



Leo Szilard

1898-1964

On his plaque is written: *Leo Szilard, brilliant physicist, was born here on 11 February 1898. He was one of the founders of the first atomic reactor, and worked tirelessly to prevent the proliferation of nuclear weapons and to promote the peaceful use of nuclear energy.*

In 1942 Leo Szilard and Enrico Fermi set up the first nuclear chain reaction. What does it mean: 'chain reaction'? It is when the break up of a uranium nucleus, triggered by neutron bombardment, releases other neutrons that can trigger more 'fissions' and so on. The energy release in chain reactions is enormous. The chain reaction can be made to proceed slowly and in a controlled manner in a nuclear reactor, or explosively in a bomb.

Leo Szilard was born in Budapest. His father was an architect. His mother devoted herself to her three children and worried about their education. She hired a private tutor to come to the villa daily. At six, Leo could read German, when nine he began to speak French. At the age of ten Leo entered an eight-year high school. He was excellent in mathematics and physics. At the age of 12 he read university textbooks on electricity and tried to repeat all the experiments described in them, including wireless telegraph for communication between remote parts of their house.

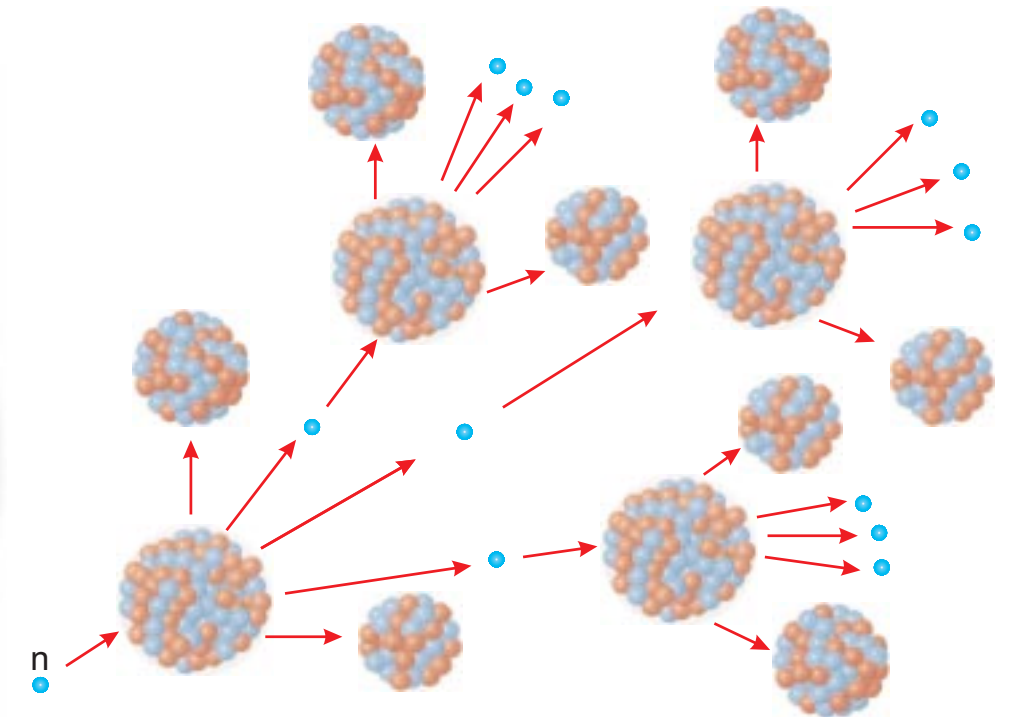
From an early age Leo considered his role as to think and to instruct while others toiled or played with his designs. The only sport Leo seemed to enjoy was ice-skating.

The girls found him handsome and lively but also shy and inhibited, sensing that his mind and his energy were focused elsewhere.

According to his biographies 'humor afforded Leo an escape from emotional pressures and he embraced and nurtured an ironic wit for the rest of his life'.



*He enjoyed
ice skating*



*Together with Fermi he set up
the first controlled nuclear chain reaction*

When Leo was 16 World War I erupted. He studied army engineering in Kufstein (Austria). Sensing the approaching collapse he declared himself ill, traveled back to Budapest and continued to study at the Institute of Technology. Soon the political situation forced him to leave Hungary and he never returned.

In 1920 he found himself in Berlin, the capital of modern physics at that time. After graduating from Berlin University he was 'assistant in theoretical physics' and then, in 1925, he became Privatdozent.

In 1933, the rise of Hitler convinced Szilard, who was Jewish, that he should leave Germany. He fled first to Vienna and then to England. During this period Szilard began to think about the possibility of a nuclear chain reaction. Towards the end of 1938, Leo decided to move to USA. There he participated in the Manhattan Project on the atomic bomb and together with Fermi he witnessed the first controlled nuclear reaction.

Finally he recognized the horrible human tragedy that would result from the use of the atomic bomb. Later Szilard spent a major portion of his time working for the control of the demon he had helped to release: atomic energy.

In the late 1940s, Szilard turned to biology. He developed the chemostat, an instrument that aids in the study of bacteria and viruses by making it possible to regulate various growth factors.

In 1951 Szilard married Gertruda Weiss, whom he had met in 1933 in Vienna, where she was a medical student. The couple had no children. Leo Szilard died of a heart attack in his sleep in 1964.