In Memory of Larisa Semenovna Bogdankevich (April 29, 1929–June 27, 2011)

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Larisa Semenovna Bogdankevich, a prominent physicist-theorist, a winner of the USSR State Prize, and a senior scientist at the Theoretical Department of the Prokhorov General Physics Institute, Russian Academy of Sciences, passed away on June 27, 2011 after an extended illness in her 83rd year.

After graduating with honors from the Physics Department at Moscow State University in 1952, Bogdankevich was enrolled at the Lebedev Physical Institute, Russian Academy of Sciences, where she began to work in the theoretical team at the Reference Laboratory, headed by the Academician V.I. Veksler. From 1952 to 1958, Bogdankevich worked under the supervision of B.M. Bolotovskii, together with whom

she accomplished a series of studies on the acceleration of plasma bunches in strong electromagnetic fields. These studies were performed in the framework of a new line of research on collective methods of acceleration offered by Veksler.

In 1958, the Plasma Physics Laboratory separated from the Reference Laboratory. The new laboratory, headed by Professor M.S. Rabinovich, was aimed at the problems of plasma physics and controlled fusion research. Bogdankevich was enrolled in the theoretical team at this laboratory.

After defending in 1961 her candidate thesis on collective methods of charged particle acceleration, Bogdankevich began to work with A.A. Rukhadze on the problems of stability of magnetically confined plasmas; microwave plasma heating; and, later, relativistic plasma microwave electronics.

Bogdankevich, together with Rukhadze, is rightfully recognized as one of the founders of plasma relativistic microwave electronics. In 1976, she (together with Rabinovich and Rukhadze) formulated the basic principles of this new branch of microwave electronics and derived a formula for the limiting electron beam current in vacuum, which came to be known as the Bogdankevich–Rukhadze formula. She was the author of more than 100 papers, which were published in the leading scientific journals.

The book *Principles of Plasma Electrodynamics* (Vysshaya Shkola, Moscow, 1978, 1988; Springer-Verlag, Berlin, 1984), written by Bogdankevich together with Rukhadze and A.F. Alexandrov, made significant contribution to plasma physics. For the second edition of this book, the authors were awarded in 1991 the USSR State Prize in Science.

Bogdankevich was an active person, truly committed to science. The memory of Larisa Semenovna will always remain in the hearts of her friends and colleagues.

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