

CURRICULUM VITAE
MICHAEL ANTHONY MATTHEWS

Associate Vice President for Research, UofSC
Vice Dean, Senior Associate Dean for Research & Graduate Programs
Professor, Department of Chemical Engineering and Biomedical Engineering Program
College of Engineering and Computing
University of South Carolina
Columbia, SC 29208

PERSONAL INFORMATION

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Citizenship: U.S.
Security Clearance: none

Michael A. Matthews received his Ph.D. in Chemical Engineering from Texas A&M University in 1986. He was on the faculty of the University of Wyoming from 1987 to 1993 and was recruited to the University of South Carolina (UofSC) in January 1994. He has served the Department of Chemical Engineering as Associate Chair, Interim Chair, Department Chair, as well as chair of the department Tenure and Promotion Committee. He became an associate dean in 2011, and currently is the Senior Associate Dean for Research and Graduate Programs as well as Vice Dean of the College of Engineering and Computing. He also serves as Associate Vice President for Research for UofSC. He is currently co-director and co-PI of the university's Bridge to the Doctorate program, an NSF initiative that provides fellowship support to under-represented minority doctoral students in the STEM fields. He is also the university's representative to the National GEM Consortium. Matthews also serves the State of South Carolina as chair of the SC EPSCoR State Committee.



Matthews is a Fellow of both the American Institute of Chemical Engineers (AIChE) and of the American Chemical Society (ACS). He serves on the Committee on Environmental Improvement, a Board of Directors Committee of the ACS. He was the founding chairman of the ACS Green Chemistry and Engineering subdivision and served as chairman of the ACS Industrial & Engineering Chemistry Division and on the editorial board of *I&EC Research*. He is a lifelong member of the American Society of Engineering Education (ASEE) and received the ASEE/Chemical Engineering Division 2007 William Corcoran Award for Best Paper in Chemical Engineering Education.

Professor Matthews conducts research in applied chemical thermodynamics. One area of application is in biomedical applications of supercritical fluid technology, including sterilization, processing of tissue scaffolds, medical cleaning, and abatement of asthma triggers. This work has been funded by industry and by the National Institutes of Health, including commercialization grants through the U.S. Small Business Innovative Research program. To commercialize this research, he co-founded CarboNix LLC in 2009. His second research area is in phase behavior and reactivity of chemical hydrides, which are used as storage and delivery media for hydrogen in fuel cell applications. Professor Matthews has published 73 refereed papers and has presented over 110 technical presentations. He has received over \$15M in industrial, state and federal funding as well as \$10M for a State of South Carolina Smart State Center for Rehabilitation and Reconstruction Sciences. He holds five U.S. patents.

PROFESSIONAL APPOINTMENTS AND SELECTED LEADERSHIP POSITIONS

<u>Dates</u>	<u>Firm/Institution</u>	<u>Rank/Position</u>
2/2021-	University of South Carolina	Associate Vice President for Research
7/2019-6/2022	State of SC EPSCoR	Committee Chair (Member since 2017)
4/2018-	College of Engineering and Computing University of South Carolina	Vice Dean and Senior Associate Dean for Research & Graduate Programs
1/2018-	University of South Carolina Graduate School	Professional Development Committee
10/2015-4/2016	University of South Carolina Graduate School	Co-chair, Blue Ribbon Committee on Graduate Student Life
5/2013-4/2018	College of Engineering and Computing University of South Carolina	Associate Dean for Research and Graduate Education
2013-	National Fellowships and Scholars Programs	Chair, NSF GRFP Committee
2011-	Office of the Provost University of South Carolina	Campus Representative to the National GEM Consortium
6/2011-5/2013	College of Engineering and Computing University of South Carolina	Associate Dean for Academic Planning
2/2009 to 5/2010	University of South Carolina	Co-Chair, University General Education Committee (revising the Gen Ed program)
9/2006 to 12/2010	Chemical Engineering Department University of South Carolina	Chair
8/2003 to 8/2013	Department of Orthopaedic Surgery University of South Carolina	Adjunct Professor
8/2001 to 12/2010	Chemical Engineering Department University of South Carolina	Professor
8/2000 to 8/2002	Chemical Engineering Department University of South Carolina	Interim Chair
1/1997 to 8/2001	State of SC EPSCoR Program	HRD Coordinator, DOE EPSCoR grant
8/1996 to 5/1998	Chemical Engineering Department University of South Carolina	Assistant Chairman
8/1996 to 8/2001	Chemical Engineering Department University of South Carolina	Associate Professor
1/1994 to 8/1996	Chemical Engineering Department University of South Carolina	Assistant Professor
7/1993 to 12/1993	Chemical Engineering Department University of Wyoming	Associate Professor, (tenured)
8/1986 to 7/1993	Chemical Engineering Department University of Wyoming	Assistant Professor, Graduate Director
5/1979 to 9/1981	Texas Eastman Chemical Company Longview, TX	Engineer
Summer 1978	Exxon Company Kingsville TX	Engineer
Summer 1976, 1977	Dow Chemical Company Freeport TX	Engineer