Journal of Chemical Education

Manuscript Keyword List

Keyword List: 2004

MS Number

Keywords Please select from the list below all keywords that apply to your manuscript. If possible, please select at least one keyword from each of the first three categories: *Audience, Domain, Pedagogy.* Also select at least two, up to a maximum of eight keywords from the *Topics* category.

We realize that you selected keywords at the time you submitted your manuscript. This list differs significantly from the list you used at that time. The *JCE* staff carefully revised the list of keywords to make it more comprehensive and useful, and then the list was evaluated by a select group of *JCE* reviewers, whose suggestions were incorporated. The result is the list you see below. It has been divided into categories, it contains a greater total number of keywords than the earlier list, and some of the earlier keywords have been eliminated. During our transition to the new list, we request that those whose manuscripts were submitted under the old list update their selections of keywords. The new keywords will be used in the *JCE* Index online and in the retrieval system of the National Science Digital Library.

Definitions of all keywords are available at *http://resgenchem14.chem.wisc.edu/jcedl/subject/TermDefs.html*

• Audience (please select at least 1)

- ☐ General Public
- ☐ Elementary / Middle School Science
- ☐ High School / Introductory Chemistry
- ☐ First-Year Undergraduate / General
- ☐ Second-Year Undergraduate
- ☐ Upper-Division Undergraduate
- ☐ Graduate Education / Research
- ☐ Continuing Education

• Domain (please select at least 1)

- ☐ Analytical Chemistry
- ☐ Biochemistry
- ☐ Chemical Education Research
- ☐ Chemical Engineering
- ☐ Chemoinformatics
- ☐ Curriculum
- ☐ Demonstrations
- ☐ Environmental Chemistry
- ☐ History / Philosophy
- ☐ Inorganic Chemistry
- ☐ Interdisciplinary / Multidisciplinary
- ☐ Laboratory Instruction
- ☐ Organic Chemistry
- ☐ Physical Chemistry
- ☐ Polymer Chemistry
- ☐ Public Understanding / Outreach
- ☐ Safety / Hazards

• Pedagogy (please select at least 1 if possible)

- ☐ Analogies / Transfer
- ☐ Calculator-Based Learning
- ☐ Collaborative / Cooperative Learning
- ☐ Communication / Writing
- ☐ Computer-Based Learning
- ☐ Distance Learning / Self Instruction
- ☐ Hands-On Learning / Manipulatives
- ☐ Humor / Puzzles / Games
- ☐ Inquiry-Based / Discovery Learning
- ☐ Internet / Web-Based Learning
- ☐ Misconceptions / Discrepant Events
- ☐ Mnemonics / Rote Learning
- ☐ Multimedia-Based Learning
- ☐ Problem Solving / Decision Making
- ☐ Testing / Assessment
- ☐ Textbooks / Reference Books

• Topics (please select at least 2, maximum of 8)

- ☐ Acids / Bases
- ☐ Addition Reactions
- ☐ Administrative Issues
- ☐ Agricultural Chemistry
- ☐ Alcohols
- ☐ Aldehydes / Ketones
- ☐ Alkanes / Cycloalkanes
- ☐ Alkenes
- ☐ Alkylation
- ☐ Alkynes
- ☐ Amides
- ☐ Amines /Ammonium Compounds
- ☐ Amino Acids
- ☐ Applications of Chemistry
- ☐ Aqueous Solution Chemistry
- ☐ Aromatic Compounds
- ☐ Astrochemistry
- ☐ Asymmetric Synthesis
- ☐ Atmospheric Chemistry
- ☐ Atomic Properties / Structure
- ☐ Atomic Spectroscopy
- ☐ Bioanalytical Chemistry
- ☐ Bioenergetics
- ☐ Bioinorganic Chemistry
- ☐ Biological Cells
- ☐ Bioorganic Chemistry
- ☐ Biophysical Chemistry
- ☐ Biosignaling
- ☐ Biosynthesis
- ☐ Biotechnology
- ☐ Brønsted-Lowry Acids / Bases
- ☐ Calibration
- ☐ Calorimetry / Thermochemistry
- ☐ Carbocations
- ☐ Carbohydrates
- ☐ Carboxylic Acids
- ☐ Catalysis
- ☐ Chemical Technicians
- ☐ Chemometrics
- ☐ Chirality / Optical Isomers
- ☐ Chromatography
- ☐ Colloids
- ☐ Combinatorial Chemistry
- ☐ Computational Chemistry
- ☐ Conductivity
- ☐ Conferences
- ☐ Conformational Analysis
- ☐ Constitutional Isomers
- ☐ Constructivism
- ☐ Consumer Chemistry
- ☐ Coordination Compounds
- ☐ Covalent Bonding
- ☐ Crystal Field / Ligand Field Theory
- ☐ Crystals / Crystallography
- ☐ Descriptive Chemistry
- ☐ Diastereomers
- ☐ Drugs / Pharmaceuticals

continued, over

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• **Topics (please select at least 2, maximum of 8) (continued)**

