITIONS

Affiliate Faculty, School of Natural Resources and the Environment, U. Florida	2004-present
Assistant Professor, Department of Geological Sciences, University of Florida	2001-present
Instructor, NORFA Volcanic Rifted Margins Short Course, Greenland	2001
Postdoctoral Research Assistant, Stanford University, Stanford, California	2000-2001
Teaching Assistant, Stanford University, Stanford, California	1996-1997
Research Assistant, Stanford University, Stanford, California	1993-1999
Geologist, Geological Survey of Denmark and Greenland, Copenhagen, Denmark	1995, 1997
Geologist, Danish Lithosphere Centre, Copenhagen, Denmark	1995
Research Assistant, Oak Ridge National Laboratory, Oak Ridge, Tennessee	1992-1993
Research Assistant, Iowa Geological Survey Bureau, Iowa City, Iowa	1992
Research Assistant, Oak Ridge National Laboratory, Oak Ridge, Tennessee	1991
Research Assistant, The University of Iowa, Iowa City, Iowa	1989-1992

PROFESSIONAL LEADERSHIP

Councilor, International Natural Zeolite Association	2006-2014
Short Course Committee, Mineralogical Society of America	2007-2009

COURSES TAUGHT*University of Florida*

Introduction to Earth Science (Fall 2002, Spring 2004, Fall 2004, Spring, 2007)

Exploring the Geological Sciences (Spring 2002)

Physical Geochemistry (Spring 2003, Spring 2005, Spring 2006, Spring 2008)

Geochemistry (Fall 2003, Fall 2005, Fall 2006, Fall 2007)

Stanford University

Solution-Mineral Equilibria (Winter 1997)

Geochemical Thermodynamics (Winter 1996, Fall 1996)

RESEARCH FUNDING

“Site Specific Energetics of Water in Rock-Forming Zeolites” NSF-EAR, \$203,298, 01/01/04-12/31/06

PUBLICATIONS***Journal Articles***

Wang, J., and Neuhoff, P.S., 2007, Thermodynamics of analcime dehydration. *American Mineralogist*, *in press*.

Wang, J., and Neuhoff, P.S., 2007, Anomalous temperature dependence of the heat of hydration in natrolite. *Open Mineralogy Journal*, *submitted*.

Neuhoff, P.S., and Wang, J., 2007, Heat capacity of hydration in zeolites. *American Mineralogist*, v. 87, p. 1307-1320.

Neuhoff, P.S., and Wang, J., 2007, Isothermal measurement of heats of hydration in zeolites by simultaneous thermogravimetry and differential scanning calorimetry. *Clays and Clay Minerals*, v. 55, p. 239-252.

Neuhoff, P.S., Rogers, K.A., Stannius, L.S., Bird, D.K., and Pedersen, A.K., 2006, Regional Very Low-Grade Metamorphism of Basaltic Lavas, Disko-Nuussuaq Region, West Greenland. *Lithos*, v. 92, p. 33-54.

