Name of Scientific Research Institute:

TSU Petre Melikishvili Institute of Physical and Organic Chemistry

Identification Code:

Address (Country, City, Street, Postal Code)

Georgia, Tbilisi, Anna Politkovskaia, 0186

Name of the head / director of the institute:

Ketevan Ebralidze

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Brief description of the organization's mission and goals (recommended number of words 300): The Institute was founded on October 1, 1929 on the initiative of the first rector of Tbilisi State University Petre Melikishvili and bears his name. The mission of the Institute is to mobilize chemical science for the development of the Georgian economy, to research the possibilities of rational use of the country's natural resources, to develop innovative technologies for obtaining new materials, to determine the possibilities of their use in various fields of economics and environmental protection. To achieve these goals, the Institute is conducting research in the fields of physical and organic chemistry, as well as chemistry of macromolecular compounds, environmental chemistry, oil chemistry and agrocultural chemistry.

Investigations include the study of physicochemical processes such as chromatographic separation of complex mixtures, adsorption, diffusion and catalysis in microporous crystalline bodies, phase transitions and crystallization in aluminosilicate and other gels, polymerization. Based on the obtained results, technologies for obtaining new materials (adsorbents, ion exchangers, catalysts, ultradispersed crystalline powders, building materials additives and restoration materials, organic-mineral fertilizers, environmentally safe substrates with prolonged action, polymer composites, nano-coated tiled materials, etc.) and ways of their rational use in industry, agriculture, environment protection, construction works and nanotechnologies are developed.

Composite and polymer fertilizers of new type and prolonged action, fertilizers containing micronutrients, as well as premixes and biologically active additives, iron- and silicon-containing veterinary medicinal-prophylactic means are also provided for agriculture; for the processing industry – development of sequental extraction methods for oils, essential oils, pigments and biologically active compounds from agro-waste plant matrices with the use of supercritical fluids and ultrasonic technique.

In the field of petrochemistry, Georgia's energy minerals (petroleum and natural bitumens) are being studied, certified and ranked for use in local industry, some technologies for the production of petroleum products are being developed, and biodiesel technologies are being improved.

Number of research staff (total): 79
Principal Researcher: 17
Senior Researcher: 23
Researcher: 39

#	List of structural units (department, section, laboratory)
1	Laboraty of research of Physical- Chemical Processes
2	Laboratory of Chemical Ecology
3	Laboratory of Organic Chemistry
4	Laboratory of High Molecular Compounds
5	Laboratory of Oil Chemistry
6	Laboratory of Agrarian Chemistry
7	Organizational and Engineering-Technical Support Department