

Chemistry Education Research and Practice

rsc.li/cerp

A fully refereed electronic journal for teachers, researchers and other practitioners in chemistry education

IN THIS ISSUE

ISSN 1756-1108 CODEN CERPCE 25(3) 577-966 (2024)

PERSPECTIVE

584

Representing chemistry culture: ethnography's methodological potential in chemistry education research and practice

Shauna Schechtel and Amanda Bongers*

REVIEW

594

Modeling students' epistemic cognition in undergraduate chemistry courses: a review

Kimberly S. DeGlopper and Ryan L. Stowe*

PAPERS

613

Investigating changes in students' attitudes towards organic chemistry: a longitudinal study

Melissa A. Collini, Kristen Miguel, Rebecca Weber and Molly B. Atkinson*

625

Factors associated with chemistry faculty members' cooperative adoption of evidence-based instructional practices: results from a national survey

Megan C. Connor* and Jeffrey R. Raker*

643

Exploring diversity: student's (un-)productive use of resonance in organic chemistry tasks through the lens of the coordination class theory

Irina Braun and Nicole Graulich*



PAPERS

672

Planning and evaluating chemistry outreach: a case study of one collegiate group's approach

Justin M. Pratt,* Rebecca Chan - Chao and Merryn Cole

687

Depiction of scientific principles, laws and theories in Chemistry textbooks used by students in Singapore

Melvin Chan, Yong Leng Kelvin Tan and R. Subramaniam*

703

Implementing an interactive online platform in a large undergraduate general chemistry course and its impact on student learning and perceptions

Sarah L. Cresswell,* Wendy A. Loughlin and Tak H. Kim

721

Examining the role of assignment design and peer review on student responses and revisions to an organic chemistry writing-to-learn assignment

Field M. Watts, Solaire A. Finkenstaedt-Quinn and Ginger V. Shultz*

742

Analysis of organic chemistry students' developing reasoning elicited by a scaffolded case comparison activity

Daisy B. Haas, Field M. Watts, Amber J. Dood and Ginger V. Shultz*



PAPERS

760

Using feedback loops from computational simulations as resources for sensemaking: a case study from physical chemistry

Andreas Haraldsrud* and Tor Ole B. Odden

775

Exploring factors within an introductory course that influence students' perception of chemistry

Courtney D. Glenn* and Oluwatobi O. Odeleye

786

Shedding light on language difficulties in introductory spectroscopy

Christine E. Mundy,* Marietjie Potgieter and Michael K. Seery

799

Factors affecting individuals' cognitive engagement during group work in general chemistry: timing, group size, and question type

Safaa Y. El-Mansy, Alexandra Stephens, Abigale Mortensen, Joan M. Francis, Shayna Feldman, Cecilia A. Sahnou, Jack Barbera and Alissa J. Hartig*

815

How ordering concrete and abstract representations in intermolecular force chemistry tasks influences students' thought processes on the location of dipole–dipole interactions

Isaiah Nelsen, Ayesha Farheen and Scott E. Lewis*



PAPERS

833

Augmented reality meets Peer instruction

Daniel Elford,* Garth A. Jones and Simon J. Lancaster*

843

Modes of technology integration in chemistry teaching: theory and practice

Itsik Aroch,* Dvora Katchevich and Ron Blonder*

862

Critiquing lab technique videos prior to class: can it improve demonstrated technique?

Stephanie M. Tenney, Arlene A. Russell and Jennifer R. Casey*

877

Factors that influence general chemistry students' decision making in study strategies

Pallavi Nayyar, Betül Demirdöğen and Scott E. Lewis*

895

The development of pre-service teachers' argumentation self-efficacy through argumentation-based chemistry instruction

Pinar Seda Cetin, Gülüzar Eymur and Sumeyye Erenler*



PAPERS

908

Widening university participation in learning using students' contextualised storytelling in general chemistry

Karen Ho,* Yen Luong, Carl Sherwood and Douglas B. Clark

920

The relationship between self-handicapping in chemistry and chemistry academic engagement: a moderated mediation model investigation

Qian Huangfu,* Weilin Huang, Qianmei He, Sisi Luo and Qimei Chen

934

Factors shaping the choice in chemistry: insights from undergraduate students within a societal context

Shirly Avargil,* Greta Sterimbaum and Hafeeza Dahley-Zoabi

COMMENTS

949

Comment on "What resources do high school students activate to link energetic and structural changes in chemical reactions? – A qualitative study" by B. Pölloth, D. Diekemper and S. Schwarzer, *Chem. Educ. Res. Pract.*, 2023, 24, 1153

Keith S. Taber

958

Reply to the 'Comment on "What resources do high school students activate to link energetic and structural changes in chemical reactions? – A qualitative study"' by K. S. Taber, *Chem. Educ. Res. Pract.*, 2024, 25, <https://doi.org/10.1039/D3RP00232B>

Benjamin Pölloth,* Dominik Diekemper, Chiara Bosch and Stefan Schwarzer

