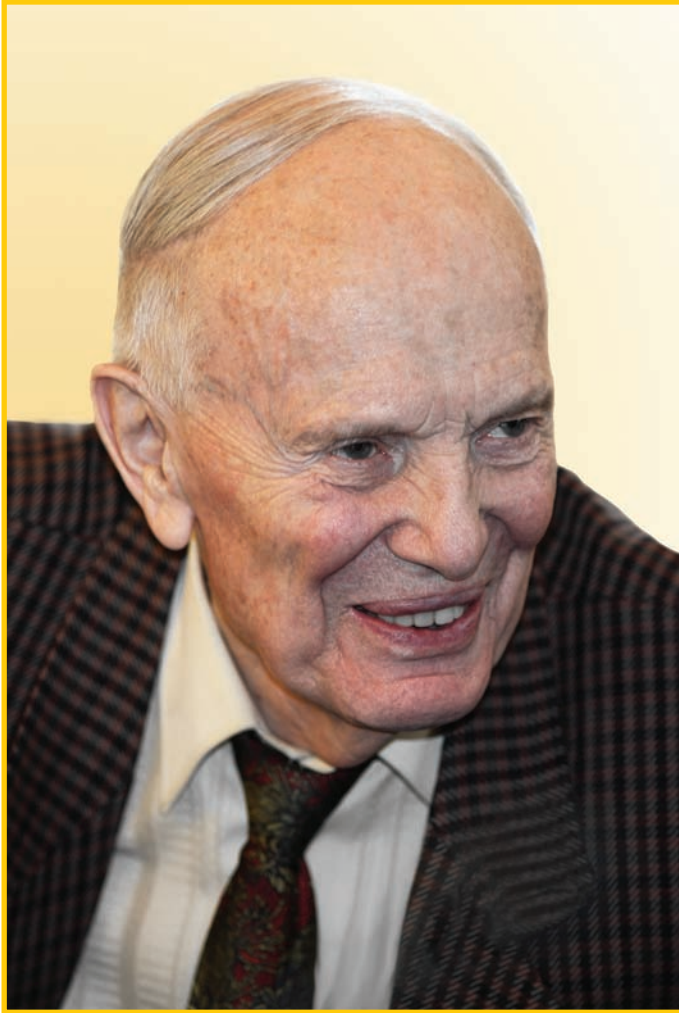


Borys Evgenovych Paton is 100



Academician Borys Evgenovych Paton

We have a great honor to work together with academician Borys Evgenovych Paton, who by his selfless labor made great contributions to the restructuring of the Academy of Sciences of Ukraine, founded in 1918 by the initiative of Volodymyr Ivanovych Vernadsky, the famous scientist and public figure.

During the years of its activity the Academy attained great achievements in many fields of science and technology. Numerous discoveries and inventions were made, many theories and conceptions were put forward, scientific and technical directions were started, the world-known scientific schools were organized, to which the Paton school belongs, which educated and united the scientists in the field of electric welding and related technologies, materials science and metallurgy.

All the labor life of Borys Paton is inseparably connected with the Institute of Electric Welding. This is the call of «technical nature», family tradition and son's duty to continue the father's activity.

The talent of the famous scientist with a wide sphere of interests was especially pronounced in Borys E. Paton at the post of the Institute director. To define clearly the purpose of investigation, to forecast the most important link in it, to attract interest of a large team of scientists to the new direction are the main tasks of the scientific leader, which were successfully realized by him

showing the self ability to work with the team, readiness in supporting of any interesting idea, to assess worthy the fulfilled work. His inexhaustible enthusiasm, unique working ability and respect of each staff member provided the healthy creative atmosphere in the working staff.

Over 65 years the work of the Institute under the leadership of Borys E. Paton is the wonderful continuation and implementation of profound and challenging principles of scientific-technical activity of Evgen Oscarovych Paton, the founder of our Institute. The scientific-technical directions, started by Borys Paton, widened greatly the subjects of studies and developments. The purposeful fundamental studies, started at the Institute, became the theoretical bases of welding science, transforming it into powerful means of technical progress, that led to the revolutionary changes in many branches of industry, such as: machine-, ship- and aircraft building, aerospace industry, power engineering, railway transport, mining complexes, metallurgy and chemical production, promoted the creation of pipeline transport, construction industry. Many scientific developments predetermined the world development of welding technologies and went down in history of the science and technology progress.

