

ECRICE 2024 – 16 European Conference on Research in Chemical Education

5 September					
9.00-19.00 Welcome Desk: Information and Registration					
Time-table	Activity				
9.00-9.20	Opening session				
9.20-10.00	Keynote 1 Moderator: João Paulo Leal Silviija Markić Ludwigsburg University of Education Room 203 <i>Diversity and Inclusion in Chemistry Education</i>				
10.00-10.20	Coffee break / poster session				
10.20-12.00	Workshop				
	W1- How to Publish in Chemistry Teacher International (Room 1.10)		W2 - AI. How can we use it to teach and learn? (Room 201)		W3 - 3D Printing and LASER cutting models to learn Chemistry at Secondary School. Periodic table and electrons, and shape of molecules and ions pollutants of air and water. (Room 1.12)
12.00-12.40	Keynote 2 Moderator: Adelino Galvão Dragica Trivić University of Belgrade Room 203 <i>Chemistry and Cultural Heritage Integration in a Sustainable World</i>				
12.40-14.00	Lunch				
14.00-16.00	Room 1.10	Room 1.07	Room 1.11	Room 1.12	Workshop
4 Parallel sessions 2 Workshop	Moderator: Teresa Santos Silva	Moderator: Isabel Ribau	Moderator: TBA	Moderator: TBA	W4 - Computer Lab Assignments with tools for Visualizing Chemical Phenomena (Room 203)
	OP1- The influence of authentic advanced lab experiences on students' NOS understanding Iris Shinar	OP2- Fostering Critical Thinking in Science Education: Definitions, Assessments, and Implications for Sustainable Decision-Making Luc B. Albrecht	OP3- A pedagogical strategy centred on water analysis in the community for a sustainable world: incorporating different elements of teamwork.	OP4: To stay or not to stay in reality: Insights from Cognitive Load Measurements via Electroencephalography and Heart Rate Variability	
	OP5- Laboratory Work for 1st year undergraduates – are we making the most of the opportunities? Odilla Finlayson	OP6- Measuring Success in Chemistry Practical Work: A Comprehensive Review Dominika Koperová	OP7- Upper secondary students and teachers' experience with a teaching unit on organic synthesis with emphasis on green chemistry Svein Tveit	OP8- Exploring the Role of Non-textual Components in Chemistry Learning Lucie Hamerská	
	OP9- Immersive Technology for Teaching Undergraduate Analytical Chemistry in the Laboratory Denise Rooney	OP10- Promoting Sustainability in Chemistry through Systems Thinking for Student Teachers Krenare Ibraj	OP11- Material Stewardship: Framing Education about Chemistry's Mission in Sustainability Stephen Matlin	OP12- Exploring Sustainable Chemistry Discourse in Serbian Chemistry Textbooks Dušica D. Rudić	
	OP13- Virtual Laboratories: A Blended and Sustainable Pedagogic Approach to Teaching and Learning of Practical Chemistry Frances Heaney	OP14- STEM-Lab electrochemistry activity through a contextualized approach Cidália André	OP15- From Knowledge to Hope: Assessing High School Students' Knowledge of Climate Change, Mitigation, and Adaptation in the Context of Constructive Hope Nail Kortam	OP16- The Evaluation of History of Chemistry Chapter in textbooks in Turkey Ilknur Şahin	W5 - Sustainable Chemistry in the School Laboratory (LAB)
	OP17- The Arsenator – Using Coca-Cola to Analyse Arsenic in Rice Johannes Passler	OP18 Important Moments among Chemistry Teachers in a Collaborative and Dynamic Learning Environment Abir Saleh	OP19- Integrating Systems Thinking Approaches in Chemical Education for Sustainable Development: Exploring the Status Quo Elisabeth Hofer	OP20- The Adoption of Green Chemistry in Brazilian Higher Education Gildo Giroto Junior	
