National Institute for Research-Development in Chemistry and Petrochemistry - ICECHIM



The International Symposium

"PRIORITIES OF CHEMISTRY FOR A SUSTAINABLE DEVELOPMENT"

PRIOCHEM - XXII

Splaiul Independenței 202, sect. 6, Bucharest



Event organized under the aegis of the Romanian

Ministry of Education and Research

and

National Authority for Research

MINISTERUL EDUCAȚIEI ȘI CERCETĂRII

Partners:

Romanian Chemical Society

Foundation "C. D. NENITESCU"

ADEIV
Asociația de Dezvoltare și Educatie Integrativă pentru Viitor

Media partner

Radio România Cultural

Event held under the patronage of
The Academy of Romanian Scientists

Sponsors:

PUBLIC REPORT

22nd International Symposium "Priorities of Chemistry for a Sustainable Development" - PRIOCHEM XXII

21–23 October 2026, ICECHIM Bucharest, Romania

1. PRIOCHEM XXII - Advancing Sustainable Chemistry Through International Cooperation

The National Institute for Research and Development in Chemistry and Petrochemistry – ICECHIM Bucharest organized the 22nd edition of the International Symposium "Priorities of Chemistry for a Sustainable Development" (PRIOCHEM XXII), held on 21–23 October 2026 at the institute's headquarters in Bucharest, Romania.

Building on more than two decades of scientific exchange, PRIOCHEM has become ICECHIM's flagship international scientific event, bringing together researchers, academics, industry representatives, and innovation stakeholders to explore the contribution of chemistry and chemical engineering to sustainable development.

The 2026 edition continued this tradition by providing a multidisciplinary platform for discussing emerging scientific developments, presenting research results, and exploring opportunities for international cooperation.

Organized under the auspices of the Romanian Ministry of Education and Research and the National Authority for Research, PRIOCHEM XXII benefited from the involvement of the Romanian Chemical Society, the C.D. Nenițescu Foundation, and the Association for Integrative Education and Development for the Future (ADEIV), under the patronage of the Academy of Romanian Scientists.

The symposium also benefited from the valuable contributions of its academic, institutional, media, and private-sector partners.

2. International Participation and Institutional Diversity

PRIOCHEM XXII welcomed **147 unique participants**, representing research institutions, universities, public authorities, professional organizations, and companies from Romania and abroad.

The symposium was organized in a hybrid format, combining direct interaction at ICECHIM's headquarters with online participation.

The attendance records indicate:

- 82 participants attending on-site, including 16 who also joined online sessions;
- 65 participants attending exclusively online;
- 102 participants from Romania;
- 45 international participants, representing 20 foreign countries and territories.

International participants accounted for approximately **30.6% of total attendance**, confirming the symposium's ability to engage a geographically diverse scientific community.

The largest international delegations came from Türkiye (7 participants), the Republic of Moldova (6), India (5), Malaysia (4), and Poland (3). Additional participants represented Algeria, Bulgaria, Croatia, France, Serbia, Germany, Ireland, Italy, Iran, Morocco, Nigeria, the United Kingdom, Ukraine, South Korea, and Taiwan.

The international audience included representatives of universities and research organizations such as University College Dublin (Ireland), Medical University of Lublin (Poland), University of Messina (Italy), Brunel University London (United Kingdom), Universiti Malaysia Perlis (Malaysia), Vinča Institute of Nuclear Sciences (Serbia), and several universities from Türkiye and India.

Romanian participation was equally diverse, bringing together **102 participants representing universities, national research and development institutes, public authorities, professional associations, and other organizations involved in research, innovation, and scientific communication**.

The academic community was represented by the **National University of Science and Technology POLITEHNICA Bucharest**, the **University of Bucharest**, the **University of Agronomic Sciences and Veterinary Medicine of Bucharest**, the **University of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca**, **Gheorghe Asachi Technical University of Iași**, **Ștefan cel Mare University of Suceava**, the **University of Craiova**, and the **Ferdinand I Military Technical Academy**.

