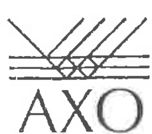

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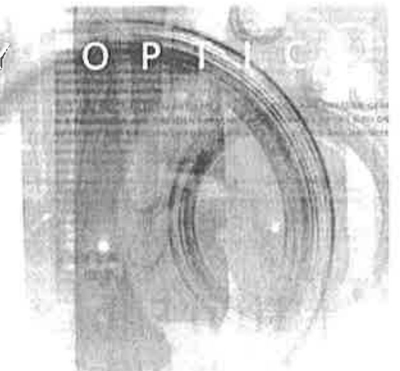
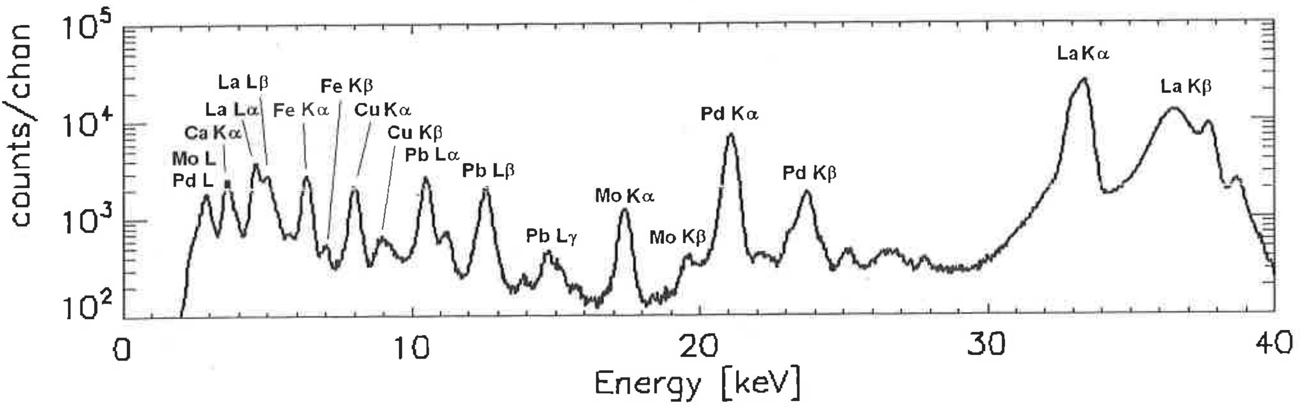


Thin Film XRF Reference Sample RF8-200-S2455



Energy spectrum of the 7-element reference sample RF4-200-S1749 (similar to RF7/RF8) measured at 40 keV excitaton. The energy range from ~2 keV to ~40 keV is covered with peaks of comparable intensity.

Mass deposition:

Mass deposition on the sample type S2455 ranges from 9 ng/mm² to 168 ng/mm² for the elements listed in the table below. The mass deposition values listed here are average values measured by AAS, ICP-OES and XRF.

Despite the very precise measurements these reference samples are no "Certified Reference Materials (CRMs)".

	Large area map SF1	µ beam "mapping" S10
Energy	26 keV	9.5 keV
Area	15 x 15 mm²	1.2 x 1.2 mm²
Beam size	0.8 x 0.4 mm²	2.8 x 12 µm²
Step size	0.8 x 0.4 mm²	~ 30 x 30 µm²
Cu Kα		
La Lα		

	Mass (ng/mm²)	Emission Lines (eV) Kα	Lα	Mα
Pb	78.2±3.4	85335	10541	2346
La	138.6±7.0	33298	4649	833
Pd	25.7±1.0	21123	2838	
Mo	8.6±0.8	17444	2293	
Cu	22.1±1.0	8040	930	
Fe	39.1±3.1	6401	747	
Ca	168.0±8.5	3691	341	
Si	Substrate	1740		

Lateral homogeneity:

The lateral homogeneity of all elements deposited on these reference samples has been tested with µ-XRF mappings. The deviation is smaller than 1% over the entire sample area.

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