

TOBIN J. MARKS BIOSKETCH

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B.S., Chemistry, University of Maryland, Ph.D., Inorganic Chemistry, MIT

Positions at Northwestern University

Assistant Professor of Chemistry; Associate Professor; Professor

Charles E. and Emma H. Morrison Professor of Chemistry

Professor of Materials Science and Engineering

Ipatieff Professor of Catalytic Chemistry

Professor of Applied Physics

Professor of Chemical and Biological Engineering

Major Awards (ACS = American Chemical Society; MRS = Materials Research Society)

1. U.S. National Medal of Science (highest scientific honor of the United States Government)
2. American Chemical Society Joseph Priestley Medal (highest honor of the ACS)
3. Camille and Henry Dreyfus Prize in the Chemical Sciences (the second award bestowed; first in catalysis)
4. Principe de Asturias Prize for Technical and Scientific Research (the “Spanish Nobel Prize”)
5. U.S. National Academy of Sciences Award in the Chemical Sciences
6. Materials Research Society Von Hippel Award (highest honor of the MRS)
7. Harvey Prize in Science and Technology, Harvey Foundation, Israel
8. Karl Ziegler Prize, Gesellschaft Deutscher Chemiker
9. ACS Medals: Willard Gibbs, Linus Pauling, F. Albert Cotton, Theodore Richards, William Nichols, John Bailar, Harry Mosher, Alan McDiarmid
10. ACS National Awards (6): Organometallic Chemistry, Inorganic Chemistry, Chemistry of Materials, Somorjai in Creative Catalysis, Organic Chemistry Cope Scholar, Inorganic Chemistry Service.
11. Eminent Scientist Award, ACS Undergraduate Program
12. American Institute of Chemists Gold Medal (highest honor of the American Institute of Chemists)
13. Royal Society of Chemistry (UK), Centenary, William Frankland, Geoffrey Wilkinson, and Materials for Industry Medals/Awards
14. Chinese Academy of Sciences President’s International Distinguished Scientist Award (Einstein Award)
15. Honorary Professor, Chinese Academy of Sciences, Dalian Institute of Chemical Physics
16. Italian Chemical Society: Paolo Chini and Luigi Sacconi Medals
17. North American Catalysis Society: Robert Burwell and Herman Pines Awards in Catalysis
18. Schulich Prize, Technion-Israel Institute of Technology
19. Wilhelm Manchot Prize, Technical U. of Munich
20. Wang Yu Award, Shanghai Institute of Organic Chemistry (Premier Organic Chemistry Institute in China)
21. University of Tokyo-Mitsubishi Kasai, Top Scientists of the World Award

Fellowships / Memberships

1. U.S. National Academy of Sciences
2. American Academy of Arts and Sciences
3. American Philosophical Society
4. Leopoldina, German National Academy of Natural Sciences
5. U.S. National Academy of Engineering
6. Foreign Member, Accademia Nazionale dei Lincei (Italian National Academy of Sciences)
7. Foreign Member, European Academy of Sciences
8. Foreign Member, Indian National Academy of Sciences
9. U.S. National Academy of Inventors
10. Fellow: ACS, Royal Society of Chemistr, Materials Research Society, Chemical Research Society of India
11. Honorary Fellow, Israel Chemical Society, Chinese Chemical Society

Doctor of Science *Honoris Causa*

Hong Kong University of Science and Technology, 2011; University of South Carolina, 2011; The Ohio State University, 2012; Technical University of Munich, 2016.

Other Awards

1974 Alfred P. Sloan Fellow; 1975 Camille and Henry Dreyfus Teacher-Scholar; 1977 DuPont Young Faculty Fellow; 1978 Innovation Recognition Award, Union Carbide Corp.; 1979 Fresenius Pure and Applied Chemistry Award; 1984 ACS Doolittle Award in Polymeric Materials Science and Engineering; 1984 Sobral Medal, Portuguese Chemical Society; 1986-1987 Mack Awardee and Lecturer, Ohio State U.; 1989-1990 Guggenheim Fellow; 1998 Phillips Award, U. of Pittsburgh; 2003 Evans Medal, Ohio State U.; 2005 U. of Maryland Alumni Hall of Fame; 2005 Fellow, Royal Society of Chemistry UK; 2009 Honorary Fellow, Chemical Research Society of India; 2009 Fellow, Materials Research Society; 2009 Taylor Award in Materials Research, Penn. State U.; 2010 Distinguished Affiliated Professor Award, Technical U. of Munich; 2010 Centennial Medal, U. of Oviedo (Spain); 2011 Member, Indian Academy of Sciences; 2012 Distinguished Alumni Award and Circle of Discovery, U. of Maryland; 2013 Honorary Member, Israel Chemical Society; 2013 MacDiarmid Medal, U. of Pennsylvania; 2016 Member, U.S. National Academy of Inventors; 2016 Tannas Award in Materials Science, U. of California, Los Angeles; 2017 Johnson Award in Materials Science, Cornell University; 2018 and 2020 Clarivate Analytics Citation Laureate.

