

Tobin J. Marks

SHORT BIOGRAPHICAL SKETCH

Date and Place of Birth: November 25, 1944, Washington, D.C.

Education: B.S. University of Maryland, 1966; Ph.D. Massachusetts Institute of Technology, 1971.

Assistant Professor of Chemistry, Northwestern University, 1970 - 1974; Associate Professor, 1974 - 1978; Professor, 1978; Charles E. & Emma H. Morrison Professor of Chemistry, 1986-; Professor of Materials Science and Engineering, 1987-; Vladimir N. Ipatieff Professor of Catalytic Chemistry, 1999-.

Honors and Fellowships

N.S.F. Predoctoral Fellow; Alfred P. Sloan Fellow; Camille and Henry Dreyfus Teacher-Scholar; DuPont Young Faculty Fellow; 1979 Fresenius Pure and Applied Chemistry Award of Phi Lambda Upsilon; Innovation Recognition Award, Union Carbide Corporation; 1984 ACS Arthur K. Doolittle Award in Polymeric Materials Science and Engineering; 1984 Sobral Medal, Portuguese Chemical Society; 1986-1987 Mack Awardee and Lecturer, Ohio State U.; 1989 American Chemical Society Award in Organometallic Chemistry. Guggenheim Fellow, 1989-1990; Fellow, American Academy of Arts and Sciences, 1993; Member, U.S. National Academy of Sciences, 1993; 1994 American Chemical Society Award in Inorganic Chemistry; 1997 Centenary Medal, Royal Society of Chemistry; 1998 Francis Clifford Phillips Award, U. of Pittsburgh; 1999 Paolo Chini Award, Italian Chemical Society; 2000 Cotton Medal, ACS Texas A&M Section, 2001 American Chemical Society Award in the Chemistry of Materials; 2001 Burwell Award, North American Catalysis Society; 2001 Williard Gibbs Medal, ACS Chicago Section; 2001 Linus Pauling Medal, Oregon-Washington ACS Sections; 2002 American Institute of Chemists Gold Medal; 2003 Karl Ziegler Prize, Gesellschaft Deutscher Chemiker; 2003 Evans Medal, Ohio State U; 2004 Sir Edward Frankland Prize, Royal Society of Chemistry; 2005 University of Maryland Alumni Hall of Fame; Fellow, Royal Society of Chemistry UK, 2005; 2005 John Bailar Medal, University of Illinois; Member, Leopoldina German National Academy of Natural Sciences, 2005.

Named Lectureships and Visiting Professorships

Distinguished Visiting Lecturer, U. of Texas at Austin, 1980; Presidential Lecturer, Technical U. of Berlin, 1980; Distinguished Visiting Professor, U. of Western Ontario, 1981; 1984 Lemieux Lecturer, U. of Ottawa; 1984-1985 Reilly Lecturer, U. of Notre Dame; 1986 Visiting Lecturer, U. of Hawaii; 1986 Asher Distinguished Visiting Lecturer, Technion, Israel; 1986 SACS Lecturer, U. of South Carolina; 1986-1987 Phi Lambda Upsilon Lecturer, U. of Nebraska; 1987 Boomer Lecturer, U. of Alberta; 1987 Merck-Frosst Lecturer, U. of British Columbia; 1987 Tables Rondes Roussel-Uclaf Lecturer; 1988 Kolthoff Lecturer, U. of Minnesota; 1988 ESSO Lecturer, U. of Toronto; 1988 Frontiers in Chemistry Lecturer, Texas A&M U.; 1989 Graduiertenkolleg Lecturer, Technical U./Free U. of Berlin; 1990 Roberts Lecturer, Grinnell College; 1990 University Lecturer, Boston College; 1990 Dow Lecturer, Michigan State U.; 1992 Gordon Lecturer, U. of Toronto; 1991 RIKEN Frontier Research Program Visiting Scientist; 1992 National Science Council of Taiwan Lecturer; 1992 Distinguished Visiting Lecturer, U. of Florida; 1993 Karcher Lecturer, U. of Oklahoma; 1993 Hill Lecturer, Duke U.; 1993 Purves Lecturer, McGill U.; 1993 ICI Distinguished Lecturer, U. of Calgary; 1994 W.R. Grace Lecturer, U. of Maryland; 1994 E.F. Smith Lecturer, U. of Pennsylvania; 1994 Japan Society of Organic Chemistry Lectureship; 1994 Stieglitz Lecturer, U. of Chicago - Chicago ACS Section; 1995 Gooch-Stephens Lecturer, Baylor U.; 1995 Lind Lecturer, U. of Tennessee - Oak Ridge Nat. Lab.; 1995 Fishel Lecturer, Vanderbilt U.; 1996 Musher Lecturer, Hebrew U. of Jerusalem; 1996 H.C. Brown Lecturer, Purdue U.; 1996 Xerox of Canada Distinguished Lecturer (U. of British Columbia; Victoria U.); 1996 Kilpatrick Lecturer, Illinois Institute of Technology; 1997 Siedle Lecturer, Indiana U; 1998 Seaborg Lecturer, U. of California Berkeley; 1998 Closs Lecturer, U. of Chicago; 1999 Abbott Lecturer, U. of North Dakota; 1999 Marcus Lecturer, Washington U.; 1999 Convention Intercantonale Romande Lecturer, Switzerland, 2000 McElvain Lecturer, U. of Wisconsin; 2001 Renowned International Visiting Scholar, Hong Kong Polytechnical U.; 2002 Bigeleisen Lecturer, SUNY Stony Brook; 2003 A.D. Little Lecturer, MIT; 2003 Walton Lecturer, Purdue U.; 2003 Milkovich Lecturer, U. of Akron; 2004 H.B. Jonassen Lecturer, Tulane U.;

