



The VIIth International Conference ECOLOGICAL AND ENVIRONMENTAL CHEMISTRY 2022

March 3-4, 2022, Chisinau, Republic of Moldova

RESOLUTION

The 7th International Conference on Ecological and Environmental Chemistry 2022 (EEC-2022, <http://eec-2022.mrda.md/>) was held in Chisinau, Republic of Moldova on March 3-4, 2022, with organizational and financial support from the following organizations: Chemical Society of the Republic of Moldova, Institute of Chemistry, State University of Moldova, Technical University of Moldova, Institute of Ecology and Geography, Academy of Sciences of Moldova, Moldovan Research and Development Association and „Constantin Stere” University of European Political and Economic Studies of the Republic of Moldova.

The **EEC- 2022 Conference** topics were selected in correspondence with the Sustainable Development Goals established by UN till 2030. In the 2030 Agenda, the world leaders affirmed that they are: “**Determined to protect the planet from degradation**, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations”. Following this, the main topics of **EEC- 2022 Conference** were focused on:

- A. *Fundamental Aspects of Ecological and Environmental Chemistry*
- B. *Water Science and Society*
- C. *Climate Change and Atmospheric Chemistry*
- D. *Food, Soil and Waste Chemistry*
- E. *Ecological & Environmental Chemistry within the Knowledge Triangle: Research-Education-Innovation.*

The **EEC- 2022 Conference** provided significant support and ensured the opportunities to further broadening of international scientific-practical cooperation, to promote the exchange of experience, to present and discuss the latest research results on physical-chemical and biochemical processes occurring in soil, air, and water ecosystems subjected to anthropogenic load, to comprise promising innovative approaches of sustainable development including engineering and modeling, as well as social and educational implications. The aim of the conference was to promote continuous international cooperation, to encourage and facilitate the interdisciplinary communication among academia, scientists, university staff and students, engineers, economists, teachers and professionals dealing with environmental issues and sustainable development in order to mitigate or prevent toxic impacts of pollutants on human health and environment, and promote the environmental knowledge.

Ecological Chemistry started to develop in Moldova since late 70ies-early 80ies of the last century. The First International Ecological Chemistry School was held in Moldova in 1985, where the decision was taken to consolidate the efforts for organization of periodical international conferences in the field with the involvement of experienced and young researchers from all around the world. Since then, for over 35 years, this field has been intensively expanding being among the topical priorities of the sustainable development in science and technology.

The **EEC- 2022 Conference** is part of a series of successful conferences organized in 1995, 2002, 2005, 2008, 2012 and 2017, supported by the different international organizations such as UNESCO, CRDF/MRDA, CEI, NATO, ONRG, as well as the local R&D organizations.

The **EEC- 2022 Conference** was an important international event that attracted more than 270 scientists, researchers, engineers, experts and students from 30 countries, specifically: Armenia,

Algeria, Azerbaijan, Belarus, Brazil, Canada, China, Czech Republic, Finland, France, Georgia, Hungary, Israel, Italy, Iraq, Kazakhstan, Moldova, Montenegro, Morocco, Poland, Romania, Russia, South Korea, Switzerland, Turkey, Vietnam, Ukraine, Uzbekistan, USA.

Within the EEC-2022 Conference there were the following presentations:

- The Academic Lecture, held by Academician, Professor Gheorghe Duca;
- 8 Plenary Presentations provided by worldwide recognized scientists;
- 80 Oral Presentations in the Five Parallel Sessions, presented by the experienced and young scientists from the above mentioned countries;
- 165 Poster Presentations discussed on-line by the conference participants.

The two Volumes of the Abstract Book had been published, which include 260 Abstracts, presented by participants of the EEC-2022 Conference.

