

5-YEAR INDEX • 2012-2016

Volumes 46 through 50

(Note: Author Index begins on page 274)

TITLE INDEX

Note: Titles in italics are book reviews.

A

- ABET Process Safety Requirements, An Approach to Help
Departments Meet the New 46(2), 129
- Active Learning and Just-In-Time Teaching In a Material and
Energy Balances Course 47(3), 154
- Active Learning; You Got Questions, We Got
Answers 2. 47(2), 97
- Active Learning of Concepts in Transport Phenomena: Experiment
With a Subliming Solid; Undergraduate
Laboratory Experiment—Facilitating..... 49(4), 215
- Active Learning in Class; Novel Use of a Remote
Laboratory For 50(2), 141
- Active Learning in Mass and Heat Transfer; Identify-Solve-
Broadcast Your Own Transport Phenomenon: Student-Created
YouTube Videos to Foster..... 50(3), 186
- Adaptation of Professional Skills in the Unit Operations
Laboratory 46(3), 182
- Alberta, University of 48(2), 66
- Alginate Beads, A Controlled Drug-Delivery Experiment Using
..... 46(2), 97
- Ammonia Synthesis With Thermodynamic Software;
Chemical Reaction Equilibrium Calculation Task for
ChE Undergraduates—Simulating Fritz Haber’s 48(2), 115
- Analysis of a Flooded Heat Exchanger..... 49(2), 88
- Analyzing the Function of Cartilage Replacements: A Laboratory
Activity to Teach High School Students Chemical and Tissue
Engineering Concepts 47(2), 99
- Anaerobic Digester: A Case Study for Undergraduate
Students; Modeling of an Industrial 48(2), 71
- Anderson, Tim, of the University of
Massachusetts-Amherst 50(1), 42
- Announcement: *CEE* Welcomes Assistant Editor Donald P.
Visco, Jr. 50(2), 149
- aPBL: An Evaluation of the Effectiveness of authentic
Problem-Based Learning 46(2), 135
- Application of the Double-Tangent Construction of Coexisting
Phases to Any Type of Phase Equilibrium for Binary
Systems Modeled With the Gamma-Phi Approach 48(1), 42
- Application of Plagiarism Screening Software in the ChE
Curriculum 48(2), 90
- Approach to Help Departments Meet the New ABET Process
Safety Requirements, An 46(2), 129
- Archimedes Principle; Sinking in Quicksand: An Applied
Approach to the 49(2), 81
- Arts Students—Indigo: A World of Blues; A
Chemical Engineering Course for Liberal 46(4), 223
- Assessment of Students’ Short Written Responses; Using
Word Clouds For Fast, Formative 48(4), 190

B

- Balances on Transient Processes, Energy 46(4), 231
- Balances Course, Active Learning and
Just-In-Time Teaching In a Material and Energy 47(3), 154
- Batch Reactor Kinetic and Heat Transfer Modeling of the
METHOCEL™ Production Process..... 49(4), 201
- Battery, A Step-by-Step Design Methodology for a Base Case
Vanadium Redox-Flow 46(4), 239
- Base Case Vanadium Redox-Flow Battery, A Step-by-Step
Design Methodology for a 46(4), 239
- Beach: Introduction of Microfluidics Technology to the ChE
Curriculum At Cal State Long Beach;
Microfluidics @ The 49(2), 111
- Bhattacharyya, Dibekar “DB,” of University of
Kentucky 50(2), 90
- Binary Organic Mixture—
a Demonstration of Advanced Problem-Solving Techniques
and Tools; Semi-Batch Steam Distillation of a 46(3), 173
- Binary Systems Modeled With the Gamma-Phi Approach,
Application of Double-Tangent Construction of Coexisting
Phases to Any Type of Phase Equilibrium for..... 48(1), 42
- Bio-Chemical Engineering, Survey on MATLAB & MathCAD
Education in 48(1), 59
- Biochemical Engineering, MATLAB-Based Teaching
Modules in 49(2), 95
- Biofuels Education into ChE Curriculum: Part I—Learning Materials;
A Modular Approach to Integrating..... 50(2), 98
- Biopharmaceutical Industry, A “Life Cycle” Approach to
Education and Training for the 50(3), 193
- Bioprocessing; From Process Development to Manufacturing:
Lab-Intensive Courses in Downstream..... 48(2), 79
- Biosensor Research to a High School Laboratory Experience,
Translating University 50(1), 70
- Bleed Ultrafiltration—a Demonstration of the
Advantages of the Modular Approach for Modeling Multi-
Stage Processes; Continuous Feed and..... 47(3), 170
- Blues; A Chemical Engineering Course for Liberal Arts
Students—Indigo: A World of 46(4), 223

Book Reviews

- An Engineer’s Alphabet—Gleanings From the Softer Side
of a Profession* 47(1), 58
- Chemical Engineering: An Introduction*..... 47(4), 190
- Teaching Engineering*, 2nd Ed. 50(2), 97

C

- Calcium Looping, Carbon Dioxide Capture From Coal-Fired Power Plants Using 49(2), 105
- Calculation Task for ChE Undergraduates—Simulating Fritz Haber’s Ammonia Synthesis With Thermodynamic Software; Chemical Reaction Equilibrium 48(2), 115
- California, Santa Barbara 41(3), 154
- Capstone Design Via Wikis, Peer Evaluation in Chemical Engineering 46(3), 189
- Capstone Laboratory; A New Take on Kinetics: Initiated Chemical Vapor Deposition as a ChE 48(2), 98
- Carbon Dioxide Capture From Coal-Fired Power Plants Using Calcium Looping 49(2), 105
- Cardiovascular Application in a Fluid Mechanics Course, Introducing CFD Through a 48(3), 175
- Car Design Project for Freshman Engineering Courses, Fuel Cell 48(3), 157
- Career Coaching for Ph.D. Students 46(2), 89
- Carnegie Mellon University 48(3), 122
- Carnot’s Father Taught His Son About Thermodynamics, What 46(3), 165
- Cartilage Replacements: A Laboratory Activity to Teach High School Students Chemical and Tissue Engineering Concepts; Analyzing the Function of 47(2), 99
- Case Study for Undergraduate Students; Modeling of an Industrial Anaerobic Digester: A 48(2), 71
- Catalysis; Who Was Who in Kinetics, Reaction Engineering, and 47(4), 197
- Catalytic Oxidation of Methane, Learning the Fundamentals of Kinetics and Reaction Engineering With the 50(3), 202
- Catalyzing The Student-To-Researcher Transition: Research Initiation and Professional Development for New Graduate Students 50(4), 221
- CFD Through a Cardiovascular Application In a Fluid Mechanics Course, Introducing 48(3), 175
- Chemical Engineering Course for Liberal Arts Students—Indigo: A World of Blues 46(4), 223
- ChE Junior Laboratory and the New Kinetics Experiment at the University of Delaware 49(3), 149
- Chemical Engineering Senior Laboratory 50(2), 131
- Chemical Engineering Students: A Distinct Group Among Engineers 47(3), 145
- Chemical Reaction Equilibrium Calculation Task for ChE Undergraduates—Simulating Fritz Haber’s Ammonia Synthesis With Thermodynamic Software 48(2), 115
- Chemical Vapor Deposition as a ChE Capstone Laboratory; A New Take on Kinetics: Initiated 48(2), 98
- Chromatography in the Undergraduate ChE Laboratory, High-Performance Liquid 47(1), 15
- Classroom; Program-Level Curriculum Reform at Scale: Using Studios to Flip the 49(1), 47
- Classroom With Industrial Processing, Unit Operations Experiment Linking 47(2), 91
- Classroom, Improved Performance via the Inverted 49(3), 141
- Clouds For Fast, Formative Assessment of Students’ Short Written Responses, Using Word 48(4), 190
- Coaching for Ph.D. Students, Career 46(2), 89
- Coal-Fired Power Plants Using Calcium Looping, Carbon Dioxide Capture From 49(2), 105
- Coexisting Phases to Any Type of Phase Equilibrium For Binary Systems Modeled With the Gamma-Phi Approach, Application of the Double-Tangent Construction of 48(1), 42
- Combining Interactive Thermodynamics Simulations With Screencasts and ConcepTests 50(1), 63
- Communication Skills and a Graduate Course to Help Improve These Skills, The Importance of Oral 46(4), 251
- Communication, Evaluation of Student Reflection As a Route To Improve Oral 50(3), 176
- Comparison Between Linear and Nonlinear Regression In a Laboratory Heat Transfer Experiment 47(3), 161
- Comprehensive Real-World Distillation Experiment, A 49(3), 131
- Computational Fluid Dynamics (CFD) Solutions; Mesh and Time-Step Independent 47(4), 191
- Computer-Aided Software In the Undergraduate ChE Core Courses; Incorporating 48(1), 17
- COMSOL Simulations, Reinforcing Concepts of Transient Heat Conduction and Convection With Simple Experiments and 48(4), 215
- Conduction and Convection With Simple Experiments and COMSOL Simulations, Reinforcing Concepts of Transient Heat 48(4), 215
- Conservation of Life Across the Curriculum, Implementing 46(3), 157
- Control and Distance Collaboration Between Future Engineers and Technicians, A Joint Learning Activity In Process 47(1), 9
- Control, Remote Labs and Game-Based Learning for Process 47(3), 179
- Control, Spreadsheet Procedure For Simulating Setpoint Tracking In SISO By Dynamic Matrix 49(3), 175
- Control Valve At the Bottom of a Gravity-Drained Tank, Level Control by Regulating 50(4), 245
- Controlled Drug-Delivery Experiment Using Alginate Beads, A 46(2), 97
- Convection Between Porous, Concentric Cylinders—A Method To Learn and to Innovate, Transport Phenomena Projects: Natural 47(1), 59
- Convection in Enclosed Porous or Fluid Media, Natural 48(1), 25
- Core ChE Courses, Research-Based Instructional Strategies in 47(1), 27
- Core Course, Experiential Learning and Global Perspective in an Engineering 46(2), 110
- Core Courses. Incorporating Computer-Aided Software in the Undergraduate ChE 48(1), 17
- Convection Between Porous, Concentric Cylinders—A Method To Learn and to Innovate; Transport Phenomena Projects: Natural 47(1), 59