2005 U. Pierre et Marie Curie Institut Universitaire de France Professor; 2005 Alumni Distinguished Lecturer, Michigan State U.; 2005 H.M. Friedman Lecturer, Rutgers U; 2005 Otto M. Smith Lecturer, Oklahoma State U.; 2005 Abbott Lecturer, Montana State U.; 2006 Gomberg Lecturer, U. of Michigan; 2006 Jortner Lecturer, Tel Aviv U.

Editorial and Advisory Boards

Actinide and Lanthanide Reviewer for *Annual Surveys of Organometallic Chemistry*, 1978-1985; Editorial Advisory Board, *Journal of Inorganic and Nuclear Chemistry*; Editorial Advisory Board, *Organometallics*; Scientific Advisory Board, Conductimer Corporation; Editorial Advisory Board, *Inorganica Chimica Acta*; Editorial Advisory Board, *Polyhedron*; Editorial Advisory Board, *Nouveau Journal de Chimie/New Journal of Chemistry*; Corporation Member, *Inorganic Syntheses*, 1986-; Editorial Advisory Board, *Chemistry of Materials*; Advisory Board, *Progress in Inorganic Chemistry*; Series Advisory Editor, *Oxford Monographs on the Physics and Chemistry of Materials*; Governing Council, Gordon Research Conferences; USA Advisory Editor, *Chemical Communications*; Corporate Technical Advisory Board, Dow Corning Corporation, 1994-; Corporate Technical Advisory Board, Dow Chemical Company, 1995-; Editorial Advisory Board, *Advanced Materials, CVD*; Editorial Advisory Board, *Journal of Molecular Catalysis*; Editorial Advisory Board, *Topics in Organometallic Chemistry*; Scientific Advisory Board, Nanovation Technologies, Inc.; Editorial Advisory Board, *Catalysis Letters*; Editorial Advisory Board, *Polymer*; Editorial Board, *Topics in Catalysis*; Editorial Board, *Accounts of Chemical Research*; External Advisory Committee, Beckman Institute, U. of Illinois; Technical Advisory Board, Ophthonix, Inc.; Editorial Advisory Board, *Crystal Engineering Communications*; Technical Advisory Board, OrganicID, Inc..

Research Interests

Transition metal and f-element organometallic chemistry; catalysis; vibrational spectroscopy; nuclear magnetic resonance; synthetic facsimiles of metalloprotein active sites; carcinostatic metal complexes; solid state chemistry and low-dimensional molecular metals; nonlinear optical materials; polymer chemistry; tetrahydroborate coordination chemistry; macrocycle coordination chemistry; laser-induced chemistry and isotope separation; metal-organic chemical vapor deposition.

Professional Societies

American Chemical Society; Society for Applied Spectroscopy; International Society for Magnetic Resonance; Materials Research Society; Sigma Xi; Phi Beta Kappa; American Association for the Advancement of Science; U.S. National Academy of Sciences; American Academy of Arts and Sciences; Leopoldina German National Academy of Natural Sciences.

