Sélection d'articles en didactique de la chimie

Fix Me! à ajouter :

- https://dvillers.umons.ac.be/wiki/teaching:biblio-10.1021-ed2001957

Liens rapides :

- **http://pubs.acs.org/toc/jceda8/current : numéro courant de Journal of Chemical Education** où vous avez la possibilité de consulter les résumés. Si vous souhaitez recevoir la table des matières à chaque nouveau numéro, il vous suffit de prendre l'option "register" (https://account.acs.org/ssoamweb/account/signUp), et ensuite de demander les "E-Mail Alerts" pour les journaux choisis. Pour les étudiants et le personnel UMONS, vous pouvez accéder aux textes complets sur le réseau de l'UMONS ou en activant le VPN, ou via le bureau à distance.
    - Fil RSS des derniers articles parus dans Journal of Chemical Education
- **Chemistry Education Research and Practice : journal de la Royal Society of Chemistry**, accessible sur inscription. Vous pouvez obtenir des alertes via la page http://www.rsc.org/Publishing/Journals/forms/V5profile.asp, ainsi que pour Education in chemistry.
    - Fil RSS des derniers articles parus dans Chemistry Education Research and Practice
- The Chemical Educator - table of contents
- Publications intéressantes (résumés) (sélections d'articles discutés lors de séminaires internes, sur ce wiki)
- Publications intéressantes de chimie-physique, pour travaux personnels d'étudiants,…

> Dans les listes qui suivent, certains articles concernent l'enseignement supérieur et présentent donc un intérêt relatif par rapport au secondaire.

Articles de Journal of Chemical Education

ASAP and/or ACS Editors Choice articles

- …

Virtual Issues

- Journal of Chemical Education - Resources for Teaching Your Chemistry Class Online: A Free to Read Collection from the American Chemical Society & the ACS Division of Chemical Education
- Laboratory Learning
- Introducing the Virtual Issue: George M. Bodner Festschrift Marcy Towns, 2021 → sélection

d'articles sur :
    - Constructivism as a Lens for Understanding Student Learning
    - Student Conceptualization of Organic Reactions
    - Understanding Student Approaches to Problem Solving
    - Visualization and Spatial Reasoning Skills in Chemistry Education
    - Conceptual Understanding of Chemistry

Cf. aussi le lien virtual collections.

2022

- Journal of Chemical Education | Vol 99, No 4
    - Graphical Application to Assist Students Understand the Basic Concepts in Acid–Base Titrations
    - Calculating the pH of a Strong Acid or a Strong Base Before and After Instruction in General and Analytical Chemistry
    - Exploring the Viability and Role of Virtual Laboratories in Chemistry Education Using Two Original Modules
    - Designing Virtual Laboratory Exercises Using Microsoft Forms
    - Creating Representation in Support of Chemical Reasoning to Connect Macroscopic and Submicroscopic Domains of Knowledge
- Journal of Chemical Education | Vol 99, No 3
    - Gamified Virtual Laboratory Experience for In-Person and Distance Students
    - The Case Study Method in Chemistry Teaching: A Systematic Review
    - Compounds and Molecules: Learning How to Distinguish Them through an Educational Game
    - Does Virtual Titration Experiment Meet Students' Expectation? Inside Out from Indian Context
    - Future of the Flipped Classroom in Chemistry Education: Recognizing the Value of Independent Preclass Learning and Promoting Deeper Understanding of Chemical Ways of Thinking During In-Person Instruction
- Journal of Chemical Education | Vol 99, No 2
    - Using the Recycled Parts of a Computer DVD Drive for Fabrication of a Low-Cost Arduino-Based Syringe Pump
    - New Software Application and Case Study That Simplify Teaching Complex Chemical Solubility and Equilibria
    - Mobile Augmented Reality Laboratory for Learning Acid–Base Titration
    - The Open-Response Chemistry Cognitive Assistance Tutor System: Development and Implementation
    - Implementation of Inquiry-Based Science in the Classroom and Its Repercussion on the Motivation to Learn Chemistry
    - Using the Schoolyard as a Setting for Learning Chemistry: A Sociocultural Analysis of Pre-service Teachers' Talk about Redox Chemistry
    - Assessment of Practical and Scientific Writing Skills for Pre-University Students through Project-Based Learning
    - Animated Electrochemistry Simulation Modules
    - Virtual Reality Assisted General Education of Nuclear Chemistry and Radiochemistry
    - Digital Tool for the Analysis of UV–Vis Spectra of Olive Oils and Educational Activities with High School and Undergraduate Students

