

actinoids, transuranium elements

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Chemical Characterization of Bohrium (Element 107). — ^{267}Bh atoms are produced by irradiating for about four weeks a target of ^{249}Bk covered with a layer of ^{159}Tb on a thin Be foil with ^{22}Ne particles. The Bh atoms are reacted with HCl and O_2 gas at 1000°C to give presumably $^{267}\text{BhO}_3\text{Cl}$ which is detected by isothermal gas adsorption chromatography. It is found that this compound is less volatile than the oxychlorides of Re or Tc. The standard sublimation enthalpy of BhO_3Cl is estimated as 89 kJ/mol . — (GAEGGELER, H. W.; ET AL.; Nature (London, UK) 407 (2000) 6800, 63-65; Inst. Chem. Biochem., Univ. Bern, CH-3012 Bern, Switz.; EN)