

## $^{223}\text{Fr}$

Perey discovered  $^{223}\text{Fr}$  in 1939 at the Laboratoire Curie, Institut du Radium, Université Paris, as reported in “Sur un élément 87, dérivé de l’actinium” (1939Pe01).  $^{223}\text{Fr}$  was observed within the natural actinium radioactive decay chain and populated by  $\alpha$  decay from  $^{227}\text{Ac}$ . Beta-decay curves were measured following chemical separation. “En ajoutant du chlorure de cæsium à l’eau mère et en précipitant par une solution de perchlorate de sodium, il se forme des cristaux qui entraînent l’activité: celle-ci d’écroît exponentiellement avec la période de 21 minutes  $\pm$  1. [By adding liquid cesium chloride and precipitating a solution of sodium perchlorate crystals are formed that cause an activity which decreases exponentially with the period of 21 minutes  $\pm$  1.] This observation of  $^{223}\text{Fr}$  also represented the discovery of the element francium.

Adapted from reference (2013Fr09)

1939Pe01 M. Perey, *Compt. Rend.* **208**, 97 (1939).

2013Fr09 C. Fry and M. Thoennessen, *At. Data Nucl. Data Tables* **99**, 497 (2013).

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