    - LabPi: A Digital Measuring Station for STEM Education 4.0
    - Adsorption of Additives in Cola Beverages: A Safe and Improved Experiment Exploring Beer’s Law and Adsorption Process
    - Thirst for a Solution: Alginate Biopolymer Experiments for the Middle and High School Classroom
    - CHEMTrans: Playing an Interactive Board Game of Chemical Reaction Aeroplane Chess
    - At-Home Microscale Paper-Based Quantitative Analysis Activity with External Standards
    - Chemist Bot as a Helpful Personal Online Training Tool for the Final Chemistry Examination
    - The Thalidomide Mystery: A Digital Escape Room Using Genially and WhatsApp for High School Students
- Journal of Chemical Education | Vol 99, No 1 - Special Issue on Diversity, Equity, Inclusion, and Respect in Chemistry Education Research and Practice
    - Investigating the Impact of Assessment Practices on the Performance of Students Perceived to Be at Risk of Failure in Second-Semester General Chemistry Lisa Shah, Adan Fatima, Ahmad Syed, and Eric Glasser, J. Chem. Educ. 2022, 99, 1, 14–24 DOI: 10.1021/acs.jchemed.0c01463

2021

- Journal of Chemical Education | Vol 98, No 12
    - Valence Bond and Molecular Orbital: Two Powerful Theories that Nicely Complement One Another
    - Exploring Variation in Ways of Thinking About and Acting to Control a Chemical Reaction
    - A Program-Level Assessment of Student Understanding of Bonding in the Chemistry Major
    - An Integrated Database of Common Chemicals and Chemistry Demonstrations and Student Experiments Used in Hungary
    - Microscale Educational Kits for Learning Chemistry at Home
    - Using NCBI Entrez Direct (EDirect) for Small Molecule Chemical Information Searching in a Unix Terminal
    - How Many Bubbles Are in the Foam Produced during the Candy-Cola Soda Geyser?
    - Finding the pKa Values of a Double-Range Indicator Thymol Blue in a Remote Learning Activity
    - Should We Ban Single-Use Plastics? A Role-Playing Game to Argue and Make Decisions in a Grade-8 School Chemistry Class
    - Using Sodium Hydrogen Carbonate to Teach Chemical Concepts of Thermodynamics
    - Examining the Aufbau Principle and Ionization Energies: A Computational Chemistry Exercise for the Introductory Level
    - Computer Vision in Chemistry: Automatic Titration
    - Another Useful Film Clip: Scientific Methodology of the Frankenstein Monster
- Journal of Chemical Education | Vol 98, No 11
    - Pedagogical Reform in an Introductory Chemistry Course and the Importance of Curricular Alignment (undergraduate)
    - Exemplar Case Studies Demonstrating Why Future Pharmacists Need to Learn Medicinal and Analytical Chemistry (pharma)
- Journal of Chemical Education - Vol 98, No 10
    - What Role May Intuitive Concepts about Chemical Ideas Play When Students Take Timed Tests?
    - Game-Based Learning and Just-in-Time Teaching to Address Misconceptions and Improve Safety and Learning in Laboratory Activities

