

STEPHEN Z. D. CHENG

Member, National Academy of Engineering of the United States of America
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EDUCATION

- 1977 Diploma Mathematics, East China Normal University, Shanghai
- 1981 M.S. Polymer Engineering, Donghua University, Shanghai
- 1985 Ph.D. Chemistry, Rensselaer Polytechnic Institute, Troy, New York
(Major Professor: Dr. Bernhard Wunderlich)

PROFESSIONAL CAREER

- 1985-87 Research Associate and Postdoctoral Fellow, Rensselaer Polytechnic Institute
- 1987-91 Assistant Professor of Polymer Science, The University of Akron
- 1991-95 Associate Professor of Polymer Science, The University of Akron
- 1995-98 Professor of Polymer Science, The University of Akron
- 1998- Trustees Professor of Polymer Science, The University of Akron
- 2001-05 Chairman, Department of Polymer Science, The University of Akron
- 2001- Robert C. Musson Trustees Professor of Polymer Science, The University of Akron
- 2001- Cheung Kong Scholar Professor, Peking University, China
- 2007-14 Dean, College of Polymer Science and Polymer Engineering, The University of Akron
- 2014- Frank C. Sullivan Distinguished Research Professor, The University of Akron

ACADEMIC, INDUSTRIAL AND GOVERNMENTAL RESEARCH AND EDUCATION ADMINISTRATIONS

- 1991-93 Member, Executive Council, The North American Thermal Analysis Society
- 1991-94 Member, the Awards Committee, Society of Plastics Engineers
- 1994-97 Project Director, *Thin Film Optics, The Science and Technology Center for Advanced Liquid Crystalline Optical Materials (ALCOM)*, National Science Foundation
- 1996-99 Associate Director, *Center for Molecular and Microstructure of Composites (CMMC)*, National Science Foundation, Ohio State and Industries
- 1996-02 Member, Education Committee, International Confederation for Thermal Analysis & Calorimetry
- 1997 Chairman, *Ad-hoc Advisory Panel for the Polymer Program of the Division of Materials Research* at National Science Foundation, A Number of Panel Members for Various Review Committees of National Science Foundation Since Then.
- 1998 Panel Member, *Technology Vision 2020* Materials Technology Roadmap Workshop
- 1998 Participating Member for *Interdisciplinary Macromolecular Science and Engineering*, A Workshop Co-Sponsored by National Science Foundation and Department of Energy
- 1998-01 Panel Member for *Materials Science and Engineering*, under National Research Council Board on Assessment of NIST Programs
- 1999 Member, Fellow selection Committee, Division of Polymer Physics, American Physical Society
- 2000- Oversees Assessor of Chinese Academy of Science, China
- 2000-02 Member, Membership Committee, Division of Polymer Physics, American Physical Society
- 2000-06 Member, American Chemical Society, Petroleum Research Fund Advisory Board
- 2002-08 Co-Director, Collaborative Center for Polymer Photonics
- 2005-08 Member, Academic Advisory Committee of College of Science, National ChiaoTung University
- 2006 Member, APS Polymer Physics Prize Selection Committee, American Physical Society

- 2007 Co-Organizer for the Workshop on *Research and Education Opportunities in Interdisciplinary, and Globally Leading Polymer Science and Engineering*, Sponsored by National Science Foundation
- 2008-14 Member, The Board of Directors, PolymerOhio
- 2008-11 Member, The Board of Directors, Ohio Polymer Strategic Council
- 2008-10 Co-Chair, Transition Committee for Center of Biomaterials and Medicine, Austen BioInnovation Institute in Akron
- 2009 Chair, International Academic Program Review Committee of Department of Macromolecular Science, Fudan University
- 2010-14 Member, Leadership Team, Austen BioInnovation Institute in Akron
- 2011-14 Director, Center for Polymers and Advanced Functional Materials, Ohio Center of Excellence
- 2011- Member, The Board of Trustees of Donghua University, Shanghai, China
- 2012 Member, Assessment of Fundamental Research Efforts at ExxonMobil's Corporate Strategic Research Laboratories
- 2012-14 Member, ACS Award in Polymer Chemistry Selection Committee, American Chemical Society
- 2013-16 Executive Committee, Vice Chair (2014) and Chair (2015), American Physical Society, Polymer Physics Division
- 2013- Member, the Proposal Review Committee for the Center for Nanophase Materials Sciences (CNMS) at Oak Ridge National Laboratory
- 2014 Chair, Academic Program Review Committee of School of Materials Science and Engineering, Georgia Institute of Technology
- 2014 Chair, International Academic Program Review Committee of College of Polymer Science and Engineering, Sichuan University
- 2015- Member, Technical Advisory Board on Advanced Polymer Monitoring Technology
- 2015- Member, International Academic Review Committee, School of Chemistry and Chemical Engineering, Shanghai Jiaotong University
- 2015- Member, The Board of International Advisory of Sichuan University, Chengdu, Sichuan, China
- 2015- Member, The Board of Trustees of South China University of Technology, Guangzhou China