The world authority of B.E. Paton came by comprehensive and fruitful scientific and engineering activity, desire to direct the fundamental research to the solution of actual problems of the scientific-technical progress. By his contributions he made grounds of arc welding, namely the theory of the automatic machines for arc welding, which further was improved by many specialists in the field of the automatic control of welding processes. Under the supervision of Borys Paton the studies were made in the field of welding power sources; the processes of arc, electroslag, resistance, electron beam and many other processes of welding and allied technologies were developed; a large complex of fundamental and applied studies in the field of static and cyclic strength of welded joints, their resistance to brittle and fatigue fracture, serviceability under conditions

of low temperatures was carried out. For the first time in Ukraine the systems of diagnostics of welded structures, to which the high requirements of safety are specified, were developed. Borys E. Paton supervised the investigations with use of the electroslag process for quality improvement of metals and alloys, which resulted in appearance of the radically new direction in the metallurgy: electroslag remelting and casting. The technologies of the electroslag remelting, developed at the Institute, found the wide application and were worldly recognized.

Borys E. Paton is the scientist-innovator. The technologies, developed under his supervision, are successfully operating on the Earth, under the water and in space. The E.O. Paton Electric Welding Institute of the National Academy of Sciences of Ukraine, headed by B.E. Paton, is the powerful scientific institution, where many generations of scientists-welders were born and formed. Borys Paton brought up hundreds of talented scientists and engineers.

The thorough understanding of science role in the society, its aims and tasks, high international authority of the scientist, devotion to the science, inexhaustible energy and high moral qualities, active social-political activity, experience in management of the large scientific staff became a decisive arguments in election of Borys E. Paton on the post of the President of the Academy of Sciences of the Ukrainian SSR in 1962 (now the National Academy of Sciences of Ukraine). Since that time he is heading this leading scientific organization in Ukraine over 56 years.

His talent of the eminent organizer was greatly displayed on the responsible post of the President of the National Academy of Sciences of Ukraine. With his participation the new structure of the Academy of Sciences and its new status were worked out, directed to the most rational application of scientific efforts and means, their concentration in the solution of the most important fundamental and applied scientific problems, which have the great importance for the country economy, dozens of new institutes and organizations were founded, which developed and intensified investigations in the most important scientific directions.

The distinguished abilities of B.E. Paton as a leader, scientist and organizer were revealed in a dramatic Chernobyl tragedy. The associates of many institutes of the Academy of Sciences, its Presidium were included from the first days into the work for liquidation of the catastrophe consequences.

Borys E. Paton made a lot of efforts for the development of the international scientific cooperation of Ukraine, the implementation of national science in the European and world scientific community. By his initiative the International Association of Academies of Sciences was organized in 1993, which united the National Academies of 15 countries of Europe and Asia. During almost 25 years Borys E. Paton was permanent President of this Association.

Borys E. Paton is the well-known state and public figure. Many years he was elected to the structure of government bodies, he was and is now a leader and member of different committees and commissions. By occupying high posts, he is working fruitfully with a high sense of personal responsibility to the state, people, own conscience.

Academician Borys E. Paton is a creative person, clever, honest and responsive man, he possesses fantastic energy, ability to work, keen analytic intellect. His life experience, deep knowledge in many branches of science and technology, international authority in science and society played a great role in saving the national scientific potential in the first hard decades of the Ukraine independence.

It is symbolic that Borys E. Paton was born on 27 November, 1918, the day of foundation of the National Academy of Sciences of Ukraine. During celebration of the 80th anniversary of the Academy and its President in 1998 the large hall of Palace «Ukraina» applauded the news about awarding the title of Hero of Ukraine to B.E. Paton, being the first one awarded in the state. Nevertheless, Borys E. Paton continue to direct the efforts of scientists of the National Academy of Sciences of Ukraine, all the national scientific community to the development of science, education, culture, providing the dynamic progress of Homeland.

The inborn talent of Borys E. Paton, strong will and tireless, selfless labor guaranteed the success at all the stages of life. And now, in the year of his celebrated jubilee he preserves usual working state, supervises the investigations, initiates the research, orients to the new results and wide implementation of the Academy into the world scientific community.

*We cordially wish a strong health and new successive achievements to the hero
of the anniversary in inspired labor on the scientific arena.*

Editorial Board of the Journal