

⁷⁸Kr

The discovery of the stable isotope ⁷⁸Kr was made by Aston in 1920 with a mass spectrograph and the results were reported in “The constitution of the elements” (1920As01). Aston identified six separate isotopes of krypton; “Krypton has no fewer than six constituents: 78, 80, 82, 83, 84, and 86. The last five are strong lines most beautifully confirmed by double- and triple-charged clusters, which can be compared with great accuracy against A (4) and CO (28). The 78 line has not yet been confirmed in this way owing to its faintness, but there is no reason to doubt its elemental nature. Krypton is the first element giving unmistakable isotopes differing by one unit only.” Aston published the actual spectra a few months later (1920As04).

Adapted from reference (2010He02)

- 1920As01 F. W. Aston, *Nature* **105**, 8 (1920).
1920As04 F. W. Aston, *Nature(London)* 105, 617 (1920), See keynumber 1921As01.
2010He02 M. Heim, A. Fritsch, A. Schuh, A. Shore, and M. Thoennessen, *At. Data Nucl. Data Tables* **96**, 333 (2010).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152”