HONORARY, ADVISORY, ADJUNCT, GUEST AND VISITING PROFESSORSHIPS

- 1998- Honorary Professor, Institute of Chemistry, Chinese Academy of Sciences, Beijing, China
- 2003- Honorary Professor, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai, China
- 2006- Honorary Professor, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, Jilin, China
- 2009- Honorary Professor, Beijing University of Chemical Technology, Beijing, China
- 2009- Honorary Professor, East China Normal University, Shanghai, China
- 2010- Honorary Professor, Sichuan University, Chengdu, Sichuan, China
- 2015- Honorary Professor, South China University of Science and Technology, Guangzhou, China
- 1995- Advisory Professor, Donghua University, Shanghai, China
- 1996- Advisory Professor, Fudan University, Shanghai, China
- 1996- Advisory Professor, Hebei University of Technology, Hebei, China
- 1997- Advisory Professor, South China University of Technology, Guangzhou, China
- 2010- Advisory Professor, Huazhong University of Science and Technology, Wuhan, Hubei, China
- 1994- Adjunct Professor, Guangzhou Institute of Chemistry, Chinese Academy of Sciences, China
- 1994- Adjunct Professor, Zhengzhou University, Zhengzhou, Henan, China
- 2006 Adjunct Professor, National Cheng Kung University, Taiwan
- 2007 Adjunct Professor, Central Michigan University, the United States
- 1997- Guest Professor, Zhejiang University, Hangzhou, China
- 1997- Guest Professor, University of Science and Technology of China, Hefei, China

- 1997- Guest Professor, Jiao Tong University, Shanghai, China
- 2001- Guest Professor, Fujian Normal University, Fuzhou, Fujian, China
- 2002- Guest Professor, Kuming University of Science and Technology, Kuming, Yunnan, China
- 2007- Guest Professor, East China University of Science and Technology, Shanghai, China
- 2010- Guest Professor, Qingdao University of Science and Technology, Qingdao, Shangdong, China
- 2014- Guest Professor, University of Jinan, Jinan, China
- 1994 Visiting Professor, Science University of Tokyo, Tokyo, Japan
- 1999, 01 Visiting Professor, Institute Charles Sadiron, CNRS, Strasbourg, France
- 2001 Visiting Professor, University of Mons, Mons, Belgium
- 2009- Visiting Professor, Soochow University, Suzhou, China

MEMBERS OF ACADEMIC STEERING COMMITTEES

- 1994-2000 Member, Academic Steering Committee of the Open Laboratory of Polymer Physics, Chinese Academy of Sciences, China
- 2000- Member, Academic Steering Committee of the National Key Laboratory of Polymer Physics and Chemistry, Chinese Academy of Sciences, China
- 1995-14 Member, Academic Steering Committee of the National Key Laboratory of Chemical Fiber Structure Modification, Donghua University, China
- 2014- Vice Chair, Academic Steering Committee of the National Key Laboratory of Chemical Fiber Structure Modification, Donghua University, China
- 2003-09 Member, International Visiting Committee of the Joint Laboratory of Polymer Science and Materials, Institute of Chemistry, Chinese Academy of Sciences, China
- 2004-13 Chairman, Academic Steering Committee of the Key Laboratory of Polymer Chemistry and Physics, Peking University, China
- 2006-11 Member, Academic Advisor Board of Multidisciplinary Research Center, Shantou University, China
- 2006-11 Member, Advisory Committee of College of Science, National Chiao Tung University, Taiwan
- 2007 Member, Advisory Board of the Green Building Material Center, National Taiwan University of Science and Technology, Taiwan
- 2015- Member, International Advisory Committee of College of Chemistry and Chemical Engineering, Shanghai Jiaotong University.
- 2015- Member, International Advisory Committee of Center for Soft and Living Matter, Ulsan National Institute of Science and Technology, Ulsan, Korea