- Rogers, K.A., Neuhoff, P.S., Pedersen, A.K., and Bird, D.K., 2006, CO₂ metasomatism in a basalt-hosted petroleum reservoir, Nuussuaq, West Greenland. *Lithos*, v. 92, p. 55-82.
- Neuhoff, P.S., and Ruhl, L.S., 2006, Mechanisms and geochemical significance of Si-Al substitution in zeolite solid solutions. *Chemical Geology*, v. 225, p. 373-387.
- Fridriksson, Th., Neuhoff, P.S., Viani, B.E., and Bird, D.K., 2004, Binary ion-exchange experiments on heulandite at 55 and 85 °C involving Ca²⁺, Sr²⁺, Na⁺, and K⁺. *American Journal of Science*, v. 304, p. 287-332.
- Neuhoff, P.S., Hovis, G.L., Balassone, G., and Stebbins, J.F., 2004, Thermodynamic properties of analcime solid solutions. *American Journal of Science*, v. 304, p. 21-66.
- Fridriksson, Th., Carey, J.W., Bish, D.L., Neuhoff, P.S., and Bird, D.K., 2003, Hydrogen-bonded water in laumontite II: Experimental determination of site-specific thermodynamic properties of hydration of the W1 and W5 sites. *American Mineralogist*, v. 88, p. 1060-1072.
- Neuhoff, P.S., Stebbins, J.F., and Bird, D.K., 2003, Si-Al disorder and solid solutions in analcime, chabazite, and wairakite. *American Mineralogist*, v. 88, p. 410-423.
- Neuhoff, P.S., Kroeker, S., Du, L.-S., Fridriksson, Th., and Stebbins, J.F., 2002, Order/disorder in natrolite group zeolites: A ²⁹Si and ²⁷Al MAS NMR study. *American Mineralogist*, v. 87, p. 1307-1320.
- Neuhoff, P.S., Zhao, P., and Stebbins, J.F., 2002, Effect of Extraframework Species on ¹⁷O NMR Chemical Shifts in Zeolite A. *Microporous and Mesoporous Materials*, v.55, p. 239-251.
- Stebbins, J.F., Du, L.-S., Kroeker, S., Neuhoff, P., Rice, D., Frye, J., Jakobsen, H.J., 2002, New opportunities for high-resolution solid-state NMR spectroscopy of oxide materials at 21.1 and 18.8 Tesla fields. *Solid State Nuclear Magnetic Resonance*, v. 2, p. 105-115.
- Fridriksson, Th., Neuhoff, P.S., Arnorsson, S., and Bird, D.K., 2001, Geologic constraints on the thermodynamic properties of stilbite-stellerite solid solutions in low-grade metabasalts. *Geochimica et Cosmochimica Acta*, v. 65, p. 3993-4008.
- Neuhoff, P.S., and Stebbins, J.F., 2001, A Solid Solution Model for Si-Al Substitution in Disordered FAU and LTA Zeolites. *Microporous and Mesoporous Materials*, v. 49, p. 139-148.
- Zhao, P., Neuhoff, P.S., and Stebbins, J.F., 2001, Comparison of FAM to conventional shifted echo ¹⁷O MQMAS NMR pulse sequences for resolution of oxygen sites in zeolites. *Chemical Physics Letters*, v. 344, p. 325-332.

- Sleep, N.H., Zahnle, K., and Neuhoff, P.S., 2001, Initiation of clement surface conditions on the earliest Earth. *Proceedings of the National Academy of Sciences*, v. 98, p. 3666-3672.
- Kroeker, S., Neuhoff, P.S., and Stebbins, J.F., 2001, Enhanced resolution and quantification from “ultrahigh” field NMR spectroscopy of glasses. *Journal of Non-Crystalline Solids*, v. 293-295, p. 440-445.
- Heister, L.E., O’Day, P.A., Brooks, C.K., Neuhoff, P.S., and Bird, D.K., 2001, Pyroclastic deposits within the East Greenland Tertiary Flood Basalts. *Journal of the Geological Society of London*, v. 158, p. 269-284.
- Neuhoff, P.S., and Bird, D.K., 2001, Partial dehydration of laumontite: thermodynamic constraints and petrogenetic implications. *Mineralogical Magazine*, v. 65, p. 59-70.
- Neuhoff, P.S., Fridriksson, Th., and Bird, D.K., 2000, Zeolite Parageneses in the North Atlantic Igneous Province: Implications for Geotectonics and Groundwater Quality of Basaltic Crust. *International Geology Review*, v. 42, p. 15-44. Reprinted in Ernst, W.G., Ed., *Frontiers in Geochemistry: Global Inorganic Geochemistry (Konrad Krauskopf Volume 1)*, Geological Society of America, International Book Series vol. 5, p. 271-300.
- O’Day, P.A., Newville, M., Neuhoff, P.S., Sahai, N., and Carroll, S.A., 2000, X-ray absorption spectroscopy of strontium(II) coordination. I. Static and thermal disorder in crystalline, hydrated, and precipitated solids and in aqueous solution. *Journal of Colloid and Interface Science*, v. 222, p. 184-197.
- Neuhoff, P.S., Fridriksson, T., Arnórsson, S., and Bird, D.K., 1999, Porosity changes and mineral paragenesis during low-grade metamorphism at Teigarhorn, eastern Iceland. *American Journal of Science*, v. 299, p. 467-501.
- Christiansen, F.G., Boesen, A., Bojesen-Koefoed, J., Dallhoff, F., Dam, G., Neuhoff, P.S., Pedersen, A.K., Pedersen, G.K., Stannius, L.S., and Zinck-Joergensen, K., 1999, Petroleum geological activities onshore West Greenland in 1997. *Geology of Greenland Survey Bulletin*, v. 180, p. 10-17.
- Neuhoff, P.S., Watt, W.S., Bird, D.K., and Pedersen, A.K., 1997, Timing and Structural Relations of Regional Zeolite Zones in Basalts of the East Greenland Continental Margin. *Geology*, v. 25, p. 803-806.
- Lutz, R., Garnica, A., Shires, A., Freneaux, E., De Vivo, D., Neuhoff, P., and Rhead, W.J., 1991, An atypical case of cytochrome c oxidase deficiency with biochemical heterogeneity in fibroblasts. *Neurology*, v. 41, p.1957-1960.

