

CEEC-PCMS3 & CATCAR35

PROGRAM

Editors

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*3rd Central and Eastern European Conference on
Physical Chemistry and Materials Science
&
35th Symposium “Eugen Segal” of the Commission
for Thermal Analysis and Calorimetry of the
Romanian Academy*

*14-17 October 2026
Bucharest, Romania*

**3rd Central and Eastern European Conference
on Thermal Analysis and Calorimetry
&
35th Symposium “Eugen Segal” of the Commission for
Thermal Analysis and Calorimetry of the Romanian
Academy**

CEEC-PCMS3 & CATCAR35

14-17 October 2026 – Bucharest, Romania

is organized by:

**Central and Eastern European Committee for
Thermal Analysis and Calorimetry (CEEC-TAC),**

Central and Eastern European Convention (CEEC),

University of Bucharest,

Faculty of Chemistry, University of Bucharest,

Commission for Thermal Analysis & Calorimetry of the Romanian Academy,

Croatian Ceramic Society,

with co-organizers:

Romanian Academy,

Academy of Science of Moldova,

Lithuanian Academy of Sciences,

Faculty of Chemical Technology, Kaunas University of Technology,

Faculty of Engineering, Babeş-Bolyai University,

Institute of Physical Chemistry-Ilie Murgulescu,

Faculty of Chemistry and Technology, University of Split,

Croatian Committee for Thermal Analysis and Calorimetry

Organizers

CEEC-TAC

**Central and Eastern European Committee for
Thermal Analysis and Calorimetry**

CEEC

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**Commission for Thermal Analysis and Calorimetry
of the Romanian Academy**



Croatian Ceramic Society

Co-Organizers



Romanian Academy



Academy of Sciences of Moldova



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Faculty of Chemical Technology,
Kaunas University of Technology



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Institute of Physical Chemistry - Ilie Murgulescu



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PROGRAM

Wednesday, 14 th of October		Thursday, 15 th of October		Friday, 16 th of October		Saturday, 17 th of October	
Registration of participants at CEEC-PCMS3 & CATCAR35	9 ⁰⁰ -9 ³⁰	Monica Focsan, PL2		9 ⁰⁰ -9 ³⁰	Luis A. Perez-Maqueda, PL4		9 ⁰⁰ -9 ³⁰
	9 ³⁰ -10 ³⁰	IL1		9 ³⁰ -10 ³⁰	IL5	IL6	9 ³⁰ -10 ³⁰
	10 ³⁰ -12 ⁰⁰	Poster session 1 <i>Coffee break</i>		10 ³⁰ -12 ⁰⁰	Poster session 2 <i>Coffee break</i>		10 ³⁰ -12 ⁰⁰
	12 ⁰⁰ -12 ³⁰	KL1	KL2	12 ⁰⁰ -12 ³⁰	KL5	KL6	12 ⁰⁰ -12 ³⁰
	12 ³⁰ -12 ⁵⁰	OP1.01	OP2.01	12 ³⁰ -12 ⁵⁰	OP1.07	OP2.07	12 ³⁰ -12 ⁵⁰
	12 ⁵⁰ -13 ¹⁰	OP1.02	OP2.02	12 ⁵⁰ -13 ¹⁰	OP1.08	OP2.08	12 ⁵⁰ -13 ¹⁰
	13 ¹⁰ -13 ³⁰	OP1.03	OP2.03	13 ¹⁰ -13 ³⁰	OP1.09	OP2.09	13 ¹⁰ -13 ³⁰
	13 ³⁰ -14 ⁴⁰	<i>Lunch</i>		13 ³⁰ -14 ⁴⁰	<i>Lunch</i>		13 ³⁰ -13 ⁵⁰
	14 ⁴⁰ -15 ⁰⁰	Linseis, TL2		14 ⁴⁰ -15 ⁰⁰	Elsevier, TL3		13 ⁵⁰ -14 ⁰⁰
	15 ⁰⁰ -15 ⁵⁰	Peter W. Atkins, PL3		15 ⁰⁰ -15 ⁴⁰	IL7	IL8	15 ³⁰
Opening Ceremony Akanaba, TL1 Dan Shechtman, PL1 <i>Welcome Cocktail</i>	15 ⁵⁰ -16 ³⁰	IL3		15 ⁴⁰ -16 ¹⁰	KL7	KL8	
	16 ³⁰ -17 ⁰⁰	KL3	KL4	16 ¹⁰ -16 ³⁰	OP1.10	OP2.10	
	17 ⁰⁰ -17 ²⁰	OP1.04	OP2.04	16 ³⁰ -16 ⁵⁰	OP1.11	OP2.11	
	17 ²⁰ -17 ⁴⁰	OP1.05	OP2.05	16 ⁵⁰ -17 ¹⁰	OP1.12	OP2.12	
	17 ⁴⁰ -18 ⁰⁰	OP1.06	OP2.06	17 ¹⁰ -17 ³⁰	OP1.13	OP2.13	
	18 ⁰⁰ -19 ⁰⁰	ICTAC Kinetics Committee <i>Workshop</i>		17 ³⁰ -18 ³⁰	nanoMOP project Round Table		
	19 ⁰⁰ -20 ⁰⁰	Dan Shechtman, PL1		18 ³⁰ -19 ⁰⁰	CroCerS General Assembly		
	20 ⁰⁰ -22 ⁰⁰	<i>Welcome Cocktail</i>		19 ⁰⁰ -19 ³⁰	Evening break		
			<i>City tour</i>	19 ³⁰ -23 ³⁰	<i>Conference Dinner</i>		
1. Room A at UB (University of Bucharest), Rectorate, Str. Panduri 90-92, 050663, Bucharest							
2. Room B at UB (University of Bucharest), Rectorate, Str. Panduri 90-92, 050663, Bucharest							
3. Poster, Coffee break & Lunch area at UB (University of Bucharest), Rectorate							
4. Hannu' lui Manuc, Str. Franceză 62-64, 030106, Bucharest							
5. Starting place: Hannu' lui Manuc, Str. Franceza 62-64, 030106, Bucharest							

