

**The Jonh Paul II Catholic University of Lublin, Institute of Biological
Sciences**

Maria Curie-Sklodowska University in Lublin

Faculty of Chemistry, Institute of Chemical Sciences

Polish Chemical Society

Łukasiewicz Research Network – New Chemical Syntheses Institute



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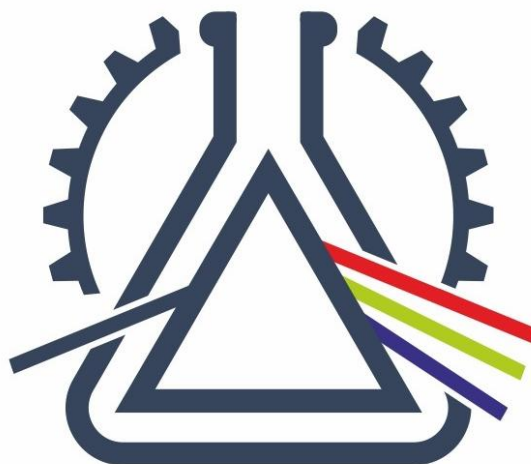


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**Agenda of
International Conference
Science and industry – challenges and opportunities
June 23-25, 2026, Lublin - Pulawy**

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Important information

The conference takes place at:

23.06.2026 and 25.06.2026 The building of the Institute of Biotechnology (Faculty of Medicine John Paul II Catholic University of Lublin), Konstantynów 1i Str.,
24.06.2026 Puławski Park Naukowo-Technologiczny, 1 Mościckiego St., Puławy,

Registration of participants and collection of conference materials will be held in the conference office (The building of the Institute of Biotechnology, Faculty of Medicine John Paul II Catholic University of Lublin, Konstantynów 1i Str., Lobby on ground floor) on 23.06.2026 from 8:00

**The poster session will be held on 23.06.2026 from 13:00 to 15:00 (lobby, 1st, 2nd, and 3rd floor), Please hang up your posters in advance before 12:00.
Best poster competition announced – at 15:00, room 0.08-B, ground floor**

Kick-off meeting of the participant of the project:

Circular economy through a sustainable recovery technology of critical resources (REEs) from selected waste materials will be held on-line on 24.06.2026 from 13:00 to 14:30

Lunches –

23.06.2026 room 0.08-ICBN, ground floor, Institute of Biotechnology, Konstantynów 1j Str., (early ICBN – “Interdyscyplinarne Centrum Badań Naukowych KUL”)
24.06.2026 –Conference room, Puławski Park Naukowo-Technologiczny, 1 Mościckiego St., Puławy,
25.06.2026 “Bistro Poczekajka KUL” Konstantynów 1g Str., (opposite the building of the Institute of Biotechnology)

**„Trip to Lublin Village Museum” – excursion on 23.06.2026 from 17:00 to 23:00 – from 17:00 to 19:00 guided tour, from 19:00 to 23:00 dinner and bonfire (registration at the conference office)
Departure by bus at 16:45 from a parking lot of Institute of Biotechnology, Konstantynów 1i Str. (return is also assured)**

Departure by bus to Puławski Park Naukowo-Technologiczny, 1 Mościckiego St., on 24.06.2026 at 9:15 from a parking lot of Institute of Biotechnology, Konstantynów 1i Str.

The conference dinner will be held on 24.06.2026 from 19:00 to 23:00 at the FOCUS Hotel, 80 Kraśnicka Ave., Lublin, 20-718 Lublin

