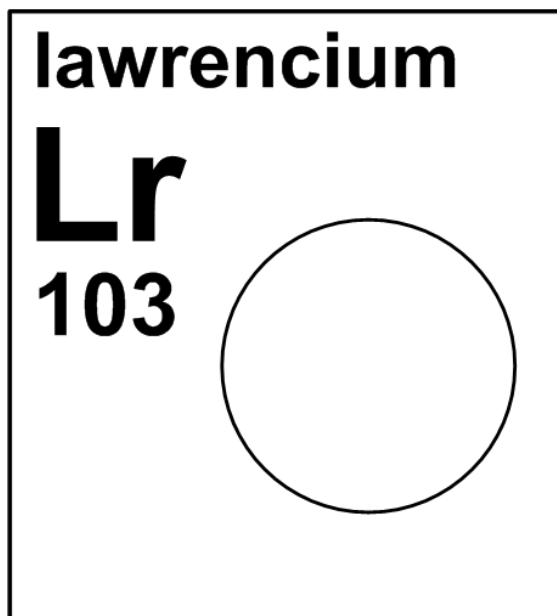




4.103 lawrencium



Stable isotope	Relative atomic mass	Mole fraction
(none)		

Half-life of radioactive isotope

Less than 1 hour 
 Between 1 hour and 1 year 

251 _{Lr}	252 _{Lr}	253 _{Lr}	254 _{Lr}	255 _{Lr}	256 _{Lr}	257 _{Lr}	258 _{Lr}	259 _{Lr}	260 _{Lr}
261 _{Lr}	262 _{Lr}	263 _{Lr}	264 _{Lr}						

Lawrencium does not occur naturally in the Earth's crust. Credit for the first synthesis of this **element** in 1971 is given jointly to Albert Ghiorso and his team at the University of California in Berkeley and Georgi Flerov and his team at the Joint Institute for Nuclear Research (JINR) in Dubna, Russia (Figure 4.103.1). The element is named for Ernest O. Lawrence (Figure 4.103.2), who developed the **cyclotron**. The chemical symbol for lawrencium was originally proposed as Lw. At the IUPAC General Assembly in 1963, lawrencium was officially accepted by IUPAC, but the symbol was changed to Lr because the Commission on Inorganic Nomenclature determined that the letter 'w' presented a problem in languages other than English. [633, 637-639]. There are no known isotopic applications for lawrencium outside of scientific research.

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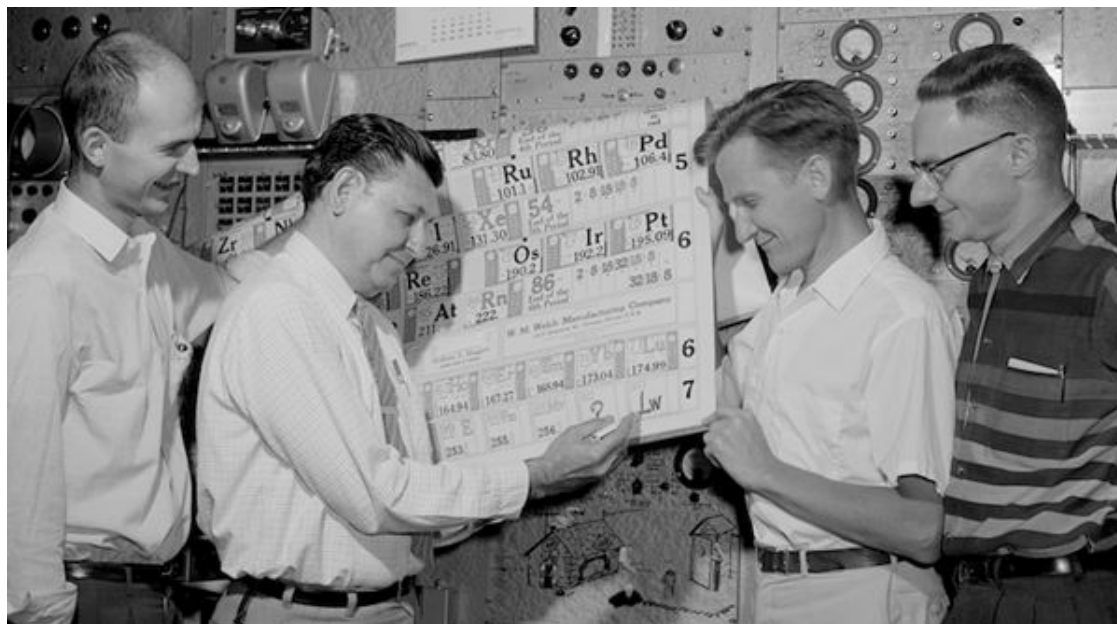


Fig. 4.103.1: The team that discovered lawrencium: Torbjorn Sikkeland, Albert Ghiorso, Almon E. ‘Bud’ Larsh, and Robert M. Latimer. (Photo Source: Dr. Glenn T. Seaborg, Lawrence Berkeley National Laboratory) [640].



Fig. 4.103.2: This is a photograph of Ernst O. Lawrence, who invented the **cyclotron**. **Element 103** is named after him. (Photo Source: U.S. Department of Energy, Lawrence Berkeley National Laboratory) [641].