CURRICULUM VITAE — DECEMBER 2013

WILLIAM D. CARLSON
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Professional Positions:

Department of Geological Sciences, University of Texas at Austin

1989-present	Professor
1986-1989	Associate Professor
1980-1986	Assistant Professor
1994-1996	Chairman, Department of Geological Sciences
1994-1996	Associate Director, Geology Foundation
2000-present	Peter T. Flawn Chair in Geological Sciences
1989-2000	William Stamps Farish Chair in Geological Sciences
1988-1989	Getty Oil Company Centennial Fellow
1984-1989	Joyce Bowman Payne Centennial Teaching Fellow

College of Natural Sciences, University of Texas at Austin

1996-2000	Associate Dean for Academic Affairs

Research Interests:

Field, analytical, experimental and computational studies of metamorphic petrogenesis

Geological applications of high-resolution X-ray computed tomography

Present emphasis: (1) Rates and mechanisms of intracrystalline diffusion in garnet, combining field/analytical, theoretical, and molecular-modeling approaches

(2) Kinetics and mechanisms of metamorphic reactions, including processes of nucleation and growth, intergranular diffusion, and grain coarsening

Education:

1980 Ph. D. (Geology) University of California at Los Angeles
Experimental Studies of Metamorphic Petrogenesis; W. G. Ernst, supervisor

1974 B. S. (Geology) Stanford University

Personal Data: Born 16 August 1952, Grand Junction CO, USA; married, two sons

PROFESSIONAL ACCOMPLISHMENTS AND ACTIVITIES

Awards and Special Research Recognition:

2011	Carolyn G. and G. Moses Knebel Award for Distinguished Undergraduate Teaching
2010	University of Texas System: Board of Regents' Outstanding Teaching Award
2010	UT Professor of the Month, awarded by UT Senate of College Councils
2009	Carolyn G. and G. Moses Knebel Award for Distinguished Undergraduate Teaching
2008	Jackson School of Geosciences Outstanding Educator Award
2006	Selected for membership in UT's Academy of Distinguished Teachers
2005	Awarded the Dana Medal of the Mineralogical Society of America, recognizing "*continued outstanding scientific contributions through original research in the mineralogical sciences*."
2005	Carolyn G. and G. Moses Knebel Award for Distinguished Undergraduate Teaching
2005	Carolyn G. and G. Moses Knebel Award for Distinguished Graduate Teaching
2004	Carolyn G. and G. Moses Knebel Distinguished Teaching Award
2001	Houston Oil and Minerals Corporation Faculty Excellence Award
2001	Selected as Fellow of American Association for the Advancement of Science
2000	President of the Mineralogical Society of America
1998	Became Fellow of the Mineralogical Society of Great Britain and Ireland
1997	American Federation of Mineral Societies Honorary Scholarship Award
1995	Distinguished Lecturer for the Mineralogical Society of America
1994	Selected as Fellow of the Mineralogical Society of America
1994	Carolyn G. and G. Moses Knebel Distinguished Teaching Award
1991	Carolyn G. and G. Moses Knebel Distinguished Teaching Award
1989	College of Natural Sciences Teaching Excellence Award
1988	Carolyn G. and G. Moses Knebel Distinguished Teaching Award
1988	Selected as Fellow of the Geological Society of America
1985	Carolyn G. and G. Moses Knebel Distinguished Teaching Award
1984	Houston Oil and Minerals Corporation Faculty Excellence Award
1982	College of Natural Sciences Teaching Excellence Award
1981	Carolyn G. and G. Moses Knebel Distinguished Teaching Award
1981	Mineralogy-Petrology Research Award of the Mineralogical Society of America

Keynote Lectures and Invited Lectures at National and International Symposia:

2013 Invited speaker at symposium entitled "Garnet: Common Mineral, Uncommonly Useful"; Fall Meeting of the American Geophysical Union; San Francisco, California

2012 Invited speaker at symposium on "Space, Time, and Transport in Petrology and Geochemistry"; Fall Meeting of the American Geophysical Union; San Francisco, California

2011 Invited speaker at symposium entitled "Turning Up the Heat: Metamorphic Perspectives on Mineral Equilibria, Heat Transport, Tectonics and Thermochronology"; Geological Society of America Annual Meeting, Minneapolis Minnesota

2010 Invited speaker at symposium on "Garnet and its Use in Unraveling Tectonic and Metamorphic Processes"; Geological Society of America Annual Meeting, Denver Colorado

2009 Invited speaker at symposium on "Advances in Understanding Metamorphic Processes: Nanoscale to Nappes"; Geological Society of America Annual Meeting, Portland, Oregon

2008 Keynote speaker at symposium on "Coordinated Imaging and High-Resolution In-situ Analyses at the Micro Scale"; Goldschmidt Conference, Vancouver, British Columbia, Canada

2006 Invited speaker at symposium entitled "Fast and Furious or Slow and Steady?: Rates of Geological Processes"; Annual Meeting of the Geochemical Society, Melbourne, Australia

2006 Invited speaker at symposium on "Texture Formation in High-Temperature Rocks"; European Geosciences Union Annual Meeting, Vienna, Austria

2006 Invited plenary speaker at Annual Meeting of the Pacific Northwest Association for College Physics, Tacoma, Washington

2005 Invited speaker at symposium on "Dynamics of Metamorphic and Hydrothermal Processes: From Grain-Scale to Mountain Belt"; Geological Society of America Annual Meeting, Salt Lake City, Utah

2005 *Dana Lecture*, Mineralogical Society of America: "Rates and Mechanisms of Metamorphic Processes from Natural Occurrences"; Goldschmidt Conference, Moscow, Idaho

2004 Keynote speaker at symposium entitled: "From Atoms to Lithospheres: Microstructural Influences and Controls on Dynamic Processes"; 32nd International Geological Congress, Florence, Italy

2003 Invited speaker at symposium on "The Many Facets of Garnet: Recorders of Crust and Mantle Dynamics" at Fall meeting of American Geophysical Union; San Francisco, California

2003 Invited speaker at Pardee Symposium of Geological Society of America on "Modeling Metamorphism"; Seattle, Washington

Keynote Lectures and Invited Lectures at National and International Symposia (continued):

2003 Keynote speaker at annual meeting of the Metamorphic Studies Group of the Geological Society; London, England

2001 Invited lecturer at symposium on "Applications of Computed X-ray Tomography in Geoscience and Related Domains" at 11th biennial meeting of the European Union of Geosciences; Strasbourg, France

2000 *Presidential Address*, Mineralogical Society of America: "Scales of Disequilibrium and Rates of Equilibration during Metamorphism"; Geological Society of America Annual Meeting, Reno, Nevada