June 23, 2026 The John Paul II Catholic University of Lublin, Konstantynów 1i Str., room 0.08-B, ground floor	
9:00 – 9:15	Opening ceremony
Session Chair: Dr hab. Robert Mroczka Associate Professor KUL	
9:15 – 9:45	B. Cieśla, D. Kowalkowska-Zedler, J. Drzeżdżon, D. Jacewicz, Ł. Ponikiewski, A. Dołęga, R. Łyszczek, P. Bruździak, <u>A. Pladzyk</u> Heteroleptic Cd(II) and Zn(II) silanethiolates in search of active catalyst in allyl alcohol oligomerization
9:45 – 10:00	<u>K. Szarłowicz</u> Challenges in radioactive environmental decontamination: stability of radiocesium-substituted illite-like structure
10:00 – 10:15	<u>U. Kotowska, P. Zawiślak, D. Kiejza</u> Chemically activated peracetic acid for oxidation of organic micropollutants and microplastics
10:15 – 10:30	<u>P. Rajewska, J. Janiszewska, M. Dębowski, D. Wołosz, M. Mazurek-Budzyńska, P. Parzuchowski</u> Chemically modified poly(ethylene terephthalate) as a precursor for sustainable membrane fabrication via wet phase inversion
10:30 – 10:45	Coffee break (Lobby on the ground floor)
Session Chair: Dr hab. Anna Sierosławska, Associate Professor KUL	
10:45 – 11:00	<u>A. Dębczak, M. Sandomierski, G. Florkowski, R. Wiejak, D. Kostrzewa</u> Separation of active compounds from <i>Nicotiana tabacum inflorescence</i> var. Virginia: optimization of supercritical fluid extraction
11:00 – 11:15	<u>V. Paientko</u> Surface interactions and mechanochemical formation of organo-mineral composites based on <i>Solidagos virgaurea</i> L. and clay minerals with different structural organizations
11:15 – 11:30	<u>B. Kaźmierczak, P. Radulski, A. Kaczmarczyk, E. Osuch-Słomka</u> The physical activation as a factor influencing changes in the structure of biochars obtained from used coffee grounds
11:30 – 11:45	<u>G. Yanovska, K. Szewczuk-Karpisz</u> Synthesis and physicochemical characterization of alginate-based composite hydrogels incorporating mesoporous silica and hydroxyapatite
11:45 – 13:00	Lunch (room 0.08-ICBN, ground floor), Coffee break
13:00 – 15:00	Poster session (Lobby on 1st, 2nd, and 3rd floor) and Lab tour
15:00 – 15:15	Settlement of the competition for the best poster (room 0.08-B, ground floor)
17:00 – 23:00	Lublin Village Museum (guided tour and dinner (bonfire))

June 24, 2026 Puławski Park Naukowo-Technologiczny, 1 Mościckiego St., Puławy Conference room, ground floor	
10:00 – 10:15	Opening coffee
10:15 – 10:30	Conference opening in Łukasiewicz-INS
Session Chair: Dr hab. Marek Inger (Łukasiewicz - INS)	
10:30 – 11:00	<u>D. Smeulders</u>, D. Philips, Immersion controlled methanation
11:00 – 11:30	<u>P. Kowalik</u>, K. Antoniak-Jurak, W. Próchniak, P. Baran, M. Rodak-Goryl Copper-based LTS catalyst as a model system for studying industrial catalyst deactivation
11:30 – 11:45	<u>A. Drozd</u>, J. Ostrowski, U. Skorek, K. Rymarczyk, J. Baran, A. Lassak, A. Zdunek Assessing the quality of mineral raw materials used for agricultural purposes using ICP-OES and XRF
11:45 – 12:00	<u>A. Myka</u>, A. Bińczak, R. Łyszczek Polyhalite as a mineral additive to nitrogen-based fertilizers: opportunities and limitations
12:00 – 12:15	Coffee break
Session Chair: Dr hab. Paweł Kowalik (Łukasiewicz - INS)	
12:15 – 12:30	<u>I. Goncharova</u>, D. Guichaoua, A. Kityk, J. Jędryka, O. Sevastyanova, B. Sahraoui Laser-induced breakdown spectroscopy (LIBS) application for metallic ions detection in natural water
12:30 – 12:45	<u>A. Mazaraki</u>, N. Prytulska, <u>T. Karavayev</u> Sustainable approaches to water treatment using kaolin and chalk: world experience and potential for Ukraine
12:45 – 13:00	<u>O. Sydorenko</u>, M. Matviienko, O. Sevastyanova Integration of natural and artificial components in bioremediation of water supply sources
13:00 – 13:15	<u>A. Zdunek</u>, P. Bogusz, M. Rymkiewicz, I. Węglarz, J. Flakiewicz, K. Bąkała Preliminary steps in processing of biogas plant digestate to produce solid fertilizer products
13:15 – 13:30	<u>A. Bińczak</u>, A. Myka, K. Borowik P. Firan, M. Inger Selected physicochemical properties of ammonium nitrate-based fertilizers obtained by different granulation methods
13:30 – 15:00	Lunch and coffee break
19:00 – 23:00	Dinner – FOCUS Hotel (80 Kraśnicka Avenue, 20-718 Lublin)

