

Curriculum Vitae BRIAN JAY COOPER

Education:

Virginia Polytechnic Institute and State University:

Ph.D. completed May 21, 1988. Advisor: Paul Ribbe

Title: *The investigation of the optical properties of polytypic minerals.*

M.S. completed December 8, 1978. Advisor: Gerald Gibbs

Title: *The effects of heating and dehydration on the crystal structure of hemimorphite up to 600°C.*

Department of Geological Sciences Summer Scholarship, 1981

Certificate of Teaching Excellence, 1977, 1980 and 1981.

University of California at Santa Barbara: Advisor: William Wise

B.A. in Geology, B.A. in Mathematics, both completed in June 1976.

University of California Regent's Scholar

California State Scholar

Continuing Professional Education:

Advanced Powder X-ray Diffraction Techniques, November 1989

Metamorphic P-T-t Paths, October 1990

X-ray Diffraction Seminar, January 1991

Employment:

2020--	Geology Program Coordinator
2011-2020	Chair, Department of Geography and Geology
2010-2011	Interim Chair, Department of Geography and Geology
1988--	Geology Program Coordinator
1985-1988	Acting Geology Program Coordinator
1991--	Associate Professor
1985-1991	Assistant Professor
1982-1985	Lecturer
1982--	Sam Houston State University, Geology Program,
1981-1982	Radford University, Geology Department, Instructor
1976-1981	Virginia Polytechnic Institute and State University, Department of Geological Sciences, Teaching Assistant.

Publications:

- Cooper, B.J., G.V. Gibbs, and F.K. Ross, 1981, *The effects of heating and dehydration on the crystal structure of hemimorphite up to 600EC*. Zeitschrift für Kristallographie, 156, 305-321.
- Speer, A.J. and Cooper, B.J., 1982, *Crystal structure of synthetic hafnon, HfSiO₄: comparison with zircon and the actinide orthosilicates*. American Mineralogist, 67, 804-808.
- Seal, R.R., Cooper, B.J., and Craig, J.R., 1985, *Anisotropic sphalerite of the Elmwood-Gordonville deposits, Tennessee*. Canadian Mineralogist, 23, 83-88.
- Netoff, Dennis I., Brian J. Cooper, and Ralph R. Shroba; 1995, *Giant Sandstone Weathering Pits Near Cookie Jar Butte, Southeastern Utah*. C. van Riper III, ed., Proceedings of the Second Biennial Conference on Research in Colorado Plateau National Parks, p. 25-53. National Park Service Transactions and Proceedings Series NPS/NRNAU/NRTP-95/11.
- Cooper, B., Torrez, B., and Netoff, D., 1998, *Physical Geology Laboratory Manual*, The Advertising Agency, Huntsville, TX.
- Baldwin, C., Cooper, B., Netoff, D., and Torrez, B., 2006, *Geologic Hazards and Resources Laboratory Manual*, The Advertising Agency, Huntsville, TX.
- Baldwin, C., Cooper, B., Netoff, D., Solum, J., and Degenhardt, J., 2007, *Geologic Hazards and Resources Laboratory Manual*, 2nd Edition, The Advertising Agency, Huntsville, TX, 172 p.
- Baldwin, C., Cooper, B., Netoff, D., Solum, J., and Degenhardt, J., 2007, *eGeologic Hazards and Resources*, The Advertising Agency, Huntsville, TX, 830 p.
- Cooper, B., Netoff, D., Hill, J., 2010, *Physical Geology Laboratory Manual 4th edition*, The Advertising Agency, Huntsville, TX.

Presentations:

1. National/International

- Cooper, B.J., 1980, *Calculated maximum birefringence of submicroscopic composite zinc sulfides* (abstr.). Transactions of the American Geophysical

Union, 61, 408.

Cooper, B.J., 1985, *Multidirectional twinning and stacking disorder in natural zinc sulfides* (abstr.). Geological Society of America, Annual Meeting, Orlando, Florida, Abstracts with Programs, 17, 552.

Cooper, B.J., 1986, *Chloritoids: dependence of the optical properties upon chemical variation and polytypic intergrowth* (abstr.). Geological Society of America, Annual Meeting, San Antonio, Texas, Abstracts with Programs, 18.

