On the 100th anniversary of the birth of Academician Igor' Vasil'evich Petryanov–Sokolov

The outstanding Russian scientist Academician Igor' Vasil'evich Petryanov–Sokolov was born on the 18th of June, 1907, in the Bol'shaya Yakshen' village in Nizhni Novgorod Region.

After graduation from the Moscow State University in 1929, he was invited at the Karpov Institute of Physical Chemistry, where worked for all his life. In 1937, together with N.A. Fuks and N.D. Rosenblum, he found a new method for producing superfine polymer fibers. Since 1937, I.V. Petryanov–Sokolov was a head of the department and the laboratory of aerosols, researching collectives of which conducted scientific investigations in the field of physics–chemistry of aerosols.

I.V. Petryanov–Sokolov made a major contribution to the chemical science, working out an absolutely new way to produce superfine fiber materials, underlain a special industry on producing high-efficiency filtering materials and filters, well known now as "Petryanov–Sokolov filters".

His investigations in the area of aerosol technologies resulted in a series of new branches in different regions of science and engineering.

In the last years of his life, Igor' Vasil'evich gave much consideration to development of theoretical and experimental works on processes of formation of condensation aerosols and obtaining aerodispersion systems with preset properties, heading simultaneously several most important projects in the Defense Industry of Russia.

I.V. Petryanov–Sokolov was the first in our country who together with his friend, Academician N.N. Semenov, put forward the conception of wasteless and little-waste technology, complex use of natural resources, which has initiated in 1979 year the adoption of UNO Declaration on the wasteless and little-waste technology. He spoke that there was no dirty in chemistry, but the dirty is a matter, being not on its own place. He has shown that when doubling the producing capacity, the waste amount increases exponentially. He supported Leonid Leonov in his struggle for saving Russian forests, because he thought the taiga and Amazon woods to be the lungs of the planet and extermination of forests will result in irreversible consequences for the population future. The present-day global climate changes confirm this supposition.

I.V. Petryanov–Sokolov was a scientist, efficiently combining the fundamental theoretic investigations with solution of most important practical problems of the national economy. His many-sided scientific activity included education of younger generation of researchers: 12 doctors and 36 candidates of sciences are the result of his fruitful activity in this field. For many years I.V. Petryanov–Sokolov was Professor of the Mendeleev Moscow Physical-Technical Institute. He was the author of 83 inventions, 7 monographs, about 30 scientific and scientific-popularization books. Since 1984, he was the member of the Committee on Lenin and State Prizes.

Igor' Vasil'evich was the Editor-in-Chief of the scientific-popularization journal "Chemistry and Life", "Scientists to school" series, as well as the scientific editor of the "Children's Encyclopedia". He was a Head of the Section of scientific-popularization literature in the Russian Publishing Council of AS USSR, a member of the Editorial Board of the "Homeland" magazine and

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"Matherland's Voice" newspaper, a chairman of the Publishing Council in "Homeland's Monuments" anthology. The "Colloid Journal" was edited under his supervision. In 1980, he became a Chairman of the All-Union Society of bibliophiles.

Scientific achievements of I.V. Petryanov–Sokolov were awarded to the Lenin and two State Prizes. In 1971, he became a Hero of Socialist Labor.

For the scientific-educational and cultural-elucidative activity I.V. Petryanov–Sokolov was awarded the Medals of Ushinskii and Vavilov, as well as the International UNESCO's science Kalinga Prize.

I.V. Petryanov–Sokolov deceased in 1996, May 19, in Moscow and was buried at the Donskoye graveyard.