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TEMPO Beamline at the Soleil Synchrotron Radiation Source
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— TEMPO is a soft X-rays beamline now opening to the user community at the French synchrotron radiation source Soleil.[1] The two experimental stations will be based on photoelectron spectroscopy and will be mainly devoted to kinetic and dynamic studies of the electronic and magnetic properties of surfaces and interfaces. The high flux coupled to the energy resolution of the electron energy analyzer equipped with a new time resolved detector will allow the user to perform the following kind of investigations using photoelectron spectroscopy: i) the evolution of the chemical environment (surface coordination, chemical bonding with different elements) of selected chemical species at the surface using spectroscopic signatures; ii) the dynamics of magnetization reversal in nanostructures, using the temporal characteristics of Soleil at the scale of tens of picoseconds; iii) excited states using synchrotron pulses in the temporal range of a picosecond with pump-probe experiments with two photons (laser + synchrotron radiation). The beamline design and the technical solutions adopted for time resolved experiments will be presented along with the first results. [1] http://www.synchrotron-soleil.fr/anglais/science-and-users/experiments/tempo/index.htm

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