

## <sup>118</sup>Ba

In the 1997 paper “Decay studies of the neutron-deficient isotopes <sup>114–118</sup>Ba” Janas et al. reported the first observation of <sup>118</sup>Ba ([1997Ja12](#)). A 4.9 MeV/u <sup>58</sup>Ni beam was accelerated by the linear accelerator UNILAC at GSI and bombarded enriched <sup>58</sup>Ni and <sup>60</sup>Ni targets on a <sup>63</sup>Cu backing. <sup>118</sup>Ba was produced in the fusion-evaporation reaction <sup>63</sup>Cu(<sup>58</sup>Ni,1p2n) and identified by measuring  $\beta$ -delayed X-rays and  $\gamma$ -rays following on-line mass separation. “From the time characteristics of the cesium KX-rays intensity the <sup>118</sup>Ba half-life of  $T_{1/2} = 5.2 \pm 0.2$  s was determined under the assumption of a single decay component.”

Adapted from reference ([2010Sh20](#))

- [1997Ja12](#) Z. Janas, A. Plochocki, J. Szerypo, R. Collatz *et al.*, Nucl. Phys. A **627**, 119 (1997).  
[2010Sh20](#) A. Shore, A. Fritsch, J. Q. Ginepro, M. Heim *et al.*, At. Data Nucl. Data Tables **96**, 749 (2010).

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