

Sorena Svea Sorensen

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Education

5/78 BA, Geology, Pomona College, Claremont, California

3/84 PhD, Geology, University of California, Los Angeles

Employment

1997-present: Geologist, GS-15, Department of Mineral Sciences, NMNH

1992-1997: Geologist, GS-14, NMNH

1989-1992: Geologist, GS-13, NMNH

1986-1989: Geologist, GS-12, NMNH

1984-1986: Geologist, GS-11, NMNH

January-August 1984: Postdoctoral Researcher, UCLA

Editorships, Awards, Honors, Etc.

2001 Appointed Research Associate, American Museum of Natural History

2001 Appointed Adjunct Associate Professor, Department of Geology, University of Maryland

2000-present, Advisory Board, *Journal of Petrology*

1994-2000, Editor, *Journal of Petrology*

1993-present, Member, Editorial Review Board, *Journal of Metamorphic Geology*

1999 Appointed Fellow, Mineralogical Society of America

1993 Appointed Fellow, Geological Society of America

1992-1993 Mineralogical Society of America Lecturer

1984 Association of Academic Women, UCLA, "Graduate Women of the Year" Award

1979-1983 National Science Foundation Graduate Fellowship

1978-1979 Regents' Fellowship, University of California

1978 Richard E. Strahle Award, Pomona College, "For outstanding promise as a field geologist."

Professional Societies

Sigma Xi, 1978-present

Geological Society of America, 1980-present

Mineralogical Society of America, 1980-present

Councilor, 1999-2001

Nominating Committee 2005-2008

Membership Committee, Chair, 2008

Geological Society of Washington, 1984-present

Councilor, 1986-1987

Meeting Secretary 1988

Council Secretary 1989

Chair, Program Committee 1990

First-Vice President and President-Elect 1997

President 1998

American Geophysical Union 1990-present

Grants from non-Smithsonian Institution funding agencies

Low-T, Fluid-Ashflow-Tuff Interactions: How rock textures, chemistry, and mineralogy reflect reaction pathways and influence rock behavior upon reheating. U.S. Department of Energy, DE-FG02-00ER15070: 8/00-7/02 awarded \$88,466, June 2000. NSF EAR-0309320, Petrogenesis of jadeitite and other high pressure rocks in serpentinites, Motagua Fault Zone, Guatemala, awarded \$55690 1/04-12/07.

Exhibits

1989-1998 Curator of “Rocks” and “Plate Tectonics” Galleries, Janet Annenberg Hooker Hall of Geology, Gems and Minerals, National Museum of Natural History.

Field Work

Sierra Nevada, Santa Catalina Island, and Coast Ranges, California; Eastern Nevada; Rio San Juan region and Samana Peninsula, Dominican Republic; Northwestern Cascades, Washington State; Cordillera de la Costa and Isla Margarita, Venezuela; Khamti region, Myanmar (Burma), Motagua Valley, Sierra de las Minas, Jalapa and environs, Guatemala.

Five Most Significant Publications

- 1989 Sorensen, S.S., and Grossman, J.N., Enrichment of trace elements in garnet amphibolites from a paleo-subduction zone: Catalina Schist, California. *Geochimica Cosmochimica Acta* 53: 3155-3177.
- 1991 Sorensen, S.S., Petrogenetic significance of zoned allanite in garnet amphibolites from a paleo-subduction zone: Catalina Schist, southern California. *American Mineralogist* 76: 589-601.
- 1994 Giaramita M.J. and Sorensen S.S., Primary fluids in low-temperature eclogites: evidence from two subduction complexes (Dominican Republic, and California, USA). *Contributions to Mineralogy and Petrology* 117: 279-292.
- 1997 Sorensen S.S., Grossman J.N. and Perfit M.J., Phengite-hosted LILE enrichment in eclogite and related rocks: implications for fluid-mediated mass transfer in subduction zones and arc magma genesis. *Journal of Petrology* 38: 3-34.
- 2000 Catlos, E.J., Sorensen, S.S., and Harrison, T.M., Th-Pb ion microprobe dating of allanite. *American Mineralogist* 85: 633-648.
- 2003 Catlos, E.J., and Sorensen, S.S., Phengite-based Chronology of K- and Ba-Rich Fluid Flow in Two Paleosubduction Zones. *Science* 299: 92-95.
- 2006 Sorensen, S.S., Harlow, G.E., and Rumble III, D. The origin of jadeitite-forming subduction-zone fluids: CL-guided SIMS oxygen-isotope and trace element evidence. *American Mineralogist* 91: 979-996.