    - Using a Modular Approach to Introduce Python Coding to Support Existing Course Learning Outcomes in a Lower Division Analytical Chemistry Course
    - Implementation of a Python Program to Simulate Sampling
    - Diffusion of Gases into Air: A Simple Small-Scale Laboratory Activity
    - Using an Infrared Camera to Visualize a Simple Demonstration of Changing the Internal Energy of a System
- Journal of Chemical Education - Vol 98, No 9
    - Exploring Sustainability Metrics in General Chemistry Using Intensive and Extensive Properties of Matter
    - Encouraging Biochemistry Students' Metacognition: Reflecting on How Another Student Might Not Carefully Reflect
    - Investigating How Teachers' Formative Assessment Practices Change Across a Year
    - Teaching Chemistry by a Creative Approach: Adapting a Teachers' Course for Active Remote Learning
    - A Gentle Introduction to Machine Learning for Chemists: An Undergraduate Workshop Using Python Notebooks for Visualization, Data Processing, Analysis, and Modeling
    - SIR (Susceptible–Infectious–Removed) Model of Epidemiology as an Extended Example for Chemical Kinetics Students
    - An Interdisciplinary-Complementary Chemical Approach to Effective Evaluation in Undergraduate Laboratory Experiments
    - Library of 3D Visual Teaching Tools for the Chemistry Classroom Accessible via Sketchfab and Viewable in Augmented Reality
- Journal of Chemical Education - Vol 98, No 8
    - LAB Theory, HLAB Pedagogy, and Review of Laboratory Learning in Chemistry during the COVID-19 Pandemic
    - Electronic Entropy as a Periodic Property of the Elements: A Theoretical Chemistry Approach
    - An Inexpensive 3D-Printable Do-It-Yourself Visible Spectrophotometer for Online, Hybrid, and Classroom-Based Learning
    - At-Home Titration: Magnesium Hydroxide in Milk of Magnesia Using an Inexpensive Digital Balance and Natural Food Dye as Indicators
    - Glowing-in-the-Screen: Teaching Fluorescence with a Homemade Accessible Setup
- Journal of Chemical Education - Vol 98, No 7
    - Improving Learning Outcomes and Metacognitive Monitoring: Replacing Traditional Textbook Readings with Question-Embedded Videos
    - Do Social Chemophobic Attitudes Influence the Opinions of Secondary School Students?
    - Assessment of Technological Setup for Teaching Real-Time and Recorded Laboratories for Online Learning: Implications for the Return to In-Person Learning
    - Conversation among Physical Chemists: Strategies and Resources for Remote Teaching and Learning Catalyzed by a Global Pandemic
    - MoleculARweb: A Web Site for Chemistry and Structural Biology Education through Interactive Augmented Reality out of the Box in Commodity Devices
    - Calculating Soft-Sphere Ionic Radii for Solid-State Arrangements from Solution Measurements
    - Introducing Undergraduates to Primary Research Literature
    - Interactive Lecture in Redox Chemistry: Analysis of the Impact of the Dissemination of University Scientific Research among High School Students
    - Educational Videogame to Learn the Periodic Table: Design Rationale and Lessons Learned
    - Escape from Quant Lab: Using Lab Skill Progression and a Final Project to Engage

Students
    - Educational Escape Room: Break Dalton's Code and Escape!
    - Liquid–Liquid Demonstrations: Phase Equilibria and the Lever Rule
    - Liquid–Liquid Demonstrations: Critical Opalescence
    - Liquid–Liquid Demonstrations: Spinodal Decomposition
    - Integrating Artificial Intelligence to Chemistry Experiment: Carbon Dioxide Fountain
    - Inexpensive Alkaline Fuel Cell for Introductory Chemistry Classes
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    - Exploring Chemical Kinetics at Home in Times of Pandemic: Following the Bleaching of Food Dye Allura Red Using a Smartphone | Journal of Chemical Education
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    - Safe Handling of Gas Generating Experiments Using Disposable Plastic Syringes | Journal of Chemical Education