PROFESSIONAL SOCIETY MEMBERSHIPS

- American Association for the Advancement of Science (elected Fellow, 2006)
- The American Physical Society, Division of Polymer Physics (elected Fellow, 1994)
- The American Chemical Society, Polymer Chemistry Division, Polymer Materials Science and Engineering Division (elected Fellow, 2012)
- The North American Thermal Analysis Society (elected Fellow 1993)
- The International Confederation for Thermal Analysis
- Material Research Society

RESEARCH INTERESTS

Cheng's research interests center on the condensed states in polymers, liquid crystals, surfactants and micelles, and focuses on the interactions, responses, dynamics, and structures of materials on varying length and time scales in which the material itself embodies the technology. His research activities include investigations of transition thermodynamics and kinetics in metastable states, ordered structures and morphologies, surface and interface structures in electronic and optical materials and advanced functional hybrid materials.

RESEARCH GROUP AND SUPPORTS

- 25 Full-Time Ph.D./M.S. Students, 4 Postdoctoral Fellows and 2 Visiting Scientists
- As a Major Professor of 40 M.S. and 84 Ph.D. Students Graduated and 62 postdoctoral fellows and visiting scientists since 1989 (see the List of Graduate Students)
- Over \$35 M for Research and Instrumentation Funding and New Faculty Member Positions Supported by the Government Agencies and Industries Since October 1987

COURSE TEACHING

- General Chemistry for Honorable Students (1986 Fall Semester at RPI)
- Polymer Physical Chemistry I (Team Teaching, Core Course, Annually, since 1987)
- Polymer Physics II (Team Teaching, Core Course, Annually, since 1989)
- Polymer Crystal Structure, Morphology and Defects (Special Topic, Biannually, since 1988)
- Phases and Phase Transitions in Polymers (Special Topic, Biannually, since 1988)
- Thermal Analysis of Polymer Materials (Special Topic, Biannually, since 1989)
- Polymer Fibers (Sheared Special Topic, Biannually, 1991-2000)
- Short Courses of Polymer Physics and Material Science in the US and around the world

AWARDS AND RECOGNITION

- Presidential Young Investigator Award, the National Science Foundation and White House (1991)
- Fellow, The North American Thermal Analysis Society (1993)
- American Chemical Society Akron Section Award (1994)
- Fellow, The American Physical Society (1994)
- John H. Dillon Medal, The American Physical Society (1995)
- Distinguished Corporate Inventors Award, American Society of Patent Holders, the National Inventors Hall of Fame (1995 and 1998)
- Goodyear Corporate Inventor Award, Goodyear Tire and Rubber Company (1998)
- Mettler-Toledo Award, The North American Thermal Analysis Society (1999)
- The Cheung-Kong Scholar, Ministry of Education, China (2000)
- TA-Instrument Award, International Confederation for Thermal Analysis and Calorimetry (2004)
- Cooperative Research Award, Division of Polymer Materials Science and Engineering, American Chemical Society (2005)
- Fellow, American Association for the Advancement of Science (2006)
- The Epistar Lectureship Professor, National Tsinghua University, Taiwan (2006)
- Visiting Distinguished Professor, National Taiwan University of Science and Technology, Taiwan (2007)
- The Turner Alfrey Visiting Lecture Professor, Michigan Molecular Institute and Michigan State Universities (2007)
- Member, National Academy of Engineering of the United States of America (2008)
- Honorary Fellow, Chinese Chemical Society (2011)
- Fellow, Division of Polymer Materials Science and Engineering, American Chemical Society (2012)
- Charter Fellow, National Academy of Inventors (2012)
- Polymer Physics Prize, The American Physical Society (2013)
- 2013-2014 Most influential Chinese in the World, Science and Technology Category. Selected by Phoenix and more than a dozen well-known Chinese joint overseas media and institutions (2014)
- 2014 Chinese Person of the Year. Selected by a dozen of well-known Chinese media and organizations (2015)
- International Scientific Collaboration Award. Shanghai City Municipal Government (2016)

AWARDS AND RECOGNITION WITHIN THE UNIVERSITY OF AKRON

- Certificate of Appreciation of Outstanding Achievement, The University of Akron Board of Trustees (1992 and 1994)
- Outstanding Researcher Award, The University of Akron (1997)

