

Thomas F. George

Chancellor, University of Missouri-St. Louis

Professor of Chemistry and Physics



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Address:

Office of the Chancellor
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tfgeorge@umsl.edu
<http://www.umsl.edu/chancellor/>

Birth: 1947, Philadelphia, Pennsylvania

Citizenship: USA

Education and Degrees:

High school diploma (with honors and varsity letters in soccer and wrestling), Friends' Central School (Wynnewood, Pennsylvania), 1963.
B.A. (*Phi Beta Kappa*), double major in chemistry (with honors) and mathematics (with honors), Gettysburg College, 1967.
M.S. in chemistry, Yale University, 1968.
Ph.D. in chemistry, Yale University, 1970.

Academic Positions:

Research Associate, Massachusetts Institute of Technology, 1970-71.
Postdoctoral Appointee, University of California at Berkeley, 1971-72.

Assistant Professor of Chemistry, University of Rochester, 1972-74.
Associate Professor of Chemistry, University of Rochester, 1974-77.
Professor of Chemistry, University of Rochester, 1977-85.
Mercer Brugler Distinguished Professor, University of Rochester, 1985 (declined).
Dean of Natural Sciences and Mathematics / Professor of Chemistry and Physics,
State University of New York at Buffalo, 1985-91.
Adjunct Professor of Chemistry and Physics, State University of New York at Buffalo,
1991-93.
Provost and Academic Vice President / Professor of Chemistry and Physics,
Washington State University, 1991-96.
Adjunct Research Professor of Physics, Korea University (Seoul, Korea), 1994-99.
Chancellor / Professor of Chemistry and Physics, University of Wisconsin-Stevens
Point, 1996-2003.
Visiting Professor of Physics, Korea University (Seoul, Korea), 1999-2006.
Chancellor / Professor of Chemistry and Physics, University of Missouri-St. Louis,
2003-.

The responsibilities and accomplishments associated with the above administrative appointments as chancellor, provost and dean are not shown in this abbreviated faculty vita; highlights are provided in the [administrative biography](#).

Honors and Awards:

Eagle Scout (with bronze/gold/silver palms, 62 merit badges, Order of the Arrow, Valley Forge Trail Medal and God & Country Medal), 1961.
Union League of Philadelphia Award, 1961.
Stine Chemistry Prize, Gettysburg College, 1967.
Undergraduate Award, Southeastern Pennsylvania Section, American Chemical Society, 1967.
Sigma Xi (Scientific Research Society), 1970.
Postdoctoral Research Award, National Research Council-National Bureau of Standards, 1972-73 (declined).
Camille and Henry Dreyfus Foundation Teacher-Scholar, 1975-85.
Alfred P. Sloan Foundation Research Fellow, 1976-80.
Marlow Medal and Prize, Royal Society of Chemistry (Great Britain), 1979.
New York Academy of Sciences Fellow, 1981.
University of Rochester Mentor, 1982-83.
John Simon Guggenheim Memorial Foundation Fellow, 1983-84.
American Physical Society Fellow, 1984.
Distinguished Alumni Award, Gettysburg College, 1987.
Society of Photo-Optical Instrumentation Engineers Fellow, 1994.
American Association for the Advancement of Science Fellow, 1994.
Omicron Delta Kappa (National Leadership Honor Society), University of Wisconsin-Stevens Point, 1999.
Faculty Scholar Award, University of Wisconsin-Stevens Point Chapter, Sigma Xi, 1999.
Outstanding Contributions to Chemistry Award, Central Wisconsin Section, American Chemical Society, 2002.
Distinguished Alumni Award, Friends' Central School, 2003.
Korean Academy of Science and Technology (foreign member), 2004.
Honor Society of Phi Kappa Phi (honorary member), University of Missouri-St. Louis, 2006.
Outstanding Community Service Award, St. Louis County Branch of the National Association for the Advancement of Colored People, 2006.
Distinguished Higher Education Award, Dr. Martin Luther King, Jr., Missouri State Celebration Commission, 2008.
St. Louis North County Chamber of Commerce Citizen of the Year, 2008.

Lectureships:

Distinguished Visiting Lecturer, Department of Chemistry, University of Texas at Austin, 1978; five lectures presented.
Lecturer, NATO Advanced Study Institute on Semiclassical Methods in Molecular Scattering and Spectroscopy, Cambridge University, England, 1979; six lectures presented.
Distinguished Speaker, Department of Chemistry, University of Utah, 1980.
Distinguished Lecturer, Air Force Weapons Laboratory, Kirtland Air Force Base, 1980; three lectures presented.