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    - Analyzing Chemistry Teachers' Formative Assessment Practices Using Formative Assessment Portfolio Chapters Timothy N. Abell and Hannah Sevian, J. Chem. Educ. 2020, 97, 12, 4255–4267 DOI: 10.1021/acs.jchemed.0c00361
        - cf. Are you making the most of formative assessment? David Read, education in chemistry, RSC, 2021
    - Teaching an Introductory Organic Chemistry Class for High School Students | Journal of Chemical Education
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- Articles
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  - Put Some Movie Wow! in Your Chemistry Teaching, Christopher A. Frey, Marjorie L. Mikasen, Mark A. Griep (DOI: 10.1021/ed300092t)
  - Synthesis and Study of Silver Nanoparticles, Lorraine Mulfinger, Sally D. Solomon, Mozghan Bahadory, Aravindan V. Jeyarajasingam, Susan A. Rutkowsky, Charles Boritz (DOI: 10.1021/ed084p322)
- Editorials
  - Share the Wonder, Deanna M. Cullen (DOI: 10.1021/ed300459v)
  - What We Do and Don't Know about Teaching and Learning Science: The National Research Council Weighs in on Discipline-Based Education Research, Norbert J. Pienta (DOI: 10.1021/ed300354t)
  - Cutting-Edge and Cross-Cutting: Connecting the Dots between Nanotechnology and High School Chemistry, Gregory T. Rushton, Brett A. Criswell (DOI: 10.1021/ed300531k)
- Commentary
  - JCE Classroom Activities Virtual Issue: Celebrating 15 Years with the 15 Greatest Hits, 1997-2012, Erica K. Jacobsen (DOI: 10.1021/ed300347g)
  - Galilean Thermometer Not So Galilean, Peter Loyson (DOI: 10.1021/ed200793g)
  - What Are the "Foundations of Inorganic Chemistry"? Two Answers, Gary P. Wulfsberg (DOI: 10.1021/ed200678u)
- Letters
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  - Falling Enzyme Activity as Temperature Rises: Negative Activation Energy or Denaturation?, Todd P. Silverstein (DOI: 10.1021/ed200497r)
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- Laboratory Experiments
    - Preparation of Gold Nanoparticles Using Tea: A Green Chemistry Experiment, R. K. Sharma, Shikha Gulati, Shilpa Mehtan (DOI: 10.1021/ed2002175)
    - Evaluating Sustainability: Soap versus Biodiesel Production from Plant Oils, Nicola L. B. Pohl, Jennifer M. Streff, Steve Brokman (DOI: 10.1021/ed100451d)
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- Book & Media Reviews
    - Review of Letters to a Young Chemist, Sarai Flynn, Markel Harris, Luis D. Montes (DOI: 10.1021/ed3003397)
    - Review of A Student's Guide to Data and Error Analysis, Lawton Shaw (DOI: 10.1021/ed300332s)
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- Articles
    - Beer as a Teaching Aid in the Classroom and Laboratory, Jasminka N. Korolija, Jovica V. Plavsic, Dragan Marinkovic, Ljuba M. Mandic
    - The infrared spectra of four isotopes in HCl: A molecular structure experiment, L. Willard Richards
    - The Chemistry of Perfume: A Laboratory Course for Nonscience Majors, Jennifer L. Logan, Craig E. Rumbaugh
- Reports
    - The Environmental Chemistry of Trace Atmospheric Gases, William C. Trogler
    - A Spreadsheet Exercise To Teach the Fourier Transform in FTIR Spectrometry, Brent Shepherd and Michael K. Bellamy
    - QR-Coded Audio Periodic Table of the Elements: A Mobile-Learning Tool, Vasco D. B. Bonifácio
- Letters
    - The Misinterpretation of Entropy as “Disorder”, Frank L. Lambert
    - Retire the Hybrid Atomic Orbital? Not So Fast, Nivaldo J. Tro
        - En réponse à l'article Is It Time To Retire the Hybrid Atomic Orbital? de Alexander Grushow
    - Replace Band Theory in Introductory Chemistry, Stephen J. Hawkes
- Editorials
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    - What Do You Do? I Teach Chemistry!, Gregory T. Rushton
    - Improving High School Chemistry Teaching via the “Trickle Up” Effect: A Perspective on the New AP Chemistry Curriculum Framework, Gregory T. Rushton
- Commentaries
    - Hyperconjugation: A More Coherent Approach, Joseph J. Mullins