Class and Home Problems

- Break-Even Radius of Insulation Computed Using Excel Solver and WolframAlpha, The 48(3), 185
- Continuous Feed and Bleed Ultrafiltration—a Demonstration of the Advantages of the Modular Approach for Modeling Multi-Stage Processes 47(3), 170
- Humidification, a True “Home” Problem for a Chemical Engineer 46(4), 218
- Identify-Solve-Broadcast Your Own Transport Phenomenon: Student-Created YouTube Videos to Foster Active Learning

In Mass and Heat Transfer	50(3), 186
Lambert W Function in Ultrafiltration and Diafiltration, The.....	50(2), 107
Natural Convection in Enclosed Porous or Fluid Media	48(1), 25
Transport Phenomena Projects: Natural Convection Between Porous, Concentric Cylinders—A Method to Learn and to Innovate	47(1), 59
Modeling of an Industrial Anaerobic Digester: A Case Study For Undergraduate Students	48(2), 71
Semi-Batch Steam Distillation of a Binary Organic Mixture— a Demonstration of Advanced Problem-Solving Techniques and Tools.....	46(3), 173
Course Package in OneNote, A Thermodynamics	48(4), 209
Creative Thinking and Transitioning Students to the Workplace in an Academic Setting, Teaching	48(1), 9
Crystallization, An Undergraduate Laboratory Exercise For Studying Kinetics of Batch.....	49(4), 221
Curriculum Reform At Scale: Using Studios to Flip the Classroom; Program-Level.....	49(1), 47
Curriculum Via a Recurring Laboratory, Integrating the ChE.....	48(4), 221
D	
Database, Effective Engineering Outreach Through an Undergraduate Mentoring Team and Module.....	48(1), 31
Degrees of Freedom Concept—Extending the Domain, The	50(2), 114
Delaware, ChE Junior Laboratory and the New Kinetics Experiment At the University of.....	49(3), 149
Demographics and Outcomes in ChE, A Multi-Institution Study of Student.....	48(4), 231
Demonstration Apparatus for Poroelastic Mechanics; A	47(4), 209
Deposition as a ChE Capstone Laboratory; A New Take on Kinetics: Initiated Chemical Vapor....	48(2), 98
Design Across the Curriculum At a Large Public University, Integrating Team-Based	48(3), 139
Design Course: Implementation & Reception, First-Year Hands-On.....	49(1), 19
Design Game, Introduction to ChE Reactor Analysis: A Web-Based Reactor	48(4), 199
Design Methodology for a Base Case Vanadium Redox-Flow Battery, A Step-by-Step	46(4), 239
Design Project for Freshman Engineering Courses, Fuel Cell Car	48(3), 157
Design Projects, Student-Initiated Senior	49(1), inside front cover
Design Through Integrated Process Synthesis, Teaching Process	46(4), 260
Design To an All-digital Workflow; Technology In the Classroom: Transitioning Lab and.....	47(1), 65
Design Via Wikis, Peer Evaluation In Chemical Engineering Capstone	46(3), 189
Diafiltration, The Lambert W Function in Ultrafiltration and.....	50(2), 107
Digester: A Case Study for Undergraduate Students; Modeling of an Industrial Anaerobic	48(2), 71
Digital Workflow; Technology In the Classroom: Transitioning Lab and Design to an All-.....	47(1), 65

Distance Collaboration Between Future Engineers and Technicians, A Joint Learning Activity In Process Control and.....	47(1), 9
Distillation of a Binary Organic Mixture— a Demonstration of Advanced Problem-Solving Techniques and Tools; Semi-Batch Steam.....	46(3), 173
Distillation Experiment, A Comprehensive Real-World	49(3), 131
Double-Tangent Construction of Coexisting Phases To Any Type of Phase Equilibrium For Binary Systems Modeled With the Gamma-Phi Approach, Application of the	48(1), 42
Downstream Bioprocessing: From Process Development To Manufacturing: Lab-Intensive Courses In	48(2), 79
Drug-Delivery Experiment Using Alginate Beads, A Controlled	46(2), 97
Dynamic Matrix Control, Spreadsheet Procedure For Simulating Setpoint Tracking In SISO By	49(3), 175

Departmental Articles

The University of Alberta	48(2), 66
The University of Canterbury	48(1), 2
Carnegie Mellon University	48(3), 122
Iowa State University	47(3), 138
Lafayette College	49(3), 184
Michigan State University	46(3), 146
Missouri S&T	49(2), 66
Montana State University	50(1), 76
Purdue University	50(3), 154
University of South Alabama	47(1), 2
Tuskegee University	49(1), 2
Wisconsin, University of	46(2), 66
Yanong Technological University.....	49(4), 241

E

Editorials

The Case Against the Use of Solution Manuals	47(1), inside back cover
Changes At <i>Chemical Engineering Education</i>	49(2), 103
What's Your Legacy?.....	49(3), 130
Inclusion of Six Sigma in ChE Curricula	49(4), 248

Educator Articles

Anderson, Tim, of University of Massachusetts-Amherst	50(1), 42
Bhattacharyya, Dibekar “DB,” of University of Kentucky	50(2), 90
Falconer, John L., of University of Colorado, Boulder .	47(2), 74
Farrell, Stephanie, of Rowan University	49(2), 73
Grant, Christine, of North Carolina State	50(3), 161
Kofke, David A., of University At Buffalo.....	46(3), 204
Liberatore, Matthew, of Colorado School of Mines....	49(1), 58
Savage, Phil, of Penn State	50(4), 214
Educational Laboratory Experiment To Demonstrate the Development of Fires In a Long Enclosure.....	47(2), 115
Effective and Economical Photometer For Classroom Demonstrations and Laboratory Use	46(3), 152
Effective Engineering Outreach Through an Undergraduate Mentoring Team and Module Database.....	48(1), 31
Efficient Grading.....	48(3), 133

Enclosed Porous Or Fluid Media, Natural Convection In	48(1), 25
Energy Balances On Transient Processes	46(4), 231
Energy Balances Course, Active Learning and Just-In-Time Teaching In a Material and	47(3), 154
Engaging ChE Students, Text Messaging As a Tool for ...	46(2), 80
Engineering Courses, Fuel Cell Car Design Project for Freshman	48(3), 157
Engineers; Chemical Engineering Students: A Distinct Group Among	47(3), 145
Enhancement of Students' Learning in Both Lower-Division and Upper-Division Classes By a Quiz-Based Approach	46(3), 213
ePortfolios—ChE Student Perceptions of Learning From Reflective ePortfolio Creation; Student Chemical Engineering Reflective	49(3), 157
Equilibrium Calculation Task For ChE Undergraduates— Simulating Fritz Haber's Ammonia Synthesis With Thermodynamic Software; Chemical Reaction	48(2), 115
Equilibrium for Binary Systems Modeled With the Gamma-Phi Approach, Application of the Double-Tangent Construction of Coexisting Phases To Any Type of Phase	48(1), 42
Encyclopedia of Chemical Engineering Equipment; Teaching Tips: Visual	49(4), 194
Evaluation of Student Reflection As a Route To Improve Oral Communication	50(3), 176
Excel Macros, Simplify Uncertainty Analysis With	49(3), 167
Excel Solver and WolframAlpha, The Break-Even Radius of Insulation Computed Using	48(3), 185
Excel Spreadsheet, Solving L-L Extraction Problems With	50(3), 169
Experiential Learning and Global Perspective In an Engineering Core Course	46(2), 110
Experiment Linking Classroom With Industrial Processing, Unit Operations	47(2), 91
Experiment, Comparison Between Linear and Nonlinear Regression In a Laboratory Heat Transfer	47(3), 161
Experiment For the Undergraduate Laboratory; A "Greenhouse Gas"	48(2), 107
Experiment In Undergraduate Process Control Laboratory, Novel Hands-On Water Overflow SIS	49(1), 37
Experiment, A Comprehensive Real-World Distillation	49(3), 131
Experiment At the University of Delaware, ChE Junior Laboratory and the New Kinetics	49(3), 149
Experiment Teaching Fundamental Concepts of Rheology in Context of Sickle Cell Anemia, Undergraduate Laboratory	48(3), 149
Experiments and COMSOL Simulations, Reinforcing Concepts of Transient Heat Conduction and Convection With Simple	48(4), 215
Experiments In Pharmaceutical Engineering For Introductory Courses	48(4), 239
Extraction Problems With Excel Spreadsheet, Solving L-L	50(3), 169
F	
Facebook In Teaching A Case Study of a Fluid Mechanics Course; Use of	50(4), 238
Faces, Problems With	46(3), 171
Faculty; Approach Teaching Using Research Skills— A Guide For New	48(4), 250

Faculty Position At a Teaching-Centered Research University, Getting a Tenure-Track	50(4), 255
Fahien, Remembering Ray	50(1), 40
Feed and Bleed Ultrafiltration—a Demonstration of the Advantages of the Modular Approach For Modeling Multi- Stage Processes; Continuous	47(3), 170
Fellowship Program, Graduate Student Teaching	48(1), 37

