

## **<sup>119</sup>In**

In 1949, <sup>119</sup>In was first observed by Duffield and Knight in “In<sup>118</sup> and In<sup>119</sup> produced by Photo-Disintegration of Tin” ([1949Du04](#)). At the University of Illinois, 23 MeV X-rays bombarded enriched <sup>120</sup>Sn to produce <sup>119</sup>In. Decay curves were recorded which in the case of <sup>119</sup>In was preceded by chemical separation. “An examination of the indium activities produced by the irradiation of tin with 23 MeV betatron x-rays at this laboratory has led to the identification of two additional periods which can be assigned to In<sup>118</sup> and In<sup>119</sup> on the basis of evidence outlined below.” The measured half-life for <sup>119</sup>In was (17.5(10) m) and corresponds to an isomeric state. The ground state (2.3 m) was observed eleven years later by Yuta and Morinaga ([1960Yu01](#)).

Adapted from reference ([2011Am01](#))

- [1949Du04](#) R. B. Duffield and J. D. Knight, Phys. Rev. **75**, 1967 (1949).  
[1960Yu01](#) H. Yuta and H. Morinaga, Nucl. Phys. **16**, 119 (1960).  
[2011Am01](#) S. Amos, J. L. Gross, and M. Thoennessen, At. Data Nucl. Data Tables **97**, 383 (2011).

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