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Supporting information for article:

Characterization of the Percival detector with soft X-rays

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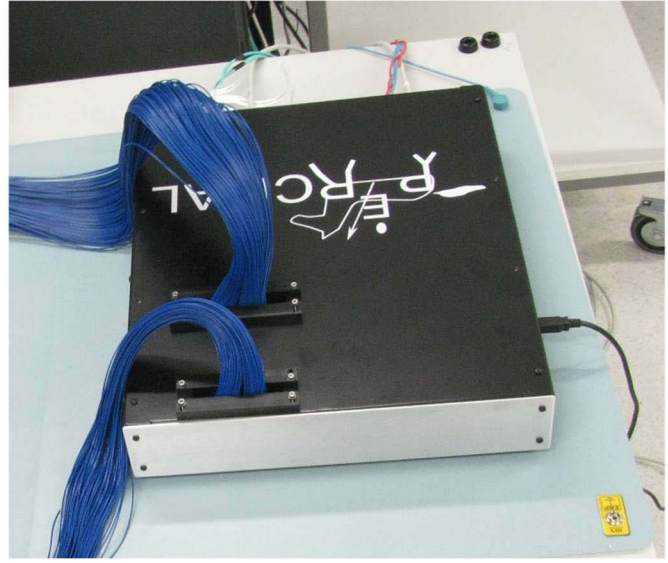
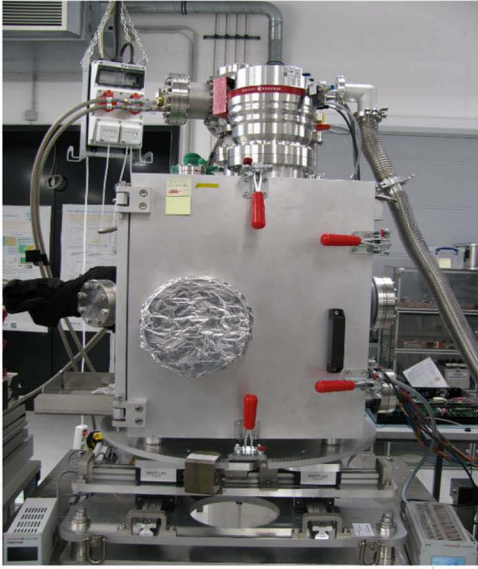


Figure S1 The P2M system in its actual components; vacuum vessel and (in-air) detector control box

<p>Row Decoders : 7 Row Parallel Read</p>	<p>Pixels : High Dynamic Range Pixel</p>
<p>Support Circuitry : On-chip biasing with Serial Interface</p>	<p>Sampling Stage : PGA Multiple Gain Handling</p>
	<p>Analog-to-Digital Converters : 12 bit ADC (8 / column)</p>
	<p>High Speed Output : LVDS Outputs</p>

Figure S2 Top-level overview of the ASIC (not to scale)

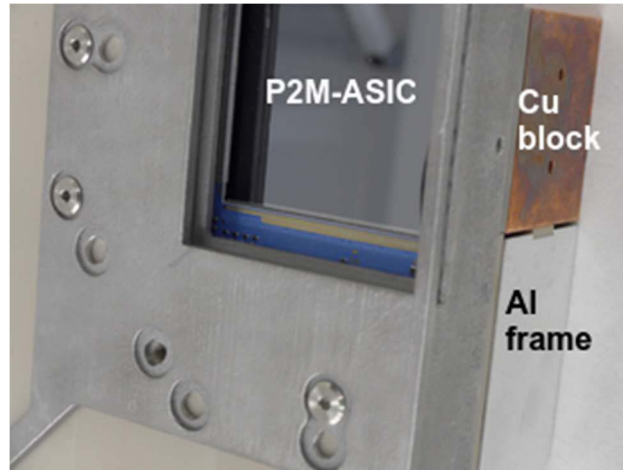


Figure S3 Picture of the P2M cold head. The ASIC can be recognized by its mirror sheen, and part of the wirebond pads on the LTCC are visible. The Molybdenum support under the chip (chosen for CTE match to Si) is hidden by the protective frame, but the Copper block below the Molybdenum support is shown. The Aluminum frame can also be recognized at the side of the Copper block. There is only a small area of contact (using thermally resistive PEEK) between the warm Aluminum frame and the cold Copper block.

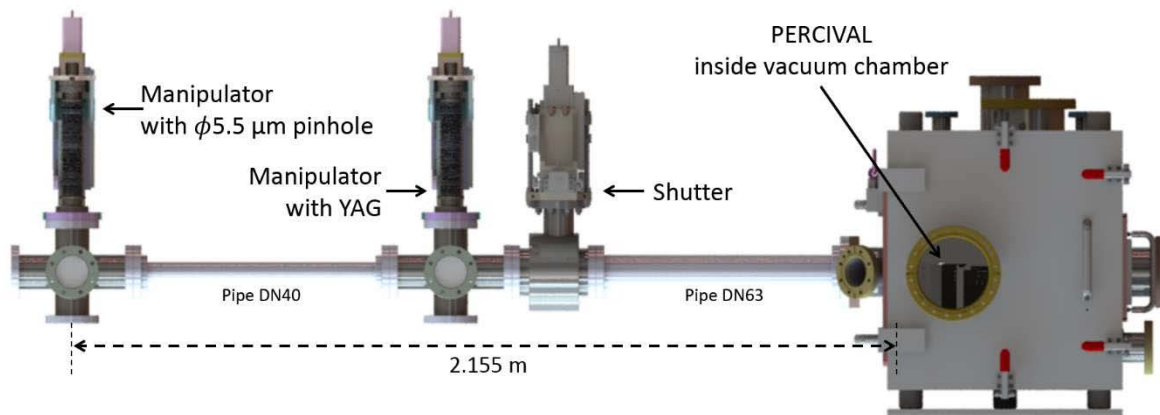


Figure S4 Sketch of the setup for the beamtime at the Variable Polarization XUV Beamline P04 at Petra III.