Program of CEEC-PCMS3 & CATCAR35
 14-17 October 2026
Bucharest, Romania

Wednesday, 14th of October

11³⁰-16³⁰

Posters, Coffee break & Lunch area at UB Rectorate

Registration of participants at CEEC-PCMS3 & CATCAR35

18³⁰-18⁵⁰

Room A (Grey) at UB Rectorate

Opening Ceremony

18⁵⁰-19¹⁰ TL1

Room A (Grey) at UB Rectorate

Nikolaos Nanas

Akanaba

19¹⁰-20⁰⁰ PL1

Room A (Grey) at UB Rectorate

Chair: Vilko Mandić

Dan Shechtman – Nobel Prize in Chemistry (2011)

Quasi-Periodic Materials – A Paradigm Shift in

Crystallography

20⁰⁰-22⁰⁰

Posters, Coffee break & Lunch area at UB Rectorate

Welcome Cocktail

Thursday, 15th of October

Room A (Grey)

Chair: Ignazio Blanco

- 09⁰⁰-09⁵⁰** PL2 Engineering Plasmonic Nanomaterials: From Nanoscale Light–Matter Interactions to Thermoplasmonic Applications
Monica Focsan

- 09⁵⁰-10³⁰** IL1 Polymer-supported photocatalytic materials for water treatment: from experiments to atomistic modeling and machine learning
Sanja Armaković

Room B (Red)

Chair: Luis A. Perez-Maqueda

- 09⁵⁰-10³⁰** IL2 Dynamic Bonds, Unexpected Gains: Exploiting Stress Relaxation in Vitrimers Composites
Josep Costa

- 10³⁰-12⁰⁰** **Poster, Coffee break & Lunch area**
Poster Session 1 & Coffee Break

Room A (Grey)

Chair: Athanasios Tiliakos

- 12⁰⁰-12³⁰** KL1 Geopolymers Based on Halloysite Nanotubes as a Versatile Platform for Multifunctional and Sustainable Materials
Martina Maria Calvino

- 12³⁰-12⁵⁰** OP1.01 Reusable LCD-Printed Collapsible Mandrels for Manufacturing Complex Hollow Composite Structures
Claudio Tosto

- 12⁵⁰-13¹⁰** OP1.02 Challenges in Developing Heavyweight Self-Compacting Concrete from Low-Carbon Cement
Martin Palou

- 13¹⁰-13³⁰** OP1.03 From clinker reduction to CO₂ mineralization: post-hydration CO₂ curing of opoka containing cement mortars
Zaneta Vadvilaviciene

Room B (Red)

Chair: Tadas Dambrauskas

- 12⁰⁰-12³⁰** KL2 Thermal Optimization of TiN Thermo-Optic Phase Shifters on Si₃N₄ Waveguides
Dror Malka

- 12³⁰-12⁵⁰** OP2.01 Rethinking Debye–Hückel theory: A thermodynamically consistent derivation of ionic activity coefficients
Janez Cerar