Netoff, Dennis I., Brian J. Cooper, and Ralph R. Shroba; 1994, *Origin and Development of the Giant Sandstone Weathering Pits near Cookie Jar Butte, Southeastern Utah*. Geological Society of America, Rocky Mountain Section, Abstracts with Programs, Volume 26, Number 6.

Cooper, Brian, 2000, *Fluorescent Gypsum Crystals from Houston County, Texas* (abstr.). Geological Society of America, South-Central Section, 34th Annual Meeting, Fayetteville, Arkansas, Program, 32, A-6.

Cooper, B.J. and Gunter, M.E., 2002, *Calculations, observations, and applications of birefringence of natural and cation-exchanged zeolites* (abstr.). Geological Society of America, Annual Meeting, Denver, Colorado, October 29. 2002 Abstracts with Programs, Volume 34, Number 6, page 350.

Torrez, B.D. and Cooper, B.J., 2004, *Using a Field Project in the Arbuckle Mountains to Promote Hypothesis-Based Learning in a Structural Geology Course*. [abstract and poster session], Geological Society of America, Annual Meeting, Denver, Colorado, November 7. 2004 Abstracts with Programs, Volume 36, Number 5, page 164.

Cooper, B.J., 2005, *Modeling Optical Properties* (abstr.) 15th Annual Goldschmidt Conference, Moscow, Idaho, May 25. Abstracts with Programs, Volume 15, page A731. Invited speaker.

Hill, J.C. and Cooper, B.J., 2014, *Undergraduate Field Experience in L'Ansia, Huesca, Spain: Piggy-back basins, Paralics, and the Pyrenean Orogeny*. [abstract and poster session], Geological Society of America, Annual Meeting, Vancouver, British Columbia, October 19. Abstracts with Programs, Volume 46, Number 6, page 192.

Debone, Kristin, Howard, J. Michael, Harris, J. Patrick, and Cooper, Brian, 2017, *REE Distribution in the V-Intrusive of Central Arkansas* (abstr.). Geological Society of America, South-Central Section, Abstracts with Programs, Volume 49, Number 1, Paper No. 8-7.

Edge, Kenneth, Harris, J. Patrick, and Cooper, Brian, 2018, *Identification of Rare Earth Elements in a Nepheline Syenite Weathering Profile, Saline County,*

Arkansas (abstr.). Geological Society of America, Annual Meeting, Indianapolis, Indiana, November 4. Abstracts with Programs, Volume 50, Number 6, Paper No. 30-15, p. 157.

Moss, D., R.J. Guida, B. Benford, C. Spears, R. Zhou, J. Hill, B. Cooper, and J.P. Harris. 2021. Preliminary data on the perceptions of the geosciences of high school and community college students in southeast Texas. Session on Geoscience and Society: Action and Interdisciplinary Engagement on Local and Global Scales (Posters), *Geological Society of America Annual Meeting*, Portland, Oregon.

Moss, D., R.J. Guida, B. Benford, C. Spears, R. Zhou, B. Cooper, J.P. Harris, and J. Hill. 2022. Lessons learned from two years of a summer program for high school and community college students in southeast Texas. Session on Geoscience Education: *Geological Society of America Annual Meeting*, Denver, Colorado. (Geol. Soc. Am. Abstracts with Programs, vol. 54, no. 5, <https://doi.org/10.1130/abs/2022AM-382942>)

Guida, R.J., V. Nelson, D. Moss, J. Strait, A. Fujimoto-Strait, J. Hill, and B. Cooper. 2022. Working with Southeast Texas Teachers to Improve Geography Education and Integrate Geoscience Concepts. Session on Human Geography: *SWAAG Annual Regional Meeting*, Fayetteville, AR.

2. State

Cooper, Brian, 1987, *Dependence of optical properties on variations in crystal growth* (abstr.). Texas Academy of Science, Annual Meeting, SHSU, Huntsville, Texas, Program, 90, 36.

Cooper, Brian, 1991, *A detailed investigation of metacarbonates in the Packsaddle Schist, Llano County, Texas* (abstr.). Texas Academy of Science, Annual Meeting, SFASU, Nacodoches, Texas, Program, 94, 96.

