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Supporting information for article:

Optimizing the energy bandwidth for transmission full-field X-ray microscopy experiments

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Figure S1 Reflectivity curves for the I13-2 fixed-angle mirror ($\theta = 2.5\text{mrad}$). Orange: Silicon substrate; grey: ruthenium coating; blue: platinum coating

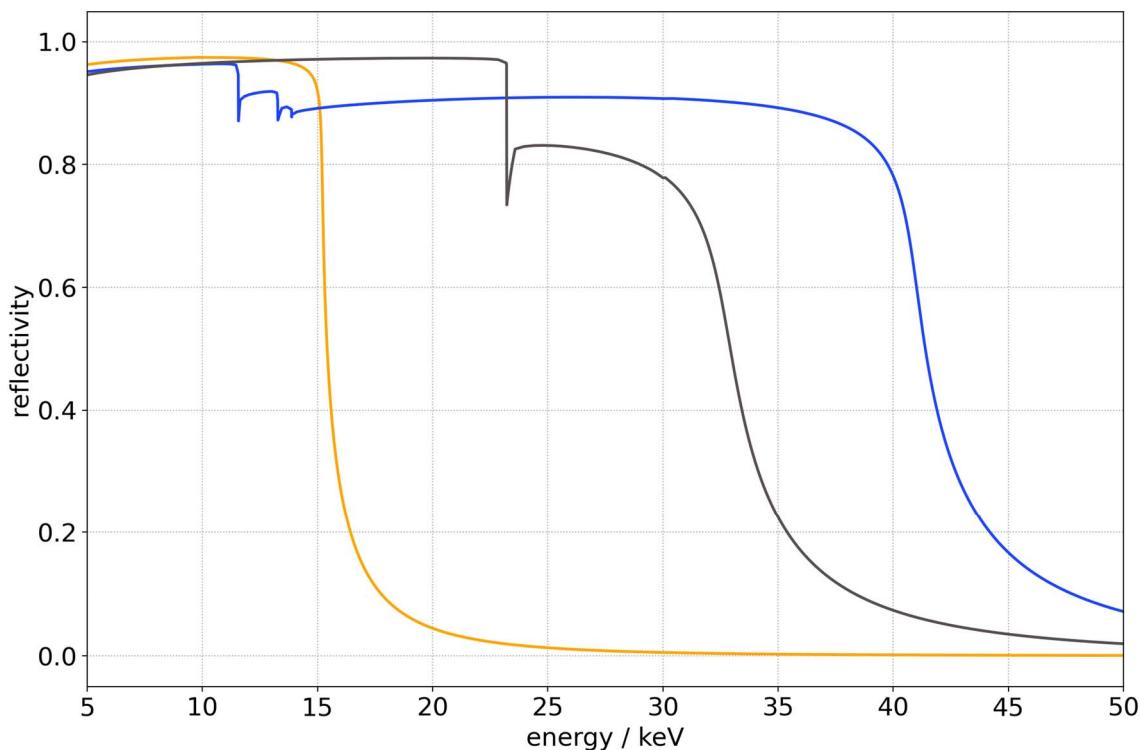


Figure S2 The theoretical reflectivity of the I13-2 multilayer systems at a nominal energy of 12 keV. The layer interdiffusion thickness assumed in the simulation 0.3 nm as per the manufacturer's specification. Orange: Ru/B₄C, blue: Mo/B₄C, grey: V/B₄C.

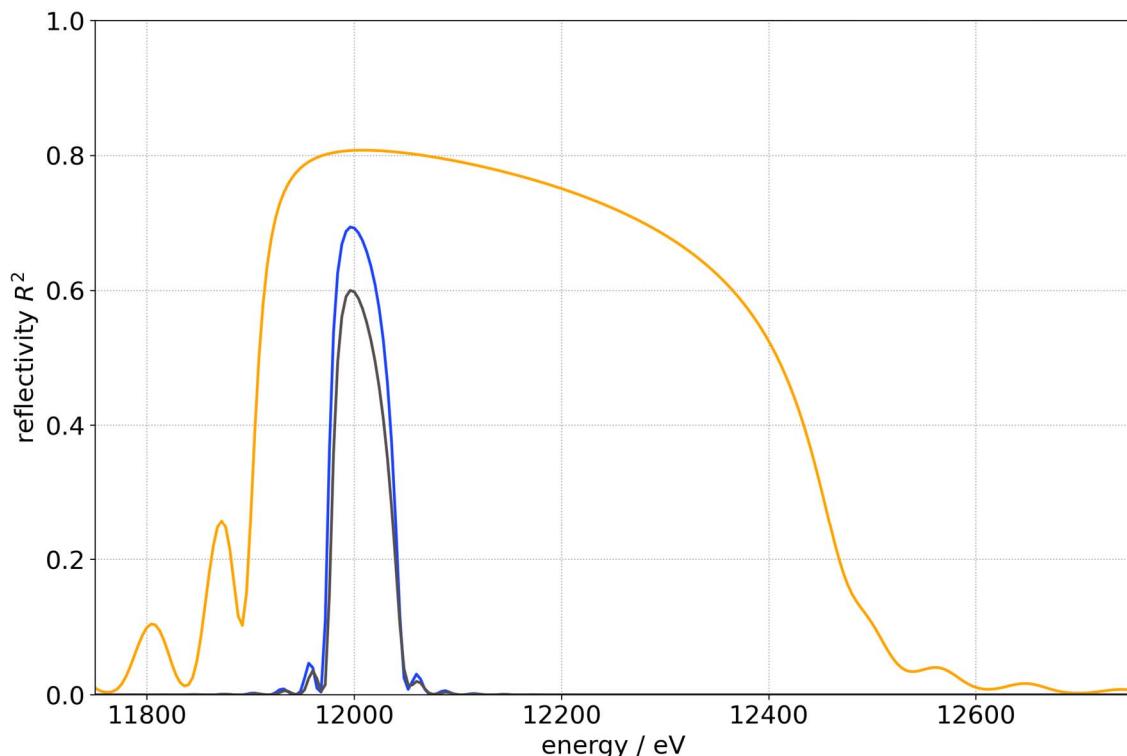


Table S1 Statistics and acquisition times used for the measurements of the Siemens star.

scan	Exposure time / s	Mean counts / pixel
Ru stripe, Zernike contrast	0.16	26066
Ru stripe, absorption	0.16	30606
Mo stripe, Zernike contrast	0.5	34470
Mo stripe, absorption	0.5	37663
Si-111, Zernike contrast	5.0	31633
Si-111, absorption	5.0	35219

Table S2 Fitting parameters for the spatial resolution determination from azimuthal profiles. The fit function is of the form $C(x) = a \left(1 - e^{-\frac{x-x_0}{c}}\right)$ for $x \geq x_0$.

	Si-111 DCM absorption	Si-111 DCM Zernike	Mo/B ₄ C MLM absorption	Mo/B ₄ C MLM Zernike	Ru/B ₄ C MLM absorption	Ru/B ₄ C MLM Zernike
<i>a</i>	0.0869	0.2642	0.0971	0.2886	0.0739	0.2901
<i>x</i> ₀	69.602	71.326	62.039	73.460	66.270	73.767
<i>c</i>	61.220	192.746	111.533	194.275	208.845	382.640