1999 Keynote speaker at symposium on "Textural and Microstructural Tools to Understand Magmatic to Subsolidus Processes in Igneous Rocks", at 10th biennial meeting of the European Union of Geosciences; Strasbourg, France

1994 Keynote speaker at symposium on "Controls of Metamorphism", sponsored by the Mineralogical Society of Great Britain; Liverpool, England

1994 Invited lecturer at symposium on "Diffusion in Rocks and Minerals", at 16th quadrennial meeting of the International Mineralogical Association; Pisa, Italy

1992 Invited lecturer at symposium on "Metamorphic Reaction Kinetics", held at 29th International Geological Congress; Kyoto, Japan

1992 Invited lecturer at symposium on "Nucleation and Growth of Crystals", held at 29th International Geological Congress; Kyoto, Japan

1992 Invited lecturer at symposium on the "Evolution of Grenville Basement" held at annual meeting of South-central Section of the Geological Society of America; Houston, Texas

1990 Keynote speaker at symposium on "Mineral Textures", sponsored by the Mineralogical Society of Great Britain; Manchester, England

1989 Invited lecturer and author at Harvard University's symposium in honor of J. B. Thompson, Jr.; Cambridge, Massachusetts

1987 Invited lecturer and author at Mineralogical Association of Canada Symposium on "Pressure-Temperature-Time Paths in Metamorphism"; Saskatoon, Saskatchewan, Canada

1983 Invited instructor and author at Mineralogical Society of America Short Course on Carbonate Mineralogy and Chemistry; Indianapolis, Indiana

Invited Lectures at Universities, Government Institutions, and Industrial Facilities:

Since 1980, visited by invitation ~65 institutions, typically making two scientific presentations at each. Chronological list available on request.

Extramural Research Grants: Total = $8.9M ($5.9M as P.I.; $3.0M as co-P.I.)

2013-2016 National Science Foundation: $741,998
"Facility support: High-resolution X-ray computed tomography laboratory"
(R. Ketcham, W. Carlson, T. Rowe)

2012-2013 National Science Foundation: $310,000
"Facility support: Refurbishing the high-resolution X-ray computed tomography laboratory principal instrument"
(R. Ketcham, W. Carlson, T. Rowe)

2012-2013 National Science Foundation: $268,208
"Diffusion of trace elements in garnet: Rates, mechanisms, and theory"
(sole P.I.)

2010-2013 National Science Foundation: $748,698
"Facility support: High-resolution X-ray computed tomography laboratory"
(R. Ketcham, W. Carlson, T. Rowe)

2010-2012 National Science Foundation: $298,359
"Mechanisms and kinetics of porphyroblast nucleation"
(sole P.I.)

2007-2010 National Science Foundation: $729,000
"Facility support: High-resolution X-ray computed tomography laboratory"
(W. Carlson, R. Ketcham)

2007-2009 National Science Foundation: $232,796
"Rates and mechanisms of intracrystalline and intergranular diffusion"
(sole P.I.)

2007-2008 National Science Foundation: $97,500
"Acquisition of a solid-state 193-nm laser-ablation system"
(W. Carlson, B. Horton, J. Gardner, J. Lassiter, L. Heister)

2007-2008 National Science Foundation: $134,158
"CRI: IAD - Acquisition of a high-resolution micro X-ray computed tomographic scanner"
(T. Rowe, R. Ketcham, W. Carlson)

2004-2007 National Science Foundation: $903,147
"Facility support: High-resolution X-ray computed tomography laboratory"
(W. Carlson, R. Ketcham)

2003-2005 National Science Foundation: $200,000
"Diffusion in garnet: Extracting rates from natural occurrences"
(sole P.I.)

2001-2004 National Science Foundation: $350,000
"Information Technology Research / Applications: Computational methods for quantitative analysis of X-ray computed tomographic (CT) data for the geosciences"
(R. Ketcham, W. Carlson)

Extramural Research Grants (continued):

2001-2004 National Science Foundation: $386,294
"Facility support: High-resolution X-ray computed tomography laboratory"
(W. Carlson, R. Ketcham)

2001-2002 W.M. Keck Foundation: $750,000
"Electron-beam microscopy and microanalysis of natural materials"
(W. Carlson, P. Bennett, K. Milliken)

2001-2002 National Science Foundation: $119,303
"Diffusion, closure temperatures and accessory mineral petrogeneses in a high-temperature aureole: Refining the integration of *P-T* and *t*"
(J. Connelly, W. Carlson)

1999-2002 National Science Foundation: $302,733
"Crystallization kinetics: Quantitative analysis and numerical simulation of metamorphic textures" (W. Carlson, R. Ketcham)

1999-2001 National Science Foundation: $200,000
"Facility support: High-resolution X-ray computed tomography laboratory"
(W. Carlson, R. Ketcham)

1999-2000 National Research Council – Transportation Research Board: $75,517
"Quantitative characterization of asphalt concretes using high-resolution X-ray computed tomography (CT)" (R. Ketcham, W. Carlson)

1997-1999 National Science Foundation: $153,824
"Mesoproterozoic tectonic evolution of the southern margin of Laurentia"
(S. Mosher, J. Connelly, W. Carlson)

1995-1998 National Science Foundation: $182,000
"Rates and mechanisms of metamorphism from 3-D quantitative textural analysis using computed X-ray tomography" (sole P.I.)

1996-1997 W. M. Keck Foundation: $500,000
"Acquisition of a high-resolution X-ray tomographic scanner"
(W. Carlson, T. Rowe and J. Kappelman)

1996-1997 National Science Foundation: $150,000
"Acquisition of a high-resolution X-ray tomographic scanner"
(W. Carlson, T. Rowe and J. Kappelman)

1994-1996 American Chemical Society, Petroleum Research Fund: $50,000
"Compositional dependence of the annealing of apatite fission tracks: An experimental approach" (sole P.I.)

1993-1995 National Science Foundation: $119,203
"Continued investigation of the formation and evolution of Grenville-aged crust in the Llano Uplift, central Texas" (S. Mosher, W. Carlson, N. Walker)

Extramural Research Grants (continued):

1992-1994 National Science Foundation: $117,112
"Three-dimensional quantitative textural analysis of metamorphic rocks using computerized X-ray tomography" (sole P.I.)

1991-1993 Texas Advanced Research Program: $130,000
"Geologic applications of computerized X-ray tomography" (sole P.I.)

1990-1992 National Science Foundation: $50,000
"Pyroxene phase equilibria for thermobarometry of feldspathic mafic and ultramafic rocks" (sole P.I.)

1989-1991 Texas Advanced Research Program: $97,000
"Quantitative 3-D textural analysis of metamorphic rocks using computer-automated X-ray tomography and petrographic image mensuration" (sole P.I.)

