

^{213}Ac

In 1968, Valli et al. reported the first observation of ^{213}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-213 and Actinium-212: ...There is a peak in the α spectra in [the figures] which we attribute to ^{213}Ac with an energy of 7.362 MeV, to ^{212}Ac with an energy of 7.377 MeV, or to a mixture of both, depending on the reaction system and the beam energy.”

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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