Articles Submitted

Gustavson, J.E., and Neuhoff, P.S., 2006, Regional distribution of very low-grade metamorphic assemblages in the North Shore Volcanic Group, Minnesota, USA. *Submitted to Mineralogical Magazine, in revision.*

González, L. A., Neuhoff, P. S., Larue, D. K., Uribe, R. M., and Ruiz, H. M., Diagenesis of hydrocarbon bearing concretions in south-central Puerto Rico: Tectonism and early hydrocarbon generation. *American Association of Petroleum Geologists Bulletin, in revision.*

Reviewed Extended Abstracts

Arnórsson, S., and Neuhoff, P.S., 2007, Zeolite saturation in surface and <100°C ground waters in Tertiary basalt province, Iceland. 12th Symposium on Water-rock Interaction, *in press.*

Fridriksson, Th., Neuhoff, P.S., Bird, D.K., and Arnórsson, S., 1999, Clays and zeolites record alteration history at Teigarhorn, eastern Iceland. *in* Ármannsson, H., ed., Proceedings of the Fifth International Symposium on Geochemistry of the Earth's Surface, p. 377-380.

Book Reviews

Neuhoff, P.S., 2002, Book Review of *Natural Zeolites: Occurrence, Properties, Applications*, *American Mineralogist*, v. 87, p. 1737-1738.

Abstracts

Ruhl, L.S., Neuhoff, P.S., and Hovis, G.L., 2007, Thermodynamics of borax-tinalconite equilibrium. *Geological Society of American Abstracts with Programs*, v. 39, p. 465.

Atalan, G.S., and Neuhoff, P.S., 2007, Temperature dependence of hysteretic hydration/dehydration of the W1 site in laumontite. *Book of Abstracts, 44th Annual Meeting of the Clay Minerals Society*, p. 45.

Neuhoff, P.S., Wang, J., and Atalan, G.S., Solvus models for hysteresis in water adsorption/desorption by zeolites and other mineral hydrated: Evidence from thermal analysis and thermodynamic modeling. *Book of Abstracts, 44th Annual Meeting of the Clay Minerals Society*, p. 128.

Wang, J., and Neuhoff, P.S., 2007, Thermodynamic model of analcime dehydration. *Book of Abstracts, 44th Annual Meeting of the Clay Minerals Society*, p. 166.

Fridriksson, Th., Arnórsson, S., Neuhoff, P.S., and Bird, D.K., 2007, Ion exchange in natural heulandite: Experiments under geologically-relevant conditions and equilibrium with Icelandic geothermal solutions. *Clay Minerals Society 44th Annual Meeting, Santa Fe, NM*, p. 92.

