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To the memory of Yurii Alekseevich Bykovskii

N G Basov

On 25 February 2001, Yurii Alekseevich Bykovskii, the head of chair of solid state physics and quantum radiophysics of Moscow Engineering and Physics Institute, passed away after serious illness.

Yu A Bykovskii was born on 2 April 1929 in Moscow. He studied in MEPhI during hard after-war years. After graduating from MEPhI, Yurii Alekseevich became a postgraduate in I V Kurchatov Institute of Atomic Energy, where he started his scientific research under the supervision of academician I K Kikoin. He defended in 1958 a candidate dissertation, which was devoted to the anisotropy of even photomagnetic effect discovered by him together with I K Kikoin. In the following years, with the advent of lasers, the scope of scientific studies of Yu A Bykovskii enlarged substantially to include the problems of the interaction of laser radiation with matter, optoelectronics, and photonics.

In 1971, he defended a doctoral dissertation that was based on his studies in the field of laser plasma. The studies of Yu A Bykovskii on the experimental realisation of laser-plasma sources of ions for linear and cyclic accelerators have undeniable world-wide priority. He was awarded the State Prize of USSR in 1982 for the development and application of laser mass spectrometry.

The studies performed by a scientific group of Yu A Bykovskii proved the possibility of wide applications of laser-plasma sources, from ion implantation to laser generators of neutrons, as well as the possibility of application of a laser plasma as a source of soft X-rays in microscopy and X-ray lithography.

The papers of Yurii Alekseevich in the field of optoelectronics and photonics have received wide acceptance. Under his supervision, a number of original devices have been developed for optical processing of many-parametric information in large systems. Yu A Bykovskii was a scientific supervisor of an important line of investigations 'Optical Processors' within the framework of the Scientific and Technical Program of Schools of Higher Education. He actively introduced the developments of the program into practice for solving urgent scientific and technical problems. He has published more than 300 scientific papers and was the author of three monographs and more than 100 author certificates.

In 1963, Yu A Bykovskii founded the chair of solid state physics and quantum radiophysics in MEPhI and headed it till his last days. Yurii Alekseevich paid much attention to the education of new researchers, he founded a scientific school and was a supervisor of 10 doctoral and more than 60 candidate dissertations defended by his pupils.

Yurii Alekseevich has made the invaluable contribution to the education of young researchers of the higher qualification, being, from 1971, the head of the MEPhI–FIAN Higher School of Physicists. During 30 years of its existence, the school has educated more than one thousand of specialists in actual scientific fields for various regions of the country, higher education schools, and institutes of the USSR Academy of Sciences.

Yu A Bykovskii was engaged in public activity, being a member of specialised Scientific Councils of MEPhI, FIAN, IAE, the expert Council in Physics of Higher Attestation Commission of Russian Federation, Councils of RAS on the problem 'Holography' and applications of methods of nuclear physics in related fields. Yurii Alekseevich was a member of the Editorial Council of Kvantovaya Elektronika from the moment of the journal foundation.

Yu A Bykovskii was awarded the rank of Honourable Scientist of Russian Federation.

The kindness and well-meaning of Yurii Alekseevich, his ability to sincerely rejoice the achievements of his pupils and colleagues, the readiness to help at all times, a great sense of humour gave him the love and respect of all the people who knew him.

The memory about Yurii Alekseevich, a prominent scientist and a beautiful man, will be forever in our hearts.

N G Basov P N Lebedev Physics Institute, Russian Academy of Sciences, Leninskii prosp. 53, 119991 Moscow, Russia

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Translated by M N Sapozhnikov