Other Publications (2001-2007)

- 2001 Harlow, G.E., and Sorensen, S.S., Occurrence and Origin of Jade. *Australian Gemmologist* 21: 7-11.
- 2002 Rougvie, J.R., and Sorensen, S.S., Cathodoluminescence record of K-metasomatism in ash-flow tuffs: Grain-scale mechanisms and large-scale geochemical implications. *Geology* 30: 307-310.
- 2003 Harlow, G.E., Sisson, V.B., AveLallemant, H.G., and Sorensen, S.S. High-pressure, metasomatic rocks along the Motagua Fault Zone, Guatemala. *Ophioliti* 28 (2): 115-120.
- 2004 Giere, Reto and Sorensen, Sorena S. Allanite and other REE-rich epidote-group minerals, In Liebscher, A. and Franz, G., Eds., *Epidotes, Reviews in Mineralogy and Geochemistry* 56: 431-494.
- 2004 Harlow, G.E., Hemming, S.R., AveLallemant, H.G., Sisson, V.B., and Sorensen, S.S. Two HP/LT serpentine-matrix mélange belts, Motagua Fault Zone, Guatemala: a record of Aptian and Maastrichtian collisions. *Geology* 32: 17-20.
- 2005 Harlow, G.E., and Sorensen, S.S., Jade (nephrite and jadeitite) and serpentinite: Metasomatic connections. *International Geology Review* 47: 113-146.

- 2005 Sorensen, S.S., Sisson, V.B., and AveLallemant, H.G. Geochemical evidence for possible trench provenance and fluid-rock histories, Cordillera de la Costa Eclogite Belt, Venezuela, In AveLallemant, H.G., and Sisson, V.B., Eds. Caribbean-South American plate interactions, Venezuela: Geological Society of America Special Paper 394: 173-192.
- 2006 Sorensen, S.S., Harlow, G.E., and Rumble III, D. The origin of jadeitite-forming subduction-zone fluids: CL-guided SIMS oxygen-isotope and trace element evidence. *American Mineralogist* 91: 979-996.
- 2006 Beard, J.S., Sorensen, S.S. and Giere, R. REE zoning in allanite related to changing partition coefficients during crystallization: implications for REE behaviour in an epidote-bearing tonalite. *Mineralogical Magazine* 70: 419-436.
- 2006 Tsujimori, T. Sisson, V.B., Liou, J.G., Harlow, G.E. and Sorensen, S.S. Very-low-temperature record of the subduction process: a review of worldwide lawsonite eclogites. *Lithos* 92: 609-624.
- 2007 Beane, R.J. and Sorensen, S.S. Protolith signatures and element mobility of the Maksyutov Complex subducted slab, southern Ural Mountains, Russia. *International Geology Review*, v. 48, p. 52-72.
- 2008 Douglas, J. and Sorensen, S.S. Mineralogical characteristics of Khmer stone sculpture in the Bayon style. In *Scientific research on the sculptural arts of Asia: Proceedings of the 3rd Forbes symposium at the Freer Gallery of art.*
- 2008 Harlow, G.E., Sorensen, S.S. and Sisson, V.B., Jade. In Groat, L.A., Ed. *The Geology of Gem Deposits*, Mineralogical Society of Canada V. 37, p. 207-254.