12 ⁵⁰ -13 ¹⁰	OP2.02	Physical chemistry and materials science applied to better describe and understand political and social sciences Andrei Rotaru
13 ¹⁰ -13 ³⁰	OP2.03	Engineering Multifunctional Pickering Systems for Pollutant Removal and Photocatalytic Applications Lorenzo Lisuzzo
13 ³⁰ -14 ⁴⁰		Poster, Coffee break & Lunch area Lunch
14 ⁴⁰ -15 ⁰⁰	TL2	Room A (Grey) Michael Gerlach & Dragos Secara Linseis & Chromavansa
15 ⁰⁰ -15 ⁵⁰	PL3	Room A (Grey) Chair: Andrei Rotaru The Evolution of Physical Chemistry Peter W. Atkins
15 ⁵⁰ -16 ³⁰	IL3	Turning Waste into Solutions: Sustainable Mineral-Based Remediation of Toxic Elements in Mine Tailings Caroline Kirk
16 ³⁰ -17 ⁰⁰	KL3	3D hybrid rare earth-doped zinc oxide-graphene nanocomposites materials fabrication and properties Mirela Petruta Suche
17 ⁰⁰ -17 ²⁰	OP1.04	Hydrothermal Synthesis and Properties of Fluorapatite Lidija Turilinaite
17 ²⁰ -17 ⁴⁰	OP1.05	Comparison of the formation process of 1.13 nm tobermorite and xonotlite in mixtures with SiO ₂ ·nH ₂ O and microsilica Liveta Steponaityte
17 ⁴⁰ -18 ⁰⁰	OP1.06	Wollastonite synthesis from secondary raw materials and its hardening in the CO ₂ atmosphere Ramune Sidaraite
15 ⁵⁰ -16 ³⁰	IL4	Room B (Red) Chair: Jiri Kucerik Structural Memory in Layered Double Hydroxides: A New Materials Design Principle for Engineering Adaptive Heterostructures Gabriela Carja
16 ³⁰ -17 ⁰⁰	KL4	Processability of high-performance semi-crystalline thermoplastics Jordi Farjas

- 17⁰⁰-17²⁰** OP2.04 Halloysite Nanotubes: Natural, Biocompatible, and Sustainable Nanoclays for Cultural Heritage Conservation and Restoration
Giuseppe Cavallaro
- 17²⁰-17⁴⁰** OP2.05 From Nanomaterials to Advanced Flotation: Innovative Solutions for Efficient and Sustainable Wastewater Treatment
Cristina Covaliu Mierla
- 17⁴⁰-18⁰⁰** OP2.06 Comprehensive FT-IR analysis of CO₃²⁻ within carbonated hydroxyapatite across varying calcium to phosphate ratios
Mindaugas Matijunas

18⁰⁰-19⁰⁰ *Room A (Grey)*
ICTAC Kinetic Committee Workshop

19⁰⁰-21⁰⁰ *Hanu' lui Manuc*
City tour

Friday, 16th of October

Room A (Grey)

3rd ACDC Symposium

Chair: Matko Erceg

- 09⁰⁰-09⁵⁰** PL4 Thermal characterization of energy storage materials for renewable energy applications

Luis A. Perez-Maqueda

- 09⁵⁰-10³⁰** IL5 Mechanistic Insights into Magnet- and Zeolite-Assisted Electrocoagulation of Synthetic Laundry Greywater Using a Taguchi Experimental Design

Nediljka Vukojević Medvidović

Room B (Red)

CATCAR35 Symposium

Chair: Ionuț Ledeti

- 09⁵⁰-10³⁰** IL6 Influence of Transition Metal Ions on the Formation, Thermal Stability, and Properties of Calcium Silicate Hydrates

Tadas Dambrauskas

10³⁰-12⁰⁰

Poster, Coffee break & Lunch area

Poster Session 2 & Coffee Break

Room A (Grey)

3rd ACDC Symposium

Chair: Boris-Marko Kukovec

- 12⁰⁰-12³⁰** KL5 Tuning the Glass, Tuning the Transport: Alkali Vanadate-Phosphate Glasses

Luka Pavić

- 12³⁰-12⁵⁰** OP1.07 Phase formation in a “Bypass-SiO₂-H₂O” system under hydrothermal conditions

Brigita Savickaite

- 12⁵⁰-13¹⁰** OP1.08 Cellulose aerogels as template for SnO₂ photocatalyst preparation

Arijeta Bafti Dunatov

- 13¹⁰-13³⁰** OP1.09 Suitability of crystalline molybdenum oxide films prepared via aerosol writing for fast resistive gas sensors

Vilko Mandić

Room B (Red)

CATCAR35 Symposium

Chair: Cristina Covaliu Mierla

- 12⁰⁰-12³⁰** KL6 Synthesis and Thermal Behaviour Study of Cathode Precursors for Alkali-Metal Batteries

