CREMLIN PLUS
Connecting Russian and European Measures for Large-scale Research Infrastructures

The National Research Center (NRC) «Kurchatov Institute» - "Kurchatov complex of synchrotron and neutron investigations"

The National Research Center (NRC) «Kurchatov Institute» is one of the leading research centers in the world and the largest multi-disciplinary research center with the advanced experimental capabilities laboratory in Russia.
A substantial part of Russian nuclear physics facilities has been consolidated in NRC «Kurchatov Institute».
NRC «Kurchatov Institute» pursues R&D in a wide range of fields of modern science using unique research and technology facilities:
Accelerator Complexes, Research Nuclear Reactors, Plasma Facilities, Nuclear Medicine Complex, Data Processing Center (Supercomputer), Complex of NBICS Technologies.
WP-8 infrastructure object – **"Kurchatov complex of synchrotron and neutron investigations"** – 2.5 GeV electron synchrotron equipped with a set of 15 x-ray and VUV beamlines and research reactor with 5 user beamlines. Most of the SR instruments are listed in the table below. The complete set may be found on the website of the setup.

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Website:
http://kcsni.nrcki.ru/en.shtml

Instruments:	Domain and object of research : PSE
LANGMUIR	X-ray reflectometry (XRR);X-ray Standing waves (XSW); Grazing incidence diffraction (GID); Total X-ray Reflection Fluorescence (TXRF)
BIOSAX	Small-angle X-ray scattering (SAXS); X-ray powder diffractometry (XRD)
RSA (XRD)	X-ray diffraction analysis of single-crystals; Precision powder diffraction
PHASE	X-ray Standing waves (XSW); High-resolution diffraction (XRD); Multiwave diffraction; Surface diffraction; X-ray acousto-optics; X-ray holography; Resonance diffraction; X-ray Reflectometry (XRR); Diffuse scattering
RKFM	Double and triple axis high resolution diffractometry (XRD, HRXRD); Multiwave diffraction;X-ray topography; Reciprocal space mapping (RSM); X-ray Reflectometry (XRR); X-ray standing waves (XSW); X-ray fluorescence analysis (XRF);X-ray acoustooptics
STM Material Structure	EXAFS / XANES spectroscopy; X-ray powder diffraction (XRD); Small-angle scattering (SAXS)
NANOPES	Angular resolution photoelectron spectroscopy (ARPES); Near Edge X-ray absorption (NEXAFS); SPM (STM + AFM) microscopy
RT-MT	X-ray microtomography; X-ray topography
MEDIANA	X-ray imaging; Phase-contrast imaging; Tomography; Hight pressure diffraction
LIGA	X-ray microtomography in the „pink" beam – up to 80 keV
EXAFS-D	Energy dispersive EXAFS with millisecond resolution; Diffraction in the geometry of forward and backscattering