Named Lectureships and Visiting Professorships

Welch Distinguished Visiting Lecturer, U. of Texas at Austin, 1980; Presidential Lecturer, Tech. U. of Berlin, 1980; Distinguished Visiting Professor, U. of Western Ontario, 1981; Lemieux Lecturer, U. of Ottawa 1984; Reilly Lecturer, U. of Notre Dame 1984-1985; Distinguished Visiting Lecturer, U. of Hawaii 1986; Asher Visiting Lecturer, Technion, Israel 1986; SACS Lecturer, U. of South Carolina 1986; Phi Lambda Upsilon Lecturer, U. of Nebraska 1986-1987; Boomer Lecturer, U. of Alberta 1987; Merck-Frosst Lecturer, U. of British Columbia 1987; Tables Rondes Roussel-Uclaf Lecturer 1987; Kolthoff Lecturer, U. of Minnesota 1988; ESSO Lecturer, U. of Toronto 1988; Frontiers in Chemistry Lecturer, Texas A&M U. 1988; Graduiertenkolleg Lecturer, Technical U./Free U. of Berlin 1989; Roberts Lecturer, Grinnell College 1990; U. Lecturer, Boston College 1990; Dow Lecturer, Michigan State U. 1990; RIKEN Frontier Research Program Visiting Scientist (Japan) 1991; Gordon Lecturer, U. of Toronto 1992; National Science Council of Taiwan Lecturer 1992; Distinguished Visiting Lecturer, U. of Florida 1992; Karcher Lecturer, U. of Oklahoma 1993; Hill Lecturer, Duke U. 1993; Purves Lecturer, McGill U. 1993; ICI Distinguished Lecturer, U. of Calgary 1993; 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 1994; Gooch-Stephens Lecturer, Baylor U. 1995; Lind Lecturer, U. of Tennessee - Oak Ridge Nat. Lab. 1995; Fishel Lecturer, Vanderbilt U. 1995; 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 1996; Siedle Lecturer, Indiana U. 1997; Seaborg Lecturer, U. of California Berkeley 1998; Closs Lecturer, U. of Chicago 1998; Abbott Lecturer, U. of North Dakota 1999; Marcus Lecturer, Washington U. 1999; Convention Intercantonale Romande Lecturer, Switzerland 1999; McElvain Lecturer, U. of Wisconsin 2000; Renowned International Visiting Scholar, Hong Kong Polytechnic U. 2001; Bigeleisen Lecturer, SUNY Stony Brook 2002; A.D. Little Lecturer, MIT 2003; Walton Lecturer, Purdue U. 2003; Milkovich Lecturer, U. of Akron 2003; H.B. Jonassen Lecturer, Tulane U. 2004; 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. 2005; Gomberg Lecturer, U. of Michigan 2006; Jortner Lecturer, Tel Aviv U. 2006; Boulder Scientific Lecturer, Colorado State U. 2007; Davis Lecturer, U. of South Carolina 2008; Butler Lecturer, U. of Florida 2008; Whelan Lecturer, U. of Texas El Paso 2008; MacLean Lecturer, McMaster U. 2008; Crano Lecturer, U. of Akron 2008; Frontiers in Chemistry Lecturer, Wayne State U. 2009; Dawson Lecturer, U. of Kentucky 2009; Chevron-Phillips Lecturer, Virginia Tech. 2009; Director's Distinguished Lecturer, U.S. National Science Foundation 2009; Su Lecturer, U. of Rochester 2009; First International Materials Science Lecturer, International Centre for Materials Science, 2009 (JNC Bangalore); First Semana de la Ciencia y la Innovation Plenary Lecturer, Mexico City 2009; Kilpatrick Lecturer, Illinois Institute of Technology 2010; Abelson Lecturer, Washington State U. 2010; Second Semana de la Ciencia y la Innovation Plenary Lecturer, Mexico City 2010; Jones Lecturer, Queens U. (Ontario) 2010; Schaeffer Lecturer, U. of New Mexico 2010; Distinguished Visiting Professor, Weizmann Institute of Science, 2011; Shore Lecturer, Ohio State U. 2011; G. F. Lipscomb Lecturer, U. of South Carolina 2011; Distinguished International Lecturer, Institute for Advanced Study, Hong Kong U. of Science and Technology 2011; Karcher-Barton Lecturer, U. of Oklahoma 2012; Johnson Lecturer, Stanford U. 2012; Inaugural 3MET Lecturer, U. of Kaiserslautern 2012; Bayer Lecturer, Cornell U. 2013; Bayer Lecturer, U. of Pittsburgh 2013; Rausch Lecturer, U.

