

Curriculum Vitae - Steven M. George

Professor
Dept. of Chemistry and Biochemistry
Dept. of Mechanical Engineering
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Education:

- University of California, Berkeley, Calif.; Ph.D. in Chemistry, March 1983; Thesis: "Picosecond Studies of Vibrational Linewidth Broadening in Liquids".
- Yale University, New Haven, Conn.; B.S. in Chemistry with highest honors, May 1977.
- Phillips Exeter Academy, Exeter N.H.; Graduated with high honors, June 1973.

Professional Experience:

- Professor, Dept. of Mechanical Engineering, Univ. of Colorado, Boulder, Colorado, July 2013- Present.
- Professor, Dept. of Chemistry and Biochemistry, Univ. of Colorado, Boulder, Colorado, Sept. 1995- Present.
- Professor, Dept. of Chemical and Biological Engineering, Univ. of Colorado, Boulder, Colorado, August 2001-June 2013.
- Associate Professor, Dept. of Chemistry and Biochemistry, Univ. of Colorado, Boulder, Colorado, Jan. 1992- August 1995.
- Assistant Professor, Dept. of Chemistry, Stanford University, Stanford, Calif., Fall 1984 - Dec. 1991.
- Visiting Scientist: Exxon Corporate Research, Laboratories, Linden, N.J., Summer 1983 - Fall 1984.
- Bantrell Post-doctoral Research Fellow: Chemistry Dept., Calif. Inst. of Technology, Spring 1983 - Fall 1984.

Current and Recent Professional Activities:

- Past-President, American Vacuum Society, January 2015-December 2015.
- President, American Vacuum Society, January 2014-December 2014.
- President-Elect, American Vacuum Society, January 2013-December 2013.
- Chair, DARPA Workshop on "Future of Atomic Layer Deposition", April 20-21, 2013, Chicago, Illinois.
- Co-Chair, New Industrial Chemistry and Engineering (NICHE) Workshop on "Barrier Technologies", Council for Chemical Research, September 19-20, 2012, Arlington, Virginia.

- Member, Conference Committee for American Vacuum Society Topical Conference on Atomic Layer Deposition (ALD 2002-ALD 2016).
- Board of Directors, American Vacuum Society, January 2010-December 2012.
- Co-Founder, ALD NanoSolutions, Fall 2001. Member of Scientific Advisory Board, 2002-Present.
- Chair of the Trustees, American Vacuum Society, January-December 2009.
- Trustee, American Vacuum Society, January 2007-December 2009.
- Member, Board of Editors, Surface Review and Letters, January 1998-December 2010.
- Member, Thin Film Division Program Committee of American Vacuum Society, October 1999-Present.
- Member, Thin Film Division Executive Committee, American Vacuum Society, January 2007-December 2008.
- Chair, International Symposium of the American Vacuum Society, October 30-November 4, 2005, Boston, Massachusetts
- Chair, American Vacuum Society Topical Conference on Atomic Layer Deposition (ALD2001), May 14-15, 2001, Monterey, California.
- Chair, Thin Film Division of the American Vacuum Society, January - December 2002.
- Vice Chair, Thin Film Division of the American Vacuum Society, January - December 2001.
- Member, Board of Assessment of NIST Programs, Panel for Chemical Science and Technology, National Research Council, January 1993-December 1998.
- Co-Chair, Gordon Research Conference on Electronic Materials: Chemistry, Excitations and Processing, July 6-10, 1997 in New Hampshire.
- Member, Executive Committee of Electronic Materials and Processing Division, American Vacuum Society, January 1996-December 1997.
- Co-Chair, Symposium on Environmental Heterogeneous Processes, American Chemical Society National Meeting, New Orleans, LA, March 24-28, 1996.
- Guest Editor, Thematic Issue on Heterogeneous Catalysis, Chemical Reviews, May 1995.
- Chair, Microphysics of Surfaces: Nanoscale Processing, Topical Meeting of the Optical Society of America, Sante Fe, NM, Feb. 9-11, 1995.
- Associate Editor, Chemical Reviews, July 1992- Dec. 1994.
- Member, National Materials Advisory Board Committee on New Currency Design: Counterfeit Deterrent Features for the Next Generation, June 1992-May 1994.
- Alumni Member, Defense Science Study Group, Institute for Defense Analysis, Alexandria, Virginia, Fall 1991- Present.
- Member, Defense Science Study Group, Institute for Defense Analysis, Alexandria, Virginia, Spring 1989- Fall 1991.

Fellowships and Awards:

ALD Innovation Award, AVS International Conference on Atomic Layer Deposition, July 2013
 Faculty Research Award from College of Engineering and Applied Science, University of Colorado at Boulder, 2006
 University of Colorado at Boulder Faculty Assembly Excellence in Research, Scholarly, and Creative Work Award, 2006
 American Chemical Society Colorado Section Award, 2004

R&D 100 Award for *Particle-ALD*TM, 2004
Inventor of the Year, University of Colorado at Boulder, 2004
National Science Foundation Creativity Award, 2002-2004
Fellow, American Vacuum Society, 2000
Fellow, American Physical Society, 1997
Presidential Young Investigator Award, 1988-1993
Alfred P. Sloan Foundation Fellow, 1988
IBM Faculty Development Award, 1988
Dupont Young Faculty Awardee, 1988
Dreyfus Award for Newly Appointed Faculty in Chemistry, 1985
AT&T New Faculty Award, 1985
Bantrell Post-doctoral Research Fellow, Spring 1983-Fall 1984

Affiliations:

American Vacuum Society; American Chemical Society; American Physical Society; Electrochemical Society, Materials Research Society.

Brief Biographical Sketch

Prof. Steven M. George is Professor in the Dept. of Chemistry and Biochemistry and Dept. of Mechanical Engineering at the University of Colorado at Boulder. Dr. George received his B.S. in Chemistry from Yale University (1977) and his Ph.D. in Chemistry from the University of California at Berkeley (1983). Dr. George has more than 400 publications in the areas of thin film growth and etching, surface science, and physical chemistry. He has over 19,000 total citations and his H-index is 69 (July 2016). In addition, he currently has 16 issued U.S. or PCT patents and 12 U.S. or PCT patent applications undergoing review. Dr. George's research interests are in the areas of surface chemistry, thin film growth and etching and nanostructure engineering. He is directing a research effort focusing on atomic layer deposition (ALD), molecular layer deposition (MLD) and atomic layer etching (ALE). This research is examining new surface chemistry, measuring thin film growth and etching rates, characterizing the properties of films and developing new reactors for ALD, MLD and ALE. Dr. George chaired the first Topical Conference on Atomic Layer Deposition (ALD2001) in May 2001. He has been on the Conference Committees of all subsequent ALD meetings. Dr. George also teaches a one-day short course on ALD for the American Vacuum Society (AVS). Dr. George is also very active in the AVS. He was a Trustee of the AVS (2007-2009) and Chair of the Trustees (2009). In addition, he was on the Board of Directors of the AVS (2010-2012). He also served as President-Elect of AVS (2013), President of AVS (2014) and Past-President of AVS (2015). Dr. George is a Fellow of the AVS (2000) and the APS (1997). Dr. George has received a number of awards including the ALD Innovation Award from the AVS International Conference on Atomic Layer Deposition (2013), an R&D 100 Award for *Particle-ALD*TM (2004), an NSF Creativity Award (2002-2004), an NSF Presidential Young Investigator Award (1988-1993), and an Alfred P. Sloan Foundation Fellowship (1988). He is also a co-founder of ALD NanoSolutions, Inc., a company that is working to commercialize ALD technology.