

---

## JCE Software

Editor: *Jon L. Holmes*  
 Technical Editor: *Nancy S. Gettys*.

---

## Journal of Chemical Education

Editor: *John W. Moore*  
 Associate Editors: *Jon L. Holmes, Elizabeth A. Moore, Mary Saecker*  
 Assistant Editors: *Nancy S. Gettys, Eric Kolstad, Lin W. Morris, Carol Steinhart, Alice Teter, Gail Thorson, Randall J. Wildman, Agnes Ma*

---

## Business Management

Publications Coordinator: *Richard Schwenz*

---

## Editorial Board, JCE Software

<i>Alton J. Banks</i>	<i>John C. Kotz</i>	<i>David Shaw</i>
<i>James P. Birk</i>	<i>George Lisensky</i>	<i>Sally Solomon</i>
<i>Kersey Black</i>	<i>Michael Morgan</i>	<i>James Spain</i>
<i>William F. Coleman</i>	<i>Thomas O'Haver</i>	<i>Tamar Y. Susskind</i>
<i>Richard Cornelius</i>	<i>Richard W. Ramette</i>	<i>David M. Whisnant</i>
<i>Steven D. Gammon</i>	<i>Robert C. Rittenhouse</i>	
<i>Richard Hiatt</i>	<i>Paul F. Schatz</i>	

---

## Information, Orders, Subscriptions

### JCE Software

University of Wisconsin—Madison  
 Department of Chemistry  
 1101 University Avenue  
 Madison, WI 53706-1396

phone: 608/262-5153 and 1-800-991-5534

fax: 608/265-8094

email: [jcesoft@chem.wisc.edu](mailto:jcesoft@chem.wisc.edu)

WWW: <http://jchemed.chem.wisc.edu/>

### Journal of Chemical Education

University of Wisconsin—Madison  
 Department of Chemistry, Journal House  
 209 North Brooks Street  
 Madison, WI 53715-1116

phone: 608/262-7146 or 1-800-691-9846

fax: 608/262-7145

email: [jce@chem.wisc.edu](mailto:jce@chem.wisc.edu)

WWW: <http://jchemed.chem.wisc.edu/>

---

## Board of Publication

*Jerry A. Bell, Chair*  
*Ronald Archer*  
*Doris K. Kolb*  
*Mary Virginia Orna, O.S.U.*

*Ann Cartwright*  
*Ronald Perkins*  
*John I. Gelder*  
*Jerry L. Sarquis*

*JCE Software is a publication of the Journal of Chemical Education.*  
 © Copyright 1998 by Division of Chemical Education, Inc., American Chemical Society.  
 Owned and Published by the Division of Chemical Education, Inc., American Chemical Society.



