

The PIRX beamline at Solaris and its technical improvements

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The PIRX beamline (Premiere InstRument for Xas, former name PEEM/XAS) has been optimized for the soft X-ray photon energy range (100-2000 eV) with the bending magnet as a synchrotron radiation source [1]. It has been operating since September 2018 with users and several optimizations were applied to improve beamline performance and control.

This contribution reports on the present performance of the beamline on selected results obtained during first years of operation. Some emphasis will be put on the topic related with procedure of the energy resolution and intensity optimization, the implementation of new signal processing which significantly improved data quality and measurement efficiency. Optic elements contamination monitoring plays an important role for change of intensity at critical carbon K-edge energy region. The series of oxygen cleaning cycles were applied to almost get rid of the negative effects. Test and successful experiments with fluorescence detection mode also at low energies.

The measured beamline parameters and characteristics will be summarized. Finally, the perspectives for the future beamline upgrades and development will be presented.

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References

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