June 25, 2026 The John Paul II Catholic University of Lublin, Konstantynów 1i Str., room 0.08-B, ground floor	
Session Chair: Dr hab. Maciej Maslyk, Associate Professor KUL	
9:00 – 9:15	J. Lupa, G. Grzybek, M. Rotko, G. Słowik, A. Kierys, M. Greluk Structure-activity relationship in Co/Ce _{1-x} Pr _x O _{2-δ} catalysts for ethanol steam reforming
9:15 – 9:30	J. Janiszewska, P. Rajewska, A. Kowalik-Klimczak, M. Życki, W. Łoński Fabrication and Properties of PES/Biochar Composite Membranes
9:30 – 9:45	E. Józwik, O. Wrona, M. Rymkiewicz, I. Węglarz, M. Chmiel, A. Zdunek Study of pesticide content in flowers and rapeseed honey and impact assessment of the plant protection products on honey quality
9:45 – 10:00	M. Foltyn, M. Powęzka, D. Gugala-Fekner, S. Pasieczna-Patkowska, M. Barczak Adsorption of diclofenac and fluconazole by halloysite or halloysite-embedded hydrogels
10:00 – 10:15	I. Węglarz, B. Mazurek, E. Józwik, M. Rymkiewicz, O. Wrona, M. Chmiel, A. Zdunek Antioxidants from plant waste: HPLC-FLD determination of tocopherols in supercritical CO ₂ extract from strawberry seeds
10:15 – 10:30	M. Smyk, K. Antoniak-Jurak, W. Próchniak, M. Gorol, W. Kowalski, A. Kierys, R. Zaleski Study of nickel catalysts supported on ZnO-ZnAl ₂ O ₄ nanocomposite
10:30 – 11:00	Coffee break (Lobby on the ground floor)
Session Chair: Prof. Dr hab. Dorota Kołodyńska (UMCS)	
11:00 – 11:15	R. Mroczka, A. Słodkowska, P. Kozyra Molecular mechanism of benzotriazole adsorption on copper: An in situ Raman study combined with ToF-SIMS and DFT methods.
11:15 – 11:30	M. El Amine Boudjouraf, A. Borówka, A. Rymuszka, A. Sierosławska Combining mesoporous silica nanoparticles and phytocomplexes for dual induction of alternative cell death pathways in cancer therapy
11:30 – 11:45	B. Mirosław, D. Nakane, T. Akitsu Crystallography of Schiff Base metal complexes: trends in data reporting and Machine Learning potential
11:45 – 12:00	K. Rymarczyk, J. Baran, A. Drozd, J. Ostrowski, U. Skorek, G. Migdal Application of WD-XRF and ICP-OES techniques for the determination of Al ₂ O ₃ , Na ₂ O and SiO ₂ content in zeolites.
12:00 – 12:30	Closing ceremony of the conference
12:30 – 14:30	Lunch (“Bistro Poczekajka KUL” Konstantynów 1g Str.,)

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CENTRUM PRASOWE
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Posters