- ☐ Dyes / Pigments
- ☐ Electrochemistry
- ☐ Electrolytic / Galvanic Cells / Potentials
- ☐ Electrophilic Substitution
- ☐ Electrophoresis
- ☐ Elimination Reactions
- ☐ Enantiomers
- ☐ Enrichment / Review Materials
- ☐ Enzymes
- ☐ Epoxides
- ☐ EPR / ESR Spectroscopy
- ☐ Equilibrium
- ☐ Esters
- ☐ Ethers
- ☐ Ethics
- ☐ Fatty Acids
- ☐ Fluorescence Spectroscopy
- ☐ Food Science
- ☐ Forensic Chemistry
- ☐ Fourier Transform Techniques
- ☐ Free Radicals
- ☐ Gas Chromatography
- ☐ Gases
- ☐ Geochemistry
- ☐ Glycolysis
- ☐ Gravimetric Analysis
- ☐ Green Chemistry
- ☐ Grignard Reagents
- ☐ Group Theory / Symmetry
- ☐ Heat Capacity
- ☐ Heterocycles
- ☐ Hormones
- ☐ HPLC
- ☐ Hydrogen Bonding
- ☐ Industrial Chemistry
- ☐ Inner Transition Elements
- ☐ Instrumental Methods
- ☐ Ion Exchange
- ☐ Ion Selective Electrodes
- ☐ Ionic Bonding
- ☐ IR Spectroscopy
- ☐ Isotopes
- ☐ Kinetic-Molecular Theory
- ☐ Kinetics
- ☐ Laboratory Computing / Interfacing
- ☐ Laboratory Equipment / Apparatus
- ☐ Laboratory Management
- ☐ Lasers
- ☐ Learning Theories
- ☐ Lewis Acids / Bases
- ☐ Lewis Structures
- ☐ Lipids
- ☐ Liquids
- ☐ Magnetic Properties
- ☐ Main-Group Elements
- ☐ Mass Spectrometry
- ☐ Materials Science
- ☐ Mathematics / Symbolic Mathematics
- ☐ Mechanisms of Reactions
- ☐ Medicinal Chemistry
- ☐ Membranes
- ☐ Metabolism
- ☐ Metallic Bonding
- ☐ Metalloids / Semimetals
- ☐ Metallurgy
- ☐ Metals
- ☐ Micelles
- ☐ Microscale Lab
- ☐ Minorities in Chemistry
- ☐ MO Theory
- ☐ Molecular Biology
- ☐ Molecular Mechanics / Dynamics
- ☐ Molecular Modeling
- ☐ Molecular Properties / Structure
- ☐ Molecular Recognition
- ☐ Nanotechnology
- ☐ Natural Products
- ☐ NMR Spectroscopy
- ☐ Nomenclature / Units / Symbols
- ☐ Noncovalent Interactions
- ☐ Nonmajor Courses
- ☐ Nonmetals
- ☐ Nuclear / Radiochemistry
- ☐ Nucleic Acids / DNA / RNA
- ☐ Nucleophilic Substitution
- ☐ Nutrition
- ☐ Organometallics
- ☐ Organosulfur Compounds
- ☐ Oxidation / Reduction
- ☐ Oxidation State
- ☐ Periodicity / Periodic Table
- ☐ pH
- ☐ Phases / Phase Transitions / Diagrams
- ☐ Phenols
- ☐ Photochemistry
- ☐ Photosynthesis
- ☐ Physical Properties
- ☐ Plant Chemistry
- ☐ Polymerization
- ☐ Potentiometry
- ☐ Precipitation / Solubility
- ☐ Professional Development
- ☐ Proteins / Peptides
- ☐ Qualitative Analysis
- ☐ Quantitative Analysis
- ☐ Quantum Chemistry
- ☐ Raman Spectroscopy
- ☐ Rate Law
- ☐ Reactions
- ☐ Reactive Intermediates
- ☐ Receptors
- ☐ Resonance Theory
- ☐ Semiconductors
- ☐ Separation Science
- ☐ Solid State Chemistry
- ☐ Solids
- ☐ Solutions / Solvents
- ☐ Spectroscopy
- ☐ Standards National / State
- ☐ Statistical Mechanics
- ☐ Stereochemistry
- ☐ Steroids
- ☐ Stoichiometry
- ☐ Student / Career Counseling
- ☐ Student-Centered Learning
- ☐ Superconductivity
- ☐ Surface Science
- ☐ Synthesis
- ☐ TA Training / Orientation
- ☐ Theoretical Chemistry
- ☐ Thermal Analysis
- ☐ Thermodynamics
- ☐ Thin Layer Chromatography
- ☐ Titration / Volumetric Analysis
- ☐ Toxicology
- ☐ Transition Elements
- ☐ Transport Properties
- ☐ Undergraduate Research
- ☐ UV–Vis Spectroscopy
- ☐ Valence Bond Theory
- ☐ Vitamins
- ☐ VSEPR Theory
- ☐ Water / Water Chemistry
- ☐ Women in Chemistry
- ☐ X-ray Crystallography

This form may be found at *http://www.jce.divched.org/Contributors/Authors/Submissions/keywords.pdf*

Ms Keyword List
10/21/2004