- Neuhoff, P.S., 2006, Mixed dioctahedral-trioctahedral smectites as indicators of reaction progress and metamorphic grade in very low-grade metabasites. *Geological Society of America Abstracts with Programs*, v. 38, p. 294.
- Neuhoff, P.S., and Wang, J., 2006, Direct measurement of partial molar heats of hydration in zeolites by differential scanning calorimetry. *Book of Abstracts, Zeolite '06 (7th International Conference on the Occurrence, Properties, and Utilization of Natural Zeolites)*, p. 188-189.
- Wang, J., and Neuhoff, P.S., 2006, Temperature dependence of heat in hydration of natrolite and analcime. *Book of Abstracts, Zeolite '06 (7th International Conference on the Occurrence, Properties, and Utilization of Natural Zeolites)*, p. 251-252.
- Hovis, G.L., and Neuhoff, P.S., 2006, Thermodynamic properties of natrolite. *Book of Abstracts, Zeolite '06 (7th International Conference on the Occurrence, Properties, and Utilization of Natural Zeolites)*, p. 134-135.
- Atalan, G., and Neuhoff, P.S., 2006, Reversible conversion of tetranatrolite to paranatrolite under ambient conditions. *Book of Abstracts, Zeolite '06 (7th International Conference on the Occurrence, Properties, and Utilization of Natural Zeolites)*, p. 50-51.
- Neuhoff, P.S., and Gustavson, J.E., 2006, Coupling between mineralogical alteration, porosity evolution, and fluid flow in low-grade metabasalts. *Ridge 2000 Theoretical institute 2006 Poster Abstracts*, p. 43.
- Neuhoff, P.S., 2005, Thermodynamic and structural models of pollucite-analcime solid solutions. *Goldschmidt 2005 Conference Abstracts, in Geochimica et Cosmochimica Acta*, v. 69 (Supp. 1), p. A412.
- Gustavson, J.E., and Neuhoff, P.S., 2005, Pore-scale coupling of dissolution, diffusion, and crystallization forces during alteration of vesicular lavas. *Goldschmidt 2005 Conference Abstracts, in Geochimica et Cosmochimica Acta*, v. 69 (Supp. 1), p. A314.
- Neuhoff, P.S., 2005, Role of Si-Al order disorder on the behavior of zeolite solid solutions: Integrating calorimetric, spectroscopic, statistical mechanical, and phase equilibrium studies. *American Chemical Society 2005 Spring Meeting, Abstract PHYS 574. (INVITED)*
- Neuhoff, P.S., and Spear, J.E., 2004, Pore size controls on the temporal evolution of porosity in reacting basalts. *Eos (Transactions, American Geophysical Union)*, v. 85, Fall Meeting Supplement, Abstract H13I-02.
- Neuhoff, P.S., and Keddy, S.M., 2004, Heat capacity of intra-crystalline water molecules in zeolites. *Geological Society of America Abstracts with Programs*, v. 36, p. 260.

- Spear, J.E., and Neuhoff, P.S., 2004, Digital analysis of pore space controls on the development of secondary mineral assemblages in basaltic lavas. Geological Society of America Abstracts with Programs, v. 36, p. 144.
- Neuhoff, P.S., Bird, D.K., Rogers, K.A., Stannius, L.S., and Pedersen, A.K., 2004, Regional metamorphic mineral patterns in the lavas of Nuussuaq and Disko, West Greenland. *In* Tegner, C., and Bernstein, S., Four Decades of Geological Research in the Tertiary Igneous Province of West Greenland, A Symposium in Honor of C. Kent Brooks, p. 50-52.
- Neuhoff, P.S., 2004, Zeolite solid solutions as buffers of the chemical potential of SiO₂. Goldschmidt 2004 Conference Abstracts, *in* Geochimica et Cosmochimica Acta, v. 68 (Supp. 1), p. A90.
- Neuhoff, P.S., 2003, Simultaneous Thermal Analysis Techniques for Determining the Energetics of Water in Mineral Hydrates. Eos (Transactions, American Geophysical Union), v. 84, Fall Meeting Supplement, Abstract V51H-0384.
- Neuhoff, P.S., Hovis, G.L., and Stebbins, J.F., 2003, Si-Al order-disorder in analcime and natrolite. EUROCLAY 2003 Abstracts, p. 206-207.
- Fridriksson, Th., Carey, J.W., Neuhoff, P.S., Bish, D.L., and Bird, D.K., 2003, Site-Specific Thermodynamic Properties of Hydrogen-Bonded Water in the Zeolite Laumontite. EUROCLAY 2003 Abstracts, p. 102.
- Hovis, G. L., Neuhoff, P., Balassone, G., and Stebbins, J., 2003, Effects of composition and disorder on the enthalpy of formation of analcime. EGS-AGU-EUG Joint Assembly, Scientific Programme, Geophysical Research Abstracts, v. 5, abstract 13967.
- Neuhoff, P.S., and Bird, D.K., 2002, Temperature-chemical potential gradients reflected in very low-grade metamorphic mineral assemblages in volcanic rocks. Geological Society of America Abstracts with Programs, v. 34, p. 342.
- Fridriksson, Th., Carey, J.W., Neuhoff, P.S., Bish, D.L., and Bird, D.K., 2002, Experimental determination of thermodynamic properties of zeolitic water on the W5 site in laumontite. 18th General Meeting of the International Mineralogical Association, Programme with Abstracts, p. 204.
- Neuhoff, P.S., Bird, D.K., and Stebbins, J.F., 2001, Athermal solid solution models for Si-Al substitution in analcime and chabazite. Geological Society of America Abstracts with Programs, v. 33, p. A232.
- Fridriksson, Th., Bish, D.L., Carey, J.W., Neuhoff, P.S., and Bird, D.K., 2001, A structural and thermal study of hydration/dehydration in laumontite. Geological Society of America Abstracts with Programs, v. 33, p. A384.

