

⁵Li

In the 1941 paper “The Scattering of One- to Three-Mev Protons by Helium” Heydenburg and Ramsey observed an unbound resonance in ⁵Li ([1941He04](#)). Protons from 1.2 to 3.0 MeV accelerated by the Carnegie Institution of Washington pressure electrostatic generator were scattered off a helium gas target and detected with a parallel-plate ionization chamber. “[From the figure] it appears that the amount of scattering does pass through a maximum at about two Mev as expected theoretically on the basis of the neutron-helium scattering results and the assumption of the equality of n-n and p-p forces. However, the height and narrowness of the maximum are much less than in the neutron-helium case, being only a factor of 2 instead of 5 in intensity, while the half-width is more than one 1 Mev instead of about 0.5 Mev.”

Adapted from reference ([2012Th01](#))

[1941He04](#) N. P. Heydenburg and N. F. Ramsey, Phys. Rev. **60**, 42 (1941).

[2012Th01](#) M. Thoennessen, At. Data Nucl. Data Tables **98**, 43 (2012).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:[10.11578/frib/2279152](https://doi.org/10.11578/frib/2279152)”