50th Anniversary Issue

Introduction	50(1), 2
CEE Top 5	50(1), 3
The Evolution of CEE	50(1), 14
The Future of Engineering Education—Revisited	50(1), 19
A Neuroscience Perspective on Learning	50(1), 29
Remembering Ray Fahien	50(1), 40
Spotlight on the Editors	50(1), 48
Managing Editor History	50(1), 50

Fires In a Long Enclosure, Educational Laboratory Experiment To Demonstrate the Development of	47(2), 115
First-Year Hands-On Design Course: Implementation & Reception	49(1), 19
Flip the Classroom, Program-Level Curriculum Reform At Scale: Using Studios To	49(1), 47
Flooded Heat Exchanger, Analysis of a	49(2), 88
Fluid Dynamics (CFD) Solutions; Mesh and Time-Step Independent Computational	47(4), 191
Fluid Mechanics Course, Introducing CFD Through a Cardiovascular Application In a	48(3), 175
Fluid Mechanics Course; Use of Facebook In Teaching a Case Study of a	50(4), 238
Fluid Media, Natural Convection In Enclosed Porous Or	48(1), 25
Fraser, Duncan	49(1), 57
Freedom Concept—Extending the Domain, The Degrees of	50(2), 114
Freshman Engineering Courses, Fuel Cell Car Design Project For	48(3), 157
From Process Development To Manufacturing: Lab-Intensive Courses In Downstream Bioprocessing	48(2), 79
Fuel Cell Car Design Project For Freshman Engineering Courses	48(3), 157

G

Game; Introduction To ChE Reactor Analysis: A Web-Based Reactor Design	48(4), 199
Game-Based Learning For Process Control, Remote Labs and	47(3), 179
Gamma-Phi Approach, Application of Double-Tangent Construction of Coexisting Phases To Any Type of Phase Equilibrium For Binary Systems Modeled With the	48(1), 37
Getting a Tenure-Track Faculty Position At a Teaching-Centered Research University	50(4), 255
Global Perspective In an Engineering Core Course, Experiential Learning and	46(2), 110
Grad School Application Process: A Training Schedule; Navigating the	47(4), 217; 48(4), 250
Grading, Efficient	48(3), 133
Graduate Course To Help Improve These Skills, The Importance of Oral Communication Skills and a	46(4), 251

Graduate Student Education, The Value of an Industrial Internship For a	49(4), 195
New Graduate Students; Catalyzing The Student-To-Researcher Transition: Research Initiation and Professional Development for	50(4), 221
Graduate-Level Seminar To Prepare Students For the Next Step In Their Careers, A New	49(1), 29
Graduates, Professional Skills Needed By Our	47(2), 81
Graduate Student Teaching Fellowship Program.....	48(1), 37
“Greenhouse Gas” Experiment For the Undergraduate Laboratory	48(2), 107
Grant, Christine, of North Carolina State	50(3), 161

H

Haber’s Ammonia Synthesis With Thermodynamic Software; Chemical Reaction Equilibrium Calculation Task For ChE Undergraduates— Simulating Fritz	48(2), 115
Hands-On Design Course: Implementation & Reception, First-Year	49(1), 19
Hands-On Troubleshooting; Toward “Reality-Based” Integrative Laboratories In ChE: Introducing Real-Time,	49(2), 118
Hands-On Water Overflow SIS Experiment In Undergraduate Process Control Laboratory, Novel	49(1), 37
Heat Conduction and Convection With Simple Experiments and COMSOL Simulations, Reinforcing Concepts of Transient	48(4), 215
Heat Transfer Modeling of the METHOCEL™ Production Process, Batch Reactor Kinetic and.....	49(4), 201
Heat Transfer Using Inquiry-Based Activities, Repairing Student Misconceptions in	50(1), 52
Heat Transfer; Identify-Solve-Broadcast Your Own Transport Phenomenon: Student-Created YouTube Videos to Foster Active Learning in Mass and.....	50(3), 186
Heat Exchanger, Analysis of a Flooded	49(2), 88
Heat Exchanger Lab for Chemical Engineering Undergraduates	49(4), 208
Heat Transfer Experiment, Comparison Between Linear and Nonlinear Regression In a Laboratory	47(3), 161
High-Performance Liquid Chromatography In the Undergraduate Chemical Engineering Laboratory	47(1), 15
High School Students Chemical and Tissue Engineering Concepts; Analyzing the Function of Cartilage Replacements: A Laboratory Activity to Teach	47(2), 99
High School Laboratory Experience, Translating University Biosensor Research To a.....	50(1), 70
History of the ChE Summer Schools	46(3), 196
Homework Problems Based on YouTube Videos, Student-Created	47(2), 122
Humidification, a True “Home” Problem for a Chemical Engineer.....	46(4), 218

I

Implementing Conservation of Life Across the Curriculum.....	46(3), 157
Importance of Oral Communication Skills and a Graduate Course To Help Improve These Skills, The.....	46(4), 251
Improved Performance via the Inverted Classroom	49(3), 141
Incorporating Computer-Aided Software In the Undergraduate ChE Core Courses	48(1), 17

Indigo: A World of Blues; A Chemical Engineering Course For Liberal Arts Students—	46(4), 223
Industrial Processing, Unit Operations Experiment Linking Classroom With	47(2), 91
Industrial Anaerobic Digester: A Case Study for Undergraduate Students; Modeling of an.....	48(2), 71
Industrial Internship For a Graduate Student Education, The Value of an	49(4), 195
Inquiry-Based Activities, Repairing Student Misconceptions in Heat Transfer Using	50(1), 52
Insulation Computed Using Excel Solver and WolframAlpha, The Break-Even Radius of	48(3), 185
Integrating the ChE Curriculum Via a Recurring Laboratory	48(4), 221
Integrated Process Synthesis, Teaching Process Design Through	46(4), 260
Integrating Team-Based Design Across the Curriculum At a Large Public University	48(3), 139
Integrative Laboratories In ChE: Introducing Real-Time, Hands-On Troubleshooting; Toward “Reality-Based”	49(2), 118
Interactive Mathematica Simulations In ChE Courses.....	48(3), 165
Interactive Virtual Laboratories To Help Students Learn Difficult Concepts In Thermodynamics; Martin Award Paper: Development of	49(4), 229
Interactive Virtual Tour of a Milk Powder Plant	47(2), 107
Interactive Thermodynamics Simulations With Screencasts and ConcepTests, Combining.....	50(1), 63
Internship For a Graduate Student Education, The Value of an Industrial.....	49(4), 195
Introducing CFD Through a Cardiovascular Application In a Fluid Mechanics Course	48(3), 175
Introduction To ChE Reactor Analysis: A Web-Based Reactor Design Game	48(4), 199
Introductory Courses, Experiments In Pharmaceutical Engineering For	48(4), 239
Inverted Classroom; Improved Performance via the	49(3), 141

J

Joint Learning Activity In Process Control and Distance Collaboration Between Future Engineers and Technicians	47(1), 9
Junior Laboratory and the New Kinetics Experiment At the University of Delaware, ChE.....	49(3), 149
Just-in-Time vs. Just-in-Case	46(2), 87
Just-In-Time Teaching In a Material and Energy Balances Course, Active Learning and	47(3), 154

K

Kinetics, Reaction Engineering, and Catalysis; Who Was Who In.....	47(4), 197
Kinetics: Initiated Chemical Vapor Deposition As a ChE Capstone Laboratory; A New Take On.....	48(2), 98
Kinetics Experiment At the University of Delaware, ChE Junior Laboratory and the New	49(3), 149
Kinetics of Batch Crystallization, An Undergraduate Laboratory Exercise For Studying.....	49(4), 221
Kinetic and Heat Transfer Modeling of the METHOCEL™ Production Process, Batch Reactor .	49(4), 201

Kinetics and Reaction Engineering With the Catalytic Oxidation of Methane, Learning the Fundamentals of..... 50(3), 202
 Kofke, David A., of University At Buffalo 46(3), 204

L

Lab and Design To an All-Digital Workflow; Technology In the Classroom: Transitioning..... 47(1), 65
 Lab For Chemical Engineering Undergraduates, Heat Exchanger 49(4), 208
 Lab-Intensive Courses In Downstream Bioprocessing; From Process Development To Manufacturing: 48(2), 79
 Labs and Game-Based Learning For Process Control, Remote 47(3), 179
 Laboratory Activity To Teach High School Students Chemical and Tissue Engineering Concepts; Analyzing the Function of Cartilage Replacements: A 47(2), 99
 Laboratory Courses, Use of Pre-recorded Video Demonstrations In..... 47(2), 133
 Laboratory Experience, Translating University Biosensor Research To a High School..... 50(1), 70
 Laboratory Experiment To Demonstrate the Development of Fires In a Long Enclosure, Educational..... 47(2), 115
 Laboratory Experiment—Facilitating Active Learning of Concepts In Transport Phenomena: Experiment With a Subliming Solid; Undergraduate 49(4), 215
 Laboratory Exercise For Studying Kinetics of Batch Crystallization, An Undergraduate 49(4), 221
 Laboratory and the New Kinetics Experiment At the University of Delaware, ChE Junior 49(3), 149
 Laboratory Heat Transfer Experiment, Comparison Between Linear and Nonlinear Regression In a 47(3), 161
 Laboratory Use, an Effective and Economical Photometer For Classroom Demonstrations and 46(3), 152
 Laboratory, Adaptation of Professional Skills In the Unit Operations..... 46(3), 182
 Laboratory, High-Performance Liquid Chromatography In the Undergraduate ChE 47(1), 15
 Laboratory; A “Greenhouse Gas” Experiment For the Undergraduate 48(2), 107
 Laboratory; A New Take On Kinetics: Initiated Chemical Vapor Deposition As a ChE Capstone 48(2), 98
 Laboratory Experiment Teaching Fundamental Concepts of Rheology In Context of Sickle Cell Anemia, Undergraduate 48(3), 149
 Laboratory Experiment, Ultrafiltration of Protein Solutions: A 49(1), 9
 Laboratory, Integrating the ChE Curriculum via a Recurring..... 48(4), 221
 Laboratory, Novel Hands-On Water Overflow SIS Experiment In Undergraduate Process Control 49(1), 37
 Laboratory, Chemical Engineering Senior..... 50(2), 131
 Laboratory For Active Learning In Class; Novel Use of a Remote 50(2), 141
 Laboratories In ChE: Introducing Real-Time, Hands-On Troubleshooting; Toward “Reality-Based” Integrative 49(2), 118
 Laboratories to Help Students Learn Difficult Concepts In Thermodynamics; Martin Award Paper: Development of Interactive Virtual 49(4), 229
 Lambert W Function In Ultrafiltration and Diafiltration, The..... 50(2), 107