Stefano Vecchio Cipriotti

- 12³⁰-12⁵⁰ OP2.07 Mass loss rate estimation methodology for fire tests
Maria Gonzalez Alvear
- 12⁵⁰-13¹⁰ OP2.08 New experimental thermodynamic data for hexagonal and orthorhombic NdBO₃ polymorphs from Calvet calorimetry
Rodica Chiriac
- 13¹⁰-13³⁰ OP2.09 Morphological evolution, thermal behaviour and structural reconstruction of medium- and high-entropy layered double hydroxides and their derived oxides
Denis Cutcovschi
- Poster, Coffee break & Lunch area**
- 13³⁰-14⁴⁰ **Lunch**
- 14⁴⁰-15⁰⁰ TL3 **Room A (Grey)**
Ignazio Blanco & Andrei Rotaru
Elsevier
- Room A (Grey)**
3rd ACDC Symposium
Chair: Nediljka Vukojević Medvidović
- 15⁰⁰-15⁴⁰ IL7 Designing Reversible Hybrid Adsorbents for Selective VOC Recovery under Mild Conditions
Daniela Meroni
- 15⁴⁰-16¹⁰ KL7 Influence of Processing Parameters on the Structural and Morphological Properties of Sol-Gel Derived ZnGa₂O₄ Thin Films
Ivana Panžić
- 16¹⁰-16³⁰ OP1.10 Crystal engineering for safer skies: enhancement of the properties of ammonium dinitramide – a green rocket propellant
Colin Rulham
- 16³⁰-16⁶⁰ OP1.11 The use of spongillite as a sandstone mining waste for wastewater treatment
Jan Bednarek
- 16⁵⁰-17¹⁰ OP1.12 A Circular Approach for PA12 Recycling in the Framework of Additive Manufacturing
Ignazio Blanco
- 17¹⁰-17³⁰ OP1.13 Phase Utilization of bypass dust in CO₂ hardening mortar
Neda Aliukonyte
- Room B (Red)**
CATCAR35 Symposium
Chair: Stefano Vecchio Cipriotti
- 15⁰⁰-15⁴⁰ IL8 “Hidden Information” in the Calorimetric Melting and Crystallization Curves of Polymers
Alfred Menyhard

- 15⁴⁰-16¹⁰** KL8 Pectin Iontropic Gelation: Exploring the Role of Divalent Cations from Molecular Interactions to Macroscopic Properties
Elena Pulidori
- 16¹⁰-16³⁰** OP2.10 Influence of the central metal on the thermal stability and degradation kinetics of metalloporphyrins
Laura Nistor
- 16³⁰-16⁶⁰** OP2.11 3D-Printed Thermoluminescent Radiation Detectors Using Composite Polypropylene-CaSO₄-Dysprosium Filaments
Athanasios Tiliakos
- 16⁵⁰-17¹⁰** OP2.12 Metal-doped mesoporous silica as matrices for high temperature phase change materials
Raul-Augustin Mitran
- 17¹⁰-17³⁰** OP2.13 Thermal degradation of Therminol 66 and its implications for safety of high-temperature thermal energy systems
Horng-Jang Liaw

Room A (Grey)

3rd ACDC Symposium

Chair: Vilko Mandić

17³⁰-18³⁰ **nanoMOP project Round Table**

18³⁰-19⁰⁰ **CroCerS General Assembly**

18³⁰-19⁰⁰ **Evening break**

19³⁰-23³⁰ ***Hanu' lui Manuc Restaurant***
Conference Dinner

Saturday, 17th of October

Room A (Grey)

Chair: Raul-Augustin Mitran

09⁰⁰-09⁵⁰ PL5 Innovations in Molecular Diagnostics for Infectious Diseases
Hyun Gyu Park

09⁵⁰-10³⁰ IL9 Tuning functionalities of complex oxide materials by laser processing
Nicu-Doinel Scărișoreanu

Room B (Red)

Chair: Ioan-Cezar Marcu

09⁵⁰-10³⁰ IL10 Biodegradable plastics in soil: more than just degradation
Jiri Kucerik

10³⁰-12⁰⁰ **Poster, Coffee break & Lunch area**
Poster Session 3 & Coffee Break

Room A (Grey)

Chair: Mihaela Badea

12⁰⁰-12³⁰ KL9 Laser Processing of Functional Materials: From Nanoparticle Synthesis to Surface Engineering and Additive Microfabrication

Catalin Daniel Constantinescu

12³⁰-12⁵⁰ OP1.14 Development of GelMA/HAMA hydrogels reinforced with MXene Nanosheets for Chondral Tissue Engineering
Dominika Majcher

12⁵⁰-13¹⁰ OP1.15 Functional unidirectional hybrid nanomaterials
Amir Fahmi

13¹⁰-13³⁰ OP1.16 Influence of acid-base properties on the hydrodeoxygenation performance of CuMg_xAl_yO mixed oxide catalysts
Ioan-Cezar Marcu

13³⁰-13⁵⁰ OP1.17 Advanced Nanomaterial-Based Adsorbents for Heavy Metal Removal from Wastewater: Innovative Strategies and Sustainable Perspectives
Cristina Covaliu Mierla

Room B (Red)

Chair: Rodica Olar

12⁰⁰-12³⁰ KL10 Squaraines for solar cells: Why did they never go mainstream?