# Journal of Chemical Education

Print • Software • Online • Books

# Get in touch with the JCE Software

John Varine • John Vollmer • El Jay Warkentin • Shady Side Academy • Ross W. Westover • Ginger Tannenbaum • Whitman College • David W. Trapp • Arlyne M. Sarquis • George Shiroma • Janice Smith • Michael Spatzer • Lake Michigan College • Dr. Bernard Rapp • Walla Walla College • Northwestern Michigan College • Univ. of Michigan - Dearborn • Paul D. Prather • Mitchell High School • John E. Noel • William E. Noice • Mrs. I. McCartney • William Melcher • Central Michigan University • Univ of California-Los Angeles • Mississippi College • Stephen S. Leith • Iona College • Saint Xavier College • Denis B. Kazelas • Augustana College • A. Kloock • Eastern Illinois University • Sarasota High School • Jackson Community College • Nusret & Sarah Hisim • University of Pittsburgh • Neil Fetter • Paul Smith's College • Stig E. Forsyth • Dr. Frank W. Darow • P. Joanne Dyer • Université de Nice Sophia-Anti • Raritan Valley Community Coll. • York University • American University • Virginia State University • Stephanie Birkmeyer • Piedmont Virginia Comm. Coll. • Cuesta Community College • Charles W. Busenhart • Michael R. Abraham • University of North Carolina • Haddam-Killingworth School • Southeastern Oklahoma State • Graceland College • Richard Cornelius • Loyola Academy • Wethersfield High School • Dr. Allan Smith • Enrico Fermi High School • Nicholls State University • University of Arizona • University of Kentucky • Judith Keane • Paul Rasmussen • Plano Senior High School • Maconaquah High School • St. Olaf College • David N. Bailey • John Halbrooks • Fr. Bernard Horzen, OSB • Shippensburg University • Dr. E.K. Nunn • George A. Page • University of Michigan • Dr. J.J. Lagowski • Lehigh Carbon Comm College • Thomas H. Richardson • Kersey Black • Dr. Charles M. Greenleaf • Jay Bardole • Hofstra University • Arnold J. Simon • Appalachian State University • Dr. C.M. Lang • Memphis State University • East Tennessee State Univ. • Wayne F. Haag • Northwestern University • Springfield Public Schools #18 • Central Missouri State Univ • Dr. Estel Sprague • R.W. Ramette • College of Charleston • Charles R. Russ • Fort Hays State University • Newington High School • Richard York • Iowa State University • Klaus Hagenstein • Takao Ohtake • Dr. E.R. Klompemaker • Viterbo College • Brigham Young University • Dr. L.H. Berka • James A. Carroll • Washington State University • Università di Parma • Lubbock Christian University • Dr. John J. Rupp • Armstrong State College • Jerry L. Sarquis • Clatsop Community College • Richard Kuntik • Spectroscopy Society of Pittsb • Dr. Klaus Zietlow • Arizona State University • Thomas Turner • Rock Bridge Senior High School • Professor Dr. K.F. Tebbe • Stockton State College • Madison Community College • Professor Joseph Byrne • Middlesex Community College • Fremont Senior High School • Pennsylvania State University • Pennsylvania State • State University College • Indiana University of PA • Montgomery County Schools • Manuel Josep Traver Ribes • The University of Calgary • R. James Kurtz • Johnson Co. Community College • St. Bonaventure University • Mount Allison University • Roseville High School • Univ. of California- San Diego • Goucher College • Canisius College • Dr. James M. Beard • Thiel College • University of Helsinki • David Redfield • Tsutomu Okuda • Prairie State College • Louisiana State University • Brigham Young Univ.-Hawaii • Biblio College Outaouais • Riordan High School • Santa Fe Community College • Itasca Community College • Dr. James F. Harrison • Dr. Ronald P. Robertson • Northern Kentucky University • Camiel De Baat • Dr. Elizabeth Suttro • Ron Gold • Christian Brothers College • Ron Esman • University Wisconsin-Madison • Ashland College • The Governor's School • Pequannock Township High School • Crossmont-Cuyamaca College • Joseph E. Ledbetter • John C. Kotz • Dr. Frank Rioux • International Schools Services • Paul Benz • Douglas Katz • Robert W.M. Lee • C.V. Senoff • Ms. Carolyn Judd • Yosemite Community College • Herbert Ewald • Randolph Macon College • Alverno College • Indiana University Libraries • Bibliotheque InterUniversitari • Indiana University • Dr. James P. Spencer • Wright State University • Philip I. Pavlik • Paul Gibbons • Edith Rand • Francis Marion University • Pine Crest School • Marianopolis College • Kennebunk High School • Alton Banks • Saunders College • Houghton Mifflin Company • David Tanis • Fresno Unified School District • Emmaus High School • College of DuPage • David Whisnant • Purdue University • Indiana Univ. of Pennsylvania • Washington State University • Univ. Southern Mississippi • Steven Hannum • Morningside College • Beloit College • Cegep de Sainte-Foy • Southeast Community College • Tallahassee Community College • South Vermillion High School • Drake University • Dr. Charles D. Schaeffer • NC School of Science and Math • Dr. Mary Masson • Ernesto Villanveva Diez • Evergreen High School • University of Redlands • Univ de Santiago de Compostela • Diaz de Santos-Madrid • Regional Consortium for Colby College • Grinnell College • Dr. Howard C. Knachel • Dr. D.L. Eng-Wilmot • Diane Bunce • Laser Learning Technologies • Rensselaer Institute • Collingwood School • Ruediger Wandke • William Penn Charter School • Mesa Public Schools • Technikum Winterthur • Lehigh Carbon Comm. College • Oakton Community College • Dr. Wolfgang Scheneber • Univ. Wisconsin-Plattville • Autoscribe Limited • Frank Rutherford • S.M.S. Optical Company • University of Nebraska-Lincoln • Peter Burkhardt • Dna. Elisabet Laplana Escote • Duquesne University • Dorothea S. Wells • Dr. rer. nat Harald Becker • Westchester Community College • Mt. Pleasant Community Schools • Bucks County Community College • Pepperdine University • Victor Valley Comm. College • Fernbank Science Center • Queensland Univ. of Technology • North Central College • Landon School • The University of Melbourne • D.C. Heath & Company • Instituto Tecnologico de Olivet Nazarene University • Dr. Winfried Zemann • Dr. David Community College • City University of Hong Kong • Dr. Paul F. Schatz • University of New England • Doris O'Malley • Tech. College • North Division High School • Champlain Regional College • Holt, Renhart & Winston, Canada • T.P. Cheeseman • Sacred Heart University • Department of Chemistry • Ammon • University of Hannover • Swets Subscription Service • Christer Gruyberg • Denison University • Bradley University • Mallorca Library • Hong Kong Polytechnic University • Grand Rapids Community College • Illinois State University • Madison High School • Piquette Community Schools • Pickerington High School • Glencoe Publishing • Univ. Federal de Sao Carlos • Springfield College • CLEARVUE/eav • Jae Hyun Kim •

**just as hundreds of other schools have done.**

**by phone**  
**1-800-991-5534 for JCE Software**

**1-800-691-9846 for JCE subscriptions**

**by fax**  
**608-265-8094 for JCE Software**  
**609-696-2130 for JCE subscriptions**

**by email**  
**jcesoft@chem.wisc.edu for JCE Software**  
**jchemed@aol.com for JCE subscriptions**

**by WWW**  
**http://jchemed.chem.wisc.edu/**

**by mail**  
**JCE Software**  
**University of Wisconsin-Madison**  
**Department of Chemistry**  
**1101 University Avenue**  
**Madison WI 53706-1396 USA**

• The schools and individuals listed have ordered seven or more programs.