    - What Are Elements and Compounds?, Rollie J. Myers
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- Laboratory Experiments
    - Isolation and Analysis of Essential Oils from Spices, Stephen K. O'Shea, Daniel D. Von Riesen, and Lauren L. Rossi
    - Synthesis of Two Local Anesthetics from Toluene: An Organic Multistep Synthesis in a Project-Oriented Laboratory Course, Patricia Demare and Ignacio Regla
    - Galvanic Cells and the Determination of Equilibrium Constants, Jonathan L. Brosmer and Dennis G. Peters

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- 89 Colorful Lather Printing, S. A. S. Hershberger, M. Nance, A. M. Sarquis, L. M. Hogue
- 105 A Sticky Situation: Chewing Gum and Solubility, I. M. Montes-González, J. A. Cintron-Maldonado, I. E. Párez-Medina, V. Montes-Berríos, S. N. Román-López
- 106 Sequestration of Divalent Metal Ion by Superabsorbent Polymer in Diapers, C. Yueh-Huey, J.-Y. Lin, L.-P. Lin, H. Liang, J.-F. Yaung
- 67 Flame Tests: Which Ion Causes the Color?, M. J. Sanger
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- 103 Enjoy a Hot Drink, Thanks to Chemistry!, G. Pinto, M. T. Oliver-Hoyo, J. A. Llorens-Molina
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- 41 Tick Tock, a Vitamin C Clock, S. W. Wright
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L'article Influencing the practice of chemistry education Chem. Educ. Res. Pract., 2019, DOI: 10.1039/C9RP90006C (Editorial) de Michael K. Seery propose de nombreux liens d'articles importants en CER (chemical education research) :

Sujet	Citation
Clickers in the classroom	MacArthur and Jones (2008)
Teaching chemical equilibrium	Raviolo and Garritz (2009)
Green chemistry	Andraos and Dicks (2012)
Use of dataloggers	Tortosa (2012)
Transfer of learning	Dori and Sasson (2013)
Chemical triplet (Johnstone's triangle)	Taber (2013)
Learning progressions	Sevian and Talanquer (2014)
Teaching thermodynamics	Bain et al. (2014)
Solutions/electrolytes	de Berg (2014)
Hydrogen bonding	Weinhold and Klein (2014)
Education for sustainable development	Burmeister et al. (2012) Juntunen and Aksela (2014)
Quantum chemistry	Greca and Freire (2014)
Graphical representations of orbitals	Barradas-Solas and Sánchez Gómez (2014) Clauss et al. (2014)
Chemical bonding	Dhindsa and Treagust (2014)
Implicit knowledge	Taber (2014)
Distinguishing abstraction and complexity	Blackie (2014)
Organic chemistry	Graulich (2015)
Capturing student reasoning	Sevian et al. (2015)
Flipped learning	Seery (2015)
Chemical kinetics	Bain and Towns (2016)
Learning difficulties leading to misconceptions	Tümay (2016)
Symbolic expressions in chemistry	Liu and Taber (2016)
Pre-laboratory activities	Agustian and Seery (2017)
Reasoning about structure–property relationships	Talanquer (2018)

La revue propose aussi un accès thématique :

- Celebrating our 2020 Prize and Award winners, 2020
- Learning progressions and teaching sequences in chemistry education, 2018
- Celebrating our 2018 prize and award winners, 2018
- Development of key skills and attributes in chemistry, 2017
- The language and the teaching and learning of chemistry, 2016
- Celebrating the 2016 RSC Prize and Award Winners, 2016
- Teaching And Learning About The Interface Between Chemistry And Biology, 2015
- Physical Chemistry Education, 2014
- The Application of Technology to Enhance Chemistry Education, 2013
- Sustainable Development and Green Chemistry in Chemistry Education, 2012
- Diagnostic Assessment in Chemistry, 2011
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- Chemistry Teacher Education – Recent Developments, 2009
- Research and Practice in Chemical Education in Advanced Courses, 2008
- The Laboratory in Science Education: The State of the Art, 2007
- Chemical Education Research in Glasgow in Perspective, 2006
- Chemistry and Environmental Education, 2004
- Teaching Chemistry and Physics, 2003
- Structural Concepts, Part II, 2002