of Massachusetts, Amherst, 2014; Xingda Lecturer, Peking U., 2014; Frontiers in Molecular Sciences Lecturer / Professor, Chinese Academy of Sciences, 2014; Distinguished Clean Energy Lecturer, U. of Washington, 2014; King Lecturer, U. of Georgia, 2014; Texas Distinguished Faculty Lectureship, U. of Texas, Austin, 2015; Bergman Lecturer, U. of California, Berkeley, 2015; Eyring Lecturer, Arizona State U., 2015; Annual Center for Plastic Electronics Lecturer, Imperial College London, 2015. Stone Lecturer, U. of Bristol, 2015; ECS Distinguished Faculty Lecturer, U. of Texas Dallas, 2016 Science at the Cutting Edge Lecturer, Michigan State U., 2016; McElvain Academic Lecturer, U. of Wisconsin Madison, 2016; Zhang Dayu Lecturer, Chinese Academy of Sciences Institute of Chemical Physics, 2016; Parry Lecture, U. of Utah, 2017; Johnson Lecturer in Materials Science, Cornell U., 2017; Inaugural Sigma-Aldrich Lecturer in Materials Chemistry, U. of California Santa Barbara, 2017; Dow Lecturer, Stanford U., 2018; Arduengo Lecturer, U. of Alabama, 2018; COPE Distinguished Lecturer, Georgia Institute of Technology, 2018; Inaugural Sigma-Aldrich Lecturer in Materials Chemistry, U. California Santa Barbara, 2018; Annual Grubbs Lecturer, Gwangju Inst. Sci. and Tech., 2018; Advanced Materials Sparkling Lecture, Nanjing Inst. of Tech., 2019; Lee Memorial Lectures, University of Chicago, 2020.

Peer-Reviewed Publications, 1589; ISI h-index = 161 on 107,765 citations; Google Scholar h-index = 180 and i10-index = 1188 on 139,280 citations

Issued US Patents, 275

Companies Founded

Polyera Inc., in Skokie IL (Headquarters), Hsinchu Taiwan (Applications Center), Milan Italy (Quality Control Center); currently 45 employees. Name changed to Flexterra Inc. in 2/2017 to expand business focus.

Current or Past Editorial and Academic Advisory Board Memberships

J. of Inorg. and Nuclear Chem.; *Inorganic Syntheses*; *Organometallics (Associate Editor)*; *Inorganica Chimica Acta*; *Polyhedron*; *Polymer*; *Prog. Inorganic Chemistry*; *Chem. Commun.*; *Accts. Chem. Res.*; *J. of Molecular Catalysis*; *Topics in Organometallic Chem.*; *Catal. Lett.*; Actinide and Lanthanide Reviewer for *Annual Surveys of Organometal. Chem.*; *Topics in Catal.*; *Nouveau J. de Chimie/New J. of Chem.*; *Chem. of Mat.*; *Adv. Mat.*, *Chemical Vapor Deposition*; *Oxford Monographs on Physics and Chemistry of Materials.*; *Crystal Eng. Commun.*; *PNAS (Editorial Board)*; *MRS Commun.*; *Organ. Photonics Photovolt.*; *J. Organometal. Chem.*

Governing Council, Gordon Research Conferences; External Advisory Committee, Beckman Institute, U. of Illinois

Current or Past Corporate Private Sector Advisory Boards

Scientific Advisory Boards - Conductimer Corp.; Nanovation Technologies, Inc.; Precursor Energetics, Inc.

Technical Advisory Boards - Dow Corning Corp.; Dow Chemical Co.; Ophthonix, Inc.; OrganicID, Inc.; Dynamic Connections, Inc.; ASySET Inc.; Penguin Chemical Corp.

Synergistic Activities

Co-Chair Gordon Research Conference on Hybrid Electronic and Photonic Materials (Hong Kong); Co-author, NSF-ONR report, *Opportunities in Organic Photovoltaics*; Co-author and US-NSF Coordinator, CS3 report, *Chemistry for a Sustainable Global Society*; Co-author, NSF-ONR report, *Hybrid Flexible Electronics Research in Europe*; Co-author, DOE-BESAC report, *Directing Matter and Energy: Five Challenges for Science and the Imagination*; Contributor to ACS Project SEED chemistry summer camps for low-income middle and high school students.