Floren Radovanović-Perić

12³⁰-12⁵⁰ OP2.14 An assessment of the applicability of biopolymer-based hydrogels containing sheep wool as a fertiliser using FTIR and DSC methods
Ewa Gaweda

- 12⁵⁰-13¹⁰** OP2.15 Optimizing surface roughness in chemo-mechanical magnetorheological finishing (CMMRM) using sustainable and eco-friendly fluids
Georgiana Balusescu
- 13¹⁰-13³⁰** OP2.16 Effects of Boron Form and Oxidizer Type on the Ignition and Combustion Characteristics of Al-Based Thermites
Yi Wu
- 13³⁰-13⁵⁰** OP2.17 Thermal processing as a pathway to generate ash from coal mining waste for geopolymer preparation
Martin Palou

13⁵⁰-14⁰⁰ ***Room A (Grey)***
Closing Ceremony

14⁰⁰-15³⁰ **Afternoon Break**

15³⁰-18³⁰ ***Hanu' lui Manuc***
Excursion

LIST COMMUNICATIONS

PLENARY LECTURES

- | | | |
|------------|------------------------|---|
| PL1 | Shechtman, Dan | Quasi-Periodic Materials – A Paradigm Shift in Crystallography |
| PL2 | Focsan, Monica | Engineering Plasmonic Nanomaterials: From Nanoscale Light–Matter Interactions to Thermoplasmonic Applications |
| PL3 | Atkins, Peter W. | The evolution of physical chemistry |
| PL4 | Perez-Maqueda, Luis A. | Thermal characterization of energy storage materials for renewable energy applications |
| PL5 | Park, Hyun Gyu | Innovations in Molecular Diagnostics for Infectious Diseases |

INVITED LECTURES

- | | | |
|-------------|--------------------------------------|--|
| IL1 | Armaković, Sanja | Polymer-supported photocatalytic materials for water treatment: from experiments to atomistic modeling and machine learning |
| IL2 | Costa, Josep | Dynamic Bonds, Unexpected Gains: Exploiting Stress Relaxation in Vitrimer Composites |
| IL3 | Kirk, Caroline | Turning Waste into Solutions: Sustainable Mineral-Based Remediation of Toxic Elements in Mine Tailings |
| IL4 | Carja, Gabriela | Structural Memory in Layered Double Hydroxides: A New Materials Design Principle for Engineering Adaptive Heterostructures |
| IL5 | Vukojević
Medvidović,
Nediljka | Mechanistic Insights into Magnet- and Zeolite-Assisted Electrocoagulation of Synthetic Laundry Greywater Using a Taguchi Experimental Design |
| IL6 | Dambrasukas,
Tadas | Influence of Transition Metal Ions on the Formation, Thermal Stability, and Properties of Calcium Silicate Hydrates |
| IL7 | Meroni, Daniela | Designing Reversible Hybrid Adsorbents for Selective VOC Recovery under Mild Conditions |
| IL8 | Menyhard, Alfred | “Hidden Information” in the Calorimetric Melting and Crystallization Curves of Polymers |
| IL9 | Scarisoareanu, Nicu-Doinel | Tuning functionalities of complex oxide materials by laser processing |
| IL10 | Kucerik, Jiri | Biodegradable plastics in soil: more than just degradation |

KEYNOTE LECTURES

- | | | |
|-------------|-----------------------------------|--|
| IL1 | Calvino, Martina
Marina | Geopolymers Based on Halloysite Nanotubes as a Versatile Platform for Multifunctional and Sustainable Materials |
| IL2 | Malka, Dror | Thermal Optimization of TiN Thermo-Optic Phase Shifters on Si ₃ N ₄ Waveguides |
| IL3 | Suchea, Mirela
Petruța | 3D hybrid rare earth-doped zinc oxide-graphene nanocomposites materials fabrication and properties |
| IL4 | Farjas, Jordi | Processability of high-performance semi-crystalline thermoplastics |
| IL5 | Pavić, Luka | Tuning the Glass, Tuning the Transport: Alkali Vanadate-Phosphate Glasses |
| IL6 | Vecchio Cipriotti,
Stefano | Synthesis and Thermal Behaviour Study of Cathode Precursors for Alkali-Metal Batteries |
| IL7 | Panžić, Ivana | Influence of Processing Parameters on the Structural and Morphological Properties of Sol-Gel Derived ZnGa ₂ O ₄ Thin Films |
| IL8 | Pulidori, Elena | Pectin Ionotropic Gelation: Exploring the Role of Divalent Cations from Molecular Interactions to Macroscopic Properties |
| IL9 | Constantinescu,
Catalin Daniel | Laser Processing of Functional Materials: From Nanoparticle Synthesis to Surface Engineering and Additive Microfabrication |
| IL10 | Radovanović-Perić,
Floren | Squaraines for solar cells: Why did they never go mainstream? |