Lifelong Learning

Batch Reactor Kinetic and Heat Transfer Modeling of the METHOCEL™ Production Process 49(4), 201
 Call For Papers 49(2), 104
 A “Life Cycle” Approach To Education and Training For the Biopharmaceutical Industry 50(3), 193
 The Value of an Industrial Internship For a Graduate Student Education 49(4), 195
 Learning and Just-In-Time Teaching In a Material and Energy Balances Course, Active..... 47(3), 154
 Learning in Both Lower-Division and Upper-Division Classes By a Quiz-Based Approach, Enhancement of Students’ 46(3), 213
 Learning and Global Perspective In an Engineering Core Course, Experiential..... 46(2), 110
 Learning, aPBL: An Evaluation of the Effectiveness of authentic Problem-Based..... 46(2), 135
 Learning for Process Control, Remote Labs and Game-Based 47(3), 179
 Learning, A Neuroscience Perspective on 50(1), 29
 Learning the Fundamentals of Kinetics and Reaction Engineering With the Catalytic Oxidation of Methane..... 50(3), 202
 Lecturing Methods, Process Engineering Student Perceptions of 49(2), 101
 Leonardo Project; Humanities and Social Relevance For Chemistry and Chemical Engineering Students— 50(3), 175
 Level Control By Regulating Control Valve At the Bottom of a Gravity-Drained Tank 50(4), 245
 Liberal Arts Students—Indigo: A World of Blues; A Chemical Engineering Course for 46(4), 223
 Life Across the Curriculum, Implementing Conservation of 46(3), 157
 Life Cycle Assessment in the Undergrad Curriculum, Towards a Sustainable Approach To Nanotechnology By Integrating..... 46(2), 118
 Linear and Nonlinear Regression In a Laboratory Heat Transfer Experiment, Comparison Between..... 47(3), 161
 Liquid Chromatography In the Undergraduate ChE Laboratory, High-Performance 47(1), 15
 L-L Extraction Problems With Excel Spreadsheet, Solving 50(3), 169
 Lower-Division and Upper-Division Classes By a Quiz-Based Approach, Enhancement of Students’ Learning In Both 46(3), 213

M

Manufacturing: Lab-Intensive Courses In Downstream Bioprocessing; From Process Development To 48(2), 79
 Martin Award Paper: Development of Interactive Virtual Laboratories To Help Students Learn Difficult Concepts In Thermodynamics 49(4), 229
 Mass and Heat Transfer; Identify-Solve-Broadcast Your Own Transport Phenomenon: Student-Created YouTube Videos To Foster Active Learning In 50(3), 186
 Material and Energy Balances Course, Active Learning and Just-In-Time Teaching In a 47(3), 154
 Materials; A Modular Approach To Integrating Biofuels Education Into ChE Curriculum: Part I-Learning..... 50(2), 98
 Mathematica Simulations In ChE Courses, Interactive..... 48(3), 165

MATLAB-Based Teaching Modules In Biochemical Engineering.....	49(2), 95
MATLAB & MathCAD Education In Bio-Chemical Engineering; Survey On	48(1), 59
Matrix Control, Spreadsheet Procedure For Simulating Setpoint Tracking In SISO By Dynamic	49(3), 175
MEMORIAM	
Duncan Fraser	49(1), 57
Don Woods.....	47(3), 177
Methane, Learning the Fundamentals of Kinetics and Reaction Engineering With the Catalytic Oxidation of	50(3), 202
METHOCEL™ Production Process, Batch Reactor Kinetic and Heat Transfer Modeling of the.....	49(4), 201
Mentoring Team and Module Database, Effective Engineering Outreach Through an Undergraduate	48(1), 31
Mesh and Time-Step Independent Computational Fluid Dynamics (CFD) Solutions	47(4), 191
Messaging As a Tool for Engaging ChE Students, Text ...	46(2), 80
Michigan State University	46(3), 146
Microfluidics @ The Beach: Introduction of Microfluidics Technology To the ChE Curriculum At Cal State Long Beach	49(2), 111
Milk Powder Plant, An Interactive Virtual Tour of a.....	47(2), 107
Misconceptions In Heat Transfer Using Inquiry-Based Activities, Repairing Student	50(1), 52
Mixing In Chemical Reaction Engineering, A Simple Experiment For Teaching Process Intensification By Static	50(4), 230
Modeling of an Industrial Anaerobic Digester: A Case Study For Undergraduate Students	48(2), 71
Modeling of the METHOCEL™ Production Process, Batch Reactor Kinetic and Heat Transfer	49(4), 201
Modeling As a Self-Taught Component of a Conventional Undergraduate Chemical Reaction Engineering Course; Molecular	50(2), 125
Modular Approach For Modeling Multi-Stage Processes; Continuous Feed and Bleed Ultrafiltration—a Demonstration of the Advantages of the	47(3), 170
Modular Approach To Integrating Biofuels Education Into ChE Curriculum: Part I-Learning Materials; A	50(2), 98
Module Database, Effective Engineering Outreach Through an Undergraduate Mentoring Team and	48(1), 31
Molecular Modeling As a Self-Taught Component of a Conventional Undergraduate Chemical Reaction Engineering Course	50(2), 125
Montana State University	50(1), 76
Multi-Institution Study of Student Demographics and Outcomes In ChE, A	48(4), 231
Multi-Stage Processes; Continuous Feed and Bleed Ultrafiltration—a Demonstration of the Advantages of the Modular Approach for Modeling.....	47(3), 170
N	
Nanotechnology By Integrating Life Cycle Assessment in the Undergrad Curriculum, Towards a Sustainable Approach To.....	46(2), 118
Natural Convection Between Porous, Concentric Cylinders—A Method To Learn and To Innovate, Transport Phenomena Projects:	47(1), 59
Navigating the Grad School Application Process: A Training Schedule.....	47(4), 217; 48(4), 250

New Graduate-Level Seminar To Prepare Students For the Next Step In Their Careers, A.....	49(1), 29
New Professors, Tips For Busy	46(2), 73
Neuroscience Perspective On Learning, A.....	50(1), 29
New Take On Kinetics: Initiated Chemical Vapor Deposition As a ChE Capstone Laboratory	48(2), 98
Nonlinear Regression In a Laboratory Heat Transfer Experiment, Comparison Between Linear and.....	47(3), 161
Novel Hands-On Water Overflow SIS Experiment In Undergraduate Process Control Laboratory	49(1), 37
Novel Use of a Remote Laboratory For Active Learning In Class.....	50(2), 141

Q

OneNote, A Thermodynamics Course Package In	48(4), 209
Online Data Resources In ChE Education: Impact of the Uncertainty Concept For Thermophysical Properties ..	47(1), 48
Oral Communication Skills and a Graduate Course To Help Improve These Skills, The Importance of	46(4), 251
Oral Communication, Evaluation of Student Reflection As a Route To Improve.....	50(3), 176
Organic Mixture—a Demonstration of Advanced Problem-Solving Techniques and Tools, Semi-Batch Steam Distillation of a Binary	46(3), 173
Outcomes in ChE, A Multi-Institution Study of Student Demographics and	48(4), 231
Outreach Through an Undergraduate Mentoring Team and Module Database, Effective Engineering	48(1), 31
Oxidation of Methane, Learning the Fundamentals of Kinetics and Reaction Engineering With the Catalytic.....	50(3), 202

P

Package In OneNote, A Thermodynamics Course	48(4), 209
Phases To Any Type of Phase Equilibrium For Binary Systems Modeled With the Gamma-Phi Approach, Application of the Double-Tangent Construction of Coexisting Experiments In	48(1), 37
Ph.D. Students, Career Coaching For	46(2), 89
Peer Evaluation In Chemical Engineering Capstone Design Via Wikis	46(3), 189
Photometer For Classroom Demonstrations and Laboratory Use, an Effective and Economical	46(3), 152
Plagiarism Screening Software in the ChE Curriculum; Application of.....	48(2), 90
Plus-Minus-Interesting Exercises To Encourage Student Reflection; Use	48(2), inside front cover
Poroelastic Mechanics; A Demonstration Apparatus For	47(4), 209
Porous Or Fluid Media, Natural Convection In Enclosed	48(1), 25
Power Plants Using Calcium Looping, Carbon Dioxide Capture From Coal-Fired.....	49(2), 105
Pre-recorded Video Demonstrations In Laboratory Courses, Use of.....	47(2), 133
Process Control, Remote Labs and Game-Based Learning For	47(3), 179
Process Control Laboratory, Novel Hands-On Water Overflow SIS Experiment In Undergraduate	49(1), 37
Process Development To Manufacturing: Lab-Intensive Courses In Downstream Bioprocessing; From.....	48(2), 79