Research organizations included the **National Institute for Research and Development in Chemistry and Petrochemistry – ICECHIM Bucharest**, the **National Institute for Research and Development in Biological Sciences (INCDSB)**, the **National Institute for Research and Development in Construction, Urban Planning and Sustainable Spatial Development (URBAN-INCERC)**, the **National Research and Development Institute for Cryogenic and**

Isotopic Technologies (ICSI Râmnicu Vâlcea), the **National Institute for Research and Development in Textiles and Leather (INCDTP)**, the **National Institute for Aerospace Research "Elie Carafoli" (INCAS)**, the **National Institute for Research and Development on Marine Geology and Geoecology (GeoEcoMar)**, the **National Research and Development Institute for Soil Science, Agrochemistry and Environmental Protection (ICPA Bucharest)**, the **"C. D. Nenitzescu" Institute of Organic and Supramolecular Chemistry (ICOS),** the **Institute of Chemical-Pharmaceutical Research and Development (ICCF Bucharest)**, and **CEPROCIM S.A.**

The medical and agricultural research communities were also represented by the **Regional Institute of Oncology Iași** and the **Academy of Agricultural and Forestry Sciences "Gheorghe Ionescu-Șișești" (ASAS)**.

The symposium welcomed representatives of key national authorities and organizations supporting research and innovation, including the **National Authority for Research (ANC)**, the **Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI)**, and the **Romanian State Office for Inventions and Trademarks (OSIM)**.

Additional participation came from the **Romanian Chemical Engineering Society (SIChR)**, the **Romanian Inventors Forum**, the **Association for Integrative Education and Development for the Future (ADEIV)**, the **Centre for Research and Innovation in CBRNE Defence (CCIACBRNE)**, and **Radio Romania**.

This broad institutional representation highlights PRIOCHEM XXII's role as a meeting point for Romania's scientific community, facilitating dialogue between universities, research institutes, public authorities, professional organizations, and industry-oriented research institutions. It also reinforces ICECHIM's position as an important contributor to interdisciplinary cooperation, scientific networking, and the development of future research and innovation partnerships.

3. Scientific Programme and Research Priorities

The scientific programme reflected the interdisciplinary character of contemporary chemistry and its increasingly important role in addressing environmental, industrial, technological, and societal challenges.

PRIOCHEM XXII was structured around three principal scientific sections:

- **Multifunctional Materials, Nanocomposites, Innovative Technologies and Cultural Heritage Conservation**

This section addressed developments in advanced materials, functional coatings, nanotechnology, sustainable construction materials, and scientific approaches to cultural heritage conservation.

- **Bioresources, Biotechnologies and Biorefining**

Contributions explored the sustainable use of biological resources, innovative biotechnological processes, environmentally responsible production, bioactive compounds, and circular bioeconomy approaches.

- **Promoting Climate Neutrality and Resilience Through Agriculture – AgroCliN**

The third section strengthened the symposium's interdisciplinary profile by connecting chemistry, biotechnology, agriculture, and environmental sustainability.

The programme combined plenary and invited lectures, oral communications, poster presentations, thematic discussions, and opportunities for direct interaction between participants.

Among the invited speakers were Prof. Saskia van Ruth (University College Dublin, Ireland), Prof. Ileana Cristina Covaliu-Mierlă, Assoc. Prof. Aurel Diacon, Prof. Tănase Dobre, Dr. Florin Oancea, Prof. Rodica Mariana Ion, and Dr. Tanța Verona Iordache.

Their contributions highlighted the importance of scientific interdisciplinarity and the growing connections between fundamental research, technological development, and practical applications.

4. Satellite Events and Research Collaboration

The main symposium was preceded by a programme of satellite events held on 20 October 2026. These activities provided additional opportunities to discuss ongoing research projects, exchange technical expertise, and identify potential directions for future collaboration.

The satellite programme addressed several complementary research areas:

- Integrated approaches to environmental protection, including results from the AquaMat research programme;
- Innovative protection of medicinal and aromatic plants through circular bioeconomy and nanotechnology;

- Sustainable construction materials and advanced solutions for cultural heritage conservation;
- Ecological approaches to improving the safety of fruits and vegetables;
- Climate neutrality and agricultural resilience, including a consortium meeting of the AgroCliN Centre of Excellence;
- Environmentally friendly silane- and nanoparticle-based materials for buildings and monuments;
- Technology Readiness Levels and the challenges of translating research results into successful innovation;
- The role of diatomite in carbon farming.