- Structural Concepts: Contributions from Science, Science Education, History and Philosophy of Science, 2001

Advance articles

- …

2022

- Volume 23, 01 April 2022, Issue 2, Page 277 to 507
  - Pedagogical chemistry sensemaking: a novel conceptual framework to facilitate pedagogical sensemaking in model-based lesson planning
  - How do we know when students are learning? Shining a light on chemistry education practitioner research articles - Chemistry Education Research and Practice (RSC Publishing)
  - VR in chemistry, a review of scientific research on advanced atomic/molecular visualization - Chemistry Education Research and Practice (RSC Publishing)
  - Development of the Water Instrument: a comprehensive measure of students' knowledge of fundamental concepts in general chemistry - Chemistry Education Research and Practice (RSC Publishing)
  - Student teachers' problem-based investigations of chemical phenomena in the nearby outdoor environment - Chemistry Education Research and Practice (RSC Publishing)
  - Benefits of desirable difficulties: comparing the influence of mixed practice to that of categorized sets of questions on students' problem-solving performance in chemistry - Chemistry Education Research and Practice (RSC Publishing)
  - Problem solving in chemistry supported by metacognitive scaffolding: teaching associates' perspectives and practices - Chemistry Education Research and Practice (RSC Publishing)
- Volume 23, 01 January 2022, Issue 1, Page 1 to 275
  - Development of a framework to capture abstraction in physical chemistry problem solving
  - Pre-service chemistry teachers' use of pedagogical transformation competence to develop topic-specific pedagogical content knowledge for planning to teach acid–base equilibrium
  - The conceptual profile of equilibrium and its contributions to the teaching of chemical equilibrium

2021

- Volume 22, 01 October 2021, Issue 4, Page 803 to 1092
  - Considerations of sample size in chemistry education research: numbers do count but context matters more!
  - Discipline-specific cognitive factors that influence grade 9 students' performance in chemistry
  - Incorporating concept development activities into a flipped classroom structure: using PhET simulations to put a twist on the flip
  - Examining learning of atomic level ideas about precipitation reactions with a resources framework

    - Student perspectives on chemistry intelligence and their implications for measuring chemistry-specific mindset
    - The impact of representations of chemical bonding on students' predictions of chemical properties
    - Teaching of experimental design skills: results from a longitudinal study
    - Preservice teachers' enactment of formative assessment using rubrics in the inquiry-based chemistry laboratory
- Volume 22, 01 July 2021, Issue 3, Page 555 to 801
    - Writing a review article: what to do with my literature review
    - Student success and the high school-university transition: 100 years of chemistry education research
    - The role of visuospatial thinking in students' predictions of molecular geometry
    - Effects of a context-based approach with prediction–observation–explanation on conceptual understanding of the states of matter, heat and temperature)
    - Creating and testing an activity with interdisciplinary connections: entropy to osmosis
    - Chemistry instructors' intentions toward developing, teaching, and assessing student representational competence skills - Chemistry Education Research and Practice (RSC Publishing)
    - Effects of different ways of using visualizations on high school students' electrochemistry conceptual understanding and motivation towards chemistry learning - Chemistry Education Research and Practice (RSC Publishing)
- Volume 22, 01 April 2021, Issue 2, Page 227 to 553
    - The topic-specific nature of experienced chemistry teachers' pedagogical content knowledge in the topics of interactions between chemical species and states of matter - Chemistry Education Research and Practice (RSC Publishing)
    - Student-generated PowerPoint animations: a study of student teachers' conceptions of molecular motions through their expressed models - Chemistry Education Research and Practice (RSC Publishing)
    - Development of pre-service teachers' pedagogical content knowledge through a PCK-based school experience course - Chemistry Education Research and Practice (RSC Publishing)
    - South African physical sciences teachers' use of formulae and proportion when answering reaction-based stoichiometry calculation questions - Chemistry Education Research and Practice (RSC Publishing)
    - Examining the sources of high school chemistry teachers' practical knowledge of teaching with practical work: from the teachers' perspective - Chemistry Education Research and Practice (RSC Publishing)
    - Students' understanding of molar concentration - Chemistry Education Research and Practice (RSC Publishing)
- Volume 22, 01 January 2021, Issue 1, Page 1 to 225
    - Implementation of self-regulatory instruction to promote students' achievement and learning strategies in the high school chemistry classroom - Chemistry Education Research and Practice (RSC Publishing)
    - The role of motivation on secondary school students' causal attributions to choose or abandon chemistry - Chemistry Education Research and Practice (RSC Publishing)
    - Does the way charges and transferred electrons are depicted in an oxidation–reduction animation affect students' explanations? - Chemistry Education Research and Practice (RSC Publishing)
    - I realized what I was doing was not working: the influence of explicit teaching of metacognition on students' study strategies in a general chemistry I course - Chemistry Education Research and Practice (RSC Publishing)

