^{213}At

In the 1968 article "New neptunium isotopes, ^{230}Np and ^{229}Np" Hahn et al. reported the observation of ^{213}At (1968Ha14). Enriched ^{233}U targets were bombarded with 32−41.6 MeV protons from the Oak Ridge Isochronous Cyclotron forming ^{229}N in (p,5n) reactions, respectively. Reaction products were implanted on a catcher foil which was periodically rotated in front of a surface barrier Si(Au) detector. Isotopes populated by subsequent α emission were measured. "The α-particle energies found for the ^{225}Pa series are more precise than the previously available values: ^{225}Pa, 7.25±0.02 MeV (new value); ^{221}Ac, 7.63±0.02 MeV; ^{217}Fr, 8.31±0.02 MeV and ^{213}At, 9.06±0.02 MeV." The observation of ^{213}At was not considered new, referring to an unpublished thesis (1951Ke53).

Adapted from reference (2013Fr09)

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