Process Engineering Student Perceptions of Lecturing Methods	49(2), 101	Reactor Analysis: A Web-Based Reactor Design Game, Introduction To ChE.....	48(4), 199
Processes, Energy Balances On Transient	46(4), 231	Reactor Kinetic and Heat Transfer Modeling of the METHOCEL™ Production Process, Batch	49(4), 201
Process Intensification By Static Mixing In Chemical Reaction Engineering, A Simple Experiment For Teaching	50(4), 230	“Reality-Based” Integrative Laboratories In ChE: Introducing Real-Time, Hands-On Troubleshooting; Toward	49(2), 118
Problem-Based Learning, aPBL: An Evaluation of the Effectiveness of authentic	46(2), 135	Real-Time, Hands-On Troubleshooting; Toward “Reality-Based” Integrative Laboratories In ChE: Introducing	49(2), 118
Problem-Solving Techniques and Tools, Semi-Batch Steam Distillation of a Binary Organic Mixture— a Demonstration of Advanced	46(3), 173	Real-World Distillation Experiment, A Comprehensive	49(3), 131
Process Control and Distance Collaboration Between Future Engineers and Technicians, A Joint Learning Activity In	47(1), 9	Recurring Laboratory, Integrating the ChE Curriculum via a.....	48(4), 221
Process Design Through Integrated Process Synthesis, Teaching	46(4), 260	Redox-Flow Battery, A Step-by-Step Design Methodology For a Base Case Vanadium.....	46(4), 239
Process Safety Requirements, An Approach To Help Departments Meet the New ABET.....	46(2), 129	Reflection; Use Plus-Minus-Interesting Exercises To Encourage Student	48(2), inside front cover
Processing, Unit Operations Experiment Linking Classroom With Industrial	47(2), 91	Reflection Improves Teaching, Two Minutes of	46(4), 271
Processes; Continuous Feed and Bleed Ultrafiltration —a Demonstration of the Advantages of the Modular Approach For Modeling Multi-Stage.....	47(3), 170	Reflection As a Route To Improve Oral Communication, Evaluation of Student	50(3), 176
Professional Skills in the Unit Operations Laboratory, Adaptation of.....	46(3), 182	Reflective ePortfolios—ChE Student Perceptions of Learning From Reflective ePortfolio Creation; Student Chemical Engineering	49(3), 157
Professional Skills Needed By Our Graduates	47(2), 81	Remote Laboratory For Active Learning In Class; Novel Use of a	50(2), 141
Professors, Tips For Busy New	46(2), 73	Repairing Student Misconceptions In Heat Transfer Using Inquiry-Based Activities	50(1), 52
Project For Freshman Engineering Courses, Fuel Cell Car Design	48(3), 157		
Program-Level Curriculum Reform At Scale: Using Studios To Flip the Classroom.....	49(1), 47	Random Thoughts	
Protein Solutions: A Laboratory Experiment, Ultrafiltration of	49(1), 9	Speaking of Everything III	47(3), 178
Public University, Integrating Team-Based Design Across the Curriculum At a Large	48(3), 139	Just-in-Time vs. Just-in-Case.....	46(2), 87
Publication; Bridging the Gap Between a Classroom Innovation and an Educational.....	50(2), 113	Problems With Faces	46(3), 171
Purdue University	50(3), 154	Tips on Test Taking	48(1), 57
		We Hold These Truths To Be Self-Evident*.....	49(1), 27
Q		Why Are You Teaching That?.....	48(3), 131
Quicksand: An Applied Approach To the Archimedes Principle; Sinking In.....	49(2), 81	Why Johnny and Janie Can’t (or Won’t) Read	46(4), 237
Quiz-Based Approach, Enhancement of Students’ Learning In Both Lower-Division and Upper-Division Classes By a.....	46(3), 213	You Got Questions, We Got Answers 1.....	47(1), 25
		You Got Questions, We Got Answers 2. Active Learning	47(2), 97
R		The Curmudgeon’s Corner	47(4), 207
Radius of Insulation Computed Using Excel Solver and WolframAlpha, The Break-Even	48(3), 185	Want Your Students To Think Creatively and Critically? How About Teaching Them?	48(2), 113
Reaction Engineering, and Catalysis; Who Was Who In Kinetics,	47(4), 197	The Murky Crystal Ball.....	48(4), 207
Reaction Equilibrium Calculation Task For ChE Undergraduates— Simulating Fritz Haber’s Ammonia Synthesis With Thermodynamic Software; Chemical	48(2), 115	Try This On For Size	49(2), 127
Reaction Engineering Course; Molecular Modeling As a Self-Taught Component of a Conventional Undergraduate Chemical.....	50(2), 125	To Flip Or Not To Flip	49(3), 191
Reaction Engineering With the Catalytic Oxidation of Methane, Learning the Fundamentals of Kinetics and	50(3), 202	Handouts With Gaps	49(4), 239
Reaction Engineering, A Simple Experiment For Teaching Process Intensification By Static Mixing In Chemical	50(4), 230	Happy Anniversary, <i>CEE</i>	50(1), 38
		Why Students Fail Tests—1. Ineffective Studying....	50(2), 151
		Why Students Fail Tests—2. Ineffective Teaching....	50(3), 211
		New Faculty Members May Not Know How To Teach, But At Least They Know How To Do Research...Right?...	50(4), 251
		Regression In a Laboratory Heat Transfer Experiment, Comparison Between Linear and Nonlinear	47(3), 161
		Reinforcing Concepts of Transient Heat Conduction and Convection With Simple Experiments and COMSOL Simulations	48(4), 215
		Remote Labs and Game-Based Learning For Process Control.....	47(3), 179
		Research-Based Instructional Strategies In Core ChE Courses	47(1), 27

Research Skills—A Guide For New Faculty; Approach Teaching Using	48(4), 250
Research Initiation and Professional Development For New Graduate Students; Catalyzing The Student-To-Researcher Transition:	50(4), 221
Rheology In Context of Sickle Cell Anemia, Undergraduate Laboratory Experiment Teaching Fundamental Concepts of	48(3), 149
S	
Safety Requirements, An Approach To Help Departments Meet the New ABET Process	46(2), 129
Screencasts and ConcepTests, Combining Interactive Thermodynamics Simulations With	50(1), 63
Self-Taught Component of a Conventional Undergraduate Chemical Reaction Engineering Course; Molecular Modeling As a	50(2), 125
Semi-Batch Steam Distillation of a Binary Organic Mixture— a Demonstration of Advanced Problem-Solving Techniques and Tools	46(3), 173
Seminar To Prepare Students For the Next Step In Their Careers, A New Graduate-Level	49(1), 29
Senior Laboratory, Chemical Engineering	50(2), 131
Senior Design Projects, Student-Initiated	49(1), inside front cover
Setpoint Tracking In SISO By Dynamic Matrix Control, Spreadsheet Procedure For Simulating	49(3), 175
Sickle Cell Anemia, Undergraduate Laboratory Experiment Teaching Fundamental Concepts of Rheology in Context of	48(3), 149
Significant Figures; Teaching Tips: Guess My Birthday— Demonstrating the Significance of	49(4), 247
Simple Experiments and COMSOL Simulations, Reinforcing Concepts of Transient Heat Conduction and Convection With	48(4), 215
Simple Experiment For Teaching Process Intensification By Static Mixing In Chemical Reaction Engineering, A	50(4), 230
Simplify Uncertainty Analysis With Excel Macros	49(3), 167
Simulations In ChE Courses, Interactive Mathematica	48(3), 165
Sinking in Quicksand: An Applied Approach To the Archimedes Principle	49(2), 81
SIS Experiment In Undergraduate Process Control Laboratory, Novel Hands-On Water Overflow	49(1), 37
SISO By Dynamic Matrix Control, Spreadsheet Procedure For Simulating Setpoint Tracking In	49(3), 175
Six Sigma In ChE Curricula; Editorial: Inclusion of	49(4), 248
Skills In the Unit Operations Laboratory, Adaptation of Professional	46(3), 182
Skills Needed By Our Graduates, Professional	47(2), 81
Software In the Undergraduate ChE Core Courses; Incorporating Computer-Aided	48(1), 17
Software; Chemical Reaction Equilibrium Calculation Task For ChE Undergraduates— Simulating Fritz Haber’s Ammonia Synthesis With Thermodynamic	48(2), 115
Solver and WolframAlpha, The Break-Even Radius of Insulation Computed Using Excel	48(3), 185
Solving L-L Extraction Problems With Excel Spreadsheet	50(3), 169
South Alabama, Chemical Engineering At University of ...	47(1), 2