- Trustees Professor of Polymer Science, The University of Akron (1998-)
- GenCorp Signature University Award (1999)
- Robert C. Musson Professor of Polymer Science, The University of Akron (2001-)
- Omnova Signature University Award (2001, 2004)
- The University of Akron and Research Foundation Inventor Wall of Fame (2006)
- Sherpa Certificate for Outstanding Contributions, Austen BioInnovation Institute in Akron (2010)
- Frank C. Sullivan Distinguished Research Professor, The University of Akron (2014-)

EDITORIAL ACTIVITIES

- 2002- Senior Editor, *Polymer*
- 1999- Editor of the Americas, *Polymer*
- 1995-98 Executive Editor, *Journal of Macromolecular Science, Physics*
- 1999-16 Associate Editor-in-Chief, *Chinese Journal of Polymer Science*
- 1990-04 Member, the Advisory Board, *Polymer International Journal*
- 1992-02 Member, the Editorial Board, *Journal of Macromolecular Science, Review of Macromolecular Chemistry and Physics*
- 1992- Member, the Editorial Board, *Thermochemica Acta*
- 1992-97 Member, the Editorial Advisory Board, *Trends in Polymer Science*
- 1994- Member, the Editorial Board, *Macromolecular Chemistry and Physics (Die Makromolekulare Chemie)*
- 1994- Member, the Editorial Board, *Macromolecular Rapid Communications*
- 1995- Member, the Editorial Board, *Journal of Polymer Research (Taiwan)*
- 1995-05 Member, the Editorial Board, *International Journal of Polymer Analysis and Characterization*
- 1996-98 Member, the Editorial Advisory Board, *Macromolecules*
- 1998- Member, the Editorial Advisory Board, *Polymer*
- 1999- Member, the Editorial Board, *Journal of Macromolecular Science, Physics*
- 2000- Member, the Editorial Board, *Journal of Polymer Science, B, Polymer Physics*
- 2002- Member, the Editorial Board, *Chinese Journal of Applied Chemistry*
- 2008- Member, the Editorial Board, *Journal of Applied Polymer Science*
- 2010- Member, the Editorial Board, *Technology and Innovation – Proceedings of the National Academy of Inventors*
- 2012-16 Member, the Editorial Board, *Acta Polymerica Sinica (China)*
- 2013- Member, the Editorial Board, *National Science Review, Chemistry Section*
- 2014- Member, the Advisory Board, *Journal of Functional Polymers (China)*
- 2016- Member, Advisory Board, *Acta Polymerica Sinica (China)*
- 1992 Guest Editor, a Special Issue in *Polymer Engineering and Science* Honoring Professor Bernhard Wunderlich's 60th Birthday
- 1994 Guest Editor, *Polymer International* for the IUPAC Macromolecular Symposium, MacroAkron
- 1996 Co-Editor, "*Liquid-Crystalline Polymer Systems: Technological Advances*" American Chemical Society Symposium Series Vol. 632
- 1997 Guest Editor, a Special Issue in *Polymer: "Metastable States and Metastability in Polymers"*
- 1999 Guest Editor, a Special Issue in *Polymer* Honoring Professor R. K. Eby's 70th Birthday
- 2002 Volume Editor, "*Handbook of Thermal Analysis and Calorimetry, Volume 3, Applications to Polymers and Plastics*" Elsevier Science
- 2003 Guest Editor, a Special Issue in *Chinese Journal of Polymer Science: Advances in Polymer Physics*
- 2004 Co-Editor, "*Contemporary Topics In Advanced Polymer Science And Technology*", Peking University Press

