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

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*XXIV Conference of the George Olah  
Doctoral School*

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15 September 2026

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15 September 2026

## Program

**EVENT VENUE:** BME CH201 ROOM PUNGOR

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

### ORAL PRESENTATIONS

**Chairman: László Poppe**

**8<sup>35</sup>-9<sup>10</sup> Norbert Németh** – Applications of nonlinear phenomena in chemical systems and synthesis methods especially ZIF formation – Invited lecturer, George Olah Prize winner in 2025

**9<sup>10</sup>-9<sup>45</sup> András Kotschy** – The future of drug discovery: challenges and answers – Invited lecturer from Servier Research Institute of Medicinal Chemistry

**9<sup>45</sup>-10<sup>20</sup> Ádám Csaba** – From Feedstock to High-Performance Polymers – MOL's Integrated Petrochemical Value Chain – Invited lecturer from MOL Petrochemicals Co. Ltd., Polymer Asset Team Technology Leader

**10<sup>20</sup>-10<sup>40</sup> Coffee Break**

**Chairwoman: Emília Csiszár**

**10<sup>40</sup>-11<sup>00</sup> Viktória Feigl** – Bioleaching of critical raw materials from bauxite residue – Invited lecturer from the Department of Applied Biotechnology and Food Science

**11<sup>00</sup>-11<sup>20</sup> László Ferenc Simon** – Surface wave-based multiparametric biosensors for comprehensive analysis of biomolecules – Invited lecturer from the Department of Inorganic and Analytical Chemistry

**11<sup>20</sup>-11<sup>40</sup> Péter Keglevich** – Synthesis of anticancer Vinca alkaloid and flavonoid derivatives – old scaffolds, new perspectives – Invited lecturer from the Department of Organic Chemistry and Technology

**11<sup>40</sup>-12<sup>00</sup> Borbála Tegze** – Energy transfer between upconverting nanoparticles and dye molecules in aqueous suspensions and in chitosan-based composite coatings – Invited lecturer from the Department of Physical Chemistry and Materials Science

**12<sup>00</sup>-12<sup>20</sup> Éva Pusztai** – Beyond regulatory guidelines: industrial applications of tolerance intervals – Invited lecturer from the Department of Chemical and Environmental Process Engineering

**12<sup>20</sup>-13<sup>20</sup> Coffe Break and Poster session – 2<sup>nd</sup> floor**

|     |                       |                                                                                                                                                                                 |
|-----|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P01 | Emanuela Cullhaj      | Viscoelasticity and adhesion of hydroxypropylmethyl cellulose and chitosan films on biomimetic hydrogels.                                                                       |
| P02 | Otília Tóth           | Investigating the effect of catalytically inactive dUTPase enzyme in mouse embryonic fibroblast cells                                                                           |
| P03 | Petra Kántor          | Controlled hydrothermal decomposition of polymers and their composites                                                                                                          |
| P04 | Balázs Almási         | Thiolactams to cyclic (alkyl)(amino)carbenes – catalysis of alkali metal reduction                                                                                              |
| P05 | Kenéz Balázs          | Development of Functionalized Bacterial Nanocellulose Membranes for the Selective Immobilization of Recombinant Enzymes                                                         |
| P06 | Lucy Nyambura Karanja | Visible light photocatalytic activity of 2D/1D g-C <sub>3</sub> N <sub>4</sub> /ZnO heterostructure for efficient degradation of Rhodamine 6G, 4-Nitrophenol, and Ciprofloxacin |
| P07 | Kese István           | Synthesis and Characterization of Novel Alkylthioether-Alpha-Cyclodextrin Derivatives and Their Impact on Bacterial Biofilm Formation                                           |
| P08 | Daniel Mulu Mengistu  | Production of Bacterial-Derived Bio-filler For Concrete Crack Bio-grouting and Sealing in Construction and Buildings                                                            |
| P09 | Laki Anna             | Comparison of Tolerance Interval Calculation Methods for Accuracy and Precision under USP <1210>                                                                                |
| P10 | Apoko S. Omondi       | Mn–Cr dopant association in dilute co-doped ZnAl <sub>2</sub> O <sub>4</sub> revealed by combined EPR and optical spectroscopy                                                  |

**STUDENTS' ORAL PRESENTATIONS****Section A – CH201****Chairman: Zsolt Kelemen**

- 13<sup>20</sup>-13<sup>35</sup> **Noor Al Deeb** – Quantum Chemical Insight into Catechol/o-Quinone redox cycling and O<sub>2</sub><sup>(-)</sup> generation: The case of Estrogens
- 13<sup>35</sup>-13<sup>50</sup> **Gao Yanhong** – B-substituted carboranes as light-emitting materials
- 13<sup>50</sup>-14<sup>05</sup> **Dániel Steinsits**– Synthesis of various C3-substituted oxindoles from isatins
- 14<sup>05</sup>-14<sup>20</sup> **Máté Gergő Benczúr** – Innovative modelling of tablet dissolution using physics-informed neural networks

**14<sup>20</sup>-14<sup>30</sup> Break**

## **Section B – CH201**

**Chairman:                László Poppe**

**14<sup>30</sup>-14<sup>45</sup>        Ghazwan Saleh Ahmed** – Kinetic study for enzymatic biodiesel production from sunflower oil by interesterification reaction

**14<sup>45</sup>-15<sup>00</sup>        Szajkó Milda Blanka** – Thymidylate synthase inhibition is associated with single-stranded DNA accumulation and mutagenesis

**15<sup>00</sup>-15<sup>15</sup>        Daniel Mulu Mengistu** – Production of Bacterial-Derived Bio-filler For Concrete Crack Bio-grouting and Sealing in Construction and Buildings

**15<sup>15</sup>-15<sup>30</sup>        Judit Budai** – Optimization of the glycolysis of flexible polyurethane foams for sustainable polyol recovery

**15<sup>30</sup>-15<sup>45</sup>        Sameela Thachaparamban** – Measurement of local viscosity with a fluorescent molecular rotor

**16<sup>00</sup>                Closing – CH201**