1988-1990 National Science Foundation: $84,436
"A geochronologic, structural, and petrologic investigation of Proterozoic tectonism and metamorphism in the Llano Uplift, Texas" (N. Walker, S. Mosher, W. Carlson)

1986-1989 National Science Foundation: $128,000
"Thermobarometry of feldspathic mafic and ultramafic rocks: Experimental investigations in CaO-MgO-Al_2O_3-SiO_2" (sole P.I.)

1982-1985 National Science Foundation: $72,900
"Use of molten-oxide solvents to study phase equilibria in feldspathic peridotite and gabbro" (sole P.I.)

1984 National Science Foundation: $150,000
"Acquisition of electron probe microanalyzer"
(L. Land, D. Smith, D. Barker, W. Carlson)

1984 Consortium of Oil Companies: $34,000
"Acquisition of automated X-ray diffractometer"
(W. Carlson, L. Land, D. Smith, and D. Barker)

1981-1982 Mineralogical Society of America: $1,500
"Biennial Mineralogy-Petrology Research Award"

Other Professional Accomplishments and Activities:

Fellow: American Association for the Advancement of Science, Geological Society of America, Mineralogical Society of America, Mineralogical Society of Great Britain and Ireland

Member: Geochemical Society, American Geophysical Union, European Geosciences Union, Geological Society of America, Mineralogical Association of Canada, Mineralogical Society of America, Sigma Xi, Phi Beta Kappa

Offices held in professional organizations:

Mineralogical Society of America

President (1999-2000); Past-President (2000-01); Vice-President (1998-99); Councilor (1993-96); Distinguished Public Service Medal Committee (2003-2006, Chairman, 2004-2006); Chairman, Management Committee (1993-96); Chairman, MSA Award Committee (1993-94); Committee on Committees (1998-00); Financial Advisory Committee (1993-96); Lecture Series Committee (1990-93); Nominating Committee (1989-90); Research Grants Committee (1987-88).

Geological Society of America

Membership Committee (1996-97, Chairman, 1997-99)

American Geophysical Union

Nominating Committee for Volcanology, Geochemistry, and Petrology Section (1998-99)

Co-convener of symposia:

2012 "Mechanisms of metamorphic reactions and fluid-rock interaction", 34th International Geological Congress, Brisbane, Australia

2010 "Frontiers in metamorphic petrology: Integrating mass transport, heat transport, reaction kinetics, and tectonics with mineral equilibria", Annual Meeting of Geological Society of America; Denver, Colorado

2008 "General Contributions to Metamorphic Petrology", 33rd International Geological Congress, Oslo, Norway

2004 "Modeling Grain-Scale Processes During Metamorphism", Annual Meeting of Geological Society of America; Denver, Colorado

2004 "Computerized X-ray Tomography Applications in Geology", 32nd International Geological Congress; Florence, Italy

2003 "Metamorphic Processes: Diffusion, Reaction and Fluid Flow", 13th Annual V. M. Goldschmidt Conference; Kurashiki, Japan

2001 "Mechanisms of Mineral Growth and Texture Development", 11th Annual V. M. Goldschmidt Conference; Hot Springs, Virginia

Editorial positions:

Journal of Metamorphic Geology: Editorial Review Board (1989-present)

American Mineralogist: Associate Editor (1989-1992); Guest Associate Editor for May-June 2005 issue in honor of W. G. Ernst

Geological Society of America Special Paper #419 (2007) *Convergent Margin Terranes and Associated Regions: A Tribute to W. G. Ernst*: Co-editor

Service as external reviewer for program evaluations:

University of New Mexico, Department of Earth and Planetary Sciences, November 2013
Chair, NSF Panel for Management Review of UNAVCO, January 2011
UCLA/NSF National Ion Microprobe Facility, December 2006, December 2007
University of Southern California, Department of Earth Sciences, November 2007
University of North Carolina, Department of Geological Sciences, November 2006
University of Michigan, Department of Geological Sciences, January 2006
Louisiana State University, Department of Geology and Geophysics, March 2002
University of Tennessee - Knoxville, Department of Geological Sciences, May 2002

Member of NASA review panel for *Discovery* missions: Sample Return Laboratory Instruments and Data Analysis Program (SRLIDAP) (2001, 2002)

Listed in *Who's Who in America*, starting in 65th Edition (2011)

Commencement Speaker, Jackson School of Geosciences, University of Texas at Austin, December 2010

PUBLICATIONS

ISI Web of Science *h*-index: 31
Researcher ID: A-5807-2008
[† indicates student or postdoc under my supervision]

Articles in Refereed Journals / Books:

† Cahalan R C, † Kelly E D, **Carlson W D** (in review) Rates of Li diffusion in garnet: Coupled diffusion of Li and Y+REEs. Submitted July 2013 for publication in *American Mineralogist*.

Carlson W D, Gale J D, Wright K (in press) Incorporation of Y and REEs in aluminosilicate garnet: Energetics from atomistic simulation. Accepted November 2013 for publication in *American Mineralogist*.

Ague J, **Carlson W D** (2013) Metamorphism as garnet sees it: The kinetics of nucleation and growth, equilibration, and diffusional relaxation. [Invited article] *Elements* 9:439-445.

† Kelly E D, **Carlson W D**, Ketcham R A (2013) Scales of disequilibrium during regional metamorphism of porphyroblastic rocks. *Journal of Metamorphic Geology* 31:981-1002.

† Kelly E D, **Carlson W D**, Ketcham R A (2013) Crystallization kinetics during regional metamorphism of porphyroblastic rocks. *Journal of Metamorphic Geology* 31:963-979.

† Moore S J, **Carlson W D**, Hesse M A (2013) Origins of yttrium and rare-earth-element distributions in metamorphic garnet. *Journal of Metamorphic Geology* 31:663-689.

† Berg C A, **Carlson W D**, Connelly J N (2013) Strain rates at high temporal resolution from curved inclusion trails in garnet, Passo del Sole, central Swiss Alps. *Journal of Metamorphic Geology* 31:243-262.

Carlson W D (2012) Rates and mechanism of Y, REE, and Cr diffusion in garnet. *American Mineralogist* 97:1598-1618.

Ketcham R A, **Carlson W D** (2012) Numerical simulation of diffusion-controlled nucleation and growth of porphyroblasts. *Journal of Metamorphic Geology* 30:489-512.

† Kelly E D, **Carlson W D**, Connelly J N (2011) Implications of garnet resorption for the Lu-Hf garnet geochronometer: An example from the contact aureole of the Makhavinekh Lake Pluton, Labrador. *Journal of Metamorphic Geology* 29:901-916.

