

Proposals of new beamlines for Solaris synchrotron - 2013

	Beamline	Source	Energy range	End stations/ techniques (experimental methods)	Status	Coordinator
1	PEEM/XAS Photoemission Electron Microscopy / X-ray Absorption Spectroscopy	Bending magnet	200 – 2000 eV	PEEM - Photoemission Electron Microscopy XAS - X-ray Absorption Spectroscopy	Beamline under construction	Prof. Józef Korecki, Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences in Kraków.
2	UARPEs Ultra angle resolved photoemission spectroscopy	Quasi-periodic undulator	8 - 100 eV	Angle-resolved photoemission spectroscopy	Beamline under construction	Prof. Jacek Kołodziej, Jagiellonian University
3	PHELIX	Undulator	50-1500 eV	- Resonant photoelectron spectroscopy - Angle-resolved photoemission spectroscopy - Circular and linear dichroism in photoemission - X-ray absorption spectroscopy - X-Ray Magnetic Circular Dichroism - X-Ray Magnetic Linear Dichroism	Project	Prof. Jacek Szade, University of Silesia in Katowice
4	MX-BioSAXS-PD Macromolecular Crystallography- Small Angle X-ray Scattering-Powder Diffractometry	Superconducting wiggler	6 – 18 keV	- X-ray diffraction - Small-angle X-ray scattering	Project	Prof. Maciej Kozak, Adam Mickiewicz University, Poznań
5	IR Laboratory of Microspectroscopy IR	Bending magnet	400-4000 cm ⁻¹ (0.05-0.5 eV)	Midinfrared absorption microspectroscopy and infrared imaging	Project	Dr hab. Małgorzata Barańska, dr Kamilla Małek, Jagiellonian University
6	SXRM Soft X-ray Microscope	Bending magnet	290-560eV	Soft X-ray microscopy	Project	Prof. dr hab. inż. Henryk Fiedorowicz, Military University of Technology, Warsaw
7	MOpS	Phase 1.	Phase I: 0.1-2	Absorption, scattering, reflection,	Project	Prof. Jerzy Pełka,

	Metrology and Optics for Soft X-Rays	Bending magnet Phase 2. Elliptic undulator	keV Phase II: above 2 keV	imaging, spectroscopy, interferometry, Fourier transform soft X-ray spectroscopy		Institut of Physics, Polish Academy of Science, Warsaw
8	MULTIDIFF Multifunctional Diffraction Beamline	Wiggler (or undulator)	5-25 keV	- Fast X-ray powder diffraction - High resolution powder diffraction - High resolution monocrystalline diffraction and reflectometry	Project	Prof. Wojciech Paszkowicz, Institut of Physics, Polish Academy of Science, Warsaw, Prof. Sławomir Kaczmarek, West Pomerian University of Technology, Szczecin
9	XS X-ray spectroscopy	Bending magnet	2.05-8 keV	X- ray absorption spectroscopy: - XANES - X-ray Absorption Near Edge Structure - EXAFS - Extended X-Ray Absorption Fine Structure - XES - X-ray emission spectroscopy - RIXS - Resonant Inelastic X-ray Scattering End-stations: XES spectrometer with a curved crystal	Project	Prof. Krystyna Jabłońska, dr Iraida Demchenko Institut of Physics, Polish Academy of Science, Warsaw
10	MMS Microscopy and Magnetic Spectroscopy	Undulator (type EPU)	400 eV – 1500 eV	- STXM - Scanning Transmission X-ray Microscopy - XMCD - X-ray magnetic circular dichroism - Microscopy PEEM/LEEM Photoemission Electron Microscope/Low-energy electron microscope	Project	Dr hab. inż. Marcin Sikora AGH, University of Science and Technology, Krakow Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences in Kraków.
11	MIDAMAX X-ray absorption, microimaging, diffraction and magnetic dichroism	Asymmetric wiggler	1 – 35 keV	- XAS - X-ray Absorption Spectroscopy - EXAFS - Extended X-Ray Absorption Fine Structure - NEXAFS- Near Edge X-Ray Absorption Fine Structure - XANES - X-ray Absorption Near Edge Structure - XMCD - X-ray magnetic circular	Project	Prof. Czesław Kapusta, AGH, University of Science and Technology, Krakow dr Dariusz A. Zając, Helmholtz Zentrum Berlin

				<p>dichroism</p> <ul style="list-style-type: none"> - DAFS - Diffraction anomalous fine structure - XRD - X-ray Diffraction - Imaging and topography 		
12	<p>XCAT X-ray studies of Chemical processes dynamics in matter Activated by external Triggers</p>	Wiggler	2-12 keV	<ul style="list-style-type: none"> - Von Hamos spectrometer + femtosecond laser - XES - X-ray Emission Spectroscopy XAS - X-ray Absorption Spectroscopy RIXS - Resonant Inelastic X-ray Scattering GIXRF - Grazing Incidence X-Ray Fluorescence GEXRF - Grazing-Emission X-Ray Fluorescence 	Project XCAT submitted to the competition ERC-Synergy Grants 2013	Prof. Marek Pajek, The Jan Kochanowski University in Kielce
13	<p>XTOP High Resolution Diffraction, topography and tomography</p>	Superconducting wiggler	8 – 30 keV	<ul style="list-style-type: none"> - X-ray diffraction topography in a white and monochromatic beam - X-ray tomography - High resolution diffractometry and surface diffraction - Reflectometry 	Project	Prof. Krzysztof Wieteska National Centre for Nuclear Research
14	<p>Catalina</p>	Asymmetric wiggler	500 eV - 13 keV or to 40 keV	<ul style="list-style-type: none"> - XANES - X-ray Absorption Near Edge Structure - EXAFS - Extended X-Ray Absorption Fine Structure - XMCD - X-ray magnetic circular dichroism - EXAFS and XANES together with registration of Raman and optical spectra 	Project	dr Stefan Witkowski, Jagiellonian University