Particularly important was the integration of project-related activities into the wider symposium framework.

By bringing together researchers involved in ongoing projects and participants from other institutions, these satellite events offered opportunities to explore complementary expertise, establish professional contacts, and identify potential future partnerships.

5. Tech Talks – Meet the Mentors!

A distinctive component of PRIOCHEM XXII was the third edition of **Tech Talks – Meet the Mentors!**, organized in collaboration with the Romanian State Office for Inventions and Trademarks (OSIM). Under the theme *"Intellectual Property in Research: From the Laboratory to Patent Protection"*, the event focused on one of the essential stages in transforming scientific discoveries into technological and economic value.

OSIM specialists discussed industrial property protection, patent procedures, trademarks, and the importance of intellectual property management for research organizations.

The event provided young researchers, doctoral students, and other participants with an opportunity to better understand how research results can be protected and subsequently developed towards practical applications.

By combining scientific presentations with professional development and innovation-oriented discussions, PRIOCHEM continues to encourage researchers to consider not only the scientific relevance of their work but also its potential economic and societal impact.

6. Supporting Young Researchers and Scientific Communication

Supporting early-career researchers remains one of PRIOCHEM's central objectives.

The symposium encouraged young scientists to present their results, interact with experienced researchers, and develop the communication skills necessary for successful participation in the international scientific community.

The interactive format **"My Poster in 100 Seconds!"** continued in 2026, challenging participants to communicate the significance of their research clearly, concisely, and engagingly.

This initiative complemented traditional scientific presentations and encouraged participants to make their research accessible to audiences beyond their immediate areas of specialization. The symposium also offered opportunities for networking, scientific mentoring, and professional development.

7. Awards and Scientific Recognition

The PRIOCHEM XXII awards programme recognized scientific merit, presentation quality, and the contributions of researchers at different stages of their careers.

Romanian Chemical Society Award

- Bogdan Cazan
- Ana-Lorena Neagu

PRIOCHEM 2026 Special Award

- Cătălina-Florentina Ștefan
- Andreea-Luiza Mîrț
- Livia-Teodora Ciobanu
- George Mihail Teodorescu

"Raluca Ianchiș" Award

- Emilian Ghibu

The awards highlighted the scientific achievements of participants and reinforced PRIOCHEM's commitment to encouraging excellence, supporting young researchers, and recognizing valuable contributions to chemistry and related disciplines.

The "Raluca Ianchiș" Award, granted by the ICECHIM Scientific Council, holds particular significance as a recognition of research with biomedical applications.

The PRIOCHEM Special Award also strengthens the continuity between successive editions, encouraging awardees to remain actively involved in the symposium's scientific community.

8. Scientific Dissemination and Visibility

PRIOCHEM XXII provided several opportunities for disseminating scientific results beyond the symposium itself.

Accepted abstracts were eligible for inclusion in the symposium's *Book of Abstracts*, while authors were offered opportunities to submit full-length manuscripts to partner scientific journals, including *Farmacia* and *EMERG*, subject to the journals' editorial policies and peer-review procedures.

The symposium's scientific communication activities were complemented by digital dissemination through ICECHIM's institutional website and social media channels. Media visibility was further supported by Radio România Cultural, which featured PRIOCHEM XXII in its science coverage.

The inclusion of PRIOCHEM XXII on the European Circular Economy Stakeholder Platform also provided additional European-level visibility, particularly in relation to circular economy, sustainable resource management, and innovation.

Together, these dissemination activities helped communicate the relevance of the symposium to audiences beyond its registered participants.

9. Institutional Partners and Sponsors

The successful organization of PRIOCHEM XXII was made possible through the collective efforts of ICECHIM Bucharest, its institutional partners, sponsors, and supporting organizations, whose contributions helped create a welcoming and stimulating environment for scientific exchange and international cooperation.

The symposium was organized under the auspices of the Romanian Ministry of Education and Research and the National Authority for Research, in partnership with the Romanian Chemical Society, the *C.D. Nenițescu Foundation*, and the *Association for Integrative Education and Development for the Future (ADEIV)*, and under the patronage of the Academy of Romanian Scientists.

