^{155}Lu

Macfarlane discovered ^{155}Lu in 1965 as reported in "Alpha-decay properties of some lutetium and hafnium isotopes near the 82-neutron closed shell" (1965Ma14). An enriched ^{144}Sm target was bombarded with ^{19}F at the Berkeley heavy-ion linear accelerator and ^{155}Lu and ^{156}Lu were produced in (8n) and (7n) fusion evaporation reactions, respectively. Excitation functions and α-particles spectra were measured. "However, the excitation function for the 5.63 MeV alpha group which we suspected to be due to Lu^{155} peaks $\approx$6 MeV lower than this, at a value half-way between the (H.I.,8n) and (H.I.,7n) energies. We did observe an activity, however, which was assigned to the (F^{19},7n) reaction so that the only plausible mass assignment for this activity is Lu^{155}."

Adapted from reference (2012Gr19)

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