

---

# 7<sup>th</sup> George Olah Conference

---

*XXIII Conference of the George Olah  
Doctoral School*

---

29 September 2025

---



# 7<sup>th</sup> George Olah Conference

29 September 2025

## Program

**EVENT VENUE:** BME CH201 ROOM PUNGOR

**8<sup>30</sup> Opening**

### ORAL PRESENTATIONS

**Chairwoman:** **Emília Csiszár**

8<sup>35</sup>-9<sup>05</sup> **Kata Enikő Decsov** – Environmental Challenges in Flame Retardance – Invited lecturer, George Olah Prize winner in 2024

9<sup>10</sup>-9<sup>45</sup> **János Korbuly** – Manufacturing of vaccines for veterinary purposes – Invited lecturer from Ceva-Phylaxia Plc., Head of Pilot plant

9<sup>45</sup>-10<sup>05</sup> **Diána Balogh-Weiser** – Development of nanocarriers for advanced formulation of therapeutic enzymes – Invited lecturer from the Department of Organic Chemistry and Technology

**10<sup>05</sup>-10<sup>25</sup> Coffee Break**

**Chairman:** **László Nyulászi**

10<sup>25</sup>-10<sup>45</sup> **Kinga Nyíri** – Antirepressor specificity is shaped by highly efficient dimerization of the staphylococcal pathogenicity island regulating repressors: StI repressor dimerization perturbed by dUTPases – Invited lecturer from the Department of Applied Biotechnology and Food Science

10<sup>45</sup>-11<sup>05</sup> **Zsolt Kelemen** – The magical world of carboranes – Invited lecturer from the Department of Inorganic and Analytical Chemistry

11<sup>05</sup>-11<sup>25</sup> **Márton Körösi** – Experimental determination of solid-liquid-gas equilibria in high-pressure CO<sub>2</sub> – Invited lecturer from the Department of Chemical and Environmental Process Engineering

11<sup>25</sup>-11<sup>45</sup> **Róbert Várdai** – Recycling of Multilayer Soft Plastic Waste: Mechanical Properties and Feasibility – Invited lecturer from the Department of Physical Chemistry and Materials Science

11<sup>45</sup>-12<sup>30</sup> **László Homolya** – How do our body's bouncers operate? (Cell polarity and protein trafficking) – Invited lecturer from HUN-REN Research Center for Natural Sciences, Institute of Molecular Life Sciences