ORGANIZATIONAL ACTIVITIES

- Member of the Organization Committee, *International Polymer Physics Symposium Honoring Professor John D. Hoffman's 70th Birthday*, Washington D. C., May 1993.
- Technical Program Vice-Chairman (1992), Program Chairman (1993), Meeting Vice-Chairman (1994), Meeting Chairman (1995), The North American Thermal Analysis Society.
- Symposium Co-Chairman, *Recent Advances in Liquid Crystal Polymers*, Polymer Materials Science and Engineering Division, American Chemical Society, Anaheim, March 1995.
- Member of the Organization Committee, *First Conference of Worldwide Young Chinese Chemists*, Beijing, China, August 1995.
- Symposium Co-Chairman, *X-ray Diffraction in Polymers*, Pittsburgh X-ray Conference, Akron, November 1995.
- Member of Organization Committee, *International Liquid Crystal Conference*, Kent, June 1996.
- Symposium Organizer, *Metastability and Critical Phenomenon in Phase Behaviors of Polymers*, Material Research Society, San Francisco, April 1997.
- Co-Chairman, *International Symposium of Polymer Physics*, Guilin, November 1997, Yellow Mountain, September 2000, Qingdao, July 2002, Dali, July 2004, China.
- Vice-Chairman, International Advisory Board, *Second World Chinese Symposium of Applied Chemistry*, Changchun, China, August 1998.
- Co-Chairman, *International Polymer Physics Symposium Honoring Professor R. K. Eby's 70th Birthday*, Akron, Ohio, May 1999.
- Member of Academic Steering Committee, *International Polymer Physics Workshop*, Shanghai, China, August 1999.
- Co-Chairman, *Xiangshan Science Conference*, Beijing, China, January 2001.
- Member of the Organization Committee, *Stony Brook Symposium of Complex Matter Honoring Professor Benjamin Chu's 70th Birthday*, Stony Brook, New York, December 2001.
- Member of International Advisory Committee, *IUPAC Macromolecular Symposium*, Beijing, July 2002.
- Member of Advisory and Academic Committee, *International Conference on Advanced Fiber Materials*, Shanghai, September 2002.
- Chairman, *Elsevier Editors' Conference*, Sonoma, California, April 2003.
- Member of International Advisory Committee, *Advances in Petrochemicals and Polymers in the New Millennium*, Bangkok, Thailand, July 2003.
- Member of International Advisory Committee, *8th Pacific Polymer Conference*, Bangkok, Thailand, November 2003.
- Member of Advisory Committee, *3rd East Asia Polymer Conference*, Chengdu, June 2004.
- Member of Program Committee, *Great Lake Photonic Symposium*, June 2004, June 2006.
- Symposium Co-Organizer, *Polymer in Solid State, IUPAC Macromolecular Symposium*, Paris, July 2004.
- Member of Academic Committee, *International Conference on Advanced Fibers and Polymer Materials*, Shanghai, October 2005, October 2007, October 2009, August 2011.
- Symposium Organizer, *Polymer materials for microelectronic and photonic applications, 9th Pacific Polymer Conference*, Maui, December 2005.
- Executive Co-Chair, *Eastern Forum on Science and Technology: Soft Matter Science and Engineering*, Shanghai Municipal Government, Chinese Academy of Science and Chinese Academy of Engineering, Shanghai, May 2006.
- Member of International Advisory Committee, *4th East Asia Polymer Conference*, Tianjin, May 2006.
- Member of International Advisory Committee, *International Symposium of Polymer Physics*, Suzhou, June 2006; Xiamen, June 2008, Jinan, June 2010, Chengdu, June 2012.
- Member of International Advisory Committee, *Hangzhou International Polymer Forum*, Hangzhou, May, 2007.
- Member of Organizing Committee, *the Second Strategic IUPAC Polymer Symposium*, New York, June 2007.
- Member of International Advisory Committee *Advances in Petrochemicals and Polymers*, Bangkok, Thailand, July 2007.
- Symposium Co-Organizer, *Fiftieth Anniversary of Polymer Single Crystals - A look back, current discoveries, and future opportunities*, American Chemical Society Meeting, Boston, August 2007.
- Member of International Advisory Board, *The 9th International Symposium on Polymers for Advanced Technologies*, Shanghai, China, October 2007.
- Member of International Advisory Committee, *5th East Asia Polymer Conference*, Shanghai, China, June 2008.

- Co-Chair, *Frontier Polymer Science*, Mainz, Germany, June 2009, Lion, France, May 2011, Sitgus, Spain, May, 2013, Italy, May 2015.
- Member of International Advisory Committee, *International Symposia on Engineering Plastics*, Dalian, China, August 2009.
- Member of International Advisory Committee, *International Discussion Meeting on Polymer Crystallization*, Shanghai, China, August 2009, Beijing, China, August 2011.
- Co-Chair, *the Focus Group of Confined Polymer Crystallization*, American Physical Society Meeting, Portland, Oregon, March 2010.
- Symposium Organizer, *Symposium in Honoring Dr. Andrew Lovinger for His 2010 Applied Polymer Science Award*, American Chemical Society Meeting, San Francisco, April 2010.
- Symposium Organizer, *Energy, Optics, and Optoelectronics* in International Union of Pure and Applied Chemistry (IUPAC) World Polymer Congress, Blacksburg, Virginia, June 2012.
- Member of Academic Committee, Discussion Meeting on Chinese Liquid Crystal and Supramolecular Ordered Structures, Xiangtan, China, August 2012, Changchun, August 2014.
- Symposium Co-Organizer, *Symposium in Memory of Professor Wunderlich's Contributions in Polymer Science and Thermal Analysis*. The North American Thermal Analysis Society Annual Meeting, Bowling Green, Kentucky, August 2013.
- Symposium Co-organizer, *Symposium in Memory of Prof. Wunderlich for His Contributions in Polymer and Chemistry*, The American Chemical Society, Dallas, Texas 2014.
- Co-Chairman, *International Symposium of Polymer Physics*, Nanjing, China June 2014.
- Member, International Scientific Committee, *Workshop on Recent Advances and New Perspectives in Polymer Crystallization*, Genova, Italy, September 2014.