Spreadsheet Procedure For Simulating Setpoint Tracking In SISO By Dynamic Matrix Control	49(3), 175
Steam Distillation of a Binary Organic Mixture— a Demonstration of Advanced Problem-Solving Techniques and Tools, Semi-Batch	46(3), 173
Step-by-Step Design Methodology For a Base Case Vanadium Redox-Flow Battery	46(4), 239
Students, Career Coaching For Ph.D.	46(2), 89
Students: A Distinct Group Among Engineers; Chemical Engineering	47(3), 145
Student-Created Homework Problems Based on YouTube Videos	47(2), 122
Student Demographics and Outcomes in ChE, A Multi-Institution Study of	48(4), 231
Students, Text Messaging As a Tool For Engaging ChE ..	46(2), 80
Student Chemical Engineering Reflective ePortfolios—ChE Student Perceptions of Learning From Reflective ePortfolio Creation	49(3), 157
Studios To Flip the Classroom, Program-Level Curriculum Reform At Scale: Using	49(1), 47
Subliming Solid; Undergraduate Laboratory Experiment—Facilitating Active Learning of Concepts in Transport Phenomena: Experiment With a	49(4), 215
Summer Schools, History of the ChE	46(3), 196
Sustainable Approach to Nanotechnology by Integrating Life Cycle Assessment in the Undergrad Curriculum, Towards a	46(2), 118
Synthesis, Teaching Process Design Through Integrated Process	46(4), 260
Synthesis With Thermodynamic Software; Chemical Reaction Equilibrium Calculation Task For ChE Undergraduates— Simulating Fritz Haber’s Ammonia	48(2), 115
T	
Tangent Construction of Coexisting Phases To Any Type of Phase Equilibrium for Binary Systems Modeled With the Gamma-Phi Approach, Application of the Double-	48(1), 37
Teaching Chemical Engineers About Teaching	47(1), 38
Teaching Creative Thinking and Transitioning Students To the Workplace In an Academic Setting	48(1), 9
Teaching Fellowship Program, Graduate Student	48(1), 37
Teaching In a Material and Energy Balances Course, Active Learning and Just-In-Time	47(3), 154
Teaching Process Design Through Integrated Process Synthesis	46(4), 260
Teaching Using Research Skills—A Guide For New Faculty; Approach	48(4), 250
Team-Based Design Across the Curriculum At a Large Public University, Integrating	48(3), 139
Team and Module Database, Effective Engineering Outreach Through an Undergraduate Mentoring	48(1), 31
Technology In the Classroom: Transitioning Lab and Design To an All-digital Workflow	47(1), 65
Tenure-Track Faculty Position At a Teaching-Centered Research University, Getting a	50(4), 255
Test Taking, Tips on; Random Thoughts	48(1), 57
Text Messaging As a Tool For Engaging ChE Students ...	46(2), 80
Textbook Formats, Intro Engineering Students’ Perceptions of	50(2), 112

Thermodynamic Software; Chemical Reaction Equilibrium Calculation Task For ChE Undergraduates—Simulating Fritz Haber’s Ammonia Synthesis With	48(2), 115
Thermodynamics Course Package In OneNote, A	48(4), 209
Thermodynamics; Martin Award Paper: Development of Interactive Virtual Laboratories To Help Students Learn Difficult Concepts In.....	49(4), 229
Thermodynamics, What Carnot’s Father Taught His Son About.....	46(3), 165
Thermodynamics Simulations With Screencasts and ConceptTests, Combining Interactive.....	50(1), 63
Thermophysical Properties, Online Data Resources In ChE Education: Impact of the Uncertainty Concept For.....	47(1), 48
Think Creatively and Critically? How About Teaching Them?; Want Your Students To	48(2), 113
Time-Step Independent Computational Fluid Dynamics (CFD) Solutions; Mesh and.....	47(4), 191
Tips For Busy New Professors.....	46(2), 73
Tissue Engineering Concepts; Analyzing the Function of Cartilage Replacements: A Laboratory Activity To Teach High School Students Chemical and	47(2), 99
Tool for Engaging ChE Students, Text Messaging As a ...	46(2), 80
Towards a Sustainable Approach To Nanotechnology By Integrating Life Cycle Assessment In the Undergrad Curriculum.....	46(2), 118
Toward “Reality-Based” Integrative Laboratories In ChE: Introducing Real-Time, Hands-On Troubleshooting .	49(2), 118
Transfer Experiment, Comparison Between Linear and Nonlinear Regression In a Laboratory Heat	47(3), 161
Transfer Modeling of the METHOCEL™ Production Process, Batch Reactor Kinetic and Heat	49(4), 201
Transfer Using Inquiry-Based Activities, Repairing Student Misconceptions In Heat	50(1), 52
Transfer; Identify-Solve-Broadcast Your Own Transport Phenomenon: Student-Created YouTube Videos to Foster Active Learning In Mass and Heat	50(3), 186
Transient Heat Conduction and Convection With Simple Experiments and COMSOL Simulations, Reinforcing Concepts of.....	48(4), 215
Transient Processes, Energy Balances on	46(4), 231
Translating University Biosensor Research To a High School Laboratory Experience	50(1), 70
Transport Phenomena Projects: Natural Convection Between Porous, Concentric Cylinders—A Method To Learn and To Innovate	47(1), 59
Transport Phenomena: Experiment With a Subliming Solid; Undergraduate Laboratory Experiment— Facilitating Active Learning of Concepts In.....	49(4), 215
Transport Phenomenon: Student-Created YouTube Videos To Foster Active Learning in Mass and Heat Transfer; Identify-Solve-Broadcast Your Own	50(3), 186
Troubleshooting; Toward “Reality-Based” Integrative Laboratories In ChE: Introducing Real-Time, Hands-On	49(2), 118

Teaching Tips

The 45-Minute Team Project	49(2), 102
Approach Teaching Using Research Skills—A Guide For New Faculty	48(4), 250
Challenge Problems	47(1), inside front cover
Dramatically Improving Student Attendance At Office Hours	49(1), 18
Process Engineering Student Perceptions of Lecturing Methods	49(2), 101
Student-Initiated Senior Design Projects	49(1), inside front cover
Survey on MATLAB & MathCAD Education In Bio-Chemical Engineering.....	48(1), 59
Two Minutes of Reflection Improves Teaching.....	46(4), 271
Use Plus-Minus-Interesting Exercises To Encourage Student Reflection.....	48(2), inside front cover
Visual Encyclopedia of Chemical Engineering Equipment.....	49(4), 194
Guess My Birthday—Demonstrating the Significance of Significant Figures	49(4), 247
Intro Engineering Students’ Perceptions of Textbook Formats	50(2), 112
Bridging the Gap Between a Classroom Innovation and an Educational Publication	50(2), 113
Humanities and Social Relevance For Chemistry and Chemical Engineering Students—The Leonardo Project	50(3), 175
Helping Students Learn Knowledge.....	50(4), 237

U

Ultrafiltration—a Demonstration of the Advantages of the Modular Approach for Modeling Multi-Stage Processes; Continuous Feed and Bleed	47(3), 170
Ultrafiltration of Protein Solutions: A Laboratory Experiment	49(1), 9
Ultrafiltration and Diafiltration, The Lambert W Function In	50(2), 107
Uncertainty Analysis With Excel Macros, Simplify	49(3), 167
Uncertainty Concept For Thermophysical Properties, Online Data Resources In ChE Education: Impact of the	47(1), 48
Undergrad Curriculum, Towards a Sustainable Approach To Nanotechnology By Integrating Life Cycle Assessment In the	46(2), 118
Undergraduate ChE Core Courses; Incorporating Computer-Aided Software In the.....	48(1), 17
Undergraduate ChE Laboratory, High-Performance Liquid Chromatography In the	47(1), 15
Undergraduate Laboratory Experiment Teaching Fundamental Concepts of Rheology In Context of Sickle Cell Anemia	48(3), 149
Undergraduate Laboratory Exercise For Studying Kinetics of Batch Crystallization, An	49(4), 221
Undergraduates—Simulating Fritz Haber’s Ammonia Synthesis With Thermodynamic Software; Chemical Reaction Equilibrium Calculation Task For ChE	48(2), 115
Undergraduates, Heat Exchanger Lab For Chemical Engineering	49(4), 208
Unit Operations Experiment Linking Classroom With Industrial Processing.....	47(2), 91

Unit Operations Laboratory, Adaptation of Professional Skills In the	46(3), 182
Undergraduate Laboratory; A “Greenhouse Gas” Experiment For the	48(2), 107
Undergraduate Laboratory Experiment—Facilitating Active Learning of Concepts In Transport Phenomena: Experiment With a Subliming Solid	49(4), 215
Undergraduate Process Control Laboratory, Novel Hands-On Water Overflow SIS Experiment In	49(1), 37
Undergraduate Students; Modeling of an Industrial Anaerobic Digester: A Case Study For	48(2), 71
Undergraduate Mentoring Team and Module Database, Effective Engineering Outreach Through an	48(1), 31
Undergraduate Chemical Reaction Engineering Course; Molecular Modeling As a Self-Taught Component of a Conventional.....	50(2), 125
Upper-Division Classes By a Quiz-Based Approach, Enhancement of Students’ Learning In Both Lower-Division and	46(3), 213
Using Word Clouds For Fast, Formative Assessment of Students’ Short Written Responses.....	48(4), 190

V

Vanadium Redox-Flow Battery, A Step-by-Step Design Methodology For a Base Case	46(4), 239
Vapor Deposition As a ChE Capstone Laboratory; A New Take On Kinetics: Initiated Chemical	48(2), 98
Video Demonstrations In Laboratory Courses, Use of Pre-recorded	47(2), 133
Virtual Tour of a Milk Powder Plant, An Interactive.....	47(2), 107
Virtual Laboratories To Help Students Learn Difficult Concepts In Thermodynamics; Martin Award Paper: Development of Interactive	49(4), 229
Visco, Jr.; Announcement: <i>CEE</i> Welcomes Assistant Editor Donald P.	50(2), 149

