Anat Shahar

ashahar@ess.ucla.edu

EDUCATION

Ph.D. Candidate, Geochemistry — *2004 – Present*
UCLA, Los Angeles, California

Master of Engineering, Geological Sciences — *2003*
Cornell University: Ithaca, New York

Bachelor of Science, Geological Engineering — *2002*
Cornell University: Ithaca, New York

EXPERIENCE

Department of Earth and Space Sciences, UCLA, Los Angeles, California
Fall 2005 – Present. Graduate Research Assistant. Professor E. Young

Cooperative Institute for Deep Earth Research Workshop, Santa Barbara, California
Summer 2004. Workshop Participant.

Department of Earth and Space Sciences, UCLA, Los Angeles, California
Winter 2004 – Fall 2005. Graduate Research Assistant. Professor A. Kavner

Department of Earth and Space Sciences, UCLA, Los Angeles, California
Fall 2003. Research Assistant to Professor A. Kavner.

Geophysical Laboratory, Carnegie Institute of Washington, Washington D.C.
Summer 2002. Intern to H.K. Mao

HONORS/AWARDS

Dissertation Year Fellowship, UCLA	*2007-2008*
Goldschmidt Travel Grant for Travel to Germany, NSF and GS	*Summer 2007*
Chair's Fund to attend Gordon Research Conference, NASA	*Summer 2007*
Outstanding Student Presentation Award, VGP section of AGU	*Fall 2006*
Excellence in Teaching Award, UCLA	*2006*
Goldschmidt Travel Grant for Travel to Australia, NSF and GS	*Summer 2006*
Cross-Training Fellowship, UCLA	*Summer 2005*
Excellence in Teaching Award, UCLA	*2005*
Raislers Masters of Engineering Fellowship, Cornell University	*Spring 2003*
Henry G. White Scholarship, Cornell University	*Fall 2002*
American Mineralogist Undergraduate Award, Mineralogical Society of America	*July 2002*

PUBLICATIONS

Shahar, A. and E.D. Young (2007) Astrophysics of CAI formation as revealed by silicon isotope LA-MC-ICPMS of an igneous CAI, *Earth and Planetary Science Letters,* 257, 497-510.

Gounelle, M., E.D. Young, **A. Shahar**, E. Tonui, and A. Kearsley (2007) Magnesium isotopic constraints on the origin of CB_b chondrites, *Earth and Planetary Science Letters,* 256, 521-533.

Van Acker, M., **A. Shahar**, E.D. Young, and M. Coleman (2006) GC/Multiple Collector-ICPMS Method for Chlorine Stable Isotope Analysis of Chlorinated Aliphatic Hydrocarbons, *Analytical Chemistry,* 78, 4663-4667.

Shahar, A., W.A. Bassett, H.K. Mao, I.M. Chou, and W. Mao (2005) The stability and Raman spectra of ikaite, $CaCO_3 \bullet 6H_20$, at high pressure and temperature, *American Mineralogist,* 90, 1835-1839.

Kavner, A., F. Bonet, **A. Shahar**, J. Simon, and E. Young (2005) The isotope effects of electron transfer: An explanation of Fe isotope fractionation in nature, *Geochimica et Cosmochimica Acta* 69, 2971-2979.

ABSTRACTS/PRESENTATIONS

Shahar, A., C.E. Manning, and E.D. Young (2007) An experimental approach to high-temperature iron isotope fractionation, Geochimica et Cosmochimica Acta, 71, A921.

Young, E.D. and Shahar, A. (2007) Si and Mg isotopic constraints on the astrophysics of CAI formation in the early solar system, Geochimica et Cosmochimica Acta, 71, A1149.

Hill, P., E.A. Schauble, E.D. Young, and A. Shahar (2007) Demonstrating equilibrium Fe-isotope fractionation in Fe-Cl solutions, Geochimica et Cosmochimica Acta, 71.

Shahar, A. and E.D. Young (2007) Silicon isotope ratio analyses of a CAI by laser ablation MC-ICPMS and implications for the astrophysics of CAI formation, Lunar and Planetary Science Conference XXXVIII, Abstract 1445.

Shahar, A., C.E. Manning, and E.D. Young (2006) High Temperature Iron Isotopic Fractionation in Earth's Mantle – An Experimental Approach, Eos Trans. AGU, 87(52), Fall Meet. Suppl., Abstract V13E-03.

Shahar, A., and E.D. Young (2006) LA-MC-ICPMS Analysis of Silicon Isotopes: Application to Early Solar System Materials, Geochimica et Cosmochimica Acta, 70 (18), A574.

Hill, P., E.A. Schauble, A. Shahar, E. Tonui, and E.D. Young (2006) Ab Initio and Experimental Studies of Equilibrium Isotopic Fractionation in Aqueous Ferric Chloride Complexes, Geochimica et Cosmochimica Acta, 70 (18), A251.

Shahar, A. and E.D. Young (2006) Silicon Isotope Ratios in CAIs: In Situ Laser-Ablation MC-ICPMS Measurements and Comparisons with Magnesium Isotope Ratios, Lunar and Planetary Science Conference XXXVII, Abstract 1493.

Gounelle, M., E.D. Young, A. Shahar, and A. Kearsley (2006) Magnesium Isotopic Composition of CAIs and Chondrules from CB_b Chondrites, Lunar and Planetary Science Conference XXXVII, Abstract 2014.

Shahar, A., A. Kavner, and E.D. Young (2005) Mechanisms of Iron Isotope Fractionation During Electrodeposition, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract PP31B-1538.

Van Acker, M.R., A. Shahar, E.D. Young, and M.L. Coleman (2005) A New, Rapid, Precise, and Sensitive Method for Chlorine Isotope Analysis of Chlorinated Aliphatic Hydrocarbons, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract H22A-03.

Shahar, A. A. Kavner (2004), A new laser heating and temperature measurement system, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract MR11A-0888.

Kavner, A., A. Shahar, F. Bonet, J. Simon, and E. Young (2004) The isotope effects of electron transfer: An explanation of Fe isotope fractionation in nature, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract V51A-0512.

Shahar, A. (2004) Thermal Conductivity Measurements in the Laser-heated Diamond Anvil Cell, presentation at the CA High-Pressure Geoscience Seminar, Berkeley California.

Shahar, A., W.A. Bassett, H.K. Mao, I.M. Chou, and W. Mao (2003) The Stability of Ikaite, CaCO3•6H20, at High Pressure and Temperature, GSA Abstracts with Programs, 35(6).

SKILLS

Computer: ER Mapper, Igor Pro, Matlab, JAVA, DOS, MS Office Suite, Fortran
Language: Hebrew (fluent), Spanish (proficient), Tibetan (proficient)

TEACHING EXPERIENCE

Teaching Assistant for the following courses:

Fall 2004, Mineralogy. Instructor: Professor A. Kavner
Spring 2006, Earthquakes. Instructors: Dr. W. Moore and Professor D. Jackson

MEMBERSHIPS
American Geophysical Union, Mineralogical Society of America, The Geochemical Society