PROFESSIONAL ACTIVITIES

- The American Chemical Society and Related Meetings at New York (1986), Montreal (1987), Toronto (1988), Miami Beach (1989), Indianapolis (1991, Invited Speaker), San Francisco (1992, Invited Speaker), Washington D. C. (1992), Denver (1993, Invited Speaker), Chicago (1993, Invited Speaker), San Diego (1994), Anaheim (1995, Invited Speaker and Session Chair), Honolulu (1995, Invited Speaker and Session Chair), New Orleans (1996, Invited Speaker), Orlando (1996), San Francisco (1997, Invited Speaker), Las Vegas (1997, Invited Speaker), Boston (1998, Invited Speaker), New Orleans (1999, Invited Speaker), San Francisco (2000, Invited Speaker), Washington D. C. (2000), San Diego (2001), Chicago (2001), Orlando (2002, Invited Speaker and Session Chair), New York (2003, Invited Speaker), Philadelphia (2004, Invited Speaker), San Diego (2005, Corporate Research Award Speaker), Washington DC (2005, Invited Speaker), San Francisco (2006, Invited Speaker and Session Chair), Boston (2007, Invited Speaker and Symposium Co-Organizer), New Orleans (2008, Invited Speakers), Philadelphia (2008, Invited Speakers), Salt lake City (2009, Invited Speaker), Washington DC (2009, Invited Speaker), San Francisco (2010, Invited Speaker and Symposium Organizer), Denver (2011, Invited Speaker), San Diego (2012, Invited Speaker), Philadelphia (2012, Invited Speaker), New Orleans (2013, Invited Speaker), Indianapolis (2013, Invited Speaker), Dallas (2014, Invited Speaker and Symposium Co-Organizer), Denver (2015, Invited Speaker), Boston (2015, Invited Speaker)
- The American Physical Society Meeting at Detroit (1984), Baltimore (1985), Las Vegas (1986), New York (1987), New Orleans (1988), St. Louis (1989), Anaheim (1990), Cincinnati (1991), Indianapolis (1992), Seattle (1993), Pittsburgh (1994), San Jose (1995, John H. Dillon Award Speaker), St. Louis (1996), Kansas City (1997), Los Angeles (1998), Atlanta (1999), Minneapolis (2000, Invited Speaker), Seattle (2001, Session Chair), Indianapolis (2002), Austin (2003, Invited Speaker), Montreal (2004), Los Angeles (2005), Baltimore (2006, Invited Speaker), Denver (2007), New Orleans (2008), Pittsburgh (2009), Portland (Co-Chair of focus group), Dallas (2011), Boston (2012, Invited Speaker), Baltimore (2013, Polymer Physics Prize Award Speaker, Executive Member DPOLY), Denver (2014, Chair-Elected DPOLY), San Antonio (2015, Chair DPOLY), Baltimore (2016, Passed Chair DPOLY)
- Gordon Research Conference on Liquid Crystal Polymers (1986, 1988, 1990, 1992 Discussion Leader, 1995), Polymer Physics (1988, 1998, 2014 Invited Speaker, 2002, 2012 Discussion Leader, 2014 Invited Speaker), Polymers (1991 Invited Speaker, 2009 Invited Speaker) in New England, Polymer Composites (1992 Invited Speaker, 1994)
- International Union of Pure and Applied Chemistry, Macromolecular Symposia and Other Symposia Related to Polymer Science at Amherst (IUPAC Macro1982), Montreal (IUPAC Macro1991), Akron (IUPAC Macro1994,

Session Chairman), Taipei (1994, Invited Speaker and Session Chairman), Osaka (1996, Invited Speaker and Session Chairman), Beijing (IUPAC Macro2002, Invited Speaker and Session Chairman), Paris (IUPAC Macro2004, Symposium Co-Chairman), Taipei (IUPAC Macro2008, Plenary Lecturer), Blacksburg (IUPAC Macro2012, Symposium Chairman)