Carlson W D (2011) Porphyroblast crystallization: Linking processes, kinetics, and microstructures. *International Geology Review* 53:406-445.

Articles in Refereed Journals / Books (continued):

Carlson W D (2010) Dependence of reaction kinetics on H_2O activity as inferred from rates of intergranular diffusion of aluminium. *Journal of Metamorphic Geology* 28:735-752.

Liu Y, Taylor L A, Sarbadhikari A B, Valley J W, Ushikubo T, Spicuzza M J, Kita N, Ketcham R, **Carlson W**, Shatsky V, Sobolev N V (2009) Metasomatic origin of diamonds in the world's largest diamondiferous eclogite. *Lithos* 112S:1014-1024.

Carlson W D, † McDowell E A, Enami M, Nishiyama T, Mouri, T (2009) Laser Raman microspectrometry of metamorphic quartz: A simple method for comparison of metamorphic pressures -- Corrigendum. *American Mineralogist* 94:1291-1292.

† Robyr M, **Carlson W D**, Passchier C, Vonlanthen P (2009) Textural, chemical, and microstructural records during growth of snowball garnet. *Journal of Metamorphic Geology* 27:423-437.

Mosher S, Levine J S F, **Carlson W D** (2008) Mesoproterozoic plate tectonics: A collisional model for the Grenville-aged orogenic belt in the Llano Uplift, central Texas. *Geology* 36:55-58.

Proussevitch A A, Sahagian D L, **Carlson W D** (2007) Statistical analysis of bubble and crystal size distributions: Application to Colorado Plateau basalts. *Journal of Volcanology and Geothermal Research* 164:112-126.

Hawkins A T, Selverstone J, Brearly A J, Beane R J, Ketcham R, **Carlson W D** (2007) Origin and mechanical significance of honeycomb garnet in high-pressure metasedimentary rocks from the Tauern Window, Eastern Alps. *Journal of Metamorphic Geology* 25:565-583.

Carlson W D, † Anderson S D, Mosher S, † Davidow J S, † Crawford W D, † Lane E D (2007) High-pressure metamorphism in the Texas Grenville orogen: Mesoproterozoic subduction of the southern Laurentian continental margin. *International Geology Review* 49:99-119. Re-published 2008 in*: Metamorphic Conditions along Convergent Plate Junctions: Mineralogy, Petrology, Geochemistry and Tectonics*, Ernst W G and Rumble III D, eds., Bellwether Publishing Ltd., p. 719-739.

† Hirsch D M, **Carlson W D** (2006) Variations in rates of nucleation and growth of biotite porphyroblasts. *Journal of Metamorphic Geology* 24:763-777.

Nettles J W, Lofgren G E, **Carlson W D**, McSween H Y (2006) Extent of chondrule melting: Evaluation of experimental textures, nominal grain size, and convolution index. *Meteoritics and Planetary Science* 41:1059-1071.

Articles in Refereed Journals / Books (continued):

Carlson W D (2006) Three-dimensional imaging of earth and planetary materials. [Invited "Frontiers" article] *Earth and Planetary Science Letters* 249:133-147. Intended for online viewing: http://dx.doi.org/10.1016/j.epsl.2006.06.020

† McFarlane C R M, Connelly J N, **Carlson W D** (2006) Contrasting response of monazite and zircon to a high-*T* thermal overprint. *Lithos* 88:135-149.

Carlson W D (2006) Dana Medalist Lecture: Rates of Fe, Mg, Mn, and Ca diffusion in garnet. *American Mineralogist* 91:1-11.

McCoy T J, **Carlson W D**, Nittler L R, Stroud RM, Bogard D D, Garrison D H (2006) Graves Nunataks 95209: A snapshot of metal segregation and core formation. *Geochimica et Cosmochimica Acta* 70:516-531.

Ketcham R A, † Meth C, † Hirsch D, **Carlson W D** (2005) Improved methods for quantitative analysis of three-dimensional porphyroblastic textures. *Geosphere* 1:42-59.

Vontobel P, Lehmann E, **Carlson W D** (2005) Comparison of X-ray and neutron tomography investigations of geological materials. *IEEE Transactions on Nuclear Science* 52:338-341.

† McFarlane C R M, Connelly J N, **Carlson W D** (2005) Intracrystalline redistribution of Pb in zircon during high-temperature contact metamorphism. *Chemical Geology* 217:1-28.

† Meth C E, **Carlson W D** (2005) Diffusion-controlled synkinematic growth of garnet from a heterogeneous precursor at Passo del Sole, Switzerland. *Canadian Mineralogist* 43:157-182.

† McFarlane C R M, Connelly J N, **Carlson W D** (2005) Monazite and xenotime petrogenesis in the contact aureole of the Makhavinekh Lake Pluton, northern Labrador. *Contributions to Mineralogy and Petrology* 148:524-541.

Carlson W D, † Gordon C L (2004) Effects of matrix grain size on the kinetics of intergranular diffusion. *Journal of Metamorphic Geology* 22:733-742.

Anand M, Taylor L A, Misra K C, **Carlson W D**, Sobolev N V (2004) Nature of diamonds in Yakutian eclogites: Views from eclogite tomography and mineral inclusions in diamond. *Lithos* 77:333-348.

Carlson W D, Rowe T, Ketcham R A, Colbert M (2003) Geological applications of high-resolution X-ray computed tomography in petrology, meteoritics and palaeontology. In Mees F, Swennen R, Van Geet M and Jacobs P (eds.) *Applications of X-ray Computed Tomography in the Geosciences*, Geological Society of London Special Publication 215:7-22.

Articles in Refereed Journals / Books (continued):

† McFarlane C R M, **Carlson W D**, Connelly J N (2003) Prograde, peak, and retrograde P-T paths from aluminum in orthopyroxene: High-temperature contact metamorphism in the aureole of the Makhavinekh Lake Pluton, Nain Plutonic Suite, Labrador. *Journal of Metamorphic Geology* 21:405-423.

† Hirsch D M, Prior D J, **Carlson W D** (2003) An overgrowth model to explain multiple, dispersed high-Mn regions in the cores of garnet porphyroblasts. *American Mineralogist* 88:131-141.

Sahagian D, Proussevitch A, **Carlson W** (2003a) Timing of Colorado Plateau uplift: Initial constraints from vesicular basalt-derived paleoelevations; Reply [to comment of Libarkin and Chase]. *Geology* 31:192.

Sahagian D, Proussevitch A, **Carlson W** (2003b) Analysis of vesicular basalts and lava emplacement processes for application as a paleobarometer/ paleoaltimeter; Reply [to discussion by Bondre]. *Journal of Geology* 111:502-504.

