RESPONSIBLE CHEMISTRY
FOR A CHANGING WORLD
International Symposium

PILOT EDITION

Symposium Programme

Five perspectives. One shared responsibility

20 NOVEMBER 2026

Auditorium Hall (BB 309) & Council Room (BB 210)
University of Craiova
Faculty of Sciences
Department of Chemistry
Calea București 107 I, Craiova, Romania

https://responsiblechemistry.ucv.ro/

08:30 – 18:30

ONE-DAY PROGRAMME

Five thematic sessions

Keynote addresses · Invited talks · Contributed talks · Young researcher spotlights · Industry innovation spotlight · Responsible Chemistry Forum

THE SCIENTIFIC ARC

09:20 AI & Digital Transformation
10:10 Health & Emerging Medical Technologies
12:20 Education, Ethics & Society
13:20 Chemistry & Circular Economy
15:30 Climate, Environment & Cultural Heritage

08:30–09:00
COUNCIL ROOM

Registration and Welcome Coffee

09:00–09:20
AUDITORIUM HALL

Opening Remarks

09:20–10:10

SESSION 1
HYBRID

AI & Digital Transformation

SESSION CHAIR: **Smaranda Belciug** | University of Craiova, Romania
SESSION RAPPORTEUR: **Aurelian Dobrițescu** | University of Craiova, Romania · Organising Committee

KEYNOTE ADDRESS: **Sebastian Sbirna**[1,2,3] | [1] Novo Nordisk A/S, Bagsværd, Denmark, [2] Technical University of Denmark (DTU), Kongens Lyngby, Denmark, [3] AIatWork (Brainster)
Can AI Make Chemistry Greener? From Faster to Better Decisions

INVITED TALK: Andra-Maria Păun, Maria Mernea, **Speranța Avram** | University of Bucharest, Romania
Natural and Synthetic Compounds in Pancreatic Cancer: From Promise to Responsible Development

CONTRIBUTED TALK: **Florin Slabu**, Mirel Coșulschi, Mihai Gabroveanu | University of Craiova, Romania
Image-Based Classification of Roman Coins from the Oltenia Museum

DISCUSSIONS & Q&A

10:10–11:10

SESSION 2
HYBRID

Health & Emerging Medical Technologies

SESSION CHAIR: **Maria Luisa Grilli** | ENEA – Casaccia Research Centre, Rome, Italy
SESSION RAPPORTEUR: **Cătălina Ionescu** | University of Craiova, Romania · Organising Committee

KEYNOTE ADDRESS: **Roxana-Mioara Piticescu** | Geological Institute of Romania
From Sustainable Extraction to the Operating Room: Circular Economy, Green Chemistry, and Critical Raw Materials in Medical 3D Printing

INVITED TALK: **Maria-Viorica Ciocîlteu,** Denisa-Constantina Amzoiu, Alexandra Vaicăr, Gabriela Rău | University of Medicine and Pharmacy of Craiova, Romania
Responsible pharmaceutical innovation: finding the balance between efficacy, safety and sustainability

CONTRIBUTED TALK: **Cătălina Ionescu**[1], Véronique Barragan-Montero[2] | [1] University of Craiova, Romania, [2] LBN, Montpellier University, 34193 Montpellier, France
Responsible Drug Delivery: From Approved Medicines to Synthetic Glycolipids for Liposomal Formulations

YOUNG RESEARCHER SPOTLIGHT: **Ioana Miruna Paraschiv**[1], Elena Badea[2,3], Ilaria Quaratesi[4], Petre Chipurici[5], Ioan Călinescu[5] | [1] University of Bucharest, Romania, [2] University of Craiova, Romania, [3] The Research Institute of the University of Bucharest, Romania, [4] University of Bologna, Bologna, Italy, [5] National University of Science and Technology POLITEHNICA Bucharest, Romania
From Green-Synthesized Hybrid Materials to Quercetin-Based Functional Cosmetics: Challenges in Ultrasound Extraction and Standardisation