Considering the theoretical and applied contributions of Ecological Chemistry into the general scientific knowledge and implementation of environmentally friendly technologies, benefits of ecological education and knowledge, and proceeding from the strong necessity to promote the further development of this domain, the conference participants would like to underline the following:

1. Maintain promotion and support of the **interdisciplinary approach** to ecological and environmental chemistry in strengthening of research-education-innovation, focusing on the reducing of negative anthropogenic impacts on human health and environment.
2. Further **strengthening of basic and applied research** of physical-chemical and chemical-biological processes of interactions between the living organisms and environment under the influence of natural and anthropogenic factors;
3. Enlarge the **spectrum of medico-biological research** including prognostication methods to prevent appearance and spread of acute and chronic toxicity, allergic, carcinogenic effects, infectious diseases causing pandemics, using the model-based prognostications and assessing the factors that provoke their development;
4. Contribute to the **resolving of ecological problems in different spheres of human activities** by the support of the advanced studies of the dynamics and trends of eco-chemical processes in natural environment;
5. **Perfection of water quality indicators** based on the integrated biotesting methods including the toxicity parameters and incorporating them into the normative system of the permissible impact level on the state of water ecosystems and drinking water security;
6. Continuous studies of natural water self-purification processes in order **to keep the natural systems in equilibrium state** and to stimulate their efficiency in pollutants diminution in environment;
7. **Stimulate the innovation aspects** of Ecological and Environmental Chemistry disciplines in order to develop the efficient methods for mathematical modeling and long-term prognosis of human impacts on the environment, climate change, pollutants' trans-boundary transport and transformation;
8. Continue elaboration of the **advanced and environmentally friendly technologies** for extraction of useful substances from the municipal and agricultural wastes and deepen research of their structure, physical, chemical, and biological properties in order to facilitate their use in different sectors of economy;
9. Promote the **education of all ages of population** by introducing the main aspects of Ecological and Environmental Chemistry in the educational programs and curricula;
10. Support the promotion of innovative approach in elaboration and practical applications of the achievements in Ecological and Environmental Chemistry, in combination with

engineering solutions, in view to organize **new food processing and production industries** implying the harmonious interaction of anthropogenic and natural factors to ensure food safety and security;

11. Contribute to the **enlarging of international collaboration** in Ecological and Environmental Chemistry, including the innovative research, educational and technological aspects, within the international science support programs and foundations.

Considering the aforesaid, participants of the 7th International Conference on Ecological and Environmental Chemistry-2022 have decided:

- To approve the recommendations and proposals of the 7th International Conference on Ecological and Environmental Chemistry-2022.
- To inform the Governmental bodies and Authorities involved in the environment protection regarding the latest achievements and ideas in ecological chemistry.
- To continue supporting the awareness campaigns using the mass-media, press, TV, radio, on environment protection on national, regional, and international levels, and contribute to Ecological and Environmental Chemistry principles and achievements promotion.
- To strengthen the international collaboration within the Ecological Chemistry domain in order to promote the sustainable use of natural resources and habitat protection, contribute to the information exchange, bilateral and multilateral projects development with the involvement of decision makers, different stakeholders from the research and education system, civil society and business.
- To promote the activities in continued organization of international conferences in the field within the following five-year period.

The EEC-2022 Conference Resolution expresses the international scientific community's collective thought on two important issues related to the necessity to consolidate the efforts in elaboration of new advanced anti-pandemic methods and tools and using the diplomatic ways to settle the challenges peacefully.

Environmental and societal developments require peace and trustful interactions between individuals, societies and political systems that was the case for decades in East and West. Military conflicts always destroy essential infrastructures even for water supply and wastewater treatment, causing fatal diseases like cholera and typhus, diarrhea and malnutrition of children, and collapse down entire national economies.

Therefore, the participants of EEC 2022 strongly believe that the dialogue of scientists from East and West can contribute to common respect and understanding of each party's position and help to cool-down political tension at all sides in order to initiate peaceful and trustful negotiations in science and society. We, therefore, appeal to the world governing bodies and politicians not to launch military conflicts and instead to resolve the issues through peaceful diplomatic talks.

Present Resolution is adopted at the Closing Session of the 7th International Conference on Ecological and Environmental Chemistry on March 4, 2022.