ORAL PRESENTATIONS

ORAL PRESENTATIONS 1 Materials Science & 3rd ACDC Symposium

- | | | |
|---------------|--------------------------|---|
| OP1.01 | Tosto, Claudio | Reusable LCD-Printed Collapsible Mandrels for Manufacturing Complex Hollow Composite Structures |
| OP1.02 | Palou, Martin | Challenges in Developing Heavyweight Self-Compacting Concrete from Low-Carbon Cement |
| OP1.03 | Vadvilaviciene, Zaneta | From clinker reduction to CO ₂ mineralization: post-hydration CO ₂ curing of opoka containing cement mortars |
| OP1.04 | Turilinaite, Lidiija | Hydrothermal Synthesis and Properties of Fluorapatite |
| OP1.05 | Steponaityte, Liveta | Comparison of the formation process of 1.13 nm tobermorite and xonotlite in mixtures with SiO ₂ ·nH ₂ O and microsilica |
| OP1.06 | Sidaraite, Ramune | Wollastonite synthesis from secondary raw materials and its hardening in the CO ₂ atmosphere |
| OP1.07 | Savickaite, Brigita | Phase formation in a “Bypass-SiO ₂ -H ₂ O” system under hydrothermal conditions |
| OP1.08 | Bafti Dunatov, Arijeta | Cellulose aerogels as template for SnO ₂ photocatalyst preparation |
| OP1.09 | Mandić, Vilko | Suitability of crystalline molybdenum oxide films prepared via aerosol writing for fast resistive gas sensors |
| OP1.10 | Pulham, Colin A. | Crystal engineering for safer skies: enhancement of the properties of ammonium dinitramide – a green rocket propellant |
| OP1.11 | Bednarek, Jan | The use of spongillite as a sandstone mining waste for wastewater treatment |
| OP1.12 | Blanco, Ignazio | A Circular Approach for PA12 Recycling in the Framework of Additive Manufacturing |
| OP1.13 | Aliukonyte, Neda | Phase Utilization of bypass dust in CO ₂ hardening mortar |
| OP1.14 | Majcher, Dominika | Development of GelMA/HAMA hydrogels reinforced with MXene Nanosheets for Chondral Tissue Engineering |
| OP1.15 | Fahmi, Amir | Functional unidirectional hybrid nanomaterials |
| OP1.16 | Marcu, Ioan Cezar | Influence of acid-base properties on the hydrodeoxygenation performance of CuMg _x Al _y O mixed oxide catalysts |
| OP1.17 | Covaliu Mierla, Cristina | Advanced Nanomaterial-Based Adsorbents for Heavy Metal Removal from Wastewater: Innovative Strategies and Sustainable Perspectives |

ORAL PRESENTATIONS 2 Physical Chemistry & CATCAR35 Symposium

OP2.01 Cerar, Janez	Rethinking Debye–Hückel theory: A thermodynamically consistent derivation of ionic activity coefficients
OP2.02 Rotaru, Andrei	Physical chemistry and materials science applied to better describe and understand political and social sciences
OP2.03 Lisuzzo, Lorenzo	Engineering Multifunctional Pickering Systems for Pollutant Removal and Photocatalytic Applications
OP2.04 Cavallaro, Giuseppe	Halloysite Nanotubes: Natural, Biocompatible, and Sustainable Nanoclays for Cultural Heritage Conservation and Restoration
OP2.05 Covaliu Mierla, Cristina	From Nanomaterials to Advanced Flotation: Innovative Solutions for Efficient and Sustainable Wastewater Treatment
OP2.06 Matijunas, Mindaugas	Comprehensive FT-IR analysis of CO_3^{2-} within carbonated hydroxyapatite across varying calcium to phosphate ratios
OP2.07 Gonzalez Alvear, Maria	Mass loss rate estimation methodology for fire tests
OP2.08 Chiriac, Rodica	New experimental thermodynamic data for hexagonal and orthorhombic NdBO_3 polymorphs from Calvet calorimetry
OP2.09 Cutcovschi, Denis	Morphological evolution, thermal behaviour and structural reconstruction of medium- and high-entropy layered double hydroxides and their derived oxides
OP2.10 Nistor, Laura	Influence of the central metal on the thermal stability and degradation kinetics of metalloporphyrins
OP2.11 Tiliakos, Athanasios	3D-Printed Thermoluminescent Radiation Detectors Using Composite Polypropylene- CaSO_4 -Dysprosium Filaments
OP2.12 Mitran, Raul Augustin	Metal-doped mesoporous silica as matrices for high temperature phase change materials
OP2.13 Liaw, Horng-Jang	Thermal degradation of Therminol 66 and its implications for safety of high-temperature thermal energy systems
OP2.14 Gaweda, Ewa	An assessment of the applicability of biopolymer-based hydrogels containing sheep wool as a fertiliser using FTIR and DSC methods
OP2.15 Balusescu, Georgiana	Optimizing surface roughness in chemo-mechanical magnetorheological finishing (CMRM) using sustainable and eco-friendly fluids
OP2.16 Wu, Yi	Effects of Boron Form and Oxidizer Type on the Ignition and Combustion Characteristics of Al-Based Thermites
OP2.17 Palou, Martin	Thermal processing as a pathway to generate ash from coal mining waste for geopolymer preparation