Sahagian D, Proussevitch A, **Carlson W** (2002a) Timing of Colorado Plateau uplift: Initial constraints from vesicular basalt-derived paleoelevations. *Geology* 30:807-810.

Sahagian D, Proussevitch A, **Carlson W** (2002b) Analysis of vesicular basalts and lava emplacement processes for application as a paleobarometer/ paleoaltimeter. *Journal of Geology* 110:671-685.

Carlson W D (2002) Presidential Address: Scales of disequilibrium and rates of equilibration during metamorphism. *American Mineralogist* 87: 185-204.

Ketcham R A, **Carlson W D** (2001) Acquisition, optimization, and interpretation of X-ray computed tomographic imagery: Applications to the geosciences. *Computers and Geosciences* 27:381-400.

Rubin A E, Ulff-Møller F, Wasson J T, **Carlson W D** (2001) The Portales Valley meteorite breccia: Evidence for impact-induced metamorphism of an ordinary chondrite. *Geochimica Cosmochimica Acta* 65:323-342.

Taylor L A, Keller R A, Snyder G A, Wang W, **Carlson W D**, Hauri E H, McCandless T, Kim K-R, Sobolev V N, Bezborodov S M (2000) Diamonds and their mineral inclusions, and what they tell us: A detailed "pull-apart" of a diamondiferous eclogite. *International Geology Review* 42:959-983.

† Hirsch D M, Ketcham R A, **Carlson W D** (2000) An evaluation of spatial correlation functions in textural analysis of metamorphic rocks. *Geological Materials Research* 2 (article 3), 21 pp.

Articles in Refereed Journals / Books (continued):

Taleff E M, Leon-Salamanca T, Ketcham R, Reyes R, **Carlson W D** (2000) Non-destructive evaluation of cavitation in a warm-deformed Al-Mg material. *Materials Science and Engineering A* 15:76-84.

Keller R A, Taylor L A, Snyder G A, Sobolev V N, **Carlson W D,** Bezborodov S M, Sobolev N V (1999) Detailed pull-apart of a diamondiferous eclogite xenolith: Implications for mantle processes during diamond genesis. Proceedings of the 7th International Kimberlite Conference, Gurney J J, Gurney J L, Pascoe M D, Richardson S H (Eds.), National Printers, South Africa, 1:397-412.

Carlson W D, † Denison C, Ketcham R A (1999) Visualization and quantitative analysis of igneous textures in three dimensions using high-resolution X-ray computed tomography. *Electronic Geosciences* 4 (article 3), 14 pp. [also published as *Visual Geosciences* 4:1-14]

Brown M A, Brown M, **Carlson W D**, † Denison C (1999) Topology of syntectonic melt flow networks in the deep crust: Inferences from three-dimensional images of leucosome geometry in migmatites. *American Mineralogist* 84:1793-1818.

Philpotts A R, Brustman C M, Shi J, **Carlson W D**, † Denison C (1999) Plagioclase chain networks in slowly cooled basaltic magma. *American Mineralogist* 84:1819-1829.

Kuebler K E, McSween H Y, **Carlson W D**, † Hirsch D (1999) Sizes and masses of chondrules and metal-troilite grains in ordinary chondrites: Possible implications for nebular sorting. *Icarus* 141:96-106.

Carlson W D, † Donelick RA, Ketcham R (1999) Variability of apatite fission-track annealing kinetics I: Experimental results. *American Mineralogist* 84:1213-1223.

† Donelick RA, Ketcham R, **Carlson W D** (1999) Variability of apatite fission-track annealing kinetics II: Crystallographic orientation effects. *American Mineralogist* 84:1224-1234.

Ketcham R, † Donelick RA, **Carlson W D** (1999) Variability of apatite fission-track annealing kinetics III: Extrapolation to geological time scales. *American Mineralogist* 84:1235-1255.

Carlson W D (1999) The case against Ostwald ripening of porphyroblasts. *Canadian Mineralogist* 37:403-413.

† Chernoff C B, **Carlson W D** (1999) Trace-element zoning as a record of chemical disequilibrium during garnet growth. *Geology* 27:555-558.

Articles in Refereed Journals / Books (continued):

† Rougvie, J R, **Carlson W D**, Copeland P, Connelly J (1999) Late thermal evolution of Proterozoic rocks in the northeastern Llano Uplift, central Texas, *Precambrian Research*. 94:49-72.

Carlson W D (1998) Petrologic constraints on the tectonic evolution of the Llano Uplift. *In* Gilbert C, and Hogan, J P, eds., *Basement Tectonics* 12:3-27, Kluwer, Dordrecht.

Carlson W D, † Schwarze E T (1997) Petrological significance of prograde homogenization of growth zoning in garnet: An example from the Llano Uplift. *Journal of Metamorphic Geology* 15:631-644.

† Chernoff C B, **Carlson W D** (1997) Disequilibrium for Ca during growth of pelitic garnet. *Journal of Metamorphic Geology* 15:421-438.

† Denison C, **Carlson W D**, Ketcham R A (1997) Three-dimensional quantitative textural analysis of metamorphic rocks using high-resolution computed X-ray tomography: Part I. Methods and techniques. *Journal of Metamorphic Geology* 15:29-44.

† Denison C, **Carlson W D** (1997) Three-dimensional quantitative textural analysis of metamorphic rocks using high-resolution computed X-ray tomography: Part II. Application to natural samples. *Journal of Metamorphic Geology* 15:45-57.

Carlson W D, † Denison C, Ketcham R A (1995) Controls on the nucleation and growth of porphyroblasts: Kinetics from natural textures and numerical models. *Geological Journal* 30: 207-225.

Carlson W D, Reese J R (1994) Nearly pure iron staurolite in the Llano Uplift and its petrologic significance. *American Mineralogist* 79:154-160.

Carlson W D (1993) Mechanisms and kinetics of apatite fission-track annealing: Reply to Green et al. *American Mineralogist* 78:449-452.

Carlson W D (1993) Mechanisms and kinetics of apatite fission-track annealing: Reply to Kevin D. Crowley. *American Mineralogist* 78:213-215.

Carlson W D, † Denison C (1992) Mechanisms of porphyroblast crystallization: Evidence from high-resolution computed X-ray tomography. *Science* 257:1236-1239.

Carlson W D (1991) Competitive diffusion-controlled growth of porphyroblasts. *Mineralogical Magazine* 55:317-330.

Carlson W D, † Johnson C D (1991) Coronal reaction textures in garnet amphibolites of the Llano Uplift. *American Mineralogist* 76:756-772.

Carlson W D (1990) Mechanisms and kinetics of apatite fission-track annealing. *American Mineralogist* 75:1120-1139.

