

# SOVIET PHYSICS

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### ACADEMICIAN IGOR' VASIL'EVICH KURCHATOV

**A**CADEMICIAN Igor' Vasil'evich Kurchatov, a leading Soviet physicist, died suddenly in Moscow on February 7, 1960.

I. V. Kurchatov was born on January 12, 1903 in the Sima mill settlement of the Ufa Province; his father was a land surveyor. In 1923 he graduated from the physico-mathematical faculty of the Crimean University. In the course of these years he developed an exceptional interest in scientific work. In 1925 he began working at the Leningrad Physico-Technical Institute.

Even as a young scientist Kurchatov made a series of important discoveries in the physics of dielectrics, a branch which was still little studied at that time. Already then he inaugurated the detailed study of a new class of materials — the ferroelectrics; his work led to a theoretical understanding of these phenomena, which subsequently took on a more practical significance.

During the following years Kurchatov occupied himself with studies of the atomic nucleus. In 1935 he discovered the phenomenon of nuclear isomerism.

In 1940 Kurchatov initiated and guided research which led to the discovery of the spontaneous fission of uranium nuclei.

During the second world war he devoted all his strength and knowledge to the consolidation of the defensive power of our country.

Thereafter all his activities were connected with the problems of utilizing atomic energy, and until the end of his life he continuously guided this work in the Soviet Union. He established the largest institute in the domain of nuclear physics — the Atomic Energy Institute of the U.S.S.R. Academy of Sciences (which will now bear his name). Under his scientific guidance and with his direct participation, an atomic technology was created in our country, and the study of the atomic nucleus was raised to a new and high level; work was developed on controllable thermonuclear reactions



and ways of utilizing atomic energy in various branches of the national economy were found. Kurchatov trained numerous scientists and engineers in this new field.

In 1943 the U.S.S.R. Academy of Sciences elected him a full member of the Academy for his distinguished scientific merits.

Kurchatov was not only a great scientist but also a prominent figure in state affairs. He was

several times elected a deputy to the Supreme Soviet.

Kurchatov was an ardent patriot. In a speech before the session of the Supreme Soviet on January 15, 1960, he said: "I am happy to have been born in Russia and to have dedicated my life to the atomic science of the great Soviet country. I deeply believe and strongly know that our people, our government, will devote the achievements of this science only to the welfare of humanity."

The brilliant ability of the scientist, his enormous energy, his remarkable gift for organizing, and his exceptional capacity for work, were happily

combined with rare spiritual qualities. He enjoyed the respect and love of all those who were fortunate to work together with him and under his guidance.

For his distinguished merits on behalf of his native country, Kurchatov was honored three times with the title of Hero of Socialist Labor, and with the Lenin and Stalin prizes.

Together with all Soviet physicists, the editorial office of the JETP mourns the loss of a distinguished man and great scientist of our country.

Translated by Z. Barnea

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