- 1. Iwona Gęca**
Adsorptive stripping voltametric determination of thiamine using novel lead microelectrode array
- 2. Iwona Gęca, Anna Dziejicka**
Application of a lead microelectrode array for the determination of U(VI) ions by adsorptive stripping voltammetry
- 3. Cecylia Wardak, Klaudia Morawska**
Analytical application of new potentiometric sensors for monitoring mineral nitrogen in the environment
- 4. Małgorzata Grabarczyk, Oliwia Siewierska**
The influence of humanic substances and surfactants as components of the environmental sample on the analytical germanium signal obtained by the ADSV method using a modified carbon electrode
- 5. Małgorzata Grabarczyk, Cecylia Wardak, Mersiha Suljkanović, Jasmin Suljagić**
The influence of temperature on increasing the possibilities of practical use of ion-selective electrode modified hydrophobic deep eutectic solvents
- 6. Ignacy Zdaniewicz, Jakub Miętus, Piotr Tobiasz and Hanna Krawczyk**
Design and study of substituted chalcone-azobenzene derivatives for photopharmacology applications
- 7. Barbara Rojek, Oliwia Zyngiel, Alina Plenis**
Spectroscopic evaluation of the formation of an inclusion complex of β -cyclodextrin with naproxen
- 8. Barbara Rojek, Agata Bartyzel, Alina Plenis**
Investigation of the influence of polymeric excipients on the solubility of an indole derivative using vibrational spectroscopy and TG-FTIR techniques
- 9. Zbigniew Hubicki, Karolina Zinkowska, Grzegorz Wójcik**
Precipitation of cadmium(II) ions by trimercaptotriazine
- 10. Małgorzata Jurak, Kamil Karaś, Katarzyna Pastuszak, Agnieszka Ewa Wiącek, Monika Sujka, Agata Ładniak**
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- 11. Agata Ładniak, Agnieszka Ewa Wiącek, Małgorzata Jurak**
Wettability of DPPG films modified by chitosan, hyaluronic acid and titanium dioxide
- 12. Oleksiy Myronyuk, Myroslav Domashevskiy, Taras Karavayev**
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- 13. Jolanta Rubaj, Grażyna Bielecka, Waldemar Korol, Marek Szlachta**
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- 14. Sławomir Walczyński, Waldemar Korol**
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- 15. Marcel Jakubowski, Aleksandra Domke, Mariusz Sandomierski**
Titanium phosphate coatings enriched with bioactive ions for local antibiotic delivery
- 16. Marcel Jakubowski, Aleksandra Domke, Mariusz Sandomierski**
Phytate based coatings a platform for controlled bisphosphonate delivery
- 17. Mariusz Sandomierski, Marcel Jakubowski, Aleksandra Domke**
Zeolite coating on Zr702 surfaces as carriers for controlled minodronate delivery
- 18. Mariusz Sandomierski, Marcel Jakubowski, Aleksandra Domke**
Potential use of polyphenol-based coatings in the modification of biomaterial surfaces

19. **Aleksandra Domke, Marta Woźniak-Budych, Katarzyna Staszak**
Antibacterial and hemocompatible PES membranes modified with tannic acid and gold nanoparticles for hemodialysis
20. **Aleksandra Domke, Marta Woźniak-Budych, Katarzyna Staszak**
Antifouling cellulose acetate membranes modified with platinum nanoparticles and sulfobetaine potentially for hemodialysis applications
21. **Mohamed El Amine Boudjouraf, Anna Borówka, Anna Rymuszka, Kamil Sobczak, Anna Sierosławska**
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22. **Renata Świsłocka, Tomasz Pieńkowski, Aleksandra Golonko, Włodzimierz Lewandowski, Waldemar Priebe**
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Coordination complexes of selected anthracyclines with metal ions: synthesis, structure, stability, biological and antioxidant implications
25. **Maciej Łuczak, Artur Kościuszko, Katarzyna Witt-Kalicińska**
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Multifunctional hydroxyapatite-based materials incorporating silver nanoparticles and comfrey extract for bone tissue regeneration
27. **Dominika Fila, Alicja Wawszczak, Nabanita Saha, Petr Saha, Oyunchimeg Zandraa, Dorota Kołodyńska**
Characteristics of sodium alginate-based matrices including bacterial cellulose cross-linked with hydroxyapatite
28. **Justyna Bąk, Dorota Kołodyńska**
LDH@BC composites as efficient sorbents for cerium(III) ions: the role of drying method and process parameters
29. **Monika Wawrzekiewicz**
Glucan as renewable component in the synthesis of adsorbents for environmental applications – a literature review
30. **Beata Paw, Alicja Skrzypek, Julia Kawęcka, Joanna Matysiak**
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31. **Alicja Skrzypek, Beata Paw, Katarzyna Barańska, Joanna Matysiak**
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32. **Małgorzata Rymkiewicz, Emilia Józwiak, Mariusz Chmiel, Olga Wrona, Ilona Węglarz, Anna Zdunek**
Determination of total vitamin C in plant matrices using TCEP and DDT reduction by HPLC-DAD
33. **Anita Bocho-Janiszewska**
UV filters in commercial cosmetics: properties and emerging trends in formulation
34. **Mariola Samsonowicz, Sofya Panasevich, Ilya Tsybulski, Paulina Szczubelek, Adriana Dowbysz, Monika Kalinowska, Anna Gorlewska-Pietluszenko**
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35. **Mariola Samsonowicz, Sofya Panasevich, Ilya Tsybulski, Paulina Szczubelek, Adriana Dowbysz, Monika Kalinowska, Anna Gorlewska-Pietluszenko**
Hidden potential of oil macerates: antioxidants and modulation of digestive enzyme activity

