

**EDITORIAL AND BUSINESS ADDRESS:**

*Chemical Engineering Education*  
Department of Chemical Engineering  
University of Florida • Gainesville, FL 32611  
PHONE and FAX : 352-392-0861  
e-mail: [cee@che.ufl.edu](mailto:cee@che.ufl.edu)

**EDITOR**

*Tim Anderson*

**ASSOCIATE EDITOR**

*Phillip C. Wankat*

**MANAGING EDITOR**

*Lynn Heasley*

**PROBLEM EDITOR**

*Daina Briedis, Michigan State*

**LEARNING IN INDUSTRY EDITOR**

*William J. Koros, Georgia Institute of Technology*

**TEACHING TIPS EDITOR**

*Susan Montgomery, University of Michigan*

**PUBLICATIONS BOARD****• CHAIRMAN •**

*John P. O'Connell*  
*University of Virginia*

**• VICE CHAIRMAN •**

*C. Stewart Slater*  
*Rowan University*

**• MEMBERS •**

*Lisa Bullard*

*North Carolina State*

*Jennifer Curtis*

*University of Florida*

*Rob Davis*

*University of Colorado*

*Pablo Debenedetti*

*Princeton University*

*Dianne Dorland*

*Rowan*

*Stephanie Farrell*

*Rowan University*

*Jim Henry*

*University of Tennessee, Chattanooga*

*Jason Keith*

*Michigan Technological University*

*Suzanne Kresta*

*University of Alberta*

*Steve LeBlanc*

*University of Toledo*

*Ron Miller*

*Colorado School of Mines*

*Lorenzo Saliceti*

*University of Puerto Rico*

*Stan Sandler*

*University of Delaware*

*Margot Vigeant*

*Bucknell University*

# Chemical Engineering Education

**Volume 43****Number 3****Summer 2009****► DEPARTMENT**

- 179 Chemical Engineering at The University of Illinois at Urbana-Champaign  
*Edmund G. Seebauer, Paul J.A. Kenis, and Marina Miletic*

**► EDUCATOR**

- 170 Nicholas A. Peppas of the University of Texas at Austin  
*Jennifer Sinclair Curtis and Christopher N. Bowman*

**► RANDOM THOUGHTS**

- 241 Priorities in Hard Times  
*Richard M. Felder*

**► SPECIAL SECTION: AICHE CENTENNIAL CELEBRATION**

- 186 Introduction  
*David L. Silverstein and Phillip C. Wankat*
- 187 Implementing Concepts of Pharmaceutical Engineering Into High School Science Classrooms  
*Howard Kimmel, Linda S. Hirsch, Laurent Simon, Leville Burr-Alexander, and Rajesh Dave*
- 194 Wiki Technology as a Design Tool for a Capstone Design Course  
*Kevin R. Hadley and Kenneth A. Debelak*
- 201 Design Course for Micropower Generation Devices  
*Alexander Mitsos*
- 207 Ideas to Consider for New Chemical Engineering Educators, Part 1. Courses Offered Earlier in the Curriculum  
*Jason M. Keith, David L. Silverstein, and Donald P. Visco, Jr.*
- 216 The History of Chemical Engineering and Pedagogy: The Paradox of Tradition and Innovation  
*Phillip C. Wankat*
- 225 NANOLAB at The University of Texas at Austin: A Model for Interdisciplinary Undergraduate Science and Engineering Education  
*Andrew T. Heitsch, John G. Ekerdt, and Brian A. Korgel*

**► LABORATORY**

- 232 "Student Lab"-on-a-Chip: Integrating Low-Cost Microfluidics Into Undergraduate Teaching Labs to Study Multiphase Flow Phenomena in Small Vessels  
*Edmond W.K. Young and Craig A. Simmons*

**► CLASS AND HOME PROBLEMS**

- 243 Biokinetic Modeling of Imperfect Mixing in a Chemostat: An Example of Multiscale Modeling  
*Michael B. Cutlip, Neima Brauner, and Mordechai Shacham*

CHEMICAL ENGINEERING EDUCATION (ISSN 0009-2479) is published quarterly by the Chemical Engineering Division, American Society for Engineering Education, and is edited at the University of Florida. Correspondence regarding editorial matter, circulation, and changes of address should be sent to CEE, Chemical Engineering Department, University of Florida, Gainesville, FL 32611-6005. Copyright © 2008 by the Chemical Engineering Division, American Society for Engineering Education. The statements and opinions expressed in this periodical are those of the writers and not necessarily those of the CHE Division, ASEE, which body assumes no responsibility for them. Defective copies replaced if notified within 120 days of publication. Write for information on subscription costs and for back copy costs and availability. POSTMASTER: Send address changes to Chemical Engineering Education, Chemical Engineering Department, University of Florida, Gainesville, FL 32611-6005. Periodicals Postage Paid at Gainesville, Florida, and additional post offices (USPS 101900).