

IR Spectromicroscopy at the Canadian Light Source

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We are describing the features of the beamline for IR spectromicroscopy and mapping recently completed at the Canadian Light Source. The beamline extracts light from a bending magnet source, analyzes it via a Bruker ifs66v/s interferometer and focuses it into a micrometric spot using a Bruker Hyperion 2000 microscope. The beamline is currently under commissioning. Preliminary measurements show a gain in signal-to-noise of up to two orders of magnitude relative to glow discharge sources at small apertures. Preliminary experiments have been carried out in a variety of scientific fields. In house and external projects address issues in biology and the biomedical sciences, material science, geology, forensics and industrial applications. In parallel to scientific activity, we are focusing on instrumental developments for the implementation of sample holders for live cell studies, photoacoustic spectroscopy and studies of reaction kinetics in solution.