DISCUSSIONS & Q&A

11:10–11:40

HYBRID

Industry Innovation Spotlight

Supported by: Global Source, Symposium Sponsor and XpectralTEK distributor in Romania

Ali Kamalabadi, Chief Operating Officer at XpectralTEK

Multispectral Imaging for Responsible Research: Applications of the XpeCAM System

DISCUSSIONS & Q&A

11:40–12:20

COUNCIL ROOM

Coffee Break, Networking & Sponsor Exhibition

12:20–13:20

SESSION 3
HYBRID

Education, Ethics & Society

SESSION CHAIR: **Giuseppina Cerrato** | University of Turin, Turin, Italy

SESSION RAPPORTEUR: **Liana-Simona Sbîrnă** | University of Craiova, Romania · Organising Committee

KEYNOTE ADDRESS: **Anca Silvestru** | Babeș-Bolyai University, Cluj-Napoca, Romania

Responsible Chemistry – An Ethical Perspective on Academic Education, Science and Sustainable Development

INVITED TALK: **Mariana Chioncel**[1,2] | [1] University of Bucharest, Romania, [2] The Research Institute of the University of Bucharest, Romania

How Open Should Science Be? Rethinking Openness and Responsibility in Chemical Research

INVITED TALK: **Florența Popescu-Simion**[1,2] | [1] "Constantin Brăiloiu" Institute of Ethnography and Folklore, Romanian Academy, Bucharest, Romania, [2] University of Bucharest, Romania

When Folk Knowledge About Plants and Cooking Meets Science: A Short Survey into the Logic Behind Vernacular Foods

CONTRIBUTED TALK: **Maria-Magdalena Boureanu** | University of Craiova, Romania

Steady teaching in unsteady times

DISCUSSIONS & Q&A

13:20–14:30

SESSION 4
HYBRID

Chemistry & Circular Economy

SESSION CHAIR: **Cristina Todașcă** | National University of Science and Technology POLITEHNICA Bucharest, Romania
SESSION RAPPORTEUR: **Mihaela Mureșeanu** | University of Craiova, Romania · Organising Committee

KEYNOTE ADDRESS: **Ioan Călinescu**[1], Sorin Axinte[2] | [1] National University of Science and Technology POLITEHNICA Bucharest, Romania, GREEN ENERGY TARNAVENI S.R.L., Târnăveni, Romania
Plastic Waste: An Ecological Burden or a Highly Valuable Resource

INVITED TALK: **Corina Bradu** | University of Bucharest, Romania
Innovative Water and Wastewater Treatments: Protecting Aquatic Ecosystems and Human Health

INVITED TALK: **Simina Ștefan** | National University of Science and Technology POLITEHNICA Bucharest, Romania
Leather Waste Valorization for Smart Fertilizers Obtaining

INVITED TALK: **Zsuzsanna Czégény**[1], Bence Babinszki[1], Zoltán Sebestyén[1], Gergő Szabó[1,2], Liang Wang[3], Øyvind Skreiberg[3] | HUN-REN Research Centre for Natural Sciences, Institute of Materials and Environmental Chemistry, Budapest, Hungary, [2] ELTE Eötvös Loránd University, Hevesy György PhD School of Chemistry, [3] SINTEF Energy Research, Trondheim, Norway
From Waste to Resource: Transforming Bark via Water Leaching into Biochar and Organic-Rich Extracts

CONTRIBUTED TALK: **Liana-Simona Sbîrnă**[1], Clementina Sabina Moldovan[2], Anișoara Oubraham[3], Marian Ciuperceanu[4] | [1] University of Craiova, Romania, [2] University of Petroșani, Romania, [3] National Research and Development Institute for Cryogenic and Isotopic Technologies (ICSI), Râmnicu Vâlcea, Romania, [4] "Frații Buzești " National College, Craiova, Romania
Introducing CBAM within the EU as a Climate and Trade Policy Instrument to Promote Green Chemistry Solutions in Aluminium Production

