

## $^{218}\text{At}$

In the 1939 paper “Spectres de l’émission propre ondulatoire du radon et de ses dérivés. Raies attribuables à l’élément 85” Hulubei and Cauchois from the University of Paris ([1939Hu01](#)) reported the observation of three X-rays which were close to the predicted values for eka-iodine (astatine). These X-rays were observed from a  $^{222}\text{Rn}$  sample and the astatine lines could only originate from  $^{218}\text{At}$  populated either by  $\alpha$  and  $\beta$ -decay through  $^{218}\text{Po}$  or by  $\beta$  and  $\alpha$ -decay through  $^{222}\text{Fr}$ . “Ces coïncidences font penser que l’élément 85 est peut-être présent parmi les produits de désintégration du radon” [These coincidences suggest that the element 85 may be present among the radon decay products.]

The assignment was changed ([2015Th03](#)) from the original compilation ([2013Fr09](#)) which credited a later publication by Karlik and Bernert ([1943Ka04](#)) with the discovery of  $^{218}\text{At}$ .

- [1939Hu01](#) H. Hulubei and Y. Cauchois, *Compt. Rend.* **209**, 39 (1939).  
[1943Ka04](#) B. Karlik and T. Bernert, *Naturwissenschaften* **31**, 298 (1943).  
[2013Fr09](#) C. Fry and M. Thoennessen, *At. Data Nucl. Data Tables* **99**, 497 (2013).  
[2015Th03](#) M. Thoennessen, *Int. J. Mod. Phys. E* **24**, 1530002 (2015).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:[10.11578/frib/2279152](https://doi.org/10.11578/frib/2279152)”