POSTER SESSION 1

PS1.01 Kubatova, Dana	Effect of KHCO_3 on hydration kinetics of K_2CO_3 -activated slag-rich hybrid cementitious binders
PS1.02 Blanco, Ignazio	Influence of Olive Leaf Extract Content on the Thermal Behaviour, Structure and Release of Zirconia-Based Hybrids
PS1.03 Dambrauskas, Tadas	Influence of Binary Supplementary Cementitious Material from Epsom Salt Production Waste and Opoka on the Compressive Strength of Portland Cement
PS1.04 Eisinas, Anatolijus	Adsorption capacity of $\text{Cu}^{2+}/\text{SO}_4^{2-}$ ions by synthetic mayenite substituted with Si^{4+} ions
PS1.05 Piech, Radoslaw	Lignin/chitosan-based flame-retardant systems dedicated for polyhydroxyalkanoates
PS1.06 Kunovsky, Ondrej	Synthesis and structural characterization of heavy metal doped calcium silicate hydrate gels
PS1.07 Siler, Pavel	Influence of formic acid and its salts on the mitigation of the negative effect of zinc in Portland cement
PS1.08 Abdullayev, Raul	Synthesis of Calcium Silicate Hydrates with CaO/SiO_2 Ratio of 1.5 from Secondary Raw Materials
PS1.09 Bobinaite, Egle	Influence of Mn(II) on the formation and porosity of gyrolite
PS1.10 Matijunas, Mindaugas	Influence of Nickel Ions on the Formation of Gyrolite under Hydrothermal Conditions
PS1.11 Tiskute, Monika	Microwave-Assisted Synthesis of a Ca–Mg Phosphate System with a $(\text{Ca}+\text{Mg})/\text{P}$ Ratio of 1.67
PS1.12 Ambroziak, Barbara	Formation of Mo-substituted CeVO_4 solid solution
PS1.13 Ambroziak, Barbara	Effect of the synthesis route on the formation of Mo-containing CeO_2 solid solutions
PS1.14 Krol, Mariusz	Calorimetric assessment of crystallization latent heat, microstructure refinement, and corrosion resistance of TiB and Sr modified Mg–Li–Al alloys
PS1.15 Krol, Mariusz	Matrix preselection based on differential scanning calorimetry (DSC) for newly developed epoxy resins-based multilayer composites - material analysis
PS1.16 Wu, Yi	Modulating the Combustion Performance and Energy Release of Al/CuO Thermites via RDX Doping
PS1.17 Mataras, Cristina	Wear-resistant ceramic material for auto parts
PS1.18 Cojan, Claudia Andreea	Effect of Si_3N_4 addition on $\text{Mg-ZrO}_2/\text{Si}_3\text{N}_4$ ceramic composites