Articles in Refereed Journals / Books (continued):

† Johnson C D, **Carlson W D** (1990) The origin of olivine-plagioclase coronas in metagabbros from the Adirondack Mountains, New York. *Journal of Metamorphic Geology*, 8:697-717.

Carlson W D (1989) The significance of intergranular diffusion to the mechanisms and kinetics of porphyroblast crystallization. *Contributions to Mineralogy and Petrology* 103:1-24.

† Nelis M K, Mosher S, **Carlson W D** (1989) Grenville-age orogeny in the Llano Uplift of central Texas: Deformation and metamorphism of the Rough Ridge Formation. *Geological Society of America Bulletin* 101:876-883.

Carlson W D (1989) Subsolidus phase equilibria near the enstatite-diopside join in CaO-MgO-Al_2O_3-SiO_2 at atmospheric pressure. *American Mineralogist* 74:325-332.

Davidson, P M, Lindsley D H, **Carlson W D** (1988) Thermochemistry of pyroxenes on the join $Mg_2Si_2O_6$-$CaMgSi_2O_6$: A revision of the model for pressures up to 30 kilobars. *American Mineralogist* 73:1264-1266.

Carlson W D, Rossman, G R (1988) Vanadium- and chromium-bearing andalusite: Occurrence and optical absorption spectroscopy. *American Mineralogist* 73:1366-1369.

Carlson W D, Swinnea J S, and † Miser D E (1988) Stability of orthoenstatite at high temperature and low pressure. *American Mineralogist* 73:1255-1263.

† Wilkerson A, **Carlson W D**, Smith D (1988) High-pressure metamorphism during the Llano Orogeny inferred from Proterozoic eclogite remnants. *Geology* 16:391-394.

Carlson W D (1988) Subsolidus phase equilibria on the forsterite-saturated join $Mg_2Si_2O_6$-$CaMgSi_2O_6$ at atmospheric pressure. *American Mineralogist* 73:232-241.

Carlson W D and Lindsley D H (1988) Thermochemistry of pyroxenes on the join $Mg_2Si_2O_6$-$CaMgSi_2O_6$. *American Mineralogist* 73: 242-252.

† Bebout G E, **Carlson W D** (1986) Fluid evolution and transport during metamorphism: Evidence from the Llano Uplift, Texas. *Contributions to Mineralogy and Petrology* 92:518-529.

Carlson W D (1986) Reversed pyroxene phase equilibria in CaO-MgO-SiO_2 from 925° to 1175 °C at one atmosphere pressure. *Contributions to Mineralogy and Petrology* 92:218-224.

Carlson W D (1986) Vanadium pentoxide as a high-temperature solvent for phase equilibrium studies in CaO-MgO-Al_2O_3-SiO_2. *Contributions to Mineralogy and Petrology* 92:89-92.

Articles in Refereed Journals / Books (continued):

Carlson W D, † Nelis M K (1986) An occurrence of staurolite in the Llano Uplift, central Texas. *American Mineralogist* 71:682-685.

Carlson W D (1985) Evidence against the stability of orthoenstatite above ~1005°C at atmospheric pressure in CaO-MgO-SiO_2 . *Geophysical Research Letters* 12:409-412

Carlson W D (1983) The polymorphs of $CaCO_3$ and the aragonite-calcite transformation. *Reviews in Mineralogy* 11:191-225.

Carlson W D (1983) Aragonite-calcite nucleation kinetics: An application and extension of Avrami transformation theory. *Journal of Geology* 91:57-71.

Carlson W D, Rosenfeld J L (1981) Optical determination of topotactic aragonite-calcite growth kinetics: Metamorphic implications. *Journal of Geology* 89:615-63.

Carlson W D (1980) The calcite-aragonite equilibrium: Effects of Sr-substitution and anion orientational disorder. *American Mineralogist* 65:1252-1262.

Other Publications:

Carlson W D (2011) Book Review: *Diffusion in Minerals and Melts*; review published in *Elements* 7:141.

Rowe T, Kappelman J, **Carlson W D**, Ketcham R A, Denison C (1997) High-resolution computed tomography: A breakthrough technology for earth scientists. *Geotimes*, September 1997, p. 23-27.

Carlson W D (1990) Enstatite. *Encyclopedia of Science and Technology* (7th Edition), McGraw-Hill.

Compact Disc:

Rowe T, **Carlson W D**, Bottorff W (1993) *Thrinaxodon: Digital Atlas of the Skull*. [CD-ROM], University of Texas Press, 297 megabytes.

Books and Journal Issues Edited:

Cloos M, **Carlson W D**, Gilbert M C, Liou JG, Sorensen SS [Editors] (2007) *Convergent Margin Terranes and Associated Regions: A Tribute to W. G. Ernst*, Geological Society of America Special Paper 419, 273 pp.

Sorensen SS, **Carlson W D** [Editors] (2005) An Ernstfest Festschrift: Mineralogy and petrology of high *P*/*T* terranes, *P*-*T*-ometry, and experimental phase relations. Commemorative Issue of *American Mineralogist*, Vol. 90, No. 5-6.

Abstracts:

Abstracts of ~150 sole-authored or co-authored presentations at meetings have been published since 1980. Chronological list available upon request.

EDUCATIONAL ACCOMPLISHMENTS AND ACTIVITIES

Teaching Awards:

Selected in 2010 as a recipient of the *University of Texas System Board of Regents Outstanding Teaching Award*.

Selected in 2008 as recipient of the *Outstanding Educator Award* of the Jackson School of Geosciences.

Selected in 2006 for membership in UT-Austin Academy of Distinguished Teachers, with title of *University Distinguished Teaching Professor*.

Selected ten times (2011, 2009, 2005 in two categories, 2004, 1994, 1991, 1988, 1985, 1981) to receive the *Carolyn G. and G. Moses Knebel Distinguished Teaching Award*.

Prior to 2005, this award was given annually to a single instructor selected by an open vote of all undergraduate and graduate students in geological sciences. Winners of the award were ineligible for two years thereafter, and no award was made in 1984. Thus between 1981 and 1994 I received this award every time my name appeared on the ballot.

Starting in 2005, separate awards were made for undergraduate teaching and graduate teaching, again by an open vote of all students in geological sciences. In 2005, I was selected for both awards; the 2009 and 2011 awards were for teaching at the undergraduate level. Winners of these awards are ineligible for one or two years thereafter.

Selected twice (1982, 1989) for the *College of Natural Sciences Teaching Excellence Award*.

Selected in 2010 as *UT Professor of the Month* for January, recognizing "dedication to students and passion for teaching"; awarded by UT Senate of College Councils.