W

Water Overflow SIS Experiment In Undergraduate Process Control Laboratory, Novel Hands-On	49(1), 37
Web-Based Reactor Design Game, Introduction to ChE Reactor Analysis: A.....	48(4), 199
What Carnot’s Father Taught His Son About Thermodynamics	46(3), 165
Who Was Who In Kinetics, Reaction Engineering, and Catalysis	47(4), 197
Wikis, Peer Evaluation In Chemical Engineering Capstone Design via	46(3), 189
Wisconsin, University of.....	46(2), 66
WolframAlpha, The Break-Even Radius of Insulation Computed Using Excel Solver and.....	48(3), 185
Woods, Don; In Memoriam:	47(3), 177
Word Clouds For Fast, Formative Assessment of Students’ Short Written Responses, Using	48(4), 190
Workplace In an Academic Setting, Teaching Creative Thinking and Transitioning Students To the	48(1), 9
Written Responses, Using Word Clouds For Fast, Formative Assessment of Students’ Short.....	48(4), 190

X (none)

Y

YouTube Videos, Student-Created Homework Problems Based On.....	47(2), 122
YouTube Videos To Foster Active Learning In Mass and Heat Transfer; Identify-Solve-Broadcast Your Own Transport Phenomenon: Student-Created.....	50(3), 186
Yangon Technological University	49(4), 241

Z (none)

Author Index

A

Abdel-Jabbar, Nabil 48(1), 17
Alnaizy, Raafat 48(1), 17
Anastasio, Daniel 47(1), 65; 48(2), 98
Anderson, Ryan 48(4), 221
Apostolidis, Alex J. 48(3), 175
Aracil, Ignacio 46(4), 231
Argoe, Megan 48(1), 37
Arivalagan, Jay 49(3), 149
AungYong, Lisa 48(4), 215
Ayude, María A. 48(2), 71

B

Baertsch, Chelsey D. 47(2), 99
Balchunas, John 50(3), 193
Bank, Alex 50(1), 70
Barat, Robert 48(2), 107
Barka, N., 47(1), 9
Baz-Rodríguez, Sergio A., 50(4), 230
Beris, Antony N. 48(3), 175
Baysal, Nihat 46(3), 182
Begum, Shamim 49(1), 2
Benson, Tracy J. 47(2), 91; 49(1), 37
Bhatia, Hina 49(2), 111
Biegler, Larry 48(3), 122
Biernacki, J.J. 50(2), 114
Bonzongo, Jean-Claude J. 46(2), 118
Borrego, Maura 47(1), 27
Bowen, Alec S. 49(4), 229
Branch, Kyle 49(1), 19
Brawner, Catherine E. 48(4), 231
Brent, Rebecca 46(2), 87; 46(4), 237; 47(1), 25; 48(2), 113; 49(2), 127; 49(3), 191; 49(4), 239; 50(2), 151; 50(3), 211; 50(4), 251
Brewer, Catherine E. 48(2), inside front cover
Briedis, Daina 46(2), 80; 47(2), 81
Broadbelt, Linda J. 48(1), 37
Brooks, Bill J. 48(4), 190
Brousseau, J., 47(1), 9
Buonopane, Ralph A. 46(3), 196
Bullard, Lisa G. 47(1), inside back cover; 47(4), 217; 48(2), 90; 48(4), 250; 49(1), inside front cover; 49(2), 104; 49(3), 130; 50(1), 19; 50(3), 161
Burkey, Daniel D. 47(1), 65; 48(2), 98
Burnet, George 47(3), 138
Butterfield, Anthony E. 46(3), 152; 48(1), 31; 49(1), 19

C

Cadien, Ken 48(2), 66
Carbonell, Ruben G. 50(3), 193
Chase, George G. 49(4), 208
Chen, Ru 50(2), 131
Cherrstrom, Catherine A. 49(3), 157

Chirico, Robert D. 47(1), 48
Cicciarelli, Bradley A. 47(2), 133
Clauson, Doug 49(2), 73
Clay, Molly 48(4), 199
Colby, David 50(2), 131
Condoret, Jean-Stéphane 46(4), 218
Counce, Robert M. 46(4), 239
Comfort, Kristen K. 50(4), 255
Comolli, Noelle 48(1), 59; 49(2), 95
Como, Charles 48(2), 107
Cooper, Matthew E. . 48(2), 90; 50(3), 176
Cramer, Hailey 50(2), 131
Curtis, Jennifer 49(2), 103
Cutler, Stephanie 47(1), 27
Cutlip, Michael B. 46(3), 173; 47(3), 170
Cybulskis, Viktor J. 50(3), 202

D

Dahm, Kevin 50(2), 113
Danner, Ronald 50(4), 214
Davis, Richard A. 46(3), 157; 49(3), 167
Davis, Virginia A. 48(3), 157
DeGrazia, Janet 48(4), 209
Delgass, W. Nicholas 50(3), 202
Delluva, Alexander 49(3), 149
Deschênes, J.-S., 47(1), 9
DePriest, Jane L. 46(3), 146
Deshpande, Niranjani 49(2), 105
Deshpande, Pradeep 49(4), 248
DeVilbiss, Frank 49(1), 18
Dhurjati, Prasad S. 48(3), 175; 49(3), 149; 50(2), 131
Dickinson, Richard 50(1), 42
Diky, Vladimir 47(1), 48
Duke, Steve R. 48(3), 157
Durruty, Ignacio 48(2), 71

E

Elly, Michael 46(3), 173
Emady, Heaather N. 47(2), 99
Errington, Jeffrey R. 46(3), 204
Evans, Edward A. 49(4), 208
Evans, G.M., 49(2), 81
Evans, S.C., 49(2), 81

F

Falconer, John L. 48(3), 165; 48(4), 209; 50(1), 63
Fan, Lian-Shih, 49(2), 105
Fang, Yan 49(1), 37
Faraji, Sepideh 46(3), 213
Farmus, Cristina 50(3), 154
Farrell, Stephanie 46(2), 97; 48(3), 149
Fee, Conan J. 47(2), 107; 48(1), 2

Felder, Richard 46(2), 87; 46(3), 171; 46(4), 237; 47(1), 25; 47(2), 97; 47(3), 178; 47(4), 207; 48(1), 57; 48(2), 113; 48(3), 131; 48(4), 207; 49(1), 27; 49(1), 57; 49(2), 127; 49(3), 191; 49(4), 239; 50(1), 38; 50(2), 151; 50(3), 211; 50(4), 251
Ferri, James K. 49(3), 184
Fink, Aaron 49(2), 88
Foley, Greg 48(3), 185
Fleming, Kelly L. 49(1), 29
Floyd-Smith, Tamara 49(1), 2
Foley, Greg 50(2), 107
Forbes, Fraser 48(1), 37; 48(2), 66
Forciniti, Daniel 49(2), 66
Fogler, H. Scott 48(1), 9; 50(4), 214
Ford, David M. 46(3), 204
Fowler, Debra 49(3), 157
Frenkel, Michael 47(1), 48
Frey, Douglas D., 47(1), 15
Froyd, Jeff 47(1), 27

G

Galas, Jr., Richard J. 47(2), 99
Gaml, Moataz El 47(3), 179
Gatzke, Ed P. 46(2), 89
Gilbuena, Debra M. 48(4), 190
Gilleskie, Gary L. 48(2), 79; 50(3), 193
Glasser, Benjamin J. 46(4), 260
Glass, David 46(4), 260
Godwin, Allison 47(3), 145
Gómez, M. Francisca 46(4), 231
Gomez, Elaine 48(2), 107
Gonçalves, Carine Messias 47(3), 161
Gostomski, Peter A. 47(2), 107; 48(1), 2
Gounder, Rajamani 50(3), 202
Guillén-Francisco, Juana A., 50(4), 230
Guo, Hui 47(1), 15

H

Harding, Kevin G. 49(2), 101
Han, Bing 49(4), 221
Hatakka, Henry 49(4), 221
Hanesian, Deran 46(3), 196
He, Qinghua Peter 49(1), 2; 50(2), 98
Heasley, Lynn 50(1), 40, 50
Heath, Daniel E., 47(1), 38
Heldt, Caryn L. 46(3), 189; 50(1), 70
Henderson, Charles 47(1), 27
Henderson, Jarrod A. 48(3), 139
Herring, Andrew M. 47(2), 122
Herrera-Soberanis, Natali C., 50(4), 230
Herritsch, Alfred 47(2), 107
Heys, Jeffrey J. 50(1), 76
Hickman, Daniel A. 49(4), 195; 49(4), 201
Hildebradt, Diane 46(4), 260
Hlaing, Nwaynay 49(4), 241

Hoare, Todd.....49(2), 118
 Holles, Joseph H. 47(4), 197
 Honda, Gregory S.49(4), 195
 Hoy, Mary 47(1), 38
 Huang, Zuyi (Jacky)....48(1), 59; 49(2), 95
 Husseini, Ghaleb A. .. 47(3), 179; 48(1), 17

I

Ibrahim, Taleb H. 48(1), 17

J

Jackson, Cami L. 47(4), 197
 Jang, Larry K. 49(2), 111; 49(3), 175; 50(4), 245
 Jaubert, Jean-Noël..... 48(1), 42
 Johnson, Donald..... 50(2), 98

K

Kang, Jeong Won 47(1), 48
 Kamath, Haresh..... 46(4), 239
 Karnik, Nikhila 47(1), 15
 Kazakov, Andrei F..... 47(1), 48
 Kazameas, Cristos G..... 49(3), 131
 Keller, Kaitlin N..... 49(3), 131
 Kelly, William J. 48(1), 59; 49(2), 95
 Kwon, Kyung 49(1), 2
 Ketlogetswe, Clever..... 46(2), 110
 Khera, Eshita..... 50(3), 186
 Kim, Sun Hyung 47(1), 48
 King, Julia A. 50(1), 70
 Klein, James A. 46(3), 157
 Klemola, Kimmo T. 48(2), 115
 Knight, Andrew 50(2), 98
 Kopelevich, Dmitry..... 46(2), 118
 Krause, Stephen J. 48(4), 190
 Koretsky, Milo D. 48(4), 190; 49(1), 47; 49(4), 229
 Kroenlein, Kenneth 47(1), 48
 Kubilius, Matthew B..... 48(4), 221

