^{85}Br

In 1943, Born and Seelmann-Eggebert were the first to identify ^{85}Br in their paper "Über die Identifizierung einiger Uranspaltprodukte mit entsprechenden durch (nα)- und (np)-Prozesse erhaltenen Isotopen" (1943Bo01). Rubidium and strontium salts were irradiated with neutrons from the high-voltage facility of the Kaiser Wilhelm Institut für Physik in Berlin, Germany and decay curves following chemical separation were measured. "Das 30-Min.-Brom aus Uran ist identisch mit einem aus Rubidium durch (nα)-Prozeß erhaltenem Brom. Auf Grund dieser Ergebnisse können folgende Reihen aufgestellt werden: ^{84}Br (30 Min.) $\rightarrow^{84}$Kr stab., ^{85}Br (3 Min.) $\rightarrow^{85}$Kr (4,6 Std.) $\rightarrow^{85}$Rb stab., ^{87}Br (50 Sek.) $\rightarrow^{87}$Kr (75 Min.) $\rightarrow^{87}$Rb (6,3 $\cdot$ 10^{10} Jahre) $\rightarrow^{87}$Sr stab." [The 30 min. bromine from uranium fission is identical to the bromine produced by the (n,α) process from rubidium. Based on these results we can determine the following decay sequences: ^{84}Br (30 min.) $\rightarrow^{84}$Kr stable, ^{85}Br (3 min.) $\rightarrow^{85}$Kr (4,6 h) $\rightarrow^{85}$Rb stable, ^{87}Br (50 s) $\rightarrow^{87}$Kr (75 min.) $\rightarrow^{87}$Rb (6.3 $\cdot$ 10^{10} y) $\rightarrow^{87}$Sr stable.] The half-life for ^{85}Br had been previously reported without mass assignments, 3.0(5) min. (1940St03).

Adapted from reference (2012Gr02)

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