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Investigation of Old Coins and Metalized Fabrics by Ion Beams and TXRF Methods

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The element compositions of some coins fabricated by the Mints of Russian Empire in 18 and 19 centuries and Soviet Russia in the twenties years of 20 century and metalized fabrics of modern times were investigated in the work. The investigations were executed by methods of the ion beam material study and TXRF spectrometry application. There are determinated the host and admixture compositions of the coins for its surfaces and volumes. Metalized fabrics study shows that the metallization is featured for separate filaments of fabrics when the average thickness of coatings is smaller as 110 nanometers.

Keywords: RBS, PIXE, TXRF, old coin, metalized fabrics, beam