Classroom Teaching and Field Instruction:

Undergraduate courses:

Crystallography and Optical Mineralogy; Earth Materials; Sedimentary and Metamorphic Petrology; Igneous and Metamorphic Petrology; Elementary Field Geology, Advanced Field Geology; Research Methods

Graduate courses:

Metamorphic Petrology; Advanced Metamorphic Petrology; Advanced Mineralogy; Phase Transitions; Thermodynamics of Geologic Processes; Kinetics of Geochemical Processes; X-ray Crystallography and Crystal Chemistry; Analytical Techniques; Advanced Analytical Techniques

Student evaluations of teaching available on request.

Academic Development and Service Activities:

Founder and co-director of Undergraduate Research Honors Program for the Jackson School of Geosciences (2006-present)

Instructor in College of Natural Sciences Dean's Scholars' Seminar (1989-1994)

Academic Development and Service Activities (continued):

Workshops and Short Courses on Teaching Effectiveness:

Teaching Conference for Experienced Faculty, U.T. Austin

1995, 1996 Participant
1990, 1991 Member of faculty organizing committee and participant
1986, 1989 Participant

Teaching Seminar for New Faculty, U.T. Austin, August 1980 - participant

Invited participant in NRC/NSF National Convocation on Undergraduate Education in Science, Mathematics, Engineering, and Technology (1995)

Member of Program Initiation Group for National Academy of Sciences study on undergraduate education and curricula in the earth sciences (1991)

Postdoctoral Research Supervision / Collaboration:

Eric Kelly (2012-2013)
Diffusion of trace elements in garnet: Rates, mechanisms and theory

Support: National Science Foundation
Resulting publications: in progress

Martin Robyr (2006-2008)
Textural, chemical, and microstructural analyses of snowball garnet

Support: Swiss National Science Foundation
Resulting publications: Robyr et al. (2009)

Raymond Donelick (1994-1996)
Experimental calibration of apatite fission-track annealing kinetics

Support: American Chemical Society – Petroleum Research Fund
Resulting publications: Carlson et al. (1999); Donelick et al. (1999); Ketcham et al. (1999)

Student Research Supervision:

Ph.D.: Stephanie Moore (in progress)
Epitaxial nucleation of porphyroblasts: Phenomenological and theoretical analysis

Eric Kelly (2012) (co-supervisor: R. Ketcham)
Unrecognized complexities of metamorphism: Crystallization kinetics, reaction affinity, and geochronology

Christopher Berg (2007)
Strain rates and constraints on chemical homogeneity and length scales of equilibration during Alpine metamorphism at Passo del Sole, central Swiss Alps

Student Research Supervision (continued):

Ph.D.: Christopher McFarlane (2003) (co-supervisor: J. Connelly)
Diffusion, closure temperatures, and accessory mineral petrogeneses in a high-temperature aureole: Refining the integration of P-T *and* t

David Hirsch (2000)
Quantitative studies of porphyroblastic textures

James Rougvie (1999)
Metamorphism in the northern Park Range of Colorado: Fluid-rock interactions and thermobarometry

Cambria Denison [a.k.a. Cambria Johnson] (1995)
Three-dimensional quantitative textural analysis of metamorphic rocks using high-resolution computed X-ray tomography: Methods, techniques, and application to natural samples

Jonathan Blount (1992)
The geochemistry, petrogenesis, and geochronology of the Precambrian meta-igneous rocks of Sierra Del Cuervo and Cerro El Carrizalillo, Chihuahua, Mexico

Donald Miser (1987) (co-supervisor: L. Land)
Microstructures in natural and synthetic dolomite

M.S.: Sarah Stacy (2012)
Evidence from high-temporal-resolution strain rates for strain softening due to episodic fluid influx at Passo del Sole, Central Swiss Alps

Elizabeth Hatley (2010)
Assessing the kinematic significance of the Plattengneis, a major intracrustal transport horizon in the Koralpe region, Eastern Alps

Emily McDowell (2010)
An evaluation of quartz-inclusion barometry by Raman microspectrometry: A case study from the Llano Uplift of central Texas

Wesley Crawford (2008)
The origin of partial-disequilibrium major- and trace-element zoning in garnets from the Picuris Mountains, New Mexico

James Hixon (2006)
Controls on scales of chemical equilibration during metamorphism: Insights from garnet zoning patterns

Student Research Supervision (continued):

M.S.: Edward Lane (2003)
An evaluation of the pressure dependence of rare-earth-element concentrations in garnets from the Llano Uplift

Charna Meth (2002)
Diffusion-controlled growth from a heterogeneous precursor: Garnet crystallization at Passo del Sole, Switzerland

Katherine Herrell (2002) (co-supervisor: S. Mosher)
Pegmatite-containing shear zones: A mechanism for the formation of isolated feldspar augen megacrysts at Willimantic Dome, central Connecticut

Susan Anderson (2001)
High-pressure metamorphism in the western Llano Uplift recorded by garnet-clinopyroxenites in Mason County, Texas

Joel Davidow (1996)
Proterozoic evolution of the Llano Uplift, central Texas: Evidence for high-pressure metamorphism from the Oxford mafic body

Carlotta Chernoff (1995)
Coupled compositional and three-dimensional textural analysis of garnet porphyroblasts

James Rougvie (1993)
Metamorphism and fluid flow in the Valley Spring Gneiss, Llano Uplift: Inferences from Rb-Sr and oxygen isotope data

Elizabeth Schwarze (1990)
Polymetamorphism in the Llano Uplift: Evidence from geothermobarometry and compositional zoning in garnet

Cambria Denison [a.k.a. Cambria Johnson] (1989)
Origin of olivine-plagioclase coronal textures from the Adirondack Mountains, New York State

Amy Wilkerson (1987) (co-supervisor: D. Smith)
Eclogite remnants in Purdy Hill Quadrangle, Mason County, Texas: P-T implications for the Llano Uplift

Stephen Robertson (1987)
Computer modeling of simultaneous garnet resorption and MnO diffusion

Student Research Supervision (continued):

M.S.: Susan Harris (1986)
Kinetics of diffusion-controlled reactions in garnet amphibolite, Llano County, Texas

Gray Bebout (1984)
Fluid evolution and transport during metamorphism: Evidence from the Llano Uplift, Texas

Mary Nelis (1984) (co-supervisor: S. Mosher)
Deformation and metamorphism of the Rough Ridge Formation, Llano County, Texas

B.S.: Ryan Cahalan (2012)
Determination of lithium diffusion rates in garnet and coupled diffusion of lithium and yttrium in garnet

Edward Cross (2011)
Epitaxial nucleation of garnet in coronal metagabbros from the Adirondack Mountains, New York

Casey Corbin (2010)
Geobarometry from Raman microspectrometry of quartz inclusions in garnet: An evaluation

Steven Arauza (2009)
Mechanisms of REE uptake in garnets: Testing competing models