Lecturer, NATO Summer School on Interfaces under Photon Irradiation, Maratea, Italy, 1986; two lectures presented.
Lecturer, Smithsonian Institution/American Chemical Society Lecture Series on Chemistry at the Cutting Edge, Washington, D.C., 1990.
Lecturer, 5th International Topsøe Summer School on Nonlinear Optics, University of Aalborg, Denmark, 1992.
Dow Lecturer in Polymer Science, Department of Chemistry, University of Detroit Mercy, 1996.
Musselman Lecturer, Department of Chemistry, Gettysburg College, Gettysburg, Pennsylvania, 1999; three lectures presented.
Distinguished Lecturer, Korean Academy of Science and Technology, Seoul, Korea, 2003.
Frank and Elaine Moss Distinguished Lecturer, Department of Physics & Astronomy, University of Missouri–St. Louis, 2007.

(370 lectures overall - 130 invited/plenary conference lectures and 240 seminars, colloquia and talks)

Societies and Organizations:

American Chemical Society, 1968-; American Physical Society, 1968-; Sigma Xi, 1970-; Royal Society of Chemistry (Great Britain), 1975-; New York Academy of Sciences, 1979-; Society of Photo-Optical Instrumentation Engineers, 1979-2002; Council of Colleges of Arts and Sciences, 1985-91; Buffalo Society of Natural Sciences, 1986-; European Physical Society, 1986-2003; American Association for the Advancement of Science, 1989-; Materials Research Society, 1992-; Northwest Scientific Association, 1992-96; Northwest Academic Forum, Western Interstate Commission for Higher Education, 1992-96; Kiwanis Club of Stevens Point, 1996-2003; National Wellness Institute, 1997-2003; Midwest Jazz Society, 1997; Boy Scouts of America (Samoset Council, Wisconsin, 1998-2003, Greater St. Louis Area Council, 2004-); Girl Scouts of America (Woodland Council, Wisconsin), 1998; Wisconsin Center for Academically Talented Youth, 1999-2003; American Society for Laser Medicine and Surgery, 2003; St. Louis Theatre Organ Society, 2005.

Offices:

Chair, Physical Division, American Chemical Society, 1987-88 (Chair-Elect, 1986-87; Vice-Chair, 1985-86).
Chair, Northwest Academic Forum, Western Interstate Commission for Higher Education, 1994-95 (Program Chair, 1993-94).
Chair, United Way of Portage County Campaign, Wisconsin, 1999 (Vice-Chair, 1998).
President, Board of Directors, United Way of Portage County, Wisconsin, 2001-02.
President, Samoset Council Board, Boy Scouts of America, Wisconsin, 2002-03 (President-Elect, 2001-02).
Vice-President, Board of Directors, Stevens Point Area YMCA, Wisconsin, 2002-03 (Secretary/Treasurer, 2002).
Secretary/Treasurer, Higher Education Consortium of Metropolitan St. Louis, 2007-.

Journal Editorship:

Editor, [*International Journal of Theoretical Physics, Group Theory and Nonlinear Optics*](#), 1999-.

(Other editorships for books, conference proceedings and specific volumes of journals are listed below under [Edited Books and Volumes](#).)

Journal Editorial Boards:

Advisory Editorial Board, *Chemical Physics Letters*, 1979-81.
Advisory Board, *Journal of Physical Chemistry*, 1980-84.
Editorial Board, *Molecular Physics*, 1984-92.
Editorial Advisory Board, *Chemistry of Materials*, 1989.
Editorial Board, *Journal of Cluster Science*, 1989-97.
Editor-at-Large, Marcel Dekker, Inc., 1989.
Editorial Advisory Board, *Journal of Quantum Nonlinear Phenomena*, 1991-96.
Editorial Advisory Board, *Nova Journal of Theoretical Physics*, 1996-97.
Editorial Advisory Board, *International Journal of Theoretical Physics, Group Theory and Nonlinear Optics*, 1998.
Editorial Advisory Board, *International Journal of Green Nanotechnology*, 2008-.

