

XMCD beamline at SOLARIS synchrotron

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XMCD beamline in National Synchrotron Radiation Centre SOLARIS in Kraków will be constructed on the base of the former I1011 beamline transferred from Lund (Max-lab). According to the agreement between SOLARIS and MaxIV the components of I1011 were moved to the new destination where they will be used to construct a beamline with a work name XMCD. The name is related with the main technique - the magnetic dichroism in x-ray absorption which is planned to be applied at the endstations. Eventually, the beamline will have two branches and the monochromatized light will be switched between two branches: one comprising the octupole magnet endstation and the PEEM (photoemission electron microscopy) endstation, and the second branch equipped with the STXM (scanning transmission x-ray microscope).

The source of radiation will be an Elliptically Polarizing Undulator of the APPLE II type. This type of insertion device gives the opportunity to obtain a variable polarization of light: linear horizontal, linear vertical and elliptical. The collimated beam plane grating monochromator (cPGM) will deliver radiation in the photon energy range 100-2000 eV and with the resolving power of more than $5 \cdot 10^3$.

The grant received from the Polish Ministry of Science and Higher Education enables reinstallation of the beamline at SOLARIS including necessary modifications and construction of the new elements such as the front-end system.

The beamline will be suitable for investigations of new materials, including materials promising for spintronics and magnetoelectronics, surface of bulk compounds, topological insulators, thin films and multilayers systems, biomaterials, etc.

Acknowledgment

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