

SYNCHROTRON SOLARIS - PRESENT AND FUTURE RESEARCH OPTIONS

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National Synchrotron Radiation Centre SOLARIS in Kraków is the most modern and largest multidisciplinary research facility in Poland. The Centre was built between 2010 and 2015. The investment was co-financed by the European Union with funds from the European Regional Development Fund, as part of the Innovative Economy Operational Programme for 2007-2013. As a strategic investment for the development of science, SOLARIS has been included on the Polish Roadmap for Research Infrastructures.

SOLARIS has been built using the groundbreaking design of magnetic double bend achromats developed at MAX-lab facility in Lund, Sweden, resulting in outstanding properties of generated synchrotron light which places SOLARIS firmly at the cutting edge of devices of this type. SOLARIS synchrotron operates at 1.5GeV energy with up to 500mA stored electron beam. It is powered by 600MeV S-band linac.

SOLARIS can provide synchrotron radiation for up to 18 beamlines from bending magnets and insertion devices. Within the scope of the project budget already two state of the art beamlines (PEEM/XAS and UARPES) have been constructed. In April 2018 SOLARIS opened the first call for the external users for measurements at these beamlines.

The talk will focus on the presentation of the current status of the center and ongoing and future development of SOLARIS research infrastructure. Research opportunities available at synchrotron radiation facilities will be shown. Furthermore, the stability challenges faced by synchrotron radiation sources will be presented.