

## $^{74}\text{Co}$

In 1995, Engelmann et al. reported the discovery of  $^{74}\text{Co}$  in “Production and Identification of Heavy Ni Isotopes: Evidence for the Doubly Magic Nucleus  $^{78}_{28}\text{Ni}$ ” (1995En07).  $^{238}\text{U}$  ions were accelerated in the UNILAC and the heavy-ion synchrotron SIS at GSI to an energy of 750 A-MeV.  $^{74}\text{Co}$  was produced by projectile fission, separated in-flight by the FRS and identified event-by-event by measuring magnetic rigidity, energy loss and time of flight. “For a total dose of  $10^{13}$  U ions delivered in 132 h on the target three events can be assigned to the isotope  $^{78}\text{Ni}$ . Other new nuclei,  $^{77}\text{Ni}$ ,  $^{73,74,75}\text{Co}$  and  $^{80}\text{Cu}$  can be identified, the low count rate requires a background-free measurement.” Fifteen events of  $^{74}\text{Co}$  were observed.

Adapted from reference (2010Sz02)

- 1995En07 Ch. Engelmann, F. Ameil, P. Armbruster, M. Bernas *et al.*, *Z. Phys. A* **352**, 351 (1995).  
2010Sz02 T. Szymanski and M. Thoennessen, *At. Data Nucl. Data Tables* **96**, 848 (2010).

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