

## <sup>78</sup>Ni

In 1995, Engelmann et al. reported the discovery of <sup>78</sup>Ni in “Production and Identification of Heavy Ni Isotopes: Evidence for the Doubly Magic Nucleus <sup>78</sup>Ni” (1995En07). <sup>238</sup>U ions were accelerated in the UNILAC and the heavy-ion synchrotron SIS at GSI to an energy of 750 A-MeV. The nickel isotope 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<sup>13</sup> U ions delivered in 132 h on the target three events can be assigned to the isotope <sup>78</sup>Ni. Other new nuclei, <sup>77</sup>Ni, <sup>73,74,75</sup>Co and <sup>80</sup>Cu can be identified, the low count rate requires a background-free measurement.”

Adapted from reference (2012Ga06)

1995En07 Ch. Engelmann, F. Ameil, P. Armbruster, M. Bernas *et al.*, *Z. Phys. A* **352**, 351 (1995).

2012Ga06 K. Garofali, R. Robinson, and M. Thoennessen, *At. Data Nucl. Data Tables* **98**, 356 (2012).

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