^{258}Lr

Eskola et al. identified ^{258}Lr in "Studies of lawrencium isotopes with mass numbers 255 through 260" in 1971 (1971Es01). Boron, nitrogen, and oxygen beams with a maximum energy of 10.4 MeV/u from the Berkeley heavy-ion linear accelerator bombarded ^{249}Cf, ^{248}Cm, and ^{249}Bk targets. Recoil products were swept by rapidly flowing helium gas onto a collection wheel which rotated periodically in front of a series of Si-Au surface-barrier detectors. "In our bombardments of the ^{249}Cf target with ^{15}N ions with the primary goal of making isotopes of element 105, a pronounced 8.87-MeV, 0.6-sec α particle group appeared in the spectra. By producing this activity using three different projectiles, ^{11}B, ^{14}N, and ^{15}N, on the ^{249}Cf target, we have concluded that the activity must be due to ^{257}Lr... The excitation functions for the 8.87-MeV, 0.6-sec and the 8.6-MeV, 4.2-sec α activities produced by ^{15}N ions on ^{249}Cf are displayed in [the figure]... Such a behavior is in accordance with the assignments of the activities to ^{257}Lr and ^{258}Lr." The results for ^{257}Lr and ^{258}Lr were mentioned by Ghiorso et al. about a year earlier (1970Gh02) referring to the paper by Eskola et al. (1971Es01) as "to be published".

Adapted from reference (2013Th02)

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