

**\* Name Origin:**

Named for Lise Meitner, a Swedish physicist who helped discover protactinium and first split the nucleus of uranium, creating what her team dubbed "fission".

**\* Sources:**

First synthetically produced by bombarding  $^{209}\text{Bi}$  with accelerated nuclei of  $^{58}\text{Fe}$ .

**\* Uses:**

None

**\* Additional Notes:**

On August 29, 1992, Element 109 was made and identified by physicists at the Heavy Ion Research Laboratory (G.S.I.), Darmstadt, Germany, by bombarding a target of  $^{209}\text{Bi}$  with accelerated nuclei of  $^{58}\text{Fe}$ . The production of Element 109 has been extremely small. It took a week of target bombardment ( $10^{11}$  nuclear encounters) to produce a single atom of 109. Oganessian and his team at Dubna in 1994 repeated the Darmstadt experiment using a 10-fold irradiation dose. One fission event from seven alpha decays of 109 was observed, thus indirectly confirming the existence of isotope  $^{266}\text{Mt}$ . The IUPAC has adopted the name meitnerium (Mt) for this element, honoring L. Meitner, in 1997.