

Anne H. Davis

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Education

Ph.D. student in Geophysical Sciences
B.S. in Chemistry with honors

University of Chicago
California Institute of Technology, 2016

Research and Teaching Experience

Research Assistant	2016-2018	University of Chicago, Laboratory for Mineral Physics
Teaching Assistant	2018	Mineralogy
Teaching Assistant	2017	Global Warming
Teaching Assistant	2017	Mineralogy
REU Researcher	2015	Carnegie Institution for Sciences, Geophysical Laboratory
Teaching Assistant	2015	Fundamental Techniques of Experimental Chemistry
SURF Fellow	2013-2015	California Institute of Technology, Dept. of Chemistry

Honors, Awards, and Grants

2017-2020	NSF Graduate Research Fellowship Program (GRFP)
2016-2021	Eckhardt Graduate Scholarship, University of Chicago
2016	Elaine K. Bernstein Women in Science Award, University of Chicago
2014-2016	REMSA Scholarship Recipient
2014	Saul and John Cogen Memorial SURF Fellow, California Institute of Technology
2013	Donald S. Clarke SURF Fellow, California Institute of Technology
2012-2016	RSSI Scholarship

Publications

E.C. Thompson, **A.H. Davis**, W. Bi, J. Zhao, E.E. Alp, D. Zhang, E. Greenberg, V.B. Prakapenka, and A.J. Campbell (*In Press*), High-pressure geophysical properties of *fcc* phase FeHx. *Geochemistry, Geophysics, Geosystems*.

Conference Presentations

A.H. Davis, N.M. Brauser, E.C. Thompson, B.A. Chidester, E. Greenberg, V.B. Prakapenka, and A.J. Campbell (2017) Equation of state of Fe₃C and implications for the carbon content of Earth's core, *AGU Fall Meeting* (poster).

N.M. Brauser, **A.H. Davis**, E. Greenberg, V.B. Prakapenka, and A.J. Campbell (2017) Density determination of metallic melts from diffuse X-ray scattering, *AGU Fall Meeting*.

C. C. Zurkowski, B.A. Chidester, **A.H. Davis**, N.M. Brauser, E. Greenberg, V.B. Prakapenka, and A.J. Campbell (2017) Stability of the high pressure phases Fe₃S₂ and Fe₂S to Earth's core pressures in the Fe-S-O and Fe-S-O-Si systems, *AGU Fall Meeting*.

A.H. Davis, E.C. Thompson, Z. Liu, C.C. Zurkowski, and A.J. Campbell (2017) *In-situ* infrared spectroscopy of hydroxyl in micas at high pressure, *COMPRES Annual Meeting* (poster).

E.C. Thompson, **A.H. Davis**, W. Bi, E.E. Alp, D. Zhang, E. Greenberg, V.B. Prakapenka, and A.J. Campbell (2017) High-pressure properties of *fcc* phase FeH_x, *COMPRES Annual Meeting*.

C.C. Zurkowski, B.A. Chidester, **A.H. Davis**, N.M. Brauser, E. Greenberg, V.B. Prakapenka, and A.J. Campbell (2017) Stability of the high pressure phase Fe₃S₂ up to 175 GPa in the Fe-S-O system, *COMPRES Annual Meeting*.

A.H. Davis, H. Zhang, T.A. Strobel, L. Krishna, G. Klafehn, R.T. Collins, and C. Taylor (2015) Exploring metastable phase transitions in nanocrystalline silicon under pressure, *MRS Fall Meeting* (oral).

Scientific and University Service

Reviewer: American Mineralogist

2017	Phys. Sci. Div. NSF-GRFP prior winners panel
2016-2017	Upward Bound Volunteer
2015-2016	Ruddock House Vice President
2015-2016	Head Upperclassman Counselor Council Chair
2014-2015	Ruddock House Social Chairman
2014	Ruddock House Ambassador
2012-2016	Caltech-Occidental Concert Band Clarinetist

Professional Development

Memberships:

American Geophysical Union, Materials Research Society

Workshops:

2017 Mineral Physics Software Toolkit, COMPRES Annual Meeting

2016 Multigrain Crystallography Workshop, Argonne National Laboratory

User Facility Proposals

In-situ infrared spectroscopic studies of hydroxyl in micas at high pressures, off-line infrared spectroscopy, NSLS-II (301520)