- National and International Material Research Society Meeting at San Francisco (1997, Symposium organizer), Boston (2004, Invited Speaker), Rio de Janeiro, Brazil (2009, invited Speaker).
- Conference on Thermal Analysis at Cincinnati (1986), Lake Buena Vista (1988), San Diego (1989), Boston (1990), Minneapolis (1991), Atlanta (1992, Invited Speaker), Denver (1993), Toronto (1994), San Francisco (1995), Philadelphia (1996), Cleveland (1998), Savannah (1999, Mettler Toledo Award Speaker and Invited Speaker), Orlando (2000, Invited Speaker), St. Louis (2001), Pittsburgh (2002), Williamsburg (2004, Symposium Chair), Lake Buena Vista (2012, Invited Speaker), Santa Fe (2014, Plenary Speaker)
- Other Professional Conference: NSF Workshop on American and Russian Polymer Young Investigators at Washington D.C. (1992); NATO Workshop on Polymer Crystallization at Mons, Belgium (1992 Invited Speaker and Session Chairman); The Royal Society (London) Discussion Meeting, London, England (1993, 2002 Invited Speaker); The Polymer Processing Society Conference (1994 Kyoto, Japan, Invited Keynote Speaker, 2000 Shanghai, China, Invited Plenary Speaker, 2002 Taiwan, Invited Keynote Speaker and Symposium Chairman); Annual Conference of the Society of Plastic Engineers at Dallas (1990, Invited Speaker and Session Chair), Montreal (1991, Invited Speaker), New Orleans (1993, Invited Speaker), San Francisco (1994, Invited Speaker), Boston (1995), Indianapolis (1996, Invited Speaker); International Polymer Physics Symposium (1995, 1997, 2000, 2002, 2004, 2006, 2008, 2010, 2012 Invited Speakers); The Conference of Worldwide Young Chinese Chemists (1995, 1997 Invited Speakers), Pacific Polymer Conference (1995 Kauai, Invited Speaker and Session Chair, 1999, Guangzhou, Invited Plenary Speaker, 2000, Honolulu, Invited Speakers, 2003 Thailand, Keynote Speaker, 2011 Juku Iceland, Invited Speaker, 2013 Kaohsiung, Invited Plenary Speaker), UK Royal Society of Chemistry and Institute of Physics, Polymer 98 (1998, Invited Keynote Speaker), Japan Fiber Society Annual Meeting (1999, Invited Keynote Speaker), Denver X-ray Conference (1994, 1997, 1999, 2001, 2007 Invited Speakers), American Crystallographic Association Meeting (1995, 2000 Invited Speaker), China National Polymer Science Symposium (1997 Invited Plenary Speaker, 2005, 2007 Invited Speakers, 2009 Invited Plenary Speaker, 2011, 2013 Invited Speakers)
- Lectures at Universities, Industrial Research and Development Centers, National Laboratories, Professional Conferences in the United States and Abroad in Belgium (1992, 2001, 2004), Brazil (2009), Canada (1988, 1991, 1994, 1995, 1997, 2001, 2004, 2005), China (1992-2015), England (1993, 1998, 2001, 2002, 2006), France (1997, 1999, 2001, 2003-05, 2007, 2011), Germany (1997, 1999, 2003, 2005), Italy (2000, 2004, 2014, 2015), Japan (1993, 1994, 1996, 1999, 2002, 2007, 2013, 2014), Korea (1995, 2000, 2002, 2011), Malaysia (1993), The Netherlands (1998, 2001, 2012), Spain (2013), Switzerland (1992, 1998), Taiwan (1994, 1998, 2001, 2004, 2006-14), Thailand (2003). Total of about 1000 (more than 750 Invited Lectures), See the Lists of Invited Lectures and Paper Presentations.

PUBLICATIONS AND PATENTS

- More than 500 articles published in refereed research journals and book chapters. See the list of publication
- One book published in 2008 titled “*Phase Transitions in Polymers: The Role of Metastable States*”
- The H-index: 69 (ISI). The total number of citations: > 16,000 (ISI). The number of citations in publications: > 100/year since 1991, > 200/year since 1995; > 400/year since 1999; > 500/year since 2003; > 600/year since 2005; > 800/year since 2009, > 1100/year since 2013
- Fourteen US and world patents and applications issued regarding aromatic polyimide negative birefringent retardation films in liquid crystal display applications, high performance aromatic polyimide fibers, half-wavelength optical plates, polyimide alignment layers, and compensation layers having oblique optical axis. Among them, five patents have been licensed by industries.

