



Andrei Dmitrievich Sakharov

1921 - 1989

Awarded the Nobel Peace Prize in 1975

Andrei Dmitrievich Sakharov was a Russian physicist and in his later years he became a world known human rights activist.

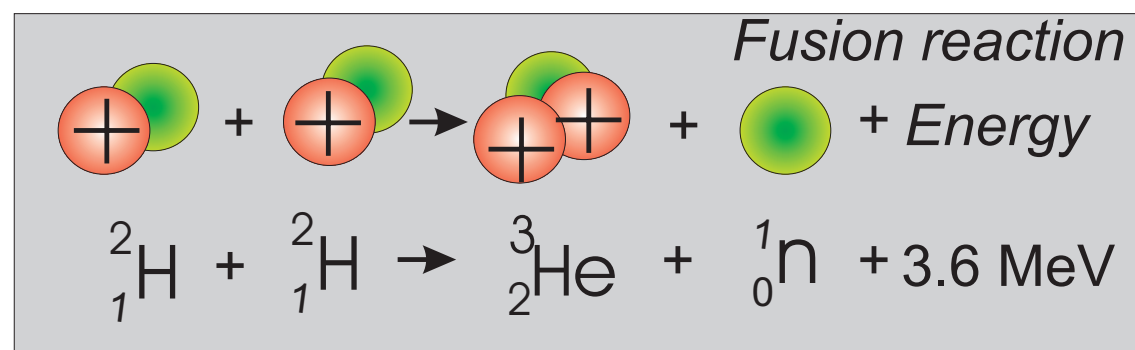
Sakharov played a prominent role in building the Soviet thermonuclear (or hydrogen) bomb and is often referred as 'the father of the Soviet hydrogen bomb'. He also developed, together with the famous physicist I. E. Tamm, the principle of the magnetic isolation of high temperature plasma. They formulated the theoretical basis for controlled thermonuclear fusion - the means by which thermonuclear power could be used for the generation of electricity and for other peaceful aims.

His later works concerned the structure of the universe. According to his idea the expanding universe has a nonuniformity in the distribution of matter. One of his novel ideas which had a great impact on theoretical and experimental studies in particle physics was that of proton instability.

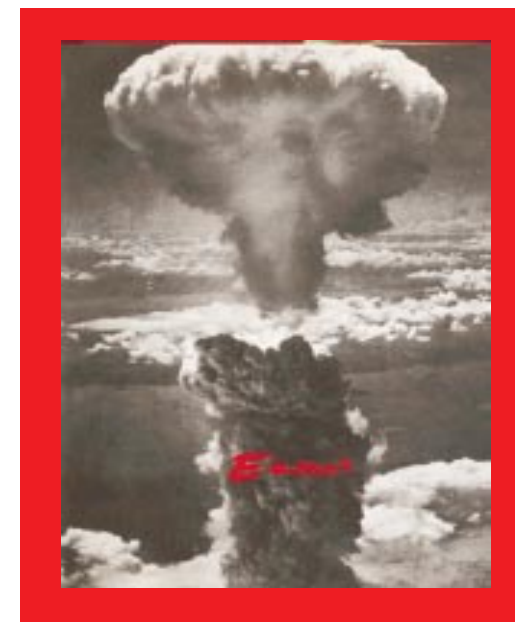
Andrei Dmitrievich Sakharov was born in Moscow, in 1921, into an intelligent family. His father was a physics teacher and was the author of physics textbooks which students still use. Andrei received his early education at home under his parents and tutors. In 1938 he enrolled in the Physics Department of Moscow State University. When the War began, in 1941, the University moved to Ashkhabad, Turkmenia. It was there that he graduated with honours in 1942. After that he worked at a military production plant.

In 1943 he married Klavdia Alekseevna Vikhireva. Eventually they had two daughters and a son. She devoted herself to her husband. She died in 1969.

In 1945 he became a post-graduate student at the Lebedev Physical Institute, in Moscow. At that time Sakharov's life was very difficult. For some time the couple rented a room in a damp basement and later they lived in a country house. He had only his post-graduate salary to support his family. Nevertheless, in two years he successfully defended his Ph. D. thesis on the theory of the atomic nucleus.



Having helped to invent the hydrogen bomb he campaigned for its abolition

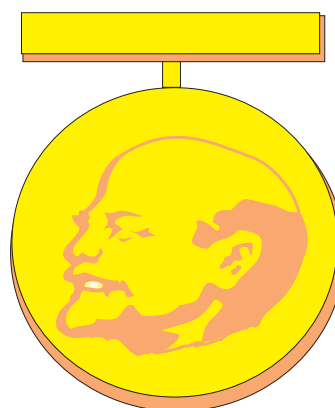


Over the period of 1950 to 1969 his efforts were mainly aimed at the activity in the National Research Institute on Experimental Physics where he developed and created nuclear weapons. After the successful test of the first Soviet hydrogen bomb, in 1953, he was elected to full membership of the Soviet Academy of Sciences. He received the highest state honours for his important contributions: the Hero of Socialist Labor three times, the Stalin prize and the Lenin prize. However, he always remained very modest and indifferent to the fame and wealth. Sakharov donated his prize money to the Red Cross organization for the building in Moscow of a cancer hospital.

By the late 50's years Sakharov realized the danger of the use and storage of nuclear arms. In 1968 he published his famous pamphlet, *Progress, Peaceful Coexistence and Intellectual Freedom*, which argued for a global reduction in nuclear weapons, and the granting of civil rights in the Soviet Union. Shortly after that he was dismissed from the secret work on arms and moved back to the Lebedev Physical Institute.

In 1970 Sakharov married for the second time. His bride was Elena Georgievna Bonner. They both participated in the dissident movement. 'The union brought to Sakharov a much longed for feeling of personal happiness'. After his protests against the Russian invasion of Afghanistan, he was deported to Gorki where he spent about six years until he was released by President Gorbachev.

Sakharov was a legend in his own time. Apart from his kindness people remembered his sad humor. One of his colleagues told the following story: Sakharov came to the Institute by taxi, but he did not climb out and sat there explaining something to the driver with the meter running. Eventually he noticed the still-running meter and he jumped out and paid. 'I now understand why the driver showed so much interest in my theory of convergence', Sakharov said to his colleagues with a smile.



He received the Lenin prize