    - The persistence of primary school students' initial ideas about acids and bases in the mental models of adults - Chemistry Education Research and Practice (RSC Publishing)
    - Improving students' summative knowledge of introductory chemistry through the forward testing effect: examining the role of retrieval practice quizzing - Chemistry Education Research and Practice (RSC Publishing)
    - Investigating first-year undergraduate chemistry students' reasoning with reaction coordinate diagrams when choosing among particulate-level reaction mechanisms Molly B. Atkinson, Michael Croisant and Stacey Lowery Bretz, Chem. Educ. Res. Pract., 2021
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    - Pre-service chemistry teachers' pedagogical content knowledge for integrated STEM development with LESMeR model - Chemistry Education Research and Practice (RSC Publishing)
    - Linking the submicroscopic and symbolic level in physical chemistry: how voluntary simulation-based learning activities foster first-year university students' conceptual understanding - Chemistry Education Research and Practice (RSC Publishing)
    - Examining the effect of lab instructions on students' critical thinking during a chemical inquiry practical - Chemistry Education Research and Practice (RSC Publishing)
- Volume 21, 01 July 2020, Issue 3, Page 687 to 1013
    - Electrolysis: What textbooks don't tell us - Chemistry Education Research and Practice (RSC Publishing)
    - Pre-university students' perceptions about the life cycle of bioplastics and fossil-based plastics - Chemistry Education Research and Practice (RSC Publishing)
    - Capturing student conceptions of thermodynamics and kinetics using writing - Chemistry Education Research and Practice (RSC Publishing)
    - Video-based instruction on safety rules in the chemistry laboratory: its effect on student achievement - Chemistry Education Research and Practice (RSC Publishing)
    - The impact of coupling assessments on conceptual understanding and connection-making in chemical equilibrium and acid–base chemistry - Chemistry Education Research and Practice (RSC Publishing)
- Volume 21, 01 April 2020, Issue 2, Page 483 to 685
    - Student-generated video in chemistry education - Chemistry Education Research and Practice (RSC Publishing)
    - Increasing chemistry students' knowledge, confidence, and conceptual understanding of pH using a collaborative computer pH simulation - Chemistry Education Research and Practice (RSC Publishing)
    - Development of a measurement instrument to assess students' proficiency levels regarding galvanic cells - Chemistry Education Research and Practice (RSC Publishing)
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    - Revisiting the use of concept maps in a large enrollment general chemistry course: implementation and assessment
    - Impact of basic arithmetic skills on success in first-semester general chemistry
    - An examination of pre-service chemistry teachers' meaningful understanding and learning difficulties about aromatic compounds using a systemic assessment questions diagram

  - Developing a lesson plan on conventional and green pesticides in chemistry education – a project of participatory action research
  - Epistemological problems underlying pre-service chemistry teachers' aims to use practical work in school science
  - Secondary school students' chemistry self-concepts: gender and culture, and the impact of chemistry self-concept on learning behaviour
  - Secondary school students' acquisition of science capital in the field of chemistry
  - A teacher perspective on Scrum methodology in secondary chemistry education
  - How to promote chemical literacy? On-line question posing and communicating with scientists
  - Students' competence in translating between different types of chemical representations

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