CONSULTANTSHIPS

- Chevron-Phillips Petroleum Company, Bartlesville, Oklahoma (1988-2007)
- Goodyear Tire and Rubber Company, Akron, Ohio (1989-91)

- Foster-Miller Incorporated, Waltham, Massachusetts (1995-97)
- Abbott Laboratories, Abbott Park, Illinois and Mountain View, California (1995-99)
- 3M, Science Laboratory, St. Paul, Minnesota (2000-)
- British Petroleum/Amoco Chemical Company (2001-04)
- Nanofilms Company (2003-05)
- Alcoa SCI (2007)
- DSM (2013-15)

COMPANY VISITS AND CONSULTANTS

- Hercules Incorporated, Wilmington, Delaware (1987, 1988, 1989, 1991)
- Dow Chemical Company, Freeport, Texas; Midland, Michigan (1989, 1991, 2007)
- The Shell Development Company, Houston, Texas (1989)
- Exxon Chemical Company, Baytown, Texas (1991, 1992)
- GenCorp Company, Akron, Ohio (1991)
- Eastman Chemical Company, Kingsport, Tennessee (1991, 2004, 2005)
- Du Pont Company, Experimental Station, Wilmington, Delaware (1991, 1992, 1995, 2003)
- Advanced Cardiovascular System Inc., Santa Clara, California (1992)
- 3M Company, Minneapolis and St. Paul, Minnesota (1992, 1993, 1995, 2000, 2002-06, 2014, 2017), Austin, Texas (1995)
- Fina Oil and Chemical Company, Deer Park, Texas (1992)
- ICI Glidden Company, Strongsville, Ohio (1993)
- Optical Imaging System, Detroit, Michigan (1993, 1997)
- Seiko Instrument Inc. Japan (1993, 1994)
- Standards and Industrial Research Institute of Malaysia, Malaysia (1993)
- Petronas of Malaysia, Malaysia (1993)
- Toray Research Center Incorporated, Sonoyama, Japan (1994, 1996)
- Research Center, Polyplastics Company, LTD., Shizuoka, Japan (1994)
- Union Chemical Laboratories, Shinchu, Taiwan (1994, 1998, 2001)
- Hante Incorporated, Dallas, Texas (1994)
- Goodyear Tire and Rubber Company, Akron, Ohio (1994, 2007)
- Akzo Chemical Company, Dobbs Ferry, New York (1994, 1995, 1996)
- Xerox Corporation, Research and Technology Center, Webster, New York (1995)
- Raychem Corporation, Research and Development, Menlo Park, California (1995)
- Samsung Cheil Industries Research Center, Korea (1995, 2000, 2011)
- LG Chemical Research Center, Korea (1995)
- Cheil Synthetics Research Center, Korea (1995, 2000)
- NOK Incorporated, Tsukuba, Japan (1996)
- Nippon Shokubai Co. Ltd, Tokyo, Japan (1996)
- Toyobo Company, Japan (1996, 1998)
- Wesley-Jessen Company, Chicago, Illinois (1996)
- British Petroleum Chemical Company, France (1997, 2000)
- Dow Corning Corporation, Midland, Michigan (1997, 2007)
- Hoechst-Celanese, Charlotte, North Carolina (1998)
- British Petroleum Chemical Company, Sunbury, UK (1998)
- Lightwave Microsystems, San Jose, California (1998, 2000, 2001)
- Kimberly-Clark, Roswell, Georgia (1999)
- Aristech Chemical, Pittsburgh, Pennsylvania (2000)
- Ashland Chemical Company, Dublin, Ohio (2002)
- British Petroleum/Solvay Chemical Company, Brussels, Belgium (2002)
- British Petroleum Chemical Company, Maplesville, Illinois (2003)
- Kosa Chemical Company, Spartanburg, South Carolina (2003-07)
- Nanofilms Company, Independence, Ohio (2003-06)

- Alcoa SCI (2007)
- ExxonMobil Research and Engineering Company (2007, 2012)
- 3M at Shanghai Research Center (2009)
- DSM Research Center at Netherlands (2012)
- Dow Chemical Company at Shanghai Research Center (2012)
- DSM Research Center at Shanghai (2013, 2014)