DISCUSSIONS & Q&A

14:30–15:30

STUDENTS' RESTAURANT

Lunch & Networking

Informal networking and interdisciplinary exchange

15:30–17:00

SESSION 5
HYBRID

Climate, Environment & Cultural Heritage

SESSION CHAIR: **Radko Tiňo** | Slovak University of Technology in Bratislava (STU), Slovakia
SESSION RAPPORTEUR: **Elena Badea** | University of Craiova, Romania · Organising Committee

KEYNOTE ADDRESS: **Maite Maguregui**[1,2] | [1] University of the Basque Country (EHU), Spain, [2] New York University, Tandon School of Engineering, Brooklyn, New York, USA
Rethinking Chemistry for Cultural Heritage: Towards a Responsible and Sustainable Future

INVITED TALK: **Rene Herrera Diaz**, Alanis Bré, Oihana Gordobil | University of the Basque Country (EHU), San Sebastián, Spain
Non-Covalent Functionalization of Lignin Nanoparticles with Phytic Acid as Potential Flame-Retardant Additives for Wood Products

INVITED TALK: **Maria Iasmina Moza**[1,2], Mirela Moldoveanu[3], Carmen Postolache[1] | [1] University of Bucharest, Romania, [2] Applied Mycology and Biology Investigations Research Centre, Moza Foundation, [3] Institute of Biology Bucharest, Romanian Academy, Bucharest, Romania
Warming Waters, Toxic Blooms: Cyanobacterial Dynamics and Environmental Implications in the Danube Delta

INVITED TALK: **Ilaria Quaratesi**[1], Elena Badea[2,3], Ioan Călinescu[4], Petre Chipurici[4] | [1] University of Bologna, Italy, [2] University of Craiova, Romania, [3] The Research Institute of the University of Bucharest, Romania, [4] National University of Science and Technology POLITEHNICA Bucharest, Romania
Alginate-Based Materials for Sustainable Leather: Chemistry, Processing and Functionality

CONTRIBUTED TALK: **Mihaela Tinca Udriștioiu**[1], Youness El Mghouchi[2] | [1] University of Craiova, Romania, [2] Moulay Ismail University, Meknes, Morocco
Short-Term Links Between Surface Solar Irradiance and Meteorological Conditions

YOUNG RESEARCHER SPOTLIGHT: **Sabina Ioana Petrescu**[1,2], Alexia Maria Stan[1,2], Ionuț Pecete[1,3], Maria Iasmina Moza[1,2] | [1] Faculty of Biology, University of Bucharest, [2] Applied Mycology and Biology Investigations Research Centre, Moza Foundation, [3] Regina Maria Central Laboratory, Bucharest, Romania
Beyond the Water Surface: Exploring the Cultivable Microbial Communities of the Dâmbovița River under Climate Change Pressure

YOUNG RESEARCHER SPOTLIGHT: **Clément Haton**[1], Paul Chiriță[2] | [1] University of Orléans, France, [2] University of Craiova, Romania
The Effect of Organic Matter on the Aqueous Oxidation of Mineral Sulfides: Addressing the Acid Mine Drainage Environmental Issue

DISCUSSIONS & Q&A

17:00–17:10

COUNCIL ROOM

Tea Break

17:10–18:30

FORUM
AUDITORIUM HALL

Responsible Chemistry Forum

ON-SITE SCIENTIFIC CONTRIBUTIONS AND INTERACTIVE CLOSING DISCUSSION

From Scientific Advances to Responsible Innovation: Shared Challenges, Future Perspectives, Inclusive Responsible Chemistry community

Participants' Reflection Contributions · Highlights from the Five Thematic Sessions · Future perspectives & Closing Reflections

SESSION CHAIRS **SESSION RAPPORTEURS**

SENIOR EXPERTS' PERSPECTIVES: **Radu Constantinescu, Solange-Odile Saliu, Dana Constantinescu**

On-Site Scientific Contributions

PARTICIPANT REFLECTION CONTRIBUTION

14 scientific contributions · 5 thematic areas

01 AI & Digital Transformation

Aurelian Dobrițescu[1], **Andreea Simionescu**[1], Georgeta Ciobanu[1], Irina Dăbuleanu[1], Titi Marius Dăbuleanu[2] | [1] University of Craiova, Romania, [2] Dolj County Environmental Directorate, National Agency for Environment and Protected Areas (ANMAP), Craiova, Romania

