



84th International Scientific
Conference of the
University of Latvia 2026



LATVIJAS
UNIVERSITĀTE

Ilgspējīga ķīmija un materiāli videi draudzīgām tehnoloģijām / Sustainable Chemistry and Materials for Environmentally Friendly Technologies

Ceturtdiena, 2026. gada 16. aprīlī, plkst. 9.00
Dabas mājā, Jelgavas ielā 1, 107. aud., Rīga

Thursday, 16 April 2026, 9.00 a.m
House of Nature, Jelgavas street 1, Room 107, Riga

Programma | Programme

8.30–9.00 Kafijas pauze, diskusijas | Coffee, discussions

Sesija 1 | Session 1

Vadītājs | Chair: A. Vīksna

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|-------------|--|--|
| 9.00–9.15 | Valentyn Mohylyuk
Rīga Stradiņš University | Elucidation of the mechanism of amorphization and dissolution of bad glass formers as a function of drug-polymer interaction and preparation method: Toward sustainable technologies
Valentyn Mohylyuk, Roman Viter, Agris Bērziņš |
| 9.15–9.30 | Taisija Gricenko
University of Latvia | Purification and enzymatic acylation of berry press residue anthocyanins
Taisija Gricenko; Alise Zommere; Jorens Kviesis; Linards Klavins |
| 9.30–9.45 | Kristīne Krūkle-Bērziņa
Latvian Institute of Organic Synthesis | Encapsulation of Active Pharmaceutical Ingredients in Cyclodextrin Based MOFs
Kristīne Krūkle-Bērziņa; Alons Lends; Anna Boguszewska-Czubara |
| 9.45–10.00 | Inga Jurgelane
Riga Technical University | Levan-based hydrogel with integrated cannabidiol and insulin-like growth factor 1 liposomes
Inga Jurgelane; Karina Egle; Selay Tornaci; Girts Salms; Ebru Toksoy Öner; Arita Dubnika |
| 10.00–10.30 | Vladislav Ivaništšev
University of Latvia | Twenty years after: modelling oxygen electrocatalysis for sustainable energy technologies
Vladislav Ivaništšev; Nadezda Kong |

10.30–11.00 **Kafijas pauze, diskusijas/Coffee break, discussions**

Environmental sustainability and climate change mitigation

PLENĀRSĒDE / PLENARY SESSION

Zinātnes mājā, Jelgavas ielā 3, Alfa/ House of Science, Jelgavas street 3, Alfa

12.30–13.00 **Kafijas pauze, diskusijas, POSTERU SESIJA/Coffee break, discussions, POSTER SESSION**

Sesija 2 | Session 2

Vadītājs | Chair: A. Bērziņš

- 13.00–13.15 Lauris Jankovskis**
Daugavpils University
- Role of medicago *Sativa L.* mediated biological synthesis of au and ag nanoparticles in antibacterial applications**
Lauris Jankovskis; Inese Kokina; Ilona Plaksenkova; Agata Lange; Marija Jermalonoka; Patryk Krzemiński; Aleksandra Mošenoka; Agnieszka Ostrowska; Renata Galek; Barbara Nasiłowska; Wojciech Skrzeczanowski; Maciej Chronik; Marta Kutwin
- 13.15–13.30 Aina Semjonova**
University of Latvia
- Cocrystallization behavior of nitrofurantoin antibiotics with a series of urea-based coformers**
Aina Semjonova; Liāna Orola; Inese Sarceviča; Kristīne Krūkle-Bērziņa; Dejan-Krešimir Bučar; Agris Bērziņš
- 13.30–13.45 Džonatans Miks Melgalvis**
University of Latvia
- Deep learning approach for solving centrosymmetric crystal structures from low-resolution diffraction data**
Džonatans Miks Melgalvis; Toms Reķis
- 13.45–14.00 Miļena Dile**
Institute of Solid State Physics
- Microwave-assisted synthesis of zinc sulfide electroluminescent phosphors**
Miļena Dile; Madara Klave; Katrīna Laganovska; Edgars Vanags; Reinis Ignatans; Virginija Vitola; Marija Duncė; Madara Leimane; Inga Pudza; Kuzmin Alexei; Aleksejs Zolotarjovs; Krisjanis Smits
- 14.00–14.15 Roman Viter**
University of Latvia
- Development of new optical composites for detection of surface defects**
Roman Viter; Iryna Tepliakov; Artis Kinens; Matīss Mārtiņš Drava; Mindaugas Tamosiunas
- 14.15–14.30 Jeļena Sušinska**
University of Latvia
- Thermal processing pathways for structural tuning of tellurium nanowires**
Jeļena Sušinska; Reinis Ignatāns; Aina Semjonova; Gunta Kunakova
- 14.30–15.00 **Kafijas pauze, diskusijas, POSTERU SESIJA/Coffee break, discussions, POSTER SESSION**
- 15.00–15.15 Dāvis Gavars**
University of Latvia
- Simultaneous green energy generation and CO₂ photoreduction using metal oxide hybrid nanowire arrays**
Dāvis Gavars; Raimonds Meija; Margarita Volkova; Raimonds Popļausks; Anatolijs Šarakovskis; Artis Kons; Donāts Erts; Jana Andžāne



15.15–15.30	Nader Ashraf Ali University of Latvia	Conversion of low-grade heat into electricity using nano-confined polyethylene oxide-based polymer electrolyte Nader Ashraf Ali; Irina Oliševeca; Donāts Erts
15.30–15.45	Dāgs Dāvis Līpiņš Riga Technical University	Development of bio-inspired energetic co-crystals Dāgs Dāvis Līpiņš; Elena Reinhardt; Thomas M. Klapötke; Anatoly Mishnev; Kristaps Valkovskis; Artis Kons; Agris Bērziņš; Alons Lends; Māris Turks; Irina Novosjolova
15.45–16.00	Rebeka Ločmele Latvian Institute of Organic Synthesis	Advancing Ester Hydrosilylation: From Aldehyde Synthesis to One-Pot Access to Functional Acetals Rebeka Ločmele
16.00–16.15	Andrejs Savkins Latvian Institute of Organic Synthesis	Acyclic diaryl λ^3-bromanes: synthesis and use in cycloaddition reactions via aryne generation Andrejs Savkins; Igors Sokolovs
16.15–16.30	Madara Darzina Latvian Institute of Organic Synthesis	Electrochemical synthesis of spiro-hemiaminal ethers from furfural derivatives Madara Darzina; Aigars Jirgensons
16.30–17.00	Noslēgums, diskusijas Conclusions, discussions	