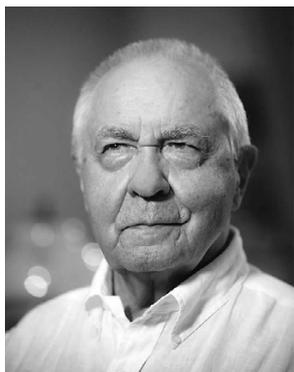


ANNIVERSARIES

Academician Nikolai Nikolaevich Ponomarev-Stepnoi (to the 90th birthday)



Nikolai Nikolaevich Ponomarev-Stepnoi – world-renowned scientist, a founder of and doer in a number of innovative directions of the atomic energy use in space and outer space and on the ground, and chief editor of our journal – celebrated his 90th birthday on December 3, 2018.

A 1952 MIPhI graduate Ponomarev-Stepnoi missed the very beginning of the organization of work on nuclear power: he was too young! But, the embodiment of expressed ideas for which approaches were not even understood, the creation of new schools and societies of students, painstaking experimental and computational-theoretical work, leadership in extensive cooperation of related enterprises, and getting results – Ponomarev-Stepnoi is all of this. He is always looking ahead. Even now he pursues these distant prospects, firmly persuading directors and specialists in the correctness of his chosen path.

Advances in work having to do with the use of high temperatures in nuclear reactors engendered enthusiasm in high-temperature gas reactors. Ponomarev-Stepnoi has headed this scientific direction for about 30 years and intends to bring this work to fruition in industry. Aside from electricity, nuclear power must produce commodity hydrogen, which in the future will become the foundation of ‘green’ energy in the world. This is essentially a new industry, incorporating new high-temperature nuclear power-generating units, including their operation, and high-temperature conversion of natural gas, storage and shipment of hydrogen over great distances to the user, and fostering a cultural stratum of hydrogen users in industry, transport, and daily life.

Ponomarev-Stepnoi’s main accomplishment in recent decades is two-component nuclear power and the paths and aims of its development. Rallying around himself a group of like-minded thinkers and organizing the development of methods of systems studies and complex systems analysis based on multicriterial approaches, Ponomarev-Stepnoi convincingly proved that the strategy for the development of nuclear power in the country must consist in creating a balanced park of power-generating units with advanced VVER and units with fast sodium-cooled reactors with breeding ratio for fissile materials >1 . With fuel cycle closure in terms of uranium and plutonium, such a system possesses unlimited developmental potential, will satisfy safety requirements, and permit gradual disposal of the accumulated spent nuclear fuel and long-lived radioactive wastes by burning transplutonium elements in fast reactors.

For many years Ponomarev-Stepnoi was the chief editor of our journal, combining in the editorial staff professionalism, high standards, democracy, tactful treatment of authors, humor, and goodwill.

The editorial board wishes Nikolai Nikolaevich Ponomarev-Stepnoi good health, inexhaustible energy in reaching his goals, new scientific discoveries, and seeing the results of his labor as quickly as possible.