

DENTON S. EBEL
ASSISTANT CURATOR
DIVISION OF EARTH AND PLANETARY SCIENCES
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HIGHEST DEGREE EARNED

Ph.D.

AREA OF SPECIALIZATION

Meteorites, interstellar clouds, mineral and chemical origins of solar systems

EDUCATION

Ph.D. in Geology, Purdue University Geology, 1993

M.S. in Geology, Purdue University, W. Lafayette, 1988

B.A. in Sociology, Harvard College, Cambridge, MA, 1982

EXPERIENCE IN DOCTORAL EDUCATION

GRADUATE COMMITTEES

Joseph Boesenberg, Rutgers University, 2002-present

GRADUATE ADVISEES

Thorbjørn Shoenbeck, University of Cologne, January-March 2004

RESEARCH GRANT SUPPORT

National Space and Aeronautics Administration, "Thermochemistry and Petrology of Early Solar System Materials," \$141,000, February 1, 2003 – January 31, 2006

National Space and Aeronautics Administration, "Education and Public Outreach Supplement: Thermochemistry and Petrology of Early Solar System Materials," \$27,400, February 1, 2003 – January 31, 2006

RECENT ARTICLES IN REFEREED JOURNALS

Beckett, J.R., H.C. Connolly Jr. and D.S. Ebel. 2006. Chemical Processes in CAIs: A mostly CMAS view of melting and crystallization. *In* D.S. Lauretta and H.Y. McSween (editors), *Meteorites and the early solar system II*: 399-430. Tucson: University of Arizona Press.

Ebel, D.S., and M.L. Rivers. 2006. Meteorite 3-dimensional synchrotron microtomography: methods and applications. *Meteoritics and Planetary Science*. (accepted, with DVD).

Ebel, D.S. 2006. History of the American Museum Meteorite Collection. *In* G.J.H. McCall, A.J. Bowden, and R.J. Howarth (editors), *The history of meteoritics and key meteorite collections: fireballs, falls and finds*. Special Publication 256: 267-289. London: Geological Society.

- Ebel, D.S. 2005. Model evaporation of FeO-bearing liquids: Application to chondrules. *Geochimica Cosmochimica Acta* 69: 3183-3193.
- Ebel, D.S. 2005. Model evaporation of FeO-bearing liquids. *Geochimica Cosmochimica Acta*, accepted.
- Acton, G., Q.-Z. Yin, K.L. Verosub, L. Jovane, A. Roth, B. Jacobsen, and D.S. Ebel. 2007. Micromagnetic coercivity distributions and interactions in chondrules with implications for paleointensities of the early solar system. *Journal of Geophysical Research* 112: 1-19 (doi: 10.1029/2006JB004655).
- Brownlee, D., and 182 coauthors including D. Ebel and M. K. Weisberg. 2006. Comet 81P/Wild 2 under a microscope. *Science* 314: 1711-1716.
- Ebel, D.S. 2006. Condensation of rocky material in astrophysical environments. In Laurretta D.S., and H. McSween (editors), *Meteorites and the early solar system II*: 253-277. Tucson: University of Arizona.
- Sack, R.O., and D.S. Ebel. 2006. Thermochemistry of sulfide mineral solutions. In D. Vaughan (editor), *Sulfides. Reviews in Mineralogy* 60: 265-364. Mineralogical Society of America.
- Zolensky, M., and 74 coauthors including D. Ebel and M. Weisberg (Stardust Mineralogy/ Petrology Preliminary Examination Team) 2006. Mineralogy and petrology of Comet 81P/Wild 2 nucleus samples. *Science* 314: 1735-1739.
- Ebel, D.S., and L. Grossman. 2005. Spinel-bearing spherules condensed from the Chicxulub impact-vapor plume. *Geology* 33: 293-296.
- Joung, M.K.R., M-M. Mac Low, and D.S. Ebel. 2004. Chondrule formation and protoplanetary disk heating by current sheets in non-ideal magnetohydrodynamic turbulence. *Astrophysical Journal*, 606: 532-541.
- Rahmstorf, S., D. Archer, D.S. Ebel, O. Eugster, J. Jouzel, D. Maraun, Urs Neu, G.A. Schmidt, J. Severinghaus, A.J. Weaver, and J. Zachos. 2004. Cosmic rays, carbon dioxide and climate. *EOS*, 85: 38-41. (see also, response and reply, *EOS*, 48: 510-511.
- Sack, R.O., R. Fredericks, L.S. Hardy, and D.S. Ebel. 2005. Origin of high-Ag fahlores from the Galena Mine, Wallace, Idaho, USA. *American Mineralogist* 90: 1000-1007.
- Weisberg, M.K., H.C. Connolly, Jr., and D.S. Ebel. 2004. Petrology and origin of amoeboid olivine aggregates in CR chondrites. *Meteoritics and Planetary Science*, 39: 1741-1753.
- Grossman, L., D.S. Ebel, and S.B. Simon. 2002. Formation of refractory inclusions by evaporation of condensate precursors. *Geochimica et Cosmochimica Acta* 66: 145-161.
- Richter, F.M., A.M. Davis, D.S. Ebel, and A. Hashimoto. 2002. Elemental and isotopic fractionation of Type B CAIs: Experiments, theoretical considerations, and constraints on their thermal evolution. *Geochimica et Cosmochimica Acta*, 66: 521-540.
- Ebel, D.S., and L. Grossman. 2001a. Condensation from supernova gas made of free atoms. *Geochimica et Cosmochimica Acta* 65: 469-477.

SPECIAL RECOGNITION/AWARDS

Outstanding Graduate Student, Dept. of Earth and Atmospheric Sciences, Purdue, 1992

Dedicated and Faithful Service Award, Dudley House, Harvard College, 1982