# $^{212}$Ac

In 1968, Valli et al. reported the first observation of $^{212}$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 $^{197}$Au($^{20}$Ne,xn), $^{203,205}$Tl($^{16}$O,xn), and $^{209}$Bi($^{12}$C,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 $\alpha$ 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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