

## JOHN R. REGALBUTO

Department of Chemical Engineering, University of South Carolina

### Professional Preparation

- B.S. Chemical Engineering, Cum Laude, Texas A&M University, 1981
- M.S. Chemical Engineering, University of Notre Dame, 1983
- Ph.D. Chemical Engineering, University of Notre Dame, 1986

### Appointments and Professional Experience

- Department of Chemical Engineering, University of South Carolina
  - Smartstate Chair in Catalysis for Renewable Fuels and Professor, 2011-present
- Department of Chemical Engineering, University of Illinois at Chicago
  - Professor, 2005 - 2011
  - Associate Professor, 1992 - 2005
  - Assistant Professor, 1986 - 1992
- National Science Foundation, Arlington, Virginia
  - Catalysis and Biocatalysis Program Director, Engineering Directorate, 2006 - 09
- Honeywell, Des Plaines, Illinois
  - Sabbatical Leave, 2003-04
- UOP Research Center, Des Plaines, Illinois
  - Sabbatical Leave, 1994-95
- Argonne National Laboratory, Argonne, Illinois
  - Summer Faculty Research Program, 1990
- Amoco Oil Company, Naperville, Illinois
  - University Methane Utilization Program, 1987

### Significant Awards and Honors

- Chair-elect, 2014 Gordon Research Conference on Catalysis
- Director's Commendation, NSF, for vision and promotion of "green gasoline", 2009
- UIC Council for Excellence in Teaching and Learning, 1996 – 1999, Chair, 2005-06
- Who's Who Among America's Teachers, 2002, 2005
- UIC Award for Excellence in Teaching (all-university), 1996
- UIC Professional Engineering Societies Council Best Advisor Award, 1996
- UIC College of Engineering Harold A. Simon Award (teaching), 1990
- Tau Beta Pi Advisor, Illinois Zeta Chapter, 1988-98

### Professional Consulting

- BP Chemical Company, Naperville, Illinois, 2009, 2011
  - development of supported metal catalysts
- Catalytic Solutions, Oxnard, California, 2005
  - development of reforming catalysts
- Scientific Design Corporation, Little Ferry, New Jersey, 2002
  - development of alkoxylation catalysts
- The Catalyst Group, Spring House, Pennsylvania, 1996, 2000-2001
  - technical reviews of novel catalyst supports
- Korean Institute of Energy Research, Taejon, Korea, 1997
  - lecture series on catalyst characterization
- United Nations Industrial Development Organization, Vienna, Austria, 1996
  - lecture series on catalyst preparation for the Tianjin Research Institute, China
- Shell Chemical Company, West Hollow Technology Center, Houston, Texas, 1996
  - catalytic reactor characterization
- Gas Research Institute, Chicago, Illinois, 1992 – 1996
  - feasibility surveys in environmental catalysis

### **Recent Papers** (h-index 22)

- Zhu, X., Cho, H.-R., and Regalbuto, J.R., Charge Enhanced Dry Impregnation: A Simple Way to Improve Preparation of Supported Metal Catalysts, ACS Catalysis 2013, in press.
- Regalbuto, J.R., The Sea Change in US Biofuels' Funding: from Cellulosic Ethanol to Green Gasoline, Biofuels 5 (2011) 495.
- Zhao Y., Feltes T.E., Regalbuto J.R., Meyer R.J., and Klie R.F., In Situ Electron Energy Loss Spectroscopy Study of Mn-Promoted Co/TiO<sub>2</sub> Fischer-Tropsch Catalysts, Catal. Lett. 141 (2011) 641.
- Hao, X., Barnes S., and Regalbuto, J., A Fundamental Study of Pt Impregnation of Carbon: Adsorption Equilibrium and Particle Synthesis, J. Catal. 279 (2011) 48.
- Feltes T. E., Espinosa-Alonso L., de Smit, E., Meyer, R.J., Weckhuysen, B.M., and Regalbuto, J.R., Selective Adsorption of Manganese onto Cobalt for Optimized Mn/Co/TiO<sub>2</sub> Fischer-Tropsch Catalysts, J. Catal. 270 (2010) 95.
- Schreier, M., Timmons, M., Feltes, T., and Regalbuto, J.R., The Determination of Surface Charging Parameters for a Predictive Metal Adsorption Model, J. Coll. Interf. Sci. 348 (2010) 571
- Feltes, T. E., Y. Zhao, R.J. Meyer, R. Klie, and Regalbuto, J.R., The Influence of Preparation Method on Mn-Co Interactions in Mn/Co/TiO<sub>2</sub> Fischer-Tropsch Catalysts, ChemCatChem 2 (2010) 1065.
- Zhao Y., Feltes T.E., Regalbuto J.R., Meyer R.J., and Klie R.F., In Situ Electron Energy Loss Spectroscopy Study of Metallic Co and Co Oxides, J. Appl. Phys., 108 (2010) 063704.
- Lambert, S., Job, N., D'Souza, L., Ribeiro Pereira, M.F., Pirard, R., Heinrich, B., Figueiredo, J.L., Pirard, J.P., and Regalbuto, J.R., Synthesis of Very Highly Dispersed Platinum Catalysts Supported on Carbon Xerogels by the Strong Electrostatic Adsorption Method, Catal. Tod. 150 (2010) 119.
- Regalbuto, J.R., Cellulosic Biofuels – Got Gasoline?, Science 325 (2009) 822.
- Jiao, L. and Regalbuto, J.R., The Synthesis of Highly Dispersed Noble and Base Metals on Silica via Strong Electrostatic Adsorption: I. Amorphous Silica, J. Catal. 260 (2008), 329
- Catalyst Preparation: Science and Engineering, Regalbuto, J.R., ed., Taylor & Francis, 2007.

### **Synergistic Activities**

Obtained NSF GRS for Theresa Feltes to study six months with B. Weckhuysen (Utrecht), 2008

Mentored 9 minority undergraduate REU students on last three NSF grants

Chicago Catalysis Club; President, 2000, 2005, Program Chair, 1999, 2004

Chair, all-U. of Illinois faculty seminar on pedagogy of online teaching, 1998-99

Officer, 15th North American Catalysis Society Meeting, 1997

### **Collaborations/COIs**

Coauthors: X. Zhu, H.R. Cho, S. Barnes (Tulsa), T. Feltes (U. Cape Town), L. D'Souza (Shell Bangalore), X. Hao (Nanostellar), L. Jiao (Chevron), M. Schreier (W.R. Grace), Espinosa-Alonso L., de Smit, E., and Weckhuysen, B.M. (Utrecht U.), R.J. Meyer and R. Klie (UIC), J.T. Miller and A.J. Kropf (Argonne), S. Lambert, N. Job, M.F. Ribeiro Pereira, R. Pirard, B. Heinrich, J.L. Figueiredo, and J.P. Pirard (U. Liege), G. Shaw and G. Hutchings, (Cardiff U.), B. O'Neill and J. Dumesic (U. Wisconsin), Ph.D. Advisor: E.E. Wolf (Notre Dame)