

## <sup>39</sup>Ca

<sup>39</sup>Ca was first observed in 1943 by Huber et al. at the Physikalisches Institut der E.T.H. Zürich as reported in the article “Der Kernphotoeffekt mit der Lithium-Gammastrahlung: I. Die leichten Elemente bis zum Calcium” (1943Hu02). <sup>39</sup>Ca was populated in a radiative capture reaction with 17 MeV  $\gamma$ -rays. 500 keV protons bombarded lithium to produce the  $\gamma$ -rays from the reaction  ${}^7\text{Li}(p,\gamma)$ . Subsequent to the irradiations the decay curves of the emitted  $\beta$ -rays were measured. “Als Resultat von 600 durchgeführten Bestrahlungen erhielten wir die in Fig. 13 aufgezeichnete Zerfallskurve mit einer Halbwertszeit von  $T = 1.06 \pm 0.03$  sec.” [As a result of 600 irradiations we achieved the decay curve shown in Fig. 13 with a half-life of  $T = 1.06 \pm 0.03$  sec.]. In 1937, Pool et al. had incorrectly assigned a half-life of 4.5 min to <sup>39</sup>Ca (1937Po04).

Adapted from reference (2011Am01)

- 1937Po04 M. L. Pool, J. M. Cork, and R. L. Thornton, Phys. Rev. **52**, 239 (1937).  
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