L

Lacks, Daniel J..... 46(2), 110; 49(4), 241
 Lamm, Monica H. 48(2), inside front cover
 Layton, Richard A..... 48(4), 231
 LeBlanc, Weldon 47(2), 91
 Lee, Kilho 48(1), 59; 49(2), 95
 Lehr, Rachel 49(3), 149
 Lo, Roger C. 49(2), 111; 49(3), 175
 Long, Russell A. 48(4), 231
 Lord, Susan M. 48(4), 231
 Loughlin, Kevin F. 47(3), 179
 Lesage, François 47(1), 59; 48(1), 25
 Liberatore, Matthew 46(4), 271; 47(2), 122; 47(3), 154
 Lindeman, Stephen D..... 46(2), 80
 Lindner, Angela S. 46(2), 118

Liu, Julie C. 47(2), 99
 Louhi-Kultanen, Marjatta 49(4), 221
 Lyons, Jed S. 46(2), 89
 Lund, Carl R.F. 46(3), 204
 Luyben, William L. 49(2), 88; 49(3), 131

M

Magee, Joseph W., 47(1), 48
 Mallapragada, Surya 47(3), 138
 Malefyt, Amanda P..... 46(2), 80
 Sachin A. Mandavgane 50(4), 238
 Marr, David W.M. 47(2), 122
 Marrero, Thomas R..... 50(2), 141
 Matthaai, James..... 49(1), 29
 Matthews, Logan R. 49(4), 201
 Mbah, Jonathan 49(1), 2
 McDanel, Katherine P. 48(4), 209
 Medlin, J. Will..... 48(4), 209
 Mendez, Sergio 48(4), 215
 Metzger, Matthew J. 46(4), 260
 Mevawala, Chirag 50(2), 131
 Michaud, M., 47(1), 9
 Miletic, Marina 48(3), 139
 Miller, Ronal L..... 49(1), 58
 Mineart, Kenneth P. 50(3), 176
 Mohebzada, Jamshaid G. 47(3), 179
 Moinuddin, Khalid 47(2), 115
 Montgomery, Susan 49(4), 194
 Moore, Mark 46(4), 239
 Moreno-Atanasio, R. 49(2), 81
 Morison, Ken R. 47(2), 107
 Mota, José Paulo B. 47(1), 59; 48(1), 25
 Müller, Erich A. 46(3), 165
 Murley, Alan R. 49(4), 201
 Muzny, Chris D.,..... 47(1), 48

N

Neary, Chris 47(3), 138
 Nicodemus, Garret D. 48(3), 165; 48(4), 209
 Nijdam, Justin J. 47(4), 191
 Noble, Richard D. 47(2), 74
 Nolan, Lucy..... 48(2), 66
 Norrgran, Cynthia 50(1), 29
 Nottis, Katharyn..... 50(1), 52
 Nurkka, Annikka 49(4), 221

O

Ofoli, Robert Y..... 46(3), 146
 Ohland, Matthew W. 48(4), 231
 Ollis, David 50(4), 221
 Orbey, Nese 48(4), 199
 Oreovicz, Frank..... 47(1), 58

P

Palanki, Srinivas 47(1), 2
 Pansare, Vikram J..... 49(1), 9

Paradis, D., 47(1), 9
 Patel, Bilal 46(4), 260
 Paul, Melissa 48(2), 107
 Pazmino, Jorge H. 49(4), 195
 Pease, Leonard F. III 48(3), 133
 Peebles, Tonya 50(3), 161
 Peretti, Steven W. 49(1), inside front cover
 Perna, Angelo J. 46(3), 196; 47(2), 81
 Pfaendtner, Jim..... 49(1), 29
 Phalak, Nihar..... 49(2), 105
 Phears, Monique 50(1), 42
 Piergiovanni, Polly R. 46(4), 223
 Pinto, José Carlos..... 47(3), 161
 Polala, Ravali 50(2), 98
 Potvin, Geoff 47(3), 145
 Prausnitz, John M. 50(3), 175
 Prince, Michael 47(1), 27; 50(1), 52
 Privat, Romain 48(1), 42
 Prud'homme, Robert K..... 49(1), 9
 Puettmann, Anja 49(4), 201
 Punzi, Vito..... 48(1), 59
 Purdy, Caitlin 48(3), 149

Q

Quinn, Thomas M. 47(4), 209

R

Rahim, Elin Abdul 47(2), 107
 Raisor, Cindy 49(3), 157
 Rajala, Jonathan W..... 49(4), 208
 Ramirez, Darinka 50(2), 141
 Ramirez, Maria Soledad..... 50(2), 141
 Rasel, M.A.K. 49(1), 37
 Rathman, James F., 47(1), 38
 Reeves, Baley A. 48(2), 79; 50(3), 193
 Reid, Daniel R..... 49(4), 229
 Rende, Deniz 46(3), 182
 Rende, Sevinc 46(3), 182
 Renner, Julie N. 47(2), 99
 Ribeiro, Fabio H. 50(3), 202
 Richards, Abigail M..... 50(1), 76
 Richmond, Peyton C. .. 47(2), 91; 49(1), 37
 Rocha-Uribe, José A., 50(4), 230
 Rodríguez-Novelo, Miguel, 50(4), 230
 Rohdieck, Stephanie 47(1), 38
 Rothe, Erhard W. 50(2), 125
 Ruiz-Beviá, Francisco..... 46(4), 231
 Russell, T.W. Fraser .. 48(1), 37; 48(4), 199

S

Saatdjian, Esteban 47(1), 59; 48(1), 25
 Salonga, Saul 49(3), 149; 50(2), 131
 Sankaran, R. Mohan..... 46(2), 110
 Saquete, M. Delores 46(4), 231
 Savelski, Mariano J. 48(4), 239
 Schwaab, Marcio..... 47(3), 161

Seebauer, Edmund G. **48**(3), 139
 Seeley, Laura A. **46**(3), 146
 Senra, Michael **48**(1), 9
 Seymour, Josph D. **50**(1), 76
 Shacham, Mordechai **46**(3), 173; **47**(3), 170
 Shaw, David D. **48**(3), 133
 Shiflett, Mark **49**(3), 149; **50**(2), 131
 Shockey, Chelsea **50**(2), 131
 Silverstein, David L. **47**(4), 190
 Slater, C. Stewart **48**(4), 239
 Sloan, Dendy **50**(1), 29
 Smeltz, Andrew D. **50**(3), 202
 Smith, Allen **49**(1), 2
 Stewart, Brandon..... **49**(3), 149
 Stice, James E. **48**(1), 57
 Sticklen, Jon **46**(2), 80
 Struck Jannini, Alexander V. **48**(4), 239
 Sundaresan, Sankaran **49**(2), 105
 Suresh, Aravind..... **47**(1), 65; **48**(2), 98
 Swindlehurst, Garrett R. **47**(4), 217;
48(4), 250

T

Teppaitoon, Wittaya **50**(3), 169
 Thorp, Laura **50**(3), 161
 Tien, Daniel..... **49**(1), 9
 Tillman, Ayesha S. **48**(3), 139
 Trenshaw, Kathryn F. **48**(3), 139
 Trujillo, Edward **49**(1), 19
 Tu, Raymond S. **48**(4), 221
 Turpeinen, Dylan **50**(1), 70

U

Utgikar, Vivek P. **49**(4), 215

V

Vahdat, Nader..... **49**(1), 2
 van Zanten, John H. **50**(3), 193
 Varma, Arvind **49**(4), 195; **50**(3), 154
 Vaughen, Bruce K. **46**(2), 129
 Venkatraman, Rahul **49**(2), 111
 Vernengo, Jennifer **46**(2), 97; **48**(3), 149
 Vernengo, Andrea..... **50**(2), 113
 Vestal, Charles R..... **49**(1), 58; **50**(2), 112
 Visco, Jr., Donald P. .. **48**(4), 250; **50**(2), 97
 Vigeant, Margot **50**(1), 52
 Vogel, Troy J. **48**(3), 139

W

Walton, S. Patrick..... **46**(2), 80; **46**(3), 146
 Wankat, Phil **46**(2), 73;
47(1), inside front cover; **47**(3), 177; **49**(2),
 103; **49**(2), 102; **50**(1), 2, 3, 14, 19, 40; **50**(4),
 237
 Wang, Jin..... **50**(2), 98
 Watson, Jack S. **46**(4), 239

Watson, Joy L..... **46**(2), 89
 Way, J. Douglas..... **47**(2), 122
 Weinstein, Randy D. **49**(3), 141
 Wen, Fei **50**(3), 186
 Wheeler West, Christy **49**(4), 247
 Wilkes, Garth L..... **46**(4), 251
 Wilkins, Robert J. **50**(4), 255
 Witt, Paul M. **49**(4), 201
 Woods, Donald R. **46**(2), 135; **47**(2), 81

Y

Young, Colin C. **46**(3), 152; **48**(1), 31

Z

Zhang, Rong **47**(2), 99; **50**(2), 98
 Ziegler, Kirk J. **46**(2), 118
 Zawodzinski, Thomas A. **46**(4), 239
 Zualkernan, Imran A., **47**(3), 179
 Zvinevich, Yury..... **50**(3), 202
 Zygmunt, William E. **50**(2), 125