ICECHIM gratefully acknowledges the valuable support of the symposium's sponsors: Compact Industrial, Pro Natura, Metrohm, NANOTEAM, New Protocol Group, OF Systems, Phanos, Topominiera, and WATT. Their involvement contributed to the successful organization of the event and reflects the importance

of strengthening connections between scientific research and the business community.

Special appreciation is also extended to the Romanian State Office for Inventions and Trademarks (OSIM) for its collaboration in organizing the third edition of *Tech Talks – Meet the Mentors!*, which provided participants with valuable insights into intellectual property protection and the practical valorization of research results.

ICECHIM also thanks Radio România Cultural for its contribution to promoting the symposium and bringing scientific research closer to a broader audience.

Beyond their immediate contribution to the event, these partnerships demonstrate the value of sustained cooperation between research institutions, professional organizations, public authorities, and industry. They also provide a foundation for future joint initiatives, knowledge exchange, and research and innovation collaborations.

ICECHIM extends its sincere gratitude to all partners, sponsors, speakers, participants, and members of the organizing team whose commitment and support contributed to the success of PRIOCHEM XXII.

10. Importance for ICECHIM and Future Perspectives

PRIOCHEM XXII represents an important component of ICECHIM's institutional identity and international scientific engagement. For ICECHIM, the symposium is more than an annual scientific meeting. It is a platform for presenting research achievements, maintaining relationships with scientific partners, and establishing new connections with universities, research institutes, public authorities, and companies.

The 2026 edition demonstrated the value of combining scientific excellence with interdisciplinary dialogue, professional development, and technology transfer. Its international participation, diverse scientific programme, and complementary satellite events created opportunities for future joint research activities, collaborative publications, researcher exchanges, and participation in national and European research programmes.

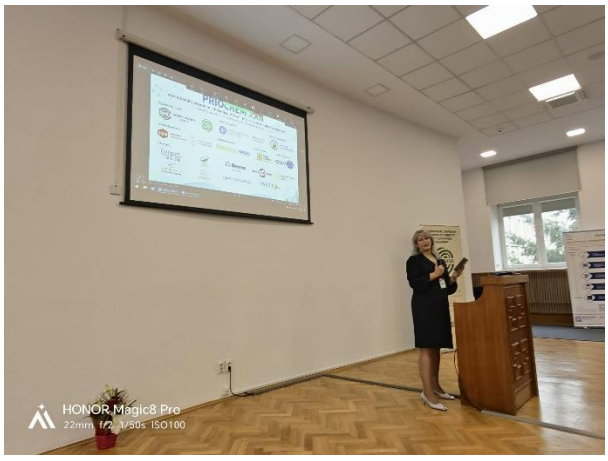
PRIOCHEM also continues to play an important role in strengthening the visibility of Romanian research and promoting the contribution of chemistry to sustainable development.

11. Conclusions

The 22nd edition of PRIOCHEM reaffirmed the importance of international scientific dialogue and interdisciplinary cooperation in addressing contemporary research challenges. With 147 unique participants, including 45 international attendees from 20 foreign countries and territories, the symposium provided a valuable setting for scientific exchange and professional interaction.

The involvement of academic institutions, research organizations, innovation stakeholders, and public authorities further reinforced its multidisciplinary character. The continued support of institutional partners and private-sector sponsors remains essential to PRIOCHEM's development, strengthening its international visibility and creating new opportunities for scientific cooperation, innovation, and technology transfer. Through its scientific programme, satellite events, Tech Talks initiative, and awards, PRIOCHEM XXII continued to support ICECHIM's mission of advancing scientific research, encouraging innovation, and contributing to the development of future generations of researchers.

ICECHIM looks forward to welcoming the international scientific community to PRIOCHEM XXIII in 2027.





