

## **<sup>209</sup>Pb**

First evidence of <sup>209</sup>Pb was described in 1940 by Krishnan and Nahum in “Deuteron Bombardment of the Heavy Elements. I. Mercury, Thallium and Lead” (1940Kr08). The Cavendish cyclotron at Cambridge University was used to bombard mercuric oxide with 9 MeV deuterons. <sup>209</sup>Pb was identified by chemical separation and the activities were measured with a Geiger counter and a scale-of-eight thyratron counter. “The most intense activity observe in lead under deuteron bombardment has a half-life of  $2.75 \pm 0.05$  hr. It has been chemically identified as due to a lead isotope... This isotope is assigned to Pb<sup>209</sup>, decaying to stable bismuth by an allowed  $\beta$  disintegration.” A half-life of 3 h had previously been reported in a conference abstract (1936Th01). An earlier report of a small abundance of <sup>209</sup>Pb (1932As03) was incorrect.

Adapted from reference (2013Fr04)

- 1932As03 F. W. Aston, Nature **129**, 649 (1932).  
1936Th01 \*\*\* **Error: no reference found for this keynumber** \*\*\*  
1940Kr08 R. S. Krishnan and E. A. Nahum, Proc. Cambridge Phil. Soc. **36**, 490 (1940).  
2013Fr04 C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 365 (2013).

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