

THE NEW EFFECTIVE TRANSMISSION OF THE DOUBLE-FOCUSING ELECTRON SPECTROMETER

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The damage on the inner coil of the iron-free double-focusing electron spectrometer at the Boris Kidrič Institute⁽¹⁾ resulted in the elimination of the section of the coil. The new effective transmission was determined by the study of radial and axial focalization properties. The plane of the entrance baffle was scanned⁽²⁾ with the 1.3x1.3 cm entrance slit. The K-conversion line of the 316 keV transition in ¹⁹²Pt (source dimensions 0.5x12 mm) was used. The field of regular line shapes was determined. This enabled the choice of a number of entrance baffle shapes what gave the resolution from 0.07 till 0.1% for K-electrons. The spectrometer is now ready for routine high resolution internal conversion measurements.

References:

1. M. Mladjenović, Proc. Rehovoth Conf. on Nuclear Structure, North-Holland, Amsterdam 1958, p.p. 537.
2. R.L. Graham, G.T. Evan, J.S. Geiger, Nucl. Inst. and Meth., 9 (1960) 245.