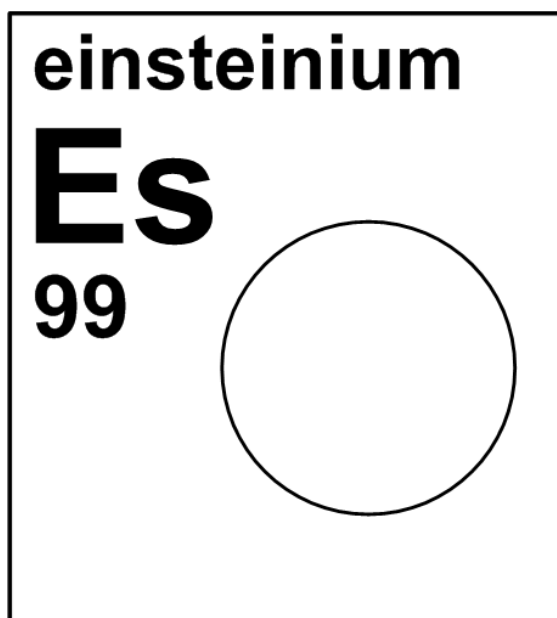





4.99 einsteinium



Stable isotope	Relative atomic mass	Mole fraction
(none)		

Half-life of radioactive isotope

Less than 1 hour	
Between 1 hour and 1 year	
Greater than 1 year	



Einsteinium does not occur naturally in the Earth's crust. It was first identified in December 1952 by American scientists from the Argonne National Laboratory near Chicago, Illinois, the Los Alamos National Laboratory in Los Alamos, New Mexico, and The University of California Laboratory in Berkeley, California in the debris of thermonuclear weapons. The **element** was named for Albert Einstein (Figure 4.99.1). ²⁵³Es was the first **isotope** identified and it has a **half-life** of 20.47 days. The isotope with the longest half-life is ²⁵²Es with a half-life of 472 days [627, 628].

There are no uses for isotopes of einsteinium outside of basic scientific research for the production of higher transuranic elements and studies of actinide science. Due to the radiation and heat given off by einsteinium isotopes, it is difficult to use them in experiments and studies [628].

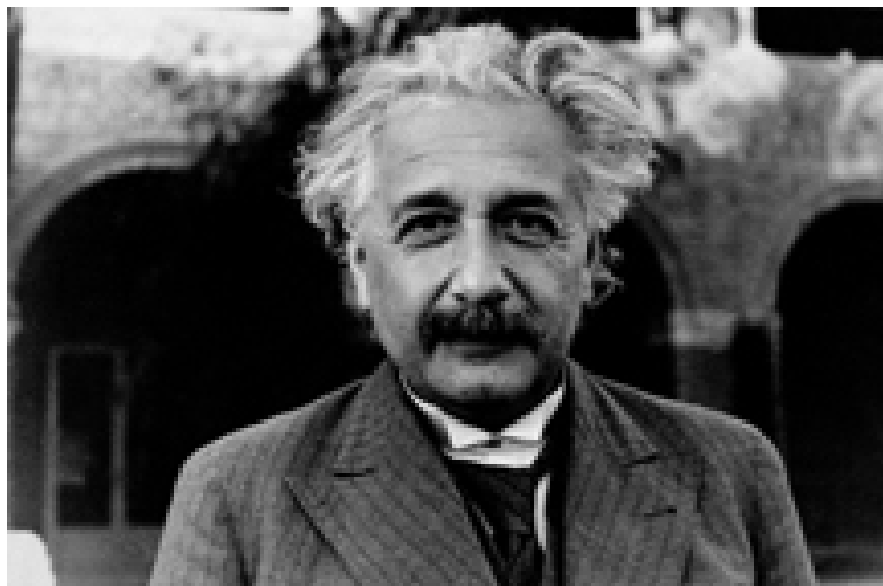


Fig. 4.99.1: Albert Einstein, from whom einsteinium derives its name. (Photo Source: © Lawrence Berkeley National Laboratory).