^{141}La

Katcoff published the identification of ^{141}La in an article of the Plutonium Project Record in 1951: "Radiations from 3.7h La^{141}" (1951KaZW). Uranyl nitrate was irradiated with slow neutrons produced with the Chicago cyclotron and the A=141 mass chain of the ^{141}Ba-^{141}La-^{141}Ce relationship was established: "About 75 min was then allowed for 3.7h La^{141} to grow into the solution from its 18m Ba^{141} parent... The β-decay curve shows a long-lived component (probably the 28d Ce^{141} daughter of 3.7h La^{141}) and small amounts of 30 h and 1.5 h components; but the 3.7 h component greatly predominates." Hahn and Strassmann (1939Ha16) had reported a relationship of a 18 min half-life in barium with a 3.5 h component in lanthanum. However, no specific mass assignment was made. In another paper in the Plutonium Project Record Goldstein mentioned the established relationship of the mass chain (1951GoZX) quoting two internal classified reports of the Plutonium Project by Ballou and Burgus. While the first report (CC-529) is still classified, the second one (CC-579) has been unclassified (1943BaZQ).

Adapted from reference (2012Ma48)

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