

Curriculum Vitae

Apl. Prof. Dr. Charles A. Geiger
Fachbereich Chemie und Physik der Materialien
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Birth Place: Detroit, Michigan, USA

Education:

High School 1968-1974: Riverside High School
Graduation: 6.20.1974 Dearborn Heights, Michigan 48127-3495

Begin of B.S. Study 9.1.1974: University of Michigan, Department of Geological Sciences,
Ann Arbor, Michigan 48109-1382
B.S. Degree 4.29.1978 Advisor: Prof. D.R. Peacor – X-Ray Diffraction Studies

Begin of M.S. Study 9.1.1978 University of Wisconsin, Department of Geology & Geophysics,
Madison, Wisconsin 53706-1388
Advisor: Prof. S.W. Bailey
M.S. Degree: 12.20.1981 Thesis Title: X-ray Diffraction Study of Cronstedtite-2H₂

Begin of Ph.D. Study 1.1.1982: University of Chicago, James Franck Institute of Physical
Sciences and Department of Geophysical Sciences,
Chicago, Illinois 60637
Advisor: Prof. O.J. Kleppa
Ph.D. Degree: 6.13.1986 Thesis Title: Thermodynamic Mixing Properties of Garnet Solid
Solutions

German ‘Habilitation’: 12.18.96: Christian Albrechts University of Kiel, Mineralogical-Petrological
Institute, Kiel, Germany, D-24098

Positions and Professional Experience:

6.1986 to 8.1986: Postdoctoral position: James Franck Institute of Physical Sciences,
University of Chicago with Prof. O.J. Kleppa, Chicago, Illinois
60637

9.1986 to 3.1989: Postdoctoral position: Institute for Mineralogy and
Crystallography, Technical University of Berlin,
with Prof. K. Langer, Berlin, Germany D-10587

3.1989 to 9.1990: Visiting Scientist: Bavarian Geological Institute for Experimental
Geochemistry and Geophysics, University of Bayreuth, Bayreuth,
Germany D-95440

10.1990 to 4.1997:	Assistant Professor ('Hochschulassistent' - C1): Mineralogical-Petrological Institute of the Christian Albrechts University of Kiel, Kiel, Germany D-24098
4.1997 to 7.2001:	Assistant Professor ('Oberassistent' - C2): Institute for Geosciences of the Christian Albrechts University of Kiel, Kiel, Germany D-24098
9.2001 to 4.2002:	Visiting Professor (C3): Institute for Mineralogy of the Julius-Maximilians University of Würzburg, Würzburg, Germany D-97074
4.2002 to 9.2006:	Academic Advisor ('Akademische Rat' - A13): Institute for Geosciences of the Christian Albrechts University of Kiel, Kiel, Germany D-24098
9.2006 to 12.2009	Researcher (Wissenschaftlicher Mitarbeiter – Groups of Prof. W-Depmeier & W. Weppner): Institute for Inorganic Chemistry of the Christian Albrechts University of Kiel, Kiel, Germany D-24098
1.2010 -	Researcher/Lecturer: Institute of Materials Science & Physics, University of Salzburg, Salzburg, Austria A-5020

Research Interests and Experience:

Research interests in the fields of mineral and materials science. Good working knowledge in diffraction (including synchrotron X-ray and neutron sources) and various spectroscopic (IR, Raman, Mössbauer, XAS, and NMR) methodologies, as well as in thermodynamic and calorimetric investigations. Good working experience with experiments at high P and T conditions. Recent research is focusing on the crystal chemistry, thermodynamic and physical properties of silicate solid solutions (garnet, olivine, cordierite) and molecular-level interactions between microporous minerals and molecules.

Experimental Techniques:

- 1) X-ray powder and single-crystal diffraction measurements (including synchrotron radiation).
- 2) Various spectroscopic techniques including - UV/VIS, FTIR, Raman, NMR, ⁵⁷Fe Mossbauer.
- 3) Calorimetric (DSC, Low temperature heat pulse calorimetry) and thermal analysis (TGA/DTA) measurements.
- 4) Nondestructive chemical analysis with the SEM, electron microprobe and optical microscopy.
- 5) High-pressure and high-temperature instrumentation - diamond anvil cell, solid-media pressure devices, hydrothermal experimentation.

Languages: English (native language), German, French (reading).

Academic and Scientific Honors:

B.S. with Distinction in the Honors Program - University of Michigan (1978)
 Chamberlain Fellowship - University of Chicago (1986)
 Elected Member to Sigma Xi (1986)
 Elected Fellow to the Mineralogical Society of America (2000)

Reviewer of Scientific Proposals for National & International Scientific Foundations/Societies:

U.S. National Science Foundation (NSF).

German Science Foundation (DFG).
Italian Ministry for University Research (MIUR-COFIN).
Austrian Science Foundation (FWF).
European Research Council (ERC).
Foundation for Polish Science (FNP).

Editorial Positions for Scientific Journals:

Associate Editor, Mineralogical Magazine, 2007-
Associate Editor, Canadian Mineralogist, 2007-
Associate Editor, Chemie der Erde/Geochemistry, 2000-2014.
Associate Editor, American Mineralogist, 1994 to 1998.

Scientific Society Membership:

Geochemical Society
American Geophysical Union
American Mineralogical Society (Fellow)
German Mineralogical Society
German Society for Crystallography
International Mineralogical Association
Sigma Xi

Scientific Administrative and Organizational Activities and Committee Service:

Liaison Officer between the European Mineralogical Union (EMU) and Mineralogical Society of America (MSA) (2000-
American Geophysical Union (AGU): Committee for Mineral Physics(2000-
German Representative to the International Mineralogical Association (IMA) Committee for Mineral Classification 2000-
Mineralogical Society of America (MSA): Committee on Fellow Nominations (1994-1997), Chairman 1996 and 1997.
European Socrates-Erasmus Committee on Mineral Sciences and Education, 2001-2004.
Mineralogical Society of America (MSA): Edward H. Kraus Crystallographic Research Fund (2015-

Lectures and Invited Talks:

A list of lectures and invited talks at universities, congresses, and conferences can be provided upon request. Over 200 talks and poster presentations at international and national conferences and meetings.

Published Papers in Refereed Scientific Journals:

A list of about 130 articles and reviewed publications can be provided upon request.

International Scientific Collaborations:

Various funded scientific projects with scientists in Italy, Great Britain, Russia, Germany, Austria and USA. Extensive travel and work experience in different countries.