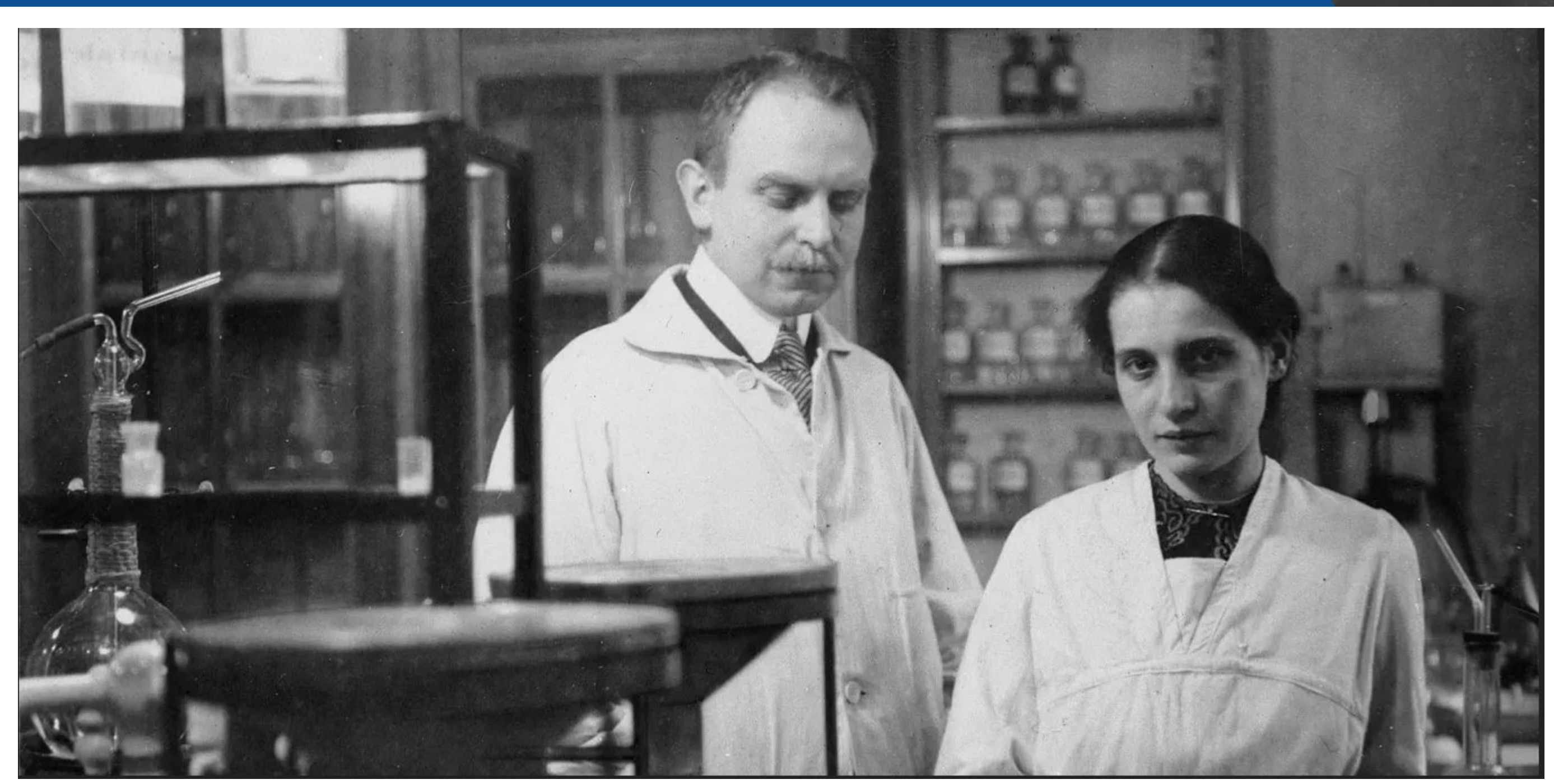
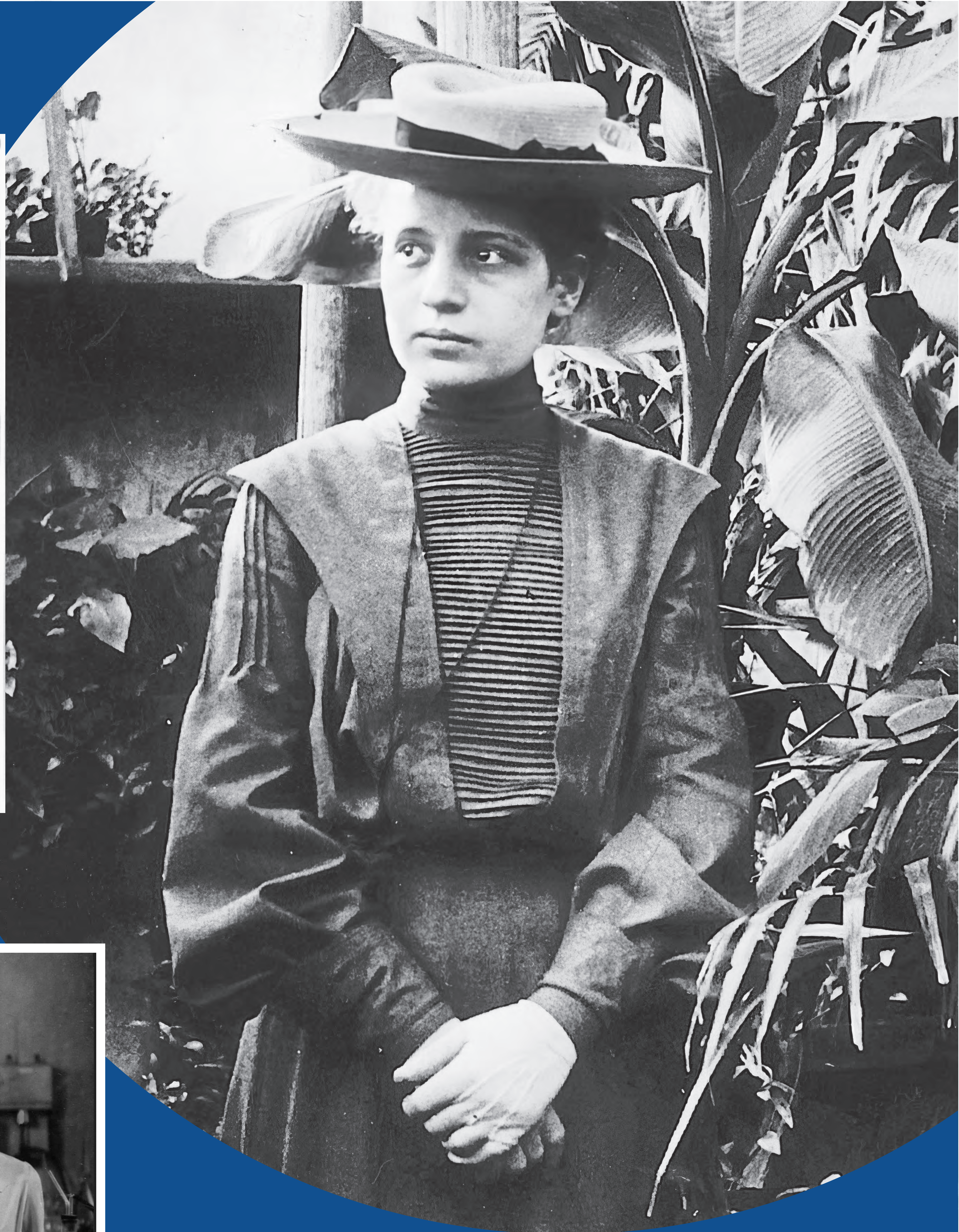
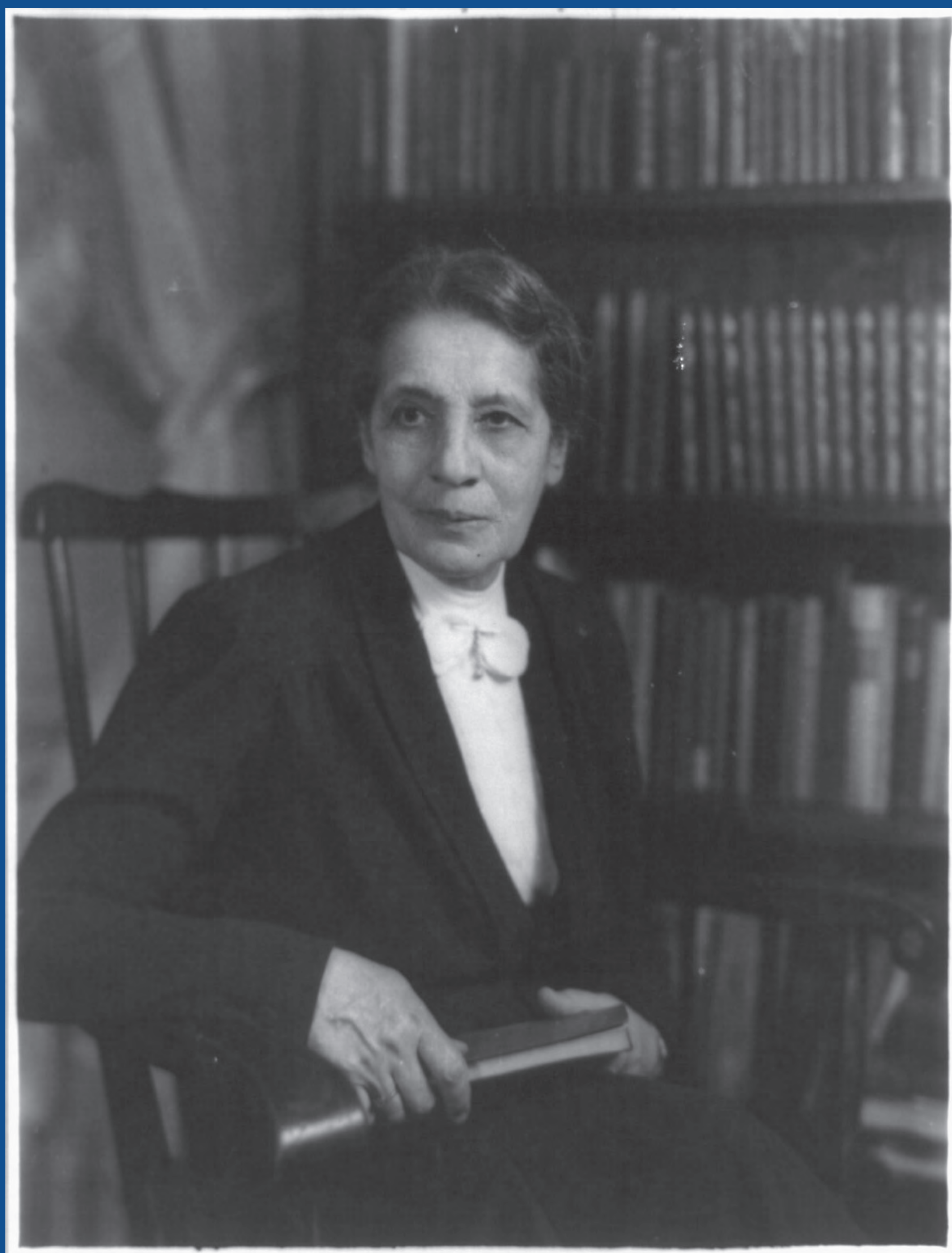




Meitner with her long-time colleague, Otto Hahn, in Emil Fischer's Chemistry Institute in Berlin, 1909

Lise Meitner

(1878-1968)

Lise Meitner, forever linked in people's minds with the monumental discovery of nuclear fission, made many significant contributions to science throughout a long and productive career. Her first compelling results came from an important technique for purifying radioactive material that took advantage of the recoil energy of atoms produced in alpha decay. She was the first to explain how conversion electrons were produced when gamma ray energy was used to eject orbital electrons. She also provided the first description of the origin of auger electrons, i.e., outer-shell orbital electrons ejected from the atom when they absorbed the energy released by other electrons falling into lower energies. Meitner even proved that a splitting of the uranium atom was energetically feasible. She described the process in a landmark letter to the journal *Nature* with a term borrowed from biology: fission.

Element 109, Meitnerium, was named in her honor in 1997.

