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Quantum Material Spectroscopy Center at the Canadian Light Source

Tuesday 27 