

## NPJSC «KAZNU NAMED AFTER AL-FARABI»



### INFORMATION LETTER

Kazakh National University named after Al-Farabi invites students and young researchers to participate in the International Conference of Students and Young Scientists "Farabi Alemi," which will be held from April 3 to 5, 2025. The conference is open to students, master's students, and young scientists up to 40 years old from universities and research institutes in Kazakhstan and abroad.

Breakout sessions of the conference on Chemistry section will be held from April 3 to 5, 2025, at which reports of a theoretical, experimental and applied nature on various branches of science will be heard. The working languages of the International Conference are Kazakh, Russian, and English.

Abstracts will be registered at the link below:

**The technical secretaries of the sections will accept applications and abstracts until March 25, 2025 in electronic form via the link (<https://forms.office.com/r/Wj8TmSD7We>).**

**In the conference proceedings (electronic format), only the works of the authors who made oral presentations in the relevant sections are published!**

**The conference will be held online and offline.**

For all questions (request for invitation letters) [Chem.Farabialemi@kaznu.kz](mailto:Chem.Farabialemi@kaznu.kz), +7 707 457 97 40 get in touch.

<i>N<sup>o</sup></i>	<i>Section</i>	<i>FULL NAME of responsible</i>	<i>Contact details mobile phone number, e-mail</i>
<b>Faculty of chemistry and chemical technology</b>			
1.	Chemistry and chemical technology of organic substances (Research areas: fine organic synthesis, chemistry of natural compounds, catalysis, and petrochemistry)	<p style="text-align: center;"><b>Fine Organic Synthesis</b> (Modern methods of organic synthesis, synthesis and modification of heterocyclic compounds, synthesis of new bioactive molecules, mechanisms of organic reactions, catalytic processes in organic synthesis, application of green chemistry in organic compound synthesis, development of new reagents and catalysts for fine organic synthesis).</p> <p style="text-align: center;"><b>Chemistry of Natural Compounds</b> (Extraction, isolation, and purification of natural compounds, chemical modification of biologically active substances from plants and animals, biotechnological methods for obtaining valuable compounds, standardization and quality control of natural substances, development of industrial technologies for processing plant and animal raw materials, recycling and utilization of natural-origin waste).</p> <p style="text-align: center;"><b>Catalysis and Petrochemistry</b> (Homogeneous and heterogeneous catalysis, metal-complex catalysts, nanostructured catalysts, catalysts for cracking, reforming, hydroprocessing, utilization of petrochemical waste).</p> <p style="text-align: center;"><b>Onalbek Damira</b> <b>+7 778 543 3295</b></p>	<p><a href="https://forms.office.com/r/Wj8TmSD7We">https://forms.office.com/r/Wj8TmSD7We</a></p> <p><a href="mailto:Chem.Farabialemi@kaznu.kz">Chem.Farabialemi@kaznu.kz</a> +7 707 457 97 40</p>
2.	Pharmaceutical manufacturing technology (Research areas: pharmaceutical chemistry and drug formulation technology)	<p style="text-align: center;"><b>Pharmaceutical Chemistry and Drug Technology</b> (Development of new pharmaceutical substances, synthesis and analysis of drug compounds, biotechnology in pharmaceuticals, pharmacological research, nanopharmacology, pharmaceutical manufacturing technology, quality control of medicinal products).</p> <p style="text-align: center;"><b>Dauletova Meruert</b> <b>+7 707 936 8934</b></p>	
3.	Colloid chemistry and polymer chemistry (Research areas: polymer materials and colloidal systems)	<p style="text-align: center;"><b>Polymeric Materials</b> (Synthesis and modification of polymers, composite materials, nanostructures, biopolymers, polymer membranes, superabsorbents, polymer coatings, self-healing and smart polymers, polymers in medicine and pharmacology).</p> <p style="text-align: center;"><b>Colloidal Systems</b> (Physicochemical properties of colloidal systems, nanostructured materials, stabilization and self-assembly of colloids, colloidal chemistry in pharmaceuticals)</p>	