From Electronic Structure to Molecular Recognition: AI-Enhanced DFT, QM/MM, Molecular Dynamics, and Docking

02 Health & Emerging Medical Technologies

Florina Ciolan | University of Craiova, Romania

Chitosan-metal nanocomposites for biomedical applications

03 Education, Ethics & Society

Adelina Teodorescu | "Elena Cuza" National College, Craiova, Romania

From Place to Element: A Map-Centered Pedagogy for Teaching the Periodic Table

04 Chemistry & Circular Economy

Mihaela Gabriela Dumitru[1], Anca Gănescu[1], Titi Marius Dăbuleanu[2] | [1] University of Craiova, Romania, [2] Dolj County Environmental Directorate, National Agency for Environment and Protected Areas (ANMAP), Craiova, Romania

The Role of Spent Coffee Grounds in the Circular Economy

Elena Badea[1,2], Georgeta Ciobanu[1], Anca Moanță[1], Mădălina Drăgoi[1], **Cătălina Ionescu**[1] | [1] University of Craiova, Romania, [2] The Research Institute of the University of Bucharest, Romania

From Forest and Agro-Industrial By-Products to Value-Added Materials: Analytical Characterization and Standardization of Tannin Extracts Beyond Pure Compounds

Anca Gănescu[1], Mihaela Gabriela Dumitru[1], Elena Ionescu[2] | [1] University of Craiova, Romania, [2] University of Medicine and Pharmacy of Craiova, Craiova, Romania

Complex Anions of Chromium(III) in Drug Analysis and Quality Control: Determination of Protionamide

Anca Moanță[1], Cătălina Ionescu[1], Mădălina Drăgoi[1], Titi Marius Dăbuleanu[2] | [1] University of Craiova, Romania, [2] Dolj County Environmental Directorate, National Agency for Environment and Protected Areas (ANMAP), Craiova, Romania

Antimicrobial potential of azoderivatives

Mădălina Drăgoi, Cătălina Ionescu, Anca Moanță, Marius Drăgoi | University of Craiova, Romania

Recent Advances in Photocatalytic Degradation of Methylene Blue

Marius Roginã, Bogdan Tutunaru | University of Craiova, Romania
Electrochemical Degradation of Thiamine in Different Electrolytes: Kinetics and the Effect of Gold Nanoparticles

Monica Rădoi, Bogdan Tutunaru | University of Craiova, Romania
Electrolyte Effects on Ceftriaxone Adsorption and Interfacial Electrochemistry at Gold Electrodes

Ioan Călinescu | National University of Science and Technology POLITEHNICA Bucharest, Romania
From PET Waste to High-Performance Polyurea-Polyurethane Coatings via Aminolysis-Assisted Chemical Upcycling

05 Cultural Heritage, Climate & Environment

Elena Badea[1,2], Cristina Carsote[3] | [1] University of Craiova, Romania, [2] The Research Institute of the University of Bucharest, Romania, [3] The National Museum of Romanian History, Bucharest, Romania
The Chemistry of Preservation: How Much Analysis Is Enough?

Georgeta Ciobanu, Aurelian Dobrițescu, **Cătălina Ionescu** | University of Craiova, Romania
Phytotoxicity of Antibiotics as Emerging Environmental Contaminants: Mechanism-Dependent Effects on Growth and Biochemical Markers in Crop Seedlings

Zizi-Ileana Baltă[1], Cristina Carsote[1], Carmen Albu[2], Gheorghe Niculescu[1], Elena Badea[3,4] | [1]National History Museum of Romania, Bucharest, Romania, [2] Library of the Romanian Academy, Bucharest, Romania, [3] University of Craiova, Romania, [4] The Research Institute of the University of Bucharest, Romania
Understanding the Material Vulnerability of a 17th-Century Illuminated Manuscript Using Complementary Non-Invasive Analytical Techniques

ACKNOWLEDGEMENTS

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