

## $^{215}\text{Ac}$

In 1968, Valli et al. reported the first observation of  $^{215}\text{Ac}$  in the article “On-line alpha spectroscopy of neutron-deficient actinium isotopes” ([1968Va04](#)). The Berkeley heavy-ion linear accelerator was used to produce light actinium isotopes in the reactions  $^{197}\text{Au}(^{20}\text{Ne},\text{xn})$ ,  $^{203,205}\text{Tl}(^{16}\text{O},\text{xn})$ , and  $^{209}\text{Bi}(^{12}\text{C},\text{xn})$ . Reaction products were deposited by helium flow onto a catcher foil which was then rotated in front of a Si(Au) surface barrier detector. “Actinium-215: ...The shape of the excitation function for the 7.602-MeV  $\alpha$  activity in the  $^{203}\text{Tl}+^{16}\text{O}$  case is particularly good evidence for the assignment to  $^{215}\text{Ac}$ .”

Adapted from reference ([2013Fr03](#))

[1968Va04](#) K. Valli, W. J. Treytl, and E. K. Hyde, Phys. Rev. **167**, 1094 (1968).

[2013Fr03](#) C. Fry and M. Thoennessen, At. Data Nucl. Data Tables **99**, 345 (2013).

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