		<p>and medicine, gel-forming systems, colloids in the food industry, environmental aspects of colloidal systems, prospects for colloid applications in nanotechnology and biotechnology).</p> <p><b>Yertayeva Ayaulym</b> +7 777 164 5511</p>	
4.	<p>Modern materials science (Research areas: electrochemistry and electrochemical technologies, inorganic chemistry and advanced materials, chemical physics and materials science)</p>	<p><b>Electrochemistry and Electrochemical Technologies</b> (Modern electrochemical processes, electrocatalysis, electrochemical synthesis of organic and inorganic compounds, nanomaterials in electrochemistry, corrosion and protection of metals, electrochemical sensors and biosensors, electrochemical energy sources (batteries, fuel cells, supercapacitors), application of electrochemical methods in analytics and ecology, electrolytic technologies in industry).</p> <p><b>Inorganic Chemistry and Advanced Materials</b> (Synthesis and properties of inorganic compounds, coordination and supramolecular chemistry, functional inorganic materials, chemistry of rare and dispersed elements, solid-state chemistry, inorganic nanomaterials, organometallic chemistry, hydrothermal and solubilization synthesis, ceramics and glass-crystalline materials, crystal chemistry and ion-conducting materials, thermodynamics and phase equilibria in inorganic systems).</p> <p><b>Chemical Physics and Materials Science</b> (Molecular modeling and computer-aided material design, functional and nanostructured materials, mechanochemistry and hydrothermal synthesis, phase transformations and crystallization, thin films and surface phenomena, photochemistry and plasma chemistry, self-organization and supramolecular structures, electrochemical and ionic materials, magnetic and optical properties of materials, thermo-structural and mechanical characteristics, composites and multicomponent systems, energy materials, sustainable and environmentally friendly technologies, spectroscopy methods and structural analysis of materials).</p> <p><b>Basarova Ainur</b> +7 747 613 5181</p>	
5.	<p>Rational use of natural resources (Research areas: analytical chemistry, chemical expertise, environmental monitoring, waste processing and utilization, rational water resource management, extraction, enrichment, and processing technologies of mineral raw materials)</p>	<p><b>Analytical Chemistry, Chemical Expertise, and Environmental Monitoring</b> (Modern analytical methods, chemical ecology, pollution monitoring, sensor and diagnostic technologies, chemical safety, industrial analysis).</p> <p><b>Waste Recycling and Utilization</b> (Waste recycling technologies, green chemistry, development of biodegradable and bio-degradable materials).</p> <p><b>Sustainable Water Resource Management</b></p>	

		<p>(Technologies and materials for water purification and recycling).  <b>Technologies for Extraction, Enrichment, and Processing of Mineral Resources</b>  (Flotation, hydrometallurgy, pyrometallurgy, innovative methods of mineral beneficiation, extraction of rare earth elements, environmentally safe ore processing technologies).  <b>Beisenova Gulmira</b>  +7 707 150 5091</p>	
6.	Current issues in chemical education (Research areas: modern challenges in chemical education)	<p><b>Modern Issues in Chemical Education</b>  (Methods of teaching chemistry, digital technologies in chemical education, didactics of chemistry, development of STEM education, practical training in chemistry, training specialists for the chemical industry).  <b>Mytykbayeva Laura</b>  +7 707 954 3483</p>	
7.	Modern problems of chemistry and chemical technology of inorganic substances (for master's and doctoral students) (Research areas: synthesis and properties of inorganic compounds, advanced materials science technologies, fundamental and applied electrochemistry)	<p><b>Synthesis and Properties of Inorganic Compounds</b>  (Development of new inorganic compounds, coordination and supramolecular chemistry, functional inorganic materials, organometallic chemistry, chemistry of rare and dispersed elements).  <b>Modern Technologies in Materials Science</b>  (Solid-state chemistry, inorganic nanomaterials, hydrothermal and solubilization synthesis, ceramics and glass-crystalline materials, crystal chemistry and ion-conducting materials, thermodynamics and phase equilibria in inorganic systems).  <b>Fundamental and Applied Electrochemistry</b>  (Electrochemical processes, electrocatalysis, corrosion and protection of metals, electrochemical energy sources, sensors and biosensors, application of electrochemical methods in analytics and ecology).  <b>Matkerim Togzhan</b>  +7 777 030 7304</p>	
8.	Modern problems of chemistry and chemical technology of organic substances (for master's and doctoral students) (Research areas: fine organic synthesis, chemistry of natural compounds, catalysis in organic synthesis)	<p><b>Fine Organic Synthesis</b>  (Modern methods of organic synthesis, obtaining and modifying heterocyclic compounds, synthesis of new bioactive molecules, mechanisms of organic reactions, catalytic processes, development of new reagents and catalysts).  <b>Chemistry of Natural Compounds</b>  (Extraction, isolation, and purification of natural compounds, chemical modification of plant- and animal-derived biologically active substances, biotechnological methods for obtaining valuable compounds, development of technologies for processing natural raw materials).</p>	

		<p align="center"><b>Catalysis in Organic Synthesis</b>  (Homogeneous and heterogeneous catalysis, metal-complex catalysts, nanostructured catalysts, application of green chemistry)  <b>Abilgazy Baginur</b>  +7 775 616 9699</p>	
9.	Promising areas of chemistry and chemical technology (for school students and first-year university students) (Research areas: introduction to chemical sciences, modern materials and technologies, chemistry and the environment)	<p align="center"><b>Introduction to Chemical Sciences</b>  (Basics of analytical, organic, and inorganic chemistry, modern approaches to studying chemistry, fundamental chemical processes).  <b>Modern Materials and Technologies</b>  (Polymeric materials, nanostructures, biopolymers, composite materials, colloidal systems, promising directions in materials science).  <b>Chemistry and the Environment</b>  (Pollution monitoring, chemical safety, sustainable technologies, rational use of natural resources, ecology and chemistry).  <b>Kairova Aigerim</b>  +7 707 893 3421</p>	
10.	Poster presentations	<p align="center"><b>Orazov Zhandos</b>  +7 707 904 1998</p>	