- Neuhoff, P.S., Zhao, P., Kroeker, S., and Stebbins, J., 2000, Resolution of Framework and Water Oxygen Sites in Zeolites Through ^{17}O MAS and Multiple Quantum MAS NMR. *Eos (Transactions, American Geophysical Union)*, v. 81, p. 1297.
- Oglesby, J.V., Neuhoff, P., Kroeker, S., and Stebbins, J.F., 2000, Characterization of the H_2O sites in Aluminosilicate Glasses using O-17 NMR. *EOS (Transactions, American Geophysical Union)*, v. 81, p. 1326.
- Neuhoff, P.S., and Stebbins, J.F., 2000, Configurational entropies and activity-composition relationships for disordered zeolites determined by cluster variation analysis of ^{29}Si MAS NMR data. *Geological Society of America Abstracts with Programs*, v. 32, p. A290.
- Fridriksson, T., Neuhoff, P.S., and Bird, D.K., 2000, Solid solution in stilbite: a potential geothermometer in very low-grade metabasalts. *Geological Society of America Abstracts with Programs*, v. 32, p. A289.
- Neuhoff, P.S., and Bird, D.K., 1999, Partial dehydration of laumontite: thermodynamic constraints and petrogenetic implications. *Geological Society of America Abstracts with Programs*, v. 31, p. A221.
- Fridriksson, Th., Neuhoff, P.S., and Bird, D.K., 1999, Ion exchange equilibria between heulandite and geothermal fluids. *Geological Society of America Abstracts with Programs*, v. 31, p. A27.
- Neuhoff, P.S., Fridriksson, Th., Arnorsson, S., and Bird, D.K., 1998, Paragenetic stages and porosity changes during zeolite facies metamorphism at Teigarhorn, eastern Iceland. *EOS (Transactions, American Geophysical Union)*, v. 79, p. 999.
- Neuhoff, P.S., and Bird, D.K., 1997, Method of characteristics algorithms for estimation of apparent standard molar thermodynamic properties for rock-forming zeolites. *EOS (Transactions, American Geophysical Union)*, v. 78, p. 835.
- Heister, L.E., O'Day, P.A., Bird, D.K., and Neuhoff, P.S., 1997, Phonolitic Pyroclastic Rocks of the Early Tertiary East Greenland Plateau Basalts. *EOS (Transactions, American Geophysical Union)*, v. 78, p. 827.
- Neuhoff, P.S., and Bird, D.K., 1997, Mineralogic constraints on aquifer geochemistry during regional zeolite facies metamorphism of Icelandic basalts. *Geological Society of America Abstracts with Programs*, v. 29, p. A449.
- Neuhoff, P.S., Watt, W.S., Bird, D.K., and Pedersen, A.K., 1996, Heat Flow and Structural Evolution of a Rifted Continental Margin: Implications of Regional Zeolite Zones in the East Greenland Basalt Plateau, *EOS*, v. 77, p. F825.

Pedersen A.K., Larsen L.M., Watt, W.S., Neuhoff, P., and Larsen, H.C., 1996, Syn- and Post-Volcanic Structural Development of the Early Tertiary Plateau Basalts of the Blossville Kyst, East Greenland, EOS, v. 77, p. F826.

Tingle, T.N., Neuhoff, P.S., Ostergren, J.D., Jones, R.E., and Donovan, J.J., 1996, The effect of 'missing' (unanalyzed) oxygen on quantitative electron microprobe microanalysis of hydrous silicate and oxide minerals. Geological Society of America, Abstracts with Programs, v. 28, p. A-212.

