

## PolyX: X-ray microimaging and microspectroscopy beamline under construction at SOLARIS

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PolyX is a short bending magnet beamline that is being constructed at SOLARIS. The beamline is focused on X-ray microimaging and spectromicroscopy in 4 keV – 15 keV energy range. The name PolyX originates from polychromatic X-rays and polycapillary optics which are intended to increase the beam intensity and for an efficient focusing of X-rays. PolyX will become operational in 2023. The main experimental techniques at PolyX will be x-ray absorption and phase-contrast imaging,  $\mu$ CT, and spatially resolved  $\mu$ XRF and  $\mu$ XAFS. The layout of PolyX is schematically presented in Fig. 1. The beamline will operate in “high flux” mode with a double multilayer monochromator and in “high resolution” mode with a double Si(111) crystal. White beam mode will be also feasible. Installation of a vertically collimating mirror is planned for the second construction phase. Experiments will be possible in air and the beamline will be easy to reconfigure. Therefore, a dedicated area for user experiments and/or user end-station will be provided in the experimental hutch. In this Contribution, we will discuss the layout, application examples and limitations of PolyX and report the status of beamline construction.

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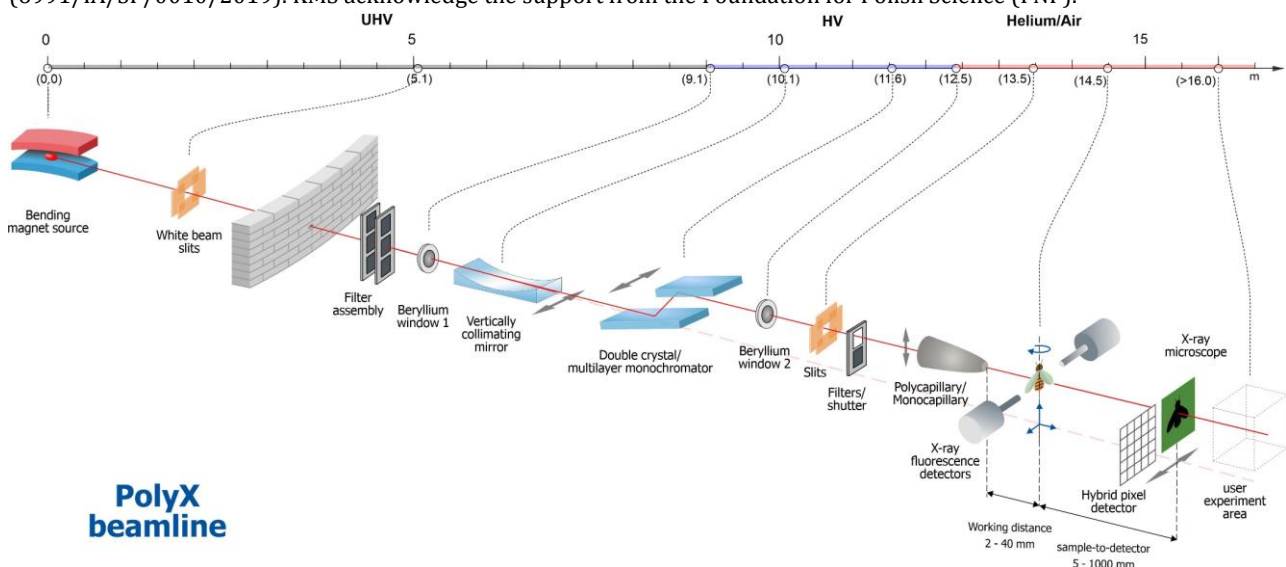


Figure 1. Layout of PolyX beamline.