Cooper, Brian, 1999, *Fluorescent Gypsum Crystals from Houston County, Texas: A preliminary report* (abstr.). Texas Academy of Science, Annual Meeting, Texas Lutheran University, Seguin, Texas, Program, 102, 73.

3. Local

Guida, R.J., D. Moss, R. Zhou, B. Benford, C. Spears, J. Hill, B. Cooper, and J.P. Harris. 2022. SHSU'S NSF GEOPATHs: Where we've been, where we are, where we're going. SHSU STEM Center Symposium, Huntsville, TX.

Research and/or Grant Activities:

University Research Grants

1988-89, Applied for and received a \$3000 grant to work on
Metamorphism of Carbonate Rocks in Central Texas.

1989-90, Applied for and received a \$5550 grant to work on
Fluid Evolution and Transport in Metacarbonate Rocks from the Llano Uplift, Central Texas.

1990-91, Applied for and was denied a \$5000 grant to work on
Oxygen Isotopic Evidence for Fluid Evolution and Transport in Metacarbonate Rocks from the Llano Uplift, Central Texas.
This was to be SHSU's matching funds for a National Science Foundation Research in Undergraduate Institutions Grant sponsored by the University of Texas, Department of Geology. The opportunity never presented itself again.

1992-93, Co-investigator with Dennis Netoff on \$7500 grant to work on
Giant Weathering Pits along Lake Powell, Utah.

1997-98, Applied for and received a \$5000 grant to work on
Fluorescent Gypsum Crystals from Houston County, Texas.

2022-23, Co-investigator with Pat Harris and David Bickham on \$2300 grant to work on "*Rare Earth Element Mobility in a Lateritic Weathering Profile, Saline County, Arkansas*"

NSF Grants

2008-10, *Foundations of Collaborative Research Through A Longitudinal Randomized Trial Study of Middle School Science for English Language Learners: Project MSSELL.* NSF DRL-0822343.
My role was as host for 4 Science Saturdays and as an instructor of science teachers during the summer.

2020-23, GEOPATHs Informal Networks (IN): Geoscience Exposure and Training (GET Texas): High School through Undergrad.
Funded 9/10/2020. \$345,773 (over 3 years).
Co-PI's = David Moss and Ross Guida
My role is a senior faculty member helping with workshops and the summer bridge program.

Professional Affiliations:

Mineralogical Society of America
Geological Society of America
Mineralogical Association of Canada
National Association of Geology Teachers

1989 Joint Technical Program Committee, Geological Society of America.
Reviewed and evaluated abstracts in the Mineralogy/Crystallography category.

2004 Joint Technical Program Committee, Geological Society of America.
Reviewed and evaluated abstracts in the Mineralogy/Crystallography category.

2004 Associate Editor, Mineralogical Association of Canada

Other Campus Activities:

Physical Geology Lab Coordinator: 1982-1990, 1991-2021

Sam Houston Association of Geology Students (SHAGS) Advisor: 1985—
(Co-advisor?)

Bearkat Competitive Climbing Advisor: 2017 –

Career Committee service:

Academic Affairs Council
COSET Curriculum Committee, 2021 –
COSET Meta-assessment Committee, 2021 --
Distance Learning Committee
Distinguished Lecturer Series Committee, Chair 2008-2009
Faculty Achievement Awards Committee, Chair 2008-2009
Faculty Centennial Scholarship Committee
Faculty Development Leave Committee, Chair 2009-2010
Core Curriculum Assessment Committee
College Curriculum Committee/Natural Sciences Section
Honors Convocation Committee, Chair 1992-1993
Educator Preparation Advisory Council
Science Education Committee
Interdisciplinary Studies Committee
Parking Appeals Committee
Excellence in Research Committee
Excellence in Teaching Committee
Sam Houston Bicentennial Committee:
 Chaired "Tribute" Program sub-committee
University Curriculum Committee, Chair 2009-2011
University Honors Committee
SACS Institutional Effectiveness Committee
Texas Studies Committee

Writing-Enhanced Guidelines Committee
NCATE-NSTA Accreditation Committee