Joshua Garber (2008)
Impact of fluid evolution on garnet growth in pelitic rocks from Harpswell Neck, Maine

Abena Temeng (2007)
Quantifying rates of intergranular diffusion of aluminum in metamorphic rocks

Elizabeth Hatley (2007)
EBSD analysis of garnet orientations and garnet-pair misorientations in metamorphic rocks

Melissa Halick (2005)
Tests of an overgrowth model of disequilibrium crystallization in garnets from Harpswell Neck, Maine

Wesley Crawford (2004)
A comparative study of eclogitic remnants from the Llano Uplift, central Texas

Student Research Supervision (continued):

B.S.: Paul Mehring (2004)
Electron-probe microanalysis chemical age dating of monazite in metamorphic rocks of the Llano Uplift

Christopher Gordon (2003)
The significance of matrix grain size to porphyroblast growth kinetics

Jaime Barnes (2000)
Major- and trace-element zoning as a function of garnet crystallization temperature

Adrienne Barnett (1999)
Quantitative textural analysis used to determine garnet porphyroblast nucleation and growth mechanisms on a blueschist from the Franciscan Complex, Jenner, California

Romy Schnieder (1999)
3-D textural analysis of a garnet-amphibolite rock from the Franciscan Complex of California: Nucleation and growth mechanism of porphyroblastic crystals using high-resolution X-ray computed tomography

Charna Meth (1999)
Quantitative textural analysis in determining crystallization control mechanisms of a diopside marble from Cascade Slide, Adirondack Mountains, New York

Jennifer Schaffer (1997)
Differential Global Positioning System (DGPS) mapping, petrography, and T-X constraints for the Loeffler Ranch marble lens, Mason County, Texas

Sneha Dholakia (1993)
Petrographic study of eclogites from south-central Llano Uplift (Oxford, Texas): Implications for high-pressure metamorphism and progressive regional variation in P-T conditions

Charlotte Bryant (1989)
A reconnaissance study of major-element and trace-element geochemistry for meta-igneous rocks in the Llano Uplift

David Baukus (1987)
The petrology of the inner aureole of the Enchanted Rock Pluton contact metamorphic event, Llano County, Texas

Roger Smith (1984)
Field and petrographic study of contact metamorphism in impure marbles, Horseshoe Bay West, Llano County, Texas

Student Research Supervision (continued):

B.S.: Thomas Cogswell (1984)
Metamorphic rocks of the Badu Hill area, Llano County, Texas

Student Research Committee Service:

Served on advisory committees for 24 completed PhD dissertations, 37 completed MS theses, and 12 completed BS Honors theses. Current service on committees for 5 in-progress PhD dissertations. Details available on request.

ADMINISTRATIVE ACCOMPLISHMENTS AND ACTIVITIES

(Major positions/activities in boldface)

University of Texas at Austin:

2010-2012	Chair, Independent Inquiry Course Flag Committee
2009-2011	*Ad Hoc* Committee for selection of Harrington Graduate Fellowship recipients
2006-2009	Faculty Advisory Committee for Texas Natural Science Center
2006-2009	University Faculty Advisory Committee on Budget
2006-2007	Selection Committee for Academy of Distinguished Teachers
2005-2007	University Research Internship Selection Committee
2006	*Ad Hoc* Committee on Research Integrity
2004-2005	**Chair, Jackson School of Geosciences Implementation Committee**
2000-2001	President's *Ad Hoc* Committee on Non-Tenure-Track Faculty
1996-2000	University Faculty Council
1998-2000	University Research Committee
1999	Search Committee, Director, Bureau of Economic Geology
1999	Screening Committee, Associate Vice-President for International Programs

Jackson School of Geosciences:

2013-2014	**Chair, Appointments Committee**
2012	Chair, *Ad Hoc* Committee on Selection of Assoc. Dean for Academic Affairs
2012-present	Executive Committee, Solid Earth and Tectonic Processes Theme
2006-present	Opportunity Hires Search Committee
2003-present	Equipment Committee [Chair, 2003-2005, 2011-2012]
2007-2008	Committee for Evaluation of Changes in Appointment
2007	Chair, Search Committee for DGS Chairperson
2005-2006	Dean Search Committee, Jackson School of Geosciences
2001-2005	Promotion Advisory Committee, Bureau of Economic Geology
2002-2004	**Steering Committee, Jackson School of Geological Sciences**

College of Natural Sciences:

2004	Chair, *ad hoc* Tenured Appointment Committee (Mathematics candidate)
2002	Chair, *ad hoc* Tenured Appointment Committee (Computer Sciences candidate)
2001	*Ad hoc* Committee for initial Jackson School charter
1996-2000	**Associate Dean for Academic Affairs, College of Natural Sciences**
1992-1994	Promotion and Tenure Committee, College of Natural Sciences

Department of Geological Sciences:

2003-present	**Faculty oversight of Electron-Beam and LA-ICPMS laboratories**
2009-2011	Committee on Information Technology Policy
2008-2009	Structure/Tectonics/Geochronology Faculty Search Committee
2008-2009	*Ad hoc* Committee on Undergraduate Equipment Acquisition
2008-2009	*Ad hoc* Committee, Research Scientist Promotion
2007-2008	Budget Council Promotion Committee

Department of Geological Sciences (continued):

2007-2008	Search Committee for Electron-Beam Facility Manager
2007-2008	*Ad hoc* Committee for Appointments to Endowed Positions
2007-2008	*Ad hoc* Committee for JSG Change-of-Appointment Requests
2006-2007	Chair, Search Committee for Chair of Department of Geological Sciences
2005-2006	Chair, Third-Year Review Committee
2003-2005	Chair, Research Scientist Review Committee
2003-2004	Third-Year Review Committee
2002-2003	Chair, Petrology-Geochemistry Faculty Search Committee (two positions)
2000-2002	**Department Representative, Geology Building Addition**
1983-2002	Equipment Acquisition Committee
2000-2001	Chair, Igneous Petrology Faculty Search Committee
1994-1996	**Chairman, Department of Geological Sciences**
1994-1996	**Associate Director, Geology Foundation**
1992-1996	Staff Oversight Committee
1985-1994	Sponsor, Undergraduate Student Geological Society
1988-1994	College of Natural Sciences Honors Program Committee
1984-1993	Search Committee (Department-wide, standing committee)
1990-1992	**Graduate Advisor**
1987-1990	Barron Gem and Mineral Collection Committee
1986-1990	Chairman: Postdoctoral, Sabbatical, and Lectureship Committee
1982-1987	Undergraduate Advising and Awards Committee
1982-1984	**Undergraduate Advisor**
1982-1984	Department of Geological Sciences Executive Council