Neuhoff, P.S., Bird, D.K., and O'Day, P.A., 1995, Incorporation of strontium and barium into natural heulandites during basalt-meteoric water interaction, eastern Iceland. Geological Society of America, Abstracts with Programs, v. 27, p. 253.

Neuhoff, P. S., and Bird, D. K., 1994, Theoretical analysis of laumontite stability in organic acid-rich fluids. Geological Society of America, Abstracts with Programs, v. 26, p. A-278.

Neuhoff, P. S., Lemiszki, P.J., and Dreier, R.B., 1993, Geologic characterization of permeable groundwater intervals defined by electromagnetic borehole flowmeter surveys on the Oak Ridge Reservation. Geological Society of America, Abstracts with Programs, v. 25, p. 59.

Lemiszki, P.J., Neuhoff, P.S., and Dreier, R.B., 1993, Core analysis combined with electromagnetic borehole flowmeter surveys is an effective way to document transmissive geologic structures. *in* Fourth National Technology Information Exchange (TIE) Workshop, Office of Environmental Restoration, United States Department of Energy, p. 41-42.

Rubin, P. A., B. Zerr, G. J. Davies, P. J. Lemiszki, P. S. Neuhoff, and J. Aiken, 1993, Preliminary hydrogeologic studies in carbonate aquifers of the Oak Ridge Reservation, Tennessee. *in* Fourth Annual Walker Branch Watershed Research Symposium Programs and Abstracts.

INVITED LECTURES

Stanford University
Lafayette College
University of Florida

STUDENT SUPERVISION

Graduate Student Advisees

Jane E. (*nee* Spear) Gustavson (M.S., 2006)
Wang Jie (M.S., 2006; Ph.D., expected 2010)
Ryan Francis (M.S.T., 2006)
Gökçe Senem Atalan (Ph.D., expected 2010)
Laura S. Ruhl (M.S., expected 2008)

Graduate Student Committee Service

Christian O. George (M.S., 2002)
Samuel Coyner (M.S., 2003)
Lauren A. Smith (M.S., 2003)
Gary Blitch (M.S., 2004)
James Scott Gregory (M.S., 2005)
Joann Labs (Ph.D., 2005)
Cara Rothfus (M.S., 2006)
Virginia Newman (M.S., 2008)
Paul J. Moore (Ph.D., expected 2007)
Laurie Cotsonika (M.S., 2006)
Warren C. Grice (M.S., 2006)
Susanna Blair (M.S., 2006)
Moutusi Roy (Ph.D., expected 2007)
Alice Hildick (M.S., 2006)
Rachel Wendt (M.S., expected 2007)
Alejandro Gallego (Ph.D., expected 2009)
Jennifer Gifford (M.S., 2008)
Chandranath Basak (Ph.D., expected 2010)
Elodie Bourbon (M.S., expected 2008)
Luis Campos (M.S. in Civil Engineering, 2007)

Undergraduate Student Advisees

Scott M. Keddy (2004- 2005)
Laura S. Ruhl (2004 - present)
Danika Globokar (2005 –present)
Cameron A. Ryan (2005)
Syed Abbas (2008-present)

Secondary Student Advisees

Han Zhu (Summer 2005)
Alexa Goldman (2007)

UNIVERSITY AND PROFESSIONAL SERVICE

Faculty Senate (2008)
Chair, Program Committee, International Natural Zeolite Association (2007)
Aqueous Geochemistry Ontology Committee for GEON (2004-present)
Biogeochemistry Search Committee (2003)
Department Awards Committee-University of Florida (2002-present)

Department Graduate Committee-University of Florida (2002-present)

Freshman Advisor-Stanford University (2000-2001)

Reviewer for: American Mineralogist; Canadian Mineralogist; Ocean Drilling Program;
Chemical Geology; Terrestrial, Atmospheric, and Oceanic Sciences; Geology of
Greenland Survey Bulletin; Clays and Clay Minerals; Applied Geochemistry;
Geochimica et Cosmochimica Acta; American Journal of Science, Astrobiology,
Proceedings of the National Academy of Sciences, National Science Foundation,
Microporous and Mesoporous Materials, Journal of Volcanology and Geothermal
Research, National Science Foundation; Contributions to Mineralogy and Petrology,
Kuwaiti Journal of Science and Engineering