OP21- Environmental Education Challenges: Understanding Bio-Geo-Chemical Cycles Among Slovenian Pre-Service Teachers Luka Ribič	OP22- A Case Study on Integrating Sustainability and Project-Based Learning in Chemistry Teacher Education Outi Haatainen	OP23- Embedding Systems Thinking into Sustainable Chemistry Course for Pre-Service Teachers. Emmi Vuorio	OP24- Teachers' role in developing students' agency for SDGs Ayshi Sindiani- Bsoul		
16.00-18.00	Room 1.10	Room 1.07	Room 1.11	Room 1.12	Workshop
4 Parallel sessions 2 Workshop	Moderator: Teresa Santos Silva	Moderator : TBA	Moderator : Madeleine Schultz	Moderator : Isabel Ribau	W6 - Computational Thinking and Modelling in Science Education (Room 203)
	OP25-Impact of Team-Based Learning on Student Engagement and Learning Outcomes in Physical Chemistry Heili Kasuk	OP26- The Norms of Chemistry and How Students Figure Them Jonas Niemann	OP27 First Hungarian Results of the IUPAC Teacher Survey on Green and Sustainable Chemistry Practical Activities. Murányi Zoltán	OP28- Enhancing Diversity and Inclusion in Science Teacher Education: Insights from a Diagnostic Study. Laura Naumann	
	OP29- Promoting classroom emotional climate for meaningful science learning: Findings from an ADDIE approach Tapashi Binte Mahmud Chowdhury	OP30- Computational Methods of Varying Complexity in High School Chemistry Fredrik L. Holmelin	OP31 Green and sustainable practical activities in Serbian secondary schools: The analysis of open-ended IUPAC teacher survey questions Tamara Rončević	OP32- Universal Design for Learning - Building a University Culture of Inclusion Denise Rooney	
	OP33- Science Lessons from the eternal Ice: Glaciers as a Gateway to an education for sustainable development Philipp Spitzer	OP34- Pedagogical Content Knowledge and the implementation of a Multistrategic Didactic Unit on the theme of Green and Sustainable Chemistry: first approximations Gildo Giroto Junior	OP35- To do or not to do practical activities: Turkish chemistry teachers' experiences and views on practical activities and green chemistry reported on IUPAC global survey Sevil AKAYGUN	OP36- Sima Lozanić's secondary school chemistry textbooks as artifacts: changes in the Periodic table in late 19th and early 20th century editions Vesna D. Milanovic Mastropovi	
	OP37- Engaging students in the exploration of Antibiotic Coordination Frameworks (ACFs) using sustainable methods Patricia Rijo	OP38- Nanotechnology Education as a Gateway for Promoting Sustainability Riam Abu Much	OP39- Practical (green) chemistry in Czech schools: A myth or reality? Martin Rusek	OP40- Drawing Cartoon Strips as a Visualization Tool in Pre-service Chemistry Education Jouni Väliisaari	W7 - Aprendizagem Informal em Química (LAB)
	OP41- A Role-Playing Tabletop Game on Laboratory Techniques and Chemical Reactivity: Gamifying Organic Chemistry Education João Avó	OP42- Environmental literacy of Slovenian chemistry teachers in the context of hydrosphere pollution. Luka Vinko	OP43-Empowering Green Changemakers: The All Aboard Project's Journey Towards Sustainable Education Ángela Gordino	OP44- The Effect of In-Service Education on Chemistry Teachers' Understanding of Nature of Science Suat CELİK	
18.00-18.20	Coffee break/poster session				
18.20-20.00	Symposium 1: Empowering Agency: Research, Development, and Implementation in Chemistry and SDGs Education Organizer: Ron Blonder Chair: Rachel Mamluk-Naaman Speakers: Debora Marchak, Inna Ag, Shelley Rap and Rachel Mamluk-Naaman Room 203 Discussant: Ron Blonder				
19.30-20.30	Welcome Reception				