Civic and Professional Boards:

Board of Managers, Buffalo Museum of Science, 1986-92.
Board of Trustees (Alternate), Calspan-UB Research Center, 1989-91.
Executive Board, New York State Institute on Superconductivity, 1990-91.
Board of Directors (*ex officio*), University at Buffalo Sciences Alumni Association, 1989-91.
Board of Directors, Washington State Institute for Public Policy, 1991-96.
Board of Trustees, Washington State University Foundation, 1991-96.
Board of Directors, Washington Technology Center, 1992-96 (appointment by the Governor of Washington).
Administrative Board, State of Washington Water Research Center, 1993-96.
Board of Trustees and Board of Directors (Alternate), Associated Western Universities, 1993-96.
Board of Directors, Technology Alliance (State of Washington), 1996.
Board (Alternate), Joint Center for Higher Education, Spokane, Washington, 1996.
Board of Directors (*ex officio*), University of Wisconsin-Stevens Point Foundation, 1996-2003.
Board of Directors (*ex officio*), University of Wisconsin-Stevens Point Paper Science Foundation, 1996-2003.
Board of Directors, United Way of Portage County, Wisconsin, 1997-2003.
Board of Directors, Portage County Business Council, Wisconsin, 1998-2003.
Board of Directors, Stevens Point Area YMCA, Wisconsin, 1998-2003.
Midwestern Higher Education Commission, 1999-2005 (appointment by the Governor of Wisconsin).
Board of Directors, Saint Michael's Hospital, Stevens Point, Wisconsin, 1999-2003.
Founding Board of Directors, Distributed Learning Workshop, Midwestern Higher Education Commission, 1999-2003.
Advisory Panel, Gethrucollege.com, 1999.
Samoset Council Board, Boy Scouts of America, Wisconsin, 2000-03.
Melvin R. Laird Endowment Advisory Board (*ex officio*), 2000-03.
Board of Directors, WiSys Technology Foundation (subsidiary of Wisconsin Alumni Research Foundation), 2000-03.
Board of Directors, Wisconsin Center for Academically Talented Youth, 2001-03.
Advisory Council, Educational Directories Unlimited, 2001-06.
Board of Commissioners, Academic Advanced Distributed Learning Co-Laboratory, University of Wisconsin and Wisconsin Technical College Systems and U.S. Department of Defense, 2001-03.
Advisory Board, New Economy Workforce Coalition, Wausau, 2001-03.
Board of Directors, Marathon County Partners in Education, Wisconsin, 2002-03.
Advisory Council, Northern EDGE (Economic Development and Growing the Economy), Northern Wisconsin, 2002-03.
University of Missouri-St. Louis Chancellor's Council, 2003-.
Board of Governors, Fair St. Louis, 2003-.
Board of Trustees, Missouri Botanical Garden, 2003-.
Board of Directors, CORTEX (Center of Research, Technology and Entrepreneurial Expertise), 2003-.
Civic Progress (*ex officio*), 2003-.
Coalition for Plant and Life Sciences, 2003-.
Board of Directors, Higher Education Consortium of Metropolitan St. Louis, 2003- (Treasurer, 2007-).
Board of Directors, Center for Emerging Technologies, 2003-.
Board of Directors, Regional Chamber and Growth Association (*ex officio*), 2003-.
Board of Direction, St. Louis Mercantile Library (*ex officio*), 2003-.
Board of Directors, United Way of Greater St. Louis, 2004-09.
Board of Governors, Louis Stokes Missouri Alliance for Minority Participation, 2004-.
Commission on Advancement of Racial and Ethnic Diversity, American Council on Education, 2004-07.
Executive Board, Greater St. Louis Area Council, Boy Scouts of America, 2004-.
Board of Directors, Christian Hospital, St. Louis, 2004-.
Board of Trustees, John W. Barriger III National Railroad Library, 2004-.
Metropolitan Board of Directors, YMCA of Greater St. Louis, 2005-.
Commissioner, Midwestern Higher Education Compact, 2005-08 (appointment by the governor of Missouri).
Board of Trustees, St. Louis Science Center, 2005-08.
Board of Trustees, Academy of Science of St. Louis, 2006-.
St. Louis Coalition for Information Technology Board, 2006-.

Advisory Board, Department of Physics and Optical Engineering, Rose-Hulman Institute of Technology, 2007-.

Advisory Board, Halyard Education Partners, 2007.

St. Louis Center of Excellence Advisory Board (Life Sciences), 2007-.

Board of Directors, Innovate St. Louis, 2007-09.

Committees and Panels:

Committee on Recommendations for U.S. Army Basic Scientific Research, 1978-81.
Sakhorov International Committee, 1980.

Harrison Howe Award Committee, Rochester Section, American Chemical Society, 1980.

Awards Committee, Procter and Gamble Student Prizes in Physical Chemistry, American Chemical Society, 1982-3.

External Review Committee, Department of Chemistry, Gettysburg College, 1984.

Executive Committee, University of Rochester Chapter, Sigma Xi, 1984-85 (Membership Committee, 1981-84).

