# $^{187}$Pb

The first observation of $^{187}$Pb was described by Gauvin et al. in 1972 in "$\alpha$ decay of neutron-deficient isotopes of bismuth and lead produced in (Ar,xn) and (Kr,xn) reactions" (1972Ga27). The ALICE accelerator at Orsay was used to bombard a $^{155}$Gd target with 302−500 MeV $^{40}$Ar beams forming $^{186-190}$Pb in (9n-5n) fusion-evaporation reactions. Recoil products were identified with a helium jet technique and $\alpha$-decay spectroscopy. "Two new lead isotopes were found: $^{187}$Pb, $E_\alpha$ = 6.08 MeV, $t_{1/2}$ = 17.5 sec; and $^{186}$Pb, $E_\alpha$ = 6.32 MeV, $t_{1/2}$ = 7.9 sec." The measured decay for $^{187}$Pb corresponds to an isomeric state and the half-life of the ground state was reported nine years later by Misaelides et al. (1981Mi12).

Adapted from reference (2013Fr04)


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