Professional Service

Minuteman, Chicago ACS section, 9/71-present.
 Organizer, Inorganic Chemistry Symposia, Great Lakes Regional ACS Meeting, 6/76.
 Symposium Planning Committee, Inorganic Chemistry Division, ACS, 6/77-6/78.
 Director, NATO Advanced Study Institute, "Organometallics of the f-Elements", SOGESTA Conference Center, Urbino, Italy, 1978.
 Principal Organizer, NSF National Organometallic Chemistry Workshop, 1980-1982.
 Councillor, Inorganic Chemistry Division, ACS, 1/80-12/85.
 Member, National Research Council Solid State Sciences Advisory Panel, 1980-1985.
 Organizer, Lanthanide and Actinide Symposium, 28th IUPAC Congress, Vancouver, 1981.
 American Chemical Society Tour Speaker, 1981.
 Organizer, Organometallics of the f-Elements Symposium, 15th Rare Earth Research Conference, Rolla, 1981.
 Organizing Committee, Second China-Japan-U.S.A. Inorganic and Organometallic Chemistry Conference, Shanghai, 1982.
 Steering Committee, Gordon Research Conference on Organometallic Chemistry, 1982.

Steering Committee, First International Conference on the Chemistry and Technology of the Lanthanides and Actinides, Venice, 1983.

Director, NATO Advanced Study Institute, "Fundamental and Technological Aspects of Organo-f-Element Chemistry," Maratea, Italy, 1984.

Oversight Review Team, NSF Chemistry Division, 1982.

American Chemical Society Publications Committee, 1983-1985.

Steering Committee, Second International Conference on the Chemistry and Technology of the Lanthanides and Actinides, Lisbon, 1987.

Committee on ONR Chemical Sciences Research Planning, 1985-1988.

Task Force, ACS Materials Chemistry Journal, 1986.

Organizing Committee, NSF Workshop on Materials Preparation Facilities, 1987.

Organizing Committee, International Conference on Synthetic Metals '88.

Chairman, Gordon Research Conference on Inorganic Chemistry, 1989.

Editor, Polyhedron symposium-in-print, "Metal-Ligand Bonding Energetics in Organotransition Metal Compounds", 1988.

Organizer, "Bond Energies and the Thermodynamics of Organometallic Reactions" Symposium, Fall ACS National Meeting, Miami, 1989.

Organizing Committee, Sixth International Symposium on "Relations Between Homogeneous and Heterogeneous Catalysis," Pisa, 1989.

Senior Scientist Appointments Committee, Chemistry Division, Argonne National Laboratory, 1988-1992.

Instrumentation Advisory Committee, Hong Kong University of Science and Technology, 1989.

National Science Foundation Chemistry Advisory Committee, 1990-1992.

Organizer, First International Workshop on MOCVD of High-T_c Superconductors and Related Materials, Evanston, 1992.

Local Organizer, First NSF Joint U.S.-Russian Inorganic/Organometallic Chemistry Workshop, Evanston, 1993.

Organizer, Second International Workshop on MOCVD of High-T_c Superconductors and Related Materials, Tiburon, 1994.

Willard Gibbs Medal Jury, 1994-2000.

Co-Organizer, Third International Workshop on MOCVD of High-T_c Superconductors and Related Materials, Strasbourg, 1996.

DOE-BES Council on Chemical Sciences, 1996- ; Chair, 1999-2001.

Task Force, ACS Review of *Inorganic Chemistry*, 1996-1997.

Organizing Committee, NSF Solid State Chemistry and Materials Workshop, 1998.

Committee of Visitors Review Team, NSF Chemistry Division, 1998

Editor Search Committee, *Organic Letters*, 1998.

Technology Vision 2020 Catalysis Report Team, ACS, CMA, AICHE, CCR, SOCMA.

Organizer, DOE-BES International Workshop on Opportunities for Catalysis in Carbon Management, Santa Fe, 1999.

National Research Council Board on Chemical Sciences and Technology, 2000- .

Editor Search Committee, *Inorganic Chemistry*, 2000.

Co-Organizer, NRC-BCST Workshop on Carbon Management: Implications for R&D in the Chemical Sciences, December 2000.

Assessment Panel, University Grants Committee, Hong Kong, 2001.

ACS Task Force on Guidelines for Editor Search Committees.

Organizing Committee for Materials and Manufacturing Workshop, National Research Council Committee on Challenges for the Chemical Sciences in the 21st Century, Washington, June 2001.

Lecturer, ACS Short Course on Inorganic Polymers, 1987-2003.

Editor Search Committee, *Journal of Organic Chemistry*, 2001.

Organizer, DOE-BES Workshop "Frontiers in Homogeneous Catalysis", O'Hare, Sept. 2002.
Organizer, Eleventh International Symposium on Relations Between Homogeneous and Heterogeneous Catalysis, Evanston, July 2003.
Assessment Panel, University Grants Committee, Hong Kong, 2002-2005.
Review Committee Chair, Lawrence Berkeley National Laboratory, Feb. 2005.
Co-Organizer, ACS-IEEE-MRS Symposium on Organic Microelectronics, Newport 2005.
Co-Organizer, International Symposium on Transparent Conductors, Heriklon 2006.