

**\* Name Origin:**

Latin "Hassias" meaning "Hess", the German state.

**\* Sources:**

Synthetically prepared element

**\* Uses:**

None

**\* Additional Notes:**

This element was first synthesized and identified in 1984 by the same G.S.I. Darmstadt group who first identified Elements 107 and 109. Presumably this element will have chemical properties similar to osmium. Isotope  $^{265}\text{Hs}$  was produced using a beam of  $^{58}\text{Fe}$  projectiles, produced by the Universal Linear Accelerator (UNILAC) to bombard a  $^{208}\text{Pb}$  target. Discovery of Elements 107 and 109 was made using detection of isotopes with odd proton and neutron numbers. Elements having even atomic numbers are thought to be less stable against spontaneous fission than odd elements. The production of  $^{265}\text{Hs}$  in the same reaction as was used at G.S.I. was confirmed at Dubna with detection of the 7th member of the decay chain  $^{253}\text{Es}$ . Isotopes of Element 108 were believed to decay by spontaneous fission, explaining why 109 was produced before 108. Isotope  $^{265}\text{Hs}$  and  $^{266}\text{Hs}$  are thought to decay to  $^{261}\text{Sg}$ , which in turn decays to  $^{257}\text{Rf}$  and  $^{253}\text{No}$ . The IUPAC adopted the name hassium, after the German state of Hesse, in 1997.