**12<sup>30</sup>-14<sup>00</sup> Break and Poster session – 2<sup>nd</sup> floor**

**Jury: Mónika Molnár, Kata Enikő Decsov, László Nyulászi**

|     |                      |   |
|-----|----------------------|---|
| P01 | Anikó Boros          | Comparison of methodologies for colour measurement in fresh chicken breast fillets under different storage temperatures   |
| P02 | Anna Matkovits       | Identification of Climate Change Predictive Parameters in Hungarian Acacia Honeys   |
| P03 | Balázs Kenéz         | Development of nanocellulose-based carriers for immobilization and purification of recombinant enzymes  |
| P04 | Dániel Fekete        | Continuous twin-screw wet granulation using potassium sodium tartrate tetrahydrate  |
| P05 | Emanuela Cullhaj     | Characterization of polymeric films for mucoadhesive drug delivery.   |
| P06 | Ghazwan Saleh Ahmed  | Phase equilibrium and density measurements for the system methyl acetate + sunflower oil + carbon dioxide   |
| P07 | Gyöngyvér Pusztai    | Thiadiazino-indole, thiadiazino-carbazole and benzothiadiazino-carbazole dioxides: synthesis, physicochemical and early ADME characterization of representatives of new tri-, tetra- and pentacyclic ring systems and their intermediates |
| P08 | Imre Romsics         | Reactive compatibilization of immiscible PLA/PBAT biopolymer blends for medical application   |
| P09 | Judit Erzsébet Budai | Chemical Recycling of Flexible Polyurethane Foams by Glycolysis: Toward a More Sustainable Polyol Recovery  |
| P10 | Kata Szayly          | Characterization of mucoadhesion of polymer tablets on the surface of poly(vinyl-alcohol) hydrogels   |
| P11 | Kristóf Noel Garami  | Target Agnostic Photoaffinity Labelling by Sulfonylhydrazones   |
| P12 | Máté Gergő Honvári   | Enantiocomplementary Bioreduction of Flexible Ring N-(3-Oxobutyl)-Heterocycles Providing Enantiopure Chiral Fragments for Drug Discovery  |
| P13 | Máté Laurinyecz      | Development of a Reusable MNP-Based Support for His-Tagged Enzyme Immobilization  |
| P14 | Medárd Koncz         | Comparison of the stabilizing effects of ellagic acid and gallic acid in polyethylene   |
| P15 | Mihály Hegyi         | Taylor Dispersion Analysis at High Pressure – Challenges and Corrections  |
| P16 | Noor Al Deeb         | Quantum Chemical Insight into the Production of Reactive Oxygen Species by Catechol/o-Quinone Redox Cycling: The Case of 4-Hydroxyestrogens   |
| P17 | Péter Szemesi        | Continuous-flow synthesis of aripiprazole through the safe utilization of THF hydroperoxide   |
| P18 | Zoltán Petrovics     | Statistical assessment of content uniformity testing using conventional and process analytical technology -based analytical methods   |

## STUDENTS' ORAL PRESENTATIONS

### Section A – CH201

**Chairman: László Poppe**

- 14<sup>00</sup>-14<sup>15</sup> **Gergely T. Solymosi** – Unique potentiometric behavior of ion-exchanger nanopores
- 14<sup>15</sup>-14<sup>30</sup> **Apoko Stephen Omondi** – Tuning the photoluminescence response of doped zinc aluminate phosphors
- 14<sup>30</sup>-14<sup>45</sup> **Ziyoda Ganieva** – Ligand-Directed Cu<sub>2</sub>O Shell Growth on Gold NanoPrisms: Surface Selectivity and Growth Mechanism
- 14<sup>45</sup>-15<sup>00</sup> **Lucy Nyambura Karanja** – Hydrothermal Carbonization of Spent Coffee Grounds into Hydrochar for Adsorptive Removal of Rhodamine 6G
- 15<sup>00</sup>-15<sup>15</sup> **Rudolf Mihály Mátyás** – Effect of the reaction conditions on the optical properties of Mn-doped spinel nanostructures
- 15<sup>15</sup>-15<sup>30</sup> **Meng Yang** – Addition reactions of phosphorus-centered radicals onto olefins: DFT and ab initio calculations
- 15<sup>30</sup>-15<sup>50</sup> **Coffee Break**

### Section B – CH201

**Chairman: Zsolt Kelemen**

- 15<sup>50</sup>-16<sup>05</sup> **Kata Takács** – Synthesis, Evaluation and Concentration Effects of a Novel Natural-Based Phosphine Antioxidant in the Thermal Stabilization of Polyethylene
- 16<sup>05</sup>-16<sup>20</sup> **Petra Kántor** – Subcritical hydrolysis: a route from waste to raw material
- 16<sup>20</sup>-16<sup>35</sup> **Zsolt Szalóczy** – Reconciling Economic Growth and Sustainability: Is a Balance Possible?
- 16<sup>35</sup>-16<sup>50</sup> **Anna Péter-Haraszti** – Quantification of amorphous traces in crystalline carvedilol using different analytical methods
- 16<sup>50</sup>-17<sup>05</sup> **Viktória Berta Perey-Simon** – Impact of Genomic Uracil on Zebrafish Embryonic Development
- 17<sup>05</sup>-17<sup>20</sup> **Bálint Kurucz** – Resveratrol's effect on a mAb producing CHO cell line
- 17<sup>35</sup> **Closing – CH201**