POSTER SESSION 2

PS2.01 Krstulović-Relija, Vedrana	1-D and 2-D Cobalt(II) Coordination Polymers with 2-Methylnicotinate Ligand
PS2.02 Panzic, Ivana	Synthesis, characterization and potential applications of tungsten (VI) oxide thin films obtained by spark ablation
PS2.03 Pavic, Luka	Semiconducting Mo(VI) Complexes for Alcohol Sensing
PS2.04 Pongrac, Petra	Effect of Repeated Processing on Recycled Polystyrene and Lignin Composites
PS2.05 Bafti Dunatov, Arijeta	Development of Indium Oxide Gas Sensors by Spark Ablation for the Detection of CO, CO ₂ , and HC _{mix}
PS2.06 Kwiatkowski, Kamil	Basic physicochemical properties of the continuous Sm _{5-x} Eu _x VO ₁₀ solid solution
PS2.07 Kwiatkowski, Kamil	Mechanochemical synthesis of the solid solution from the CuO–SnO ₂ system
PS2.08 Cerar, Janez	Activity coefficients in ionic surfactant solutions: From classical micellization thermodynamics to energetic and entropic decomposition
PS2.09 Choi, Joon Weon	From Discarded Garments to Jet Fuel: Production of Cycloalkane-Rich Sustainable Aviation Fuel (SAF) via Co-Pyrolysis and Hydrotreating of Waste Textiles
PS2.10 Lascano, Diego	Development of a custom gravimetric system for in situ investigation of calcium-based gas-solid reactions
PS2.11 Lascano, Diego	Influence of ink formulation on 3D-printed limestone materials for thermochemical energy storage
PS2.12 Dudek, Magdalena	Assessment of the carbonisation level of walnut-shell biochar produced by slow pyrolysis using organic petrography, optical reflectance, FTIR and thermal analysis
PS2.13 Gaweda, Ewa	An evaluation of the degradation of a polymer composite fertiliser containing waste sheep wool fibres and its effect on plant growth and development
PS2.14 Pietrzyk, Stanislaw	Sustainable low-temperature reductive pyrolysis of marine polymetallic nodules using waste biomass
PS2.15 Tsekpo, Yao	Understanding the Influence of Sn and Nb on Morphology, Sustainable Synthesis of Calcium Phosphate 1D nanostructures via Electrospinning for Advanced Functional Applications
PS2.16 Tihon, Oleg	Tailoring CuNP/layered double hydroxide heterostructures via memory effect for efficient solar photocatalysis
PS2.17 Parisi, Filippo	Emergent Catechol Selectivity in Competitive Adsorption Systems Based on Boronic-Functionalized Clay Minerals
PS2.18 Parisi, Filippo	Surface and Internal Exsolution Phenomena in Synthetic Chromite (FeCr ₂ O ₄) Induced by Cyclic Thermal Annealing

POSTER SESSION 3

PS3.01 Skalar, Tina	Qualitative and Quantitative Thermal and Phase Analysis of Aged Concretes
PS3.02 Skalar, Tina	Multi-scale analysis of PCM-enhanced plasters for improving thermal comfort in buildings
PS3.03 Celan Korosin, Natasa	Beyond mass loss: thermal decomposition, evolved-gas chemistry and the role of TGA cell conditions
PS3.04 Celan Korosin, Natasa	Thermal behaviour of flame-retardant TiO ₂ -based nanocomposite coatings on cotton
PS3.05 Jo, Dong Yeon	CRISPR/Cas12a-Based Signal-On Colorimetric Nucleic Acid Detection via Target-Triggered RNA G-Quadruplex Activation
PS3.06 Badea, Mihaela	Optimizing surface roughness in chemo-mechanical magnetorheological finishing (CMMRM) using sustainable and eco-friendly fluids
PS3.07 Olar, Rodica	Copper(II) complexes with mixed heterocyclic N-based ligands developed as multipotent biologically active species
PS3.08 Carpen, Rodica Daniela	Oxo-DPPH as a substitute for the stable free radicals employed in measuring total antioxidant activity
PS3.09 Hristea, Elena Nusa	Reaction between <i>N</i> -phenoxyamine and picryl chloride. Physico-chemical properties of the new compound obtained
PS3.10 Ledeti, Ionut Valentin	Comparative Thermal Stability of Dexamethasone Drug Substance vs. Tablet Formulation
PS3.11 Ledeti, Ionut Valentin	Solid-State Characterization of an Olmesartan Medoxomil–Sulfobutylether-β-Cyclodextrin Binary System and Its Compatibility with Pharmaceutical Excipients
PS3.12 Erceg, Matko	Thermal properties of PEO/LiBOB polymer electrolytes with modified zeolite filler
PS3.13 Oprica, Gabriela Madalina	Properties of polyvinylidene fluoride – surface coated titanium dioxide membrane designed for agricultural wastewater treatment
PS3.14 Oprica, Gabriela Madalina	Exopolysaccharides-cellulose nanofibrils hybrids for biomedical application
PS3.15 Tiliakos, Athanasios	Single-walled carbon nanotube nanocoatings onto 3D-printed PLA/CNT freestanding electrodes for supercapacitor applications
PS3.16 Tudose, Madalina	Covalently Immobilized Moxifloxacin on Graphene Oxide: A Stable Biointerface with Anti-Adhesion, Antimicrobial and Selective Cellular Responses
PS3.17 Zancu, Andrei Silviu	Large area oxide materials thin films obtained by laser processing
PS3.18 Rotaru, Andrei	Effects of Pressure-Dependent Heat Release Rate on Smoke Transport and Natural Shaft Exhaust in High-Altitude Tunnel Fires

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