^{209}Ac

In 1968, Valli et al. reported the first observation of ^{209}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-209: In the ^{197}Au+^{20}Ne series of experiments, we observed an α activity with 7.585-MeV energy and a 0.10±0.05-sec half-life, which we assign to ^{209}Ac."

Adapted from reference (2013Fr03)

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