^{211}Ac

In 1968, Valli et al. reported the first observation of ^{211}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-211 and Actinium-210: ...In the ^{197}Au+^{20}Ne system, when we prepared the activity with 124-MeV ^{20}Ne ions, the α energy was 7.480 MeV. This energy we assign to ^{211}Ac. When we used 145-MeV ^{20}Ne ions, the α energy of the unknown peak was 7.462 MeV, which we assign to ^{210}Ac"

Adapted from reference (2013Fr03)

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