



ANTARES: A New Tailored Angle Resolved Spectroscopies beamline

SOLEIL staff:

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Areas of application, instrumentation and methodologies used

Energy range: 10 eV -1000 eV

"VGD / VLS "(Varied Groove Depth / Varied Line Spacing) plane gratings

Nanofocusing (50 nm) using Fresnel zone plates.

Sampling devices: high resolution "SCIENTA R4000" electron analyzer - 5 axis high-precision Cryo-sample manipulator (better than 1 micron resolution) and 1 Scan sample manipulator (x,y,z) (resolution better than 5 nm). Interferometry measurements used to obtain nanometric stabilization.

Beamline designed for the complete determination of the electronic structure of condensed matter angle-resolved photoemission spectroscopy (ARPES) and photoelectron diffraction (PED). Fermi surface mapping of crystalline materials and their complex band structures with sub-micron (nano) spatial discrimination; nano - ARPES; Scanning electron photoemission microscopy (SPEM); X ray absorption spectroscopy; resonant photoemission.

Major disciplines

Electronic structure of condensed matter by photoemission spectroscopy

Studies surfaces - characterization of nanometric phases - New Materials Chemistry and surface reactivity.