36. **Mariola Samsonowicz, Grzegorz Świdorski, Adriana Dowbysz, Ewelina Gołębowska, Natalia Kowalczyk, Włodzimierz Lewandowski**
Antioxidant properites of phenylacetic acis derivatives
37. **Viktoria Paientko, Yulia Berger**
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38. **Olga Wrona, Małgorzata Rymkiewicz, Ilona Węglarz, Emilia Jóźwik**
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39. **Dorota Kostrzewa, Grzegorz Florkowski, Agnieszka Dębczak, Zygmunt Fekner, Kamila Klimkowska, Michał Sandomierski**
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40. **Monika Kalinowska, Bartłomiej Wołpiuk, Adriana Dowbysz, Mariola Samsonowicz**
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Agricultural waste-based biochar adsorbents for the removal of pharmaceuticals from aqueous solutions
45. **Małgorzata A. Kaczorowska**
Removal of hazardous cadmium ions from aqueous solutions using novel NF and UF membranes
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Sustainable alginate@zirconium adsorbents for phosphate removal from aquatic systems
47. **Weronika Bracka, Justyna Bąk, Dominika Fila, Weronika Sofińska-Chmiel, Dorota Kołodyńska**
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48. **Joanna Lupa, Marek Rotko, Magdalena Greluk, Agnieszka Kierys**
Effect of the impregnation solvent on the structure of Ni/CeO₂ catalysts for steam reforming of ethanol
49. **Cezary Pomykała, Marcin Cichy, Grzegorz Słowik, Magdalena Greluk**
Engineering nickel-support interactions: the role of molybdenum in Ni/Mo-CeO₂ catalysts for ethanol steam reforming
50. **Katarzyna Jedynek, Barbara Charmas, Barbara Wawrzaszek, Julia Szewczuk**
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51. **Katarzyna Jedynek, Barbara Charmas, Barbara Wawrzaszek, Julia Szewczuk**
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52. **Elis-Bright Iteke Molua, Sylwia Kukowska-Superson, Piotr Nowicki, Piotr Bulak, Katarzyna Szewczuk-Karpisz**
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Biochars modified with thickening agents as effective sorbents for lathanum(III) ions

54. **Szymon Gustaw, Justyna Bąk, Dorota Kołodyńska**
Biochar composites with biopolymers additives as efficient sorbents for rare earth elements
55. **Olena Siryk, Nataliia Guzenko, Stephan Peth, Justina Vitková, Dmytro Sadovskyi, Katarzyna Szewczuk-Karpisz**
Biodegradable lignin-based hydrogel for immobilization of cadmium ions
56. **Izabela Ryza, Urszula Klekotka, Joanna Karpińska**
Tackling HDPE plastic pollution through UV/SPC advanced oxidation: an environmentally driven strategy
57. **Marta Goliszek-Chabros, Bogdan Tarasiuk, Olena Sevastyanova, Beata Podkościelna**
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58. **Nataliia Smyk, Ksenia Moroz, Olena Sevastyanova**
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59. **Vita Halysh, Olena Ivanenko, Olena Sevastyanova**
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60. **Serhii Mylokost, Olena Ivanenko, Vita Halysh, Olena Sevastyanova**
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61. **Dmytro Golovko, Iryna Goncharova, Yaroslav Barashovets, Olena Sevastyanova**
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64. **Renata Łyszczek, Agnieszka Ostasz, Halina Głuchowska, Patrycja Kuś**
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66. **Olena Sydorenko, Vadym Haiev, Nataliia Nesterenko, Olena Sevastyanova**
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