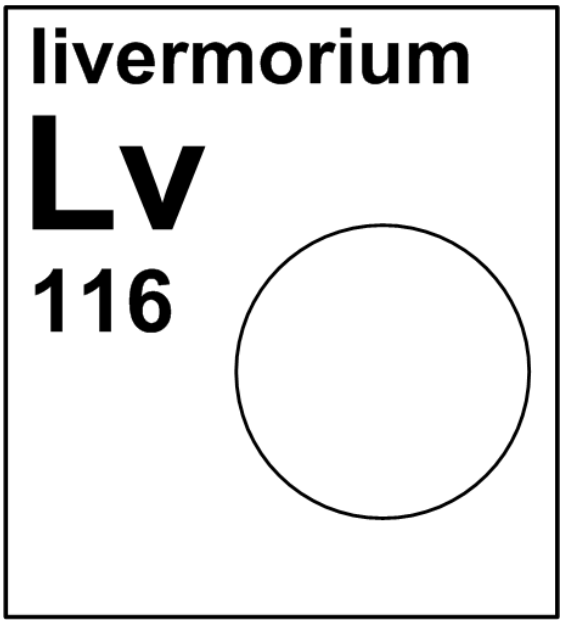
4.116 livermorium



Stable isotope	Relative atomic mass	Mole fraction
(none)		

Livermorium does not occur naturally in the Earth's crust. In 2000, scientists from the Joint Institute for Nuclear Research (JINR) in Dubna, Russia (Figure 4.116.1) worked with scientists from the Lawrence Livermore National Laboratory at the University of California and other collaborators to synthesize **element** 116. This element was first given the placeholder name ununhexium and in May of 2012 was granted the name livermorium with the symbol Lv. Researchers first studied livermorium as a **decay product** of oganesson and then synthesized livermorium by bombarding atoms of ^{248}Cm with ions of ^{48}Ca. The initial reaction of ^{248}Cm with ^{48}Ca produced the **isotope** ^{292}Lv. Researchers were also able to produce livermorium by bombarding ^{245}Cm with ^{48}Ca. There are four known isotopes of livermorium [666, 671]. Livermorium has no known isotopic applications aside from scientific research.

Fig. 4.116.1: Photo of the heavy ion **cyclotron** U-400 at JINR in which livermorium was synthesized. (Photo Source: Lawrence Livermore National Laboratory) [672].