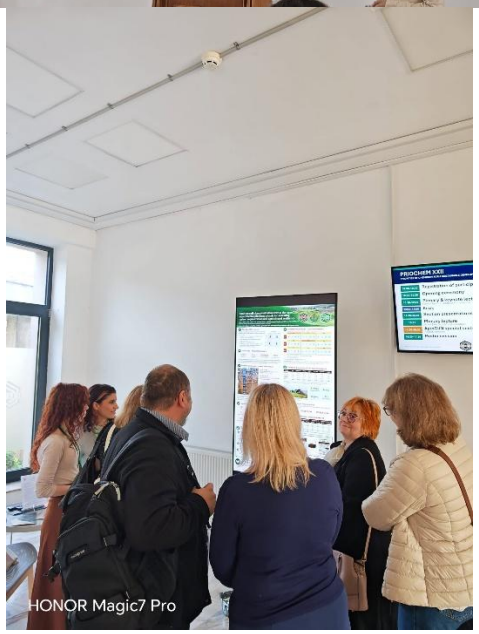

UTILIZATION OF
SYMBIOTIC COMMUNITIES
OF BACTERIA AND YEASTS
IN CIRCULAR BIOECONOMY
HONOR Magic8 Pro


Known locally as the
"Spring of Love",
traditions associate us
water with good
fortune and love.




Concluding Remarks
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HONOR Magic7 Pro

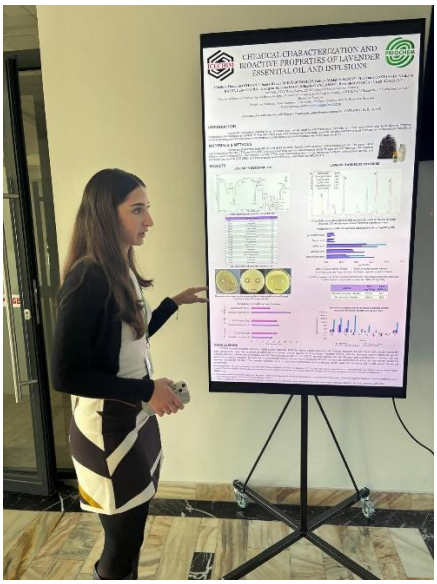

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SYNERGISTIC ACTION OF MICROBIAL CONSORTIA MODULATE COLOSTRUM PROTEOMES AND ANTIOXIDANT ACTIVITY
HONOR Magic8 Pro
23mm f/1.6 1/100s ISO80


HONOR Magic8 Pro
23mm f/1.6 1/60s ISO64


CHEMICAL CHARACTERIZATION AND
BIOACTIVE PROPERTIES OF LAVENDER
ESSENTIAL OIL AND INFUSIONS




INTERNATIONAL SYMPOSIUM
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FOR A SUSTAINABLE
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SEE YOU AT PRIOCHEM 2027!

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Associated events

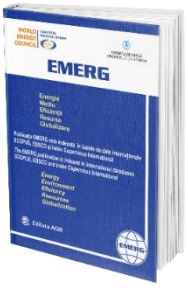
Tuesday, 20.10.2026

No.	Starting time	Moderator	Room	Title
W-1	08.00	Radu Claudiu FIERĂSCU	Room 1A	Innovative approach for the protection of medicinal and aromatic plant crops – between circular bioeconomy and nanotechnology
W-2	08.00	Irina FIERASCU	Room 1B	Transdisciplinary approach for the modern formulation of construction materials, a paradigm shift in the protection of immovable cultural heritage
W-3	08.00	Irina Elena CHICAN	Room 1C	Advanced ecological solutions to increase the food safety of vegetables and fruits, from producer to consumer
W-4	09.00	Mădălin COMAN, Denisa FICAI, Radu Claudiu FIERĂSCU	Room 3	The development of eco-friendly solutions based on silanes and nanoparticles for buildings and heritage consolidation (Coordination Meeting)
W-5	10.00	Radu Claudiu FIERASCU	Room 2	Integrated approach to environmental protection-AquaMat
W-6	11.00	-	Room 3	Excellence research center fostering climate neutrality and resilience through agriculture – AgroCliN - *Consortium Progress & Coordination Meeting*
W-7	13.00	Nicolae VARACHIU	Room 2	Technology Readiness Levels (TRLs): Are They Enough to Guide Innovation to Successful Implementation?
W-8	11.00	Carmen LUPU	Room 2	Role of Diatomite in Carbon Farming

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