# Institute of Organic Chemistry (IOC), Kyiv

Technical Area: Chemistry

Keywords: theory of color of organic compounds, synthesis and study of phosphazo-compounds, phosphorus iodides and sulfur-nitrous organic compounds





#### **General Information**

The Institute of Organic Chemistry of the NAS of Ukraine is one of the best known among the Institutes of chemical profile in the National Academy of Sciences of Ukraine. It was founded in 1939 and has become the base establishment of the National Academy of Sciences of Ukraine, where the most important directions of the modern chemistry have been generated.

The Institute of Organic Chemistry of the NAS of Ukraine conducts very important theoretical and experimental investigations on the structure, chromaticity and reactivity of the organic compounds, elaborates new directions of the fine organic synthesis and first of all, in the field of the organo-element compounds chemistry, heteroatom and heterocyclic compounds chemistry and supramolecular chemistry of the macrocyclic compounds. Under elaboration are the scientific synthesis methods for the compounds showing practically useful properties, including physiologically active compounds, cyanine dyes, organic catalysts and complex-forming agents.

The scientists of the Institute execute important fundamental and applied research in the modern fields of organic chemistry, organo-element chemistry and chemistry of heteroatom compounds.

The staff of the Institute of Organic Chemistry of the NAS of Ukraine consists of 274 officers, 117 of them are researchers, including 22 Doctors of Chemistry and 86 PhDs.

The structure of the Institute includes 10 scientific departments, analytical laboratory and the Pilot Plant.

#### **Institute's Focus**

Institute's areas of core competencies include the following:

- Development of physiologically active compounds for medical and veterinary applications
- Predominantly basic research in the field of organic and heteroatom chemistry
- Chemistry of heterocyclic compounds

# Valuable Technology Offerings

- Development of physiologically active substances and drugs for medicine and veterinary
- Development of pesticides and plant growth regulators
- Development of cyanine dyes for laser techniques
- Development of complexing agents for hydrometallurgy (extraction of heavy, non-ferrous and rare metals) and complexones for the extraction of radionucleides
- Development of chemical additives (light- and thermalstabilizers) to polymers based on PVC
- Development of spectral and infrachromatic sensitizers for light-sensitive materials

### Scientific Cooperation and Technology Transfer

IOC's Pilot Plant has the necessary basic equipment and supply lines to develop technologies and manufacture various types of organic and elemento-organic compounds, including those for medicine and veterinary. GMP (good manufacturing practices) certification provides assurance that safety and quality during manufacture is in order. The Institute has a building devoted to a Pilot Plant. An additional building is being planned. Current staffing level at the Pilot Plant remains to be about 120 engineers and technicians.

The Pilot Plant's past projects and developments include manufacturing of complexing agents for hydrometallurgy, complex light- and thermal stabilizers, lubricants and additives to polymers, inhibitors of scale formation, various medical and veterinary preparations, amino acids, herbicides, regulators of plant growth, etc.

### **Contact Details**

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