

Vadim V. Guliants

Professor
School of Energy, Environment and Biomedical Engineering
University of Cincinnati, OH 45221-0012
Telephone: (513) 556-0203 Fax: (513) 556-3473
E-Mail: Vadim.Guliants@UC.Edu
Web: <http://alpha.che.uc.edu/matcat>

EDUCATION

Princeton University	Chemical Engineering	Ph.D.	1995
Princeton University	Chemical Engineering	M.A.	1993
Moscow State University	Chemistry	Diploma with Highest Honors	1987

PROFESSIONAL EXPERIENCE

7/10- Professor and Chair, Energy and Materials Engineering, University of Cincinnati
9/05-6/10 Professor, Chemical and Materials Engineering (CME), University of Cincinnati
8/07- Chair, Chemical Engineering Program
9/04-11/05 Associate Department Head, CME Department, University of Cincinnati
9/03-8/05 Associate Professor, CME Department, University of Cincinnati
9/99-8/03 Assistant Professor, CME Department, University of Cincinnati
9/98-8/99 Adjunct Professor, Department of Chemical Engineering, SUNY at Buffalo
6/95-8/99 Research Associate, Gas Separation R&D, Praxair Inc., Tonawanda, NY

RESEARCH EXPERIENCE

9/99- *Chemical and Materials Engineering, University of Cincinnati*
Nanostructured catalytic materials for applications in energy-related, chemical, environmental catalysis and biocatalysis
Selective alkane oxidation by mixed metal oxide catalysts
Self-assembly and characterization of novel inorganic and metal-organic membranes for energy-related hydrogen, CO₂ and other gas separations
6/95-8/99 *Gas Separation R&D, Praxair Inc., Tonawanda, NY.*
Development of novel air separation technology for oxyfired combustion
Direction of 2 R&D teams developing and commercializing new adsorbents
Molecular modeling of ordered microporous materials

LANGUAGES

English and Russian (full command), Japanese (scientific), Italian (reading)

AWARDS AND HONORS

2010 King Carl XVI Gustaf's Professorship in Environmental Science, Uppsala University
2008 Nominee, Emmett Award, North American Catalysis Society
2005 UC COE Outstanding Research Award for Young Faculty
2004 UC Teaching Diversity Award
2004 NSF NIRT Award

2002 NSF CAREER Award
2002 Department of Chemical Engineering Outstanding Professor
2002 ACS Division of Petroleum Chemistry Recognition Award

TEACHING

Advanced Chemical Engineering Thermodynamics, Chemical Engineering Thermodynamics, Principles of Heat Transfer, Material and Energy Balances, Biocatalysis and Biotransformations, Molecular Engineering of Functional Nanomaterials, Computational Chemistry for Engineers, Introduction to Ceramics

GRADUATE ADVISORS AND RECENT COLLABORATORS

Professors Jay B. Benziger and S. Sundaresan, Princeton University.
Professor Mark E. Thompson, second reader, University of Southern California.

THESIS ADVISOR

Graduated Students:

PhD: M. Carreon (**Assistant Professor**, University of Louisville), J. Al-Saeedi (**Professor**, University of Kuwait), P. Kumar (UMN), L. Yuan (Virent Energy), Z. Zheng
MS: E. Kopaygorodsky, S. Kim (LLNL), S. Sarang (Cargill), M. Tsunakawa, R. Bhandari, S. Bhatt, H. Jaladi, S. Zheng, A. Huth (Cummins)

Current Students:

PhD: J.-H. Lin, S. Variyath, J.-S. Kim, J. Yu, J. Woo, J. Finer
MS: S. Shah, J. Stueve, Y. Kapustin
Undergraduates: J. Stueve, S. Berger, R. Beltz, S. Pfeffer, S. Anneken, A. Tschutschke, J. (2009-2011) Troyer, J. Murphy, P. Reichel, D. Pierson, G. Abraham, O. Fursenko

Postdoctoral Fellows and Visiting Scientists:

N. Modak, Ying Dai, M. Kaliappan, P. Biswas, postdoctoral fellow (now **Assistant Professor** at IIT Rourke, India), A. Govindasamy, L. Lessard (now at Novozyme), N. R. Shiju (now **Assistant Professor**, University of Amsterdam), J. Tong, J. Ida (now **Associate Professor**, Soka University, Japan), P. Korovchenko (now on staff at RAS Institute of Organic Chemistry, Moscow), O. Guerrero-Perez (now staff member at University of Malaga, Spain), S.A. Holmes

Membership in Professional Organizations

1. *American Institute of Chemical Engineers*, Division of Catalysis and Reaction Engineering, Separations Division, Materials Engineering Division
2. *North American Catalysis Society*
3. *American Chemical Society*
4. *Omega Chi Epsilon* Chemical Engineering Honor Society
5. *Order of the Engineer*

Officer in Professional Organizations

1. *AIChE*, Programming Chair of Group 8d (Ceramic Materials), 2001-2005
2. *ACS*, Secretary, Catalysis Secretariat, 2005
3. *AIChE*, Meeting Planning Committee, Division of Catalysis and Reaction Engineering
4. Director, *Tri-State Catalysis Society* (OH, KY, WV)