Chair, Canvassing Committee, Peter Debye Award in Physical Chemistry, American Chemical Society, 1987-1988 (member, 1986-88).

Steering Committee, New York State Center for Advanced Technology in Health-care Instruments and Devices, 1988-90.

Site Visit Team, New England Association of Schools and Colleges Ten-Year Accreditation of Boston University, 1989.

Peer Review Panel, Medical Free-Electron Laser Program, American Institute of Biological Sciences, 1989.

Review Panel, Research Experiences for Undergraduates, National Science Foundation, 1989.

Review Panel, Science and Technology Research Centers, National Science Foundation, 1989.

Resource Group to Help Develop New York State's Action Plan for the 1990's in Science and Engineering, 1990.

Review Panel, Office of Naval Technology/American Society for Engineering Education Postdoctoral Fellowship Program, 1990.

Site Visit Committees, Proposed Science and Technology Research Center in the Southwest, National Science Foundation, 1988,90.

Chair, Steering Committee, New York State Institute on Superconductivity, 1990-91 (member, 1987-91).

Chair, Canvassing Committee, Award in Pure Chemistry, American Chemical Society, 1990-91 (Member, 1989-91).

Council on Academic Affairs, National Association of State Universities and Land-Grant Colleges, 1991-96.

Washington Technology Center Review Committee, 1991-92.

Executive Committee, Northwest Academic Forum, Western Interstate Commission for Higher Education, 1992-96.

Review Panel, Graduate Research Traineeships, National Science Foundation, 1992.

Commission on Human Resources and Social Change, National Association of State Universities and Land-Grant Colleges, 1992-96.

Executive Committee, Physical Division, American Chemical Society, 1979-82,85-89,94-97.

National Nominating Committee, Outstanding Young Men of America, 1996.

Academic Affairs Subcommittee on Scientific Education Research and Training, American Association of State Colleges and Universities, 1996-98.

Commission on the Future of Gettysburg College, 1996-97.

Project 435 District Leadership Council, Wisconsin Association for Biomedical Research and Education/Research!America, 1997-98.

Review Panel, Preproposals for Science and Technology Centers, National Science Foundation, 1998.

Council of State Representatives, American Association of State Colleges and Universities, 1998-2002.

Portage County Urban Area Comprehensive Planning Committee, Wisconsin, 2000.

National Collegiate Athletic Association Division III Budget Committee, 2001-03.

Executive Group for On-Line Learning, University of Wisconsin System, 2001-03.

Federal Relations Council, University of Wisconsin System, 2001-03.

Board Quality Assurance Committee, 2001-03, and Finance Committee, 1999-2001,

Board of Directors, Saint Michael's Hospital, Stevens Point, Wisconsin.

Workforce Development Committee, Wausau/Marathon County Chamber of Commerce, 2001-02.

State Higher Education Executive Officers Committee on the Midwestern Higher Education Commission Services, 2001-03.
Boy Scouts of America: National Council, 2002-03; Nominating Committee, 2002-03, and Finance Study Chair for 2000-05 Strategic Planning, 1999-2000, Samoset Council, Wisconsin; Volunteer Resource Committee Chair, 1999, and Exploring Chair, 1998, Mushkodany District, Samoset Council.
Chair, Finance Committee, Directors, Stevens Point Area YMCA, 2002-03.
Workshop on Exploring the Concept of Undergraduate Research Centers, National Science Foundation, 2003.
Co-Chair, Strong Kids Campaign, Stevens Point Area YMCA, 2003.
Chair, American Heart Walk, Portage and South Wood Counties, Wisconsin, 2003.
Council of Chancellors, Great Lakes Valley Conference (Athletics), 2003-.
Missouri Council on Public Higher Education, 2003-.
Presidential Advisory Committee, Missouri Coordinating Board for Higher Education, 2003-.
Finance Committee and Joint Conference Committee, Christian Hospital, St. Louis, 2004-.
Steering Committee, St. Louis Regional Competitiveness Initiative, 2004-05.
Nominating Committee, Girl Scout Council of Greater St. Louis, 2005.
Strategic Vision Advisory Committee, St. Louis Zoo, 2005.
United Way of Greater St. Louis: Chair, Education Division, Campaign, 2005; Chair, University and Colleges Section, Campaign, 2004.
Metropolitan International Committee, YMCA of Greater St. Louis, 2005-.
Task Force on Mathematics and Science Enrollments, American Association of State Colleges and Universities, 2005-06.
Chair, Learning for Life Committee, Greater St. Louis Area Council, Boy Scouts of America, 2006-.
Chair, Policy Research Advisory Committee, Midwestern Higher Education Compact, 2006- (member, 2005-).
Chair, Plant and Life Science Network, Regional Chamber and Growth Association, 2007.
Board Development Committee, Girl Scouts of Eastern Missouri, 2007-10.
St. Louis Public Schools Advisory Council for Creating the Best Choice in Urban Education, 2007.
Awards Committee, Butterfly House Advisory Committee, and Science and Conservation Committee, Missouri Botanical Garden, 2007-.

In addition to the above, there are various local committees associated with university appointments at Rochester, Buffalo, Washington and Wisconsin.

Conference Administrative Responsibilities:

Organizer, National Science Foundation Workshop on Theoretical Aspects of Laser Radiation and Its Interaction with Atomic and Molecular Systems, Rochester, New York, 1977.
Vice-Chair, Vith International Conference on Molecular Energy Transfer, Rodez, France, 1979.
Chair, Gordon Research Conference on Molecular Energy Transfer, Wolfeboro, New Hampshire, 1981.
Program Committee, 4th-6th International Conferences on Lasers and Applications, New Orleans, Louisiana, 1981,82, and San Francisco, California, 1983.
Committee of the Symposium on Recent Advances in Surface Science, Rochester Section of the American Chemical Society, Rochester, New York, 1982.
Program Committee, International Laser Science Conference, Dallas, Texas, 1985.
Organizer, Symposium on Laser-Induced Molecular Excitation/Photofragmentation, March Meeting of the American Physical Society, New York, New York, 1987.
Program Chair, Division of Physical Chemistry Symposia, 193rd American Chemical Society National Meeting, Denver, Colorado, 1987.
Program Chair, Division of Physical Chemistry Symposia, 194th American Chemical Society National Meeting, New Orleans, Louisiana, 1987.
Program Committee, Second Annual Conference on Superconductivity and Applications, Buffalo, New York, 1988.
Co-Organizer, Symposium on Physical Chemistry of High-Temperature Superconductors, 196th American Chemical Society National Meeting, Los Angeles, California, 1988.
Co-Organizer, Symposium on High-Temperature Superconductors, Materials Research Society Meeting on Frontiers in Materials: Advanced Ceramics, Alfred, New

York, 1988.

Chair, Symposium on Photochemistry in Thin Films, Society of Photo-Optical Instrumentation Engineers OE/LASE '89, Los Angeles, California, 1989.

International Program Advisory Committee, International School on Lasers and Applications, Sayanogorsk, East Siberia, USSR, 1989.

Co-Author, Centerpiece Paper for the Governor's Conference on Science and Engineering Education, Research and Development: Developing New York State's Action Plan for the 1990's, Albany, New York, 1989.

International Advisory Committee, Xth International Vavilov Conference on Nonlinear Optics, Novosibirsk, West Siberia, USSR, 1990.

American Coordinator, Information Exchange Seminar on Theoretical Approaches to Energy Transfer and Photochemical Processes, United States-Japan Cooperative Research Program on Photoconversion and Photosynthesis, Honolulu, Hawaii, 1990.

Program Committee, International Workshop on Quantum Nonlinear Phenomena in Optics and Condensed Matter, Dubna, Russia, 1993.

International Advisory Board, International Conference on Advanced Laser Technologies, Moscow, Russia, 1992 and Konstanz, Germany, 1994.

Co-Organizer, Northwest Academic Forum 1994 and 1995 Annual Meetings, Portland, Oregon, 1994,95.

Program Committee, Optical Society of America Topical Meeting on Radiative Processes and Dephasing in Semiconductors, Coeur d'Alene, Idaho, 1998.

Scientific Committee, Sixth Brijuni International Conference on Interdisciplinary Topics in Physics and Chemistry: End of Century State of Science, Brijuni Isles, Croatia, 1998.

Super-Regional Steering Committee, Wisconsin Economic Summit I, 2000.

Chair, Central Wisconsin Regional Task Force, Wisconsin Economic Summits I and II, 2000,01.

Program Committee, Conference 3: Nanotechnology, International Symposium on Microtechnologies for the New Millennium, Society of Photo-Optical Instrumentation Engineers, Gran Canaria, Spain, 2003.

Planning Committee, Missouri Governor's Higher Education Conference, 2004.

International Advisory Committee, 9th International Conference on Squeezed States and Uncertainty Relations, Besançon, France, 2005.

Chair, St. Louis Local Committee, 2006 American Association for the Advancement of Science Annual Meeting, St. Louis, Missouri, 2005-06.

In addition to the above, session chair or panelist at 53 conferences.

Media:

"Q&A with Chancellor Tom," *The Pointer* (weekly student newspaper), 1996-98.

"Chancellor's Corner," Monthly column in the *Stevens Point Journal*, 1998-2003.

"Conversations with Tom George," Monthly interview show (with multiple airings) on UWSP campus television, 2000-03.

Who's Who Listings:

Who's Who in the World (Marquis)

Who's Who in America (Marquis)

International Who's Who in Optical Science and Engineering (Marquis)

Who's Who in Frontiers of Science and Technology (Marquis)

Who's Who in the East (Marquis)

American Men and Women of Science (R. R. Bowker)

Who's Who in Technology Today (J. Dick Publishing)

Who's Who in Society (American Publishing)

Who's Who in Science and Engineering (Marquis)

Who's Who in the West (Marquis)

Who's Who in American Education (Marquis)

Who's Who in Technology (Gale Research)

Who's Who (Strathmore)

Who's Who in the Midwest (Marquis)

Who's Who in Polymers and Plastics (Technomic)

Lexington Who's Who

Teaching:

Experience in all aspects of teaching at the undergraduate level (with course enrollments ranging as high as 750 students), the graduate level (including supervision of master's and doctoral students), and other settings such as

Elderhostel, both as a faculty member and as an administrator; introduced the use of computers into pedagogy as early as the 1970s for a non-majors course in physical chemistry with the help of funding from the Dreyfus Foundation; established Virtual WSU while serving as provost at Washington State University, which was a university-wide effort to utilize technology to enhance teaching and learning; as chancellor at the University of Wisconsin-Stevens Point, worked with the university community to develop a strategic plan for which technology-enhanced learning is a key theme, and organized a technology summit which has evolved into an annual teaching conference between the fall and spring semesters, attracting participants from around the state; co-principal investigator in 2003-05 with scientists from UW-Stevens Point, Rose-Hulman Institute of Technology and Indiana State University on a grant for \$100,000 from the National Science Foundation to develop a sophomore-level course and textbook on nanotechnology.

Research:

Theory of laser-induced chemical physics, nonlinear optics, molecular collision dynamics, chemical reactions, energy transfer, molecular clusters/nanostructures, fractals, surface and solid-state chemistry/physics, high-temperature superconductivity and polymers.

685 articles/chapters; 5 textbooks on various aspects of quantum/classical mechanics and chemical/materials/optical/nano-physics; 15 edited books/volumes; 205 conference abstracts; various other writings, such as book reviews, technical reports and general interest articles in local university publications.

Nearly \$5 million in grants/contracts from the American Chemical Society-Petroleum Research Fund, National Science Foundation, Research Corporation, Air Force Office of Scientific Research, Camille and Henry Dreyfus Foundation, Alfred P. Sloan Foundation, National Aeronautics and Space Administration, United States-Israel Binational Science Foundation, National Resource for Computation in Chemistry, Office of Naval Research, Army Research Office, John Simon Guggenheim Memorial Foundation, New York State Institute on Superconductivity and North Atlantic Treaty Organization; 583 service units of computer time at the Pittsburgh Supercomputing Center and Cornell National Supercomputer Facility. Three recent grants are: (1) \$13,000 in 2003-06 from the National Science Foundation with scientists at UW-Stevens Point and the University of Szeged in Hungary for studies of ultrafast phase changes in semiconductors; (2) \$270,000 in 2004-07 from the Army Research Office with scientists from the University of Illinois at Chicago, Argonne National Laboratory and Indiana State University to study diamond-like and self-assembling organic nanostructures; and (3) \$20,000 in 2007-08 from the North Atlantic Treaty Organization with scientists from West University of Timisoara in Romania for studies of rapid-detection sensors..

Authored Books:

1. F. Battaglia and T. F. George, *Notes in Classical and Quantum Physics* (Blackwell Scientific Publications, Oxford, 1990), 280 pages [Italian translation: F. Battaglia, T. F. George and E. Gallicchio, *Lezioni di Fisica Classica e Quantistica* (Casa Editrice Dott. Antonio Milani, Padova, Italy, 1996)].
2. F. Battaglia and T. F. George, *Fundamentals in Chemical Physics* (Kluwer Academic Publishers, Dordrecht, The Netherlands, 1998), 326 pages.
3. H. F. Arnoldus and T. F. George, *Phase Conjugation in a Layer on Nonlinear Material* (Nova Science Publishers, Hauppauge, New York, 2005), 124 pages [reprinted from H. F. Arnoldus and T. F. George, "Phase Conjugation in a Layer on Nonlinear Material," *International Journal of Theoretical Physics, Group Theory and Nonlinear Optics* **10**, 285-369 (2003)].
4. T. F. George, L. Braescu, A. M. Balint, L. Nánai and S. Balint, *Microcomputer Modeling of Growth Processes of Single-Crystal Sheets and Fibers* (Nova Science Publishers, Hauppauge, New York, 2007), 199 pages.
5. L. Tilstra, S. A. Broughton, R. S. Tanke, D. Jelski, V. A. French, G. P. Zhang, A. K. Popov, A. B. Western and T. F. George, *The Science of Nanotechnology: An Introductory Text* (Nova Science Publishers, Hauppauge, New York, 2008), in press. 185 pages.
6. A. K. Zhukov, S. W. Kim and T. F. George, "The World of Quasiparticles (Springer, Heidelberg), in preparation.

Edited Books and Volumes:

1. T. F. George, Editor, *Theoretical Aspects of Laser Radiation and Its Interaction with Atomic and Molecular Systems*, Report of a National Science Foundation Workshop (University of Rochester, Rochester, 1977), 53 pages.
2. T. F. George, Guest Editor, January/February 1980 issue (Volume 19) of *Optical Engineering* featuring "Laser Applications to Chemistry," 112 pages.
3. T. F. George, Feature Editor, February 1987 issue (Volume 4) of the *Journal of the Optical Society of America, Part B*, featuring "Laser-Induced Molecular Physics at Surfaces," 108 pages.
4. T. F. George and M. Poliakoff, Guest Editors, February 1987 issue (Volume 43) of *Spectrochimica Acta, Part A*, Proceedings of the International Conference on "Chemistry by Infrared Lasers," 180 pages.
5. D. L. Nelson and T. F. George, Editors, *Chemistry of High-Temperature Superconductors* (American Chemical Society, Washington, D.C., 1987), *American Chemical Society Symposium Series*, Volume 351, 340 pages (translated into Russian and printed in Russia).
6. D. L. Nelson and T. F. George, Editors, *Chemistry of High-Temperature Superconductors II* (American Chemical Society, Washington, D.C., 1988), *American Chemical Society Symposium Series*, Volume 377, 349 pages.
7. T. F. George, Editor, *Photochemistry in Thin Films* (Society of Photo-Optical Instrumentation Engineers, Bellingham, Washington, 1989), *Proceedings of the Society of Photo-Optical Instrumentation Engineers*, Volume 1056, 278 pages.
8. D. A. Jelski and T. F. George, Editors, *Computational Studies of New Materials* (World Scientific Publishing Company, Singapore, 1999), 464 pages.
9. V. A. Markel and T. F. George, Editors, *Optics of Nanostructured Materials* (John Wiley & Sons, New York, 2001), *Lasers and Applications Series*, 565 pages.
10. H. F. Arnoldus and T. F. George, Editors, *Theoretical Physics 2001* (Nova Science Publishers, Huntington, New York, 2002), *Horizons in World Physics*, Volume 238, 295 pages.
11. T. F. George, X. Sun and G. P. Zhang, Editors, *Modern Topics in Chemical Physics* (Research Signpost, Trivandrum, India, 2002), 419 pages.
12. T. F. George and H. F. Arnoldus, Editors, *Theoretical Physics 2002, Part 1* (Nova Science Publishers, Hauppauge, New York, 2002), *Horizons in World Physics*, Volume 239, 231 pages.
13. T. F. George and H. F. Arnoldus, Editors, *Theoretical Physics 2002, Part 2* (Nova Science Publishers, Hauppauge, New York, 2002), *Horizons in World Physics*, Volume 243, 261 pages.
14. G. A. Mansoori, T. F. George, L. Assoufid and G. P. Zhang, Editors, *Molecular Building Blocks for Nanotechnology: From Diamondoids to Nanoscale Materials and Applications* (Springer, New York, 2007), *Topics in Applied Physics*, Volume 109, 440 pages.
15. H. F. Arnoldus and T. F. George, Editors, *New Topics in Theoretical Physics* (Nova Science Publishers, Hauppauge, New York, 2007), *Horizons in World Physics*, Volume 258, 89 pages.

Course Material:

T. F. George and D. H. Turner, *General Chemistry Materials*, 1985 Edition (Ginn Press, Lexington, Massachusetts, 1985), 457 pages.

Articles and Chapters Since 2005:

608. P. H. Handel, X. Hu, T. F. George and L. Nánai, "Fractal Dimension of Quantum 1/f Noise Samples," *Chaos, Solitons and Fractals* **23**, 1-4 (2005).
609. A. E. Pap, K. Kordás, G. Tóth, J. Levoska, A. Uusimäki, J. Vähäkangas, S. Leppävuori and T. F. George, "Thermal Oxidation of Porous Silicon: Study on Structure," *Applied Physics Letters* **86**, 041501-1-3 (2005).
610. K. H. Yeon, S. K. Hong, C. I. Um and T. F. George, "Quantum Unitary Transformation Corresponding to the Classical Square Canonical Transformation and Its Connected Quantum Systems," *Journal of the Korean Physical Society* **46**, 591-6 (2005).
611. S. Li, T. F. George and X. Sun, "Charge Flipping of Spin Carriers in Conducting Polymers," *Journal of Physics: Condensed Matter* **17**, 2691-7 (2005).
612. G. Tóth, K. Kordás, J. Vähäkangas, A. Uusimäki, T. F. George and L. Nánai,

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In addition to the above, a number of articles are currently under review by journals.

Musical Activities:

Co-owner of Vivace Press, a music publishing company founded in 1990 which specializes in women and underrepresented composers.

Philadelphia, New Haven and Boston areas, 1964-70: Substitute church organist.

Western New York, 1978-91: Solo jazz keyboardist and leader of a combo appearing in local restaurants/lounges and university/community events in Rochester, Buffalo and elsewhere in Western New York; classical piano accompanist for various church choirs; arranger and accompanist for cabaret shows; performer on radio and television; accompanist on a locally-produced choir album; guest lecturer/performer for a class in the Department of Music at the State University of New York at Buffalo. [Performer in concert with Russian and Armenian jazz musicians in Krasnoyarsk, East Siberia, 1990.]

Washington, 1991-96: Performer at receptions and various university/community events (recruitment, fund-raising, etc.) in Pullman, Spokane and Seattle; performer in concert with the WSU Jazz Big Band; featured performer on several KWSU television shows in the series "Palouse Performance" with repeated showings and webcasting years later; member of different jazz combos appearing on campus and in local restaurants/lounges; performer and choir accompanist in local churches; lecturer/performer in Elderhostel and guest lecturer/performer for a class in the School of Music and Theatre Arts at Washington State University; arranger and performer in a duo with a trumpeter/flügelhornist on a compact disc entitled *Close Your Eyes: Women Jazz Composers* (Label: Hester Park, 1995) - for excerpts from reviews, see [Selected Critical Acclaim](#), and for a sample complete review see [Review of Musical CD](#).

Wisconsin, 1996-2003: Performer as soloist and with combos/ensembles (including singers) and bands at receptions and events at the University and throughout the state; performer with vocal jazz ensembles at the Stevens Point Area Senior High School; performer in musical plays; local airing on radio and television; performer and choir accompanist for local churches; accompanist for a classical violinist for the Wisconsin Center for Academically Talented Youth; performer in a class under the auspices of Elderhostel; performer in local restaurants/lounges; guest appearance in the Madison Music Collective Series.

Missouri, 2003-: Performer as soloist and with combos/ensembles (including singers) throughout the St. Louis community, the state and at the university, including the University Jazz Ensemble; live performances on local television; guest appearance with the Maynard Ferguson Band; soloist with high-school and other bands at the Missouri Music Educators' Association Annual Conference; performer for fund-raisers at different venues, including the Governor's Mansion, Sheldon Concert Hall and Finale; performer at the Touhill Performing Arts Center; performer at the St. Louis Jazz & Heritage Festival; performer in local restaurants and churches; performance of music by women jazz composers at the University of Arkansas, Nanjing University in China, and the city of Szeged in Hungary; key organizer and

performer on a compact disc entitled *Chancellor Tom George and Friends Present "Love from St. Louis"* (University of Missouri–St. Louis, 2007).

Spouse:

Married since 1970 to [Dr. Barbara Harbach](#) – professor of music, University of Missouri–St. Louis (formerly professor of music, Washington State University, and associate professor of mathematics and computing, University of Wisconsin–Stevens Point, specializing in web and digital media development); harpsichordist, organist, recording artist and composer; co-editor of *Women of Note Quarterly*; B.A., Pennsylvania State University; M.M.A., Yale University; D.M.A., Eastman School of Music; konzertdiplom, Musikhochschule, Frankfurt, Germany; honorary doctorate in music (*honoris causa*), Wilmington College, Ohio.