

## <sup>68</sup>Br

In “Discovery of <sup>68</sup>Br in secondary reactions of radioactive beams”, Wimmer et al. described the first observation of <sup>68</sup>Br in 2019 (2019Wi08). A 345 MeV/nucleon <sup>78</sup>Kr beam from the Radioactive Isotope Beam Factory at RIKEN was used to produce secondary beams of <sup>70</sup>Br, <sup>71</sup>Kr, and <sup>72</sup>Kr with the BigRIPS separator. These beams impinged on a secondary 703(7) mg/cm<sup>2</sup> Be target at about 170 MeV/nucleon and the reaction products were separated and analyzed in the ZeroDegree spectrometer by measuring their energy loss, time-of-flight and magnetic rigidity. “...12 events are observed at Z=35, A/q =1.943, corresponding to <sup>68</sup>Br. After correction for the detection efficiency and the transmission through the spectrometers, the yield of <sup>68</sup>Br amounts to 14.7(50)(18) with statistical and systematic uncertainties, respectively.” A previous search using projectile fragmentation reactions did not observe any <sup>68</sup>Br events (2014De41).

Adapted from reference (2023Th03)

- 2014De41 M. Del Santo, Z. Meisel, D. Bazin, A. Becerril *et al.*, Phys. Lett. B **738**, 453 (2014).  
2019Wi08 K. Wimmer, P. Doornenbal, W. Korten, P. Aguilera *et al.*, Phys. Lett. B **795**, 266 (2019).  
2023Th03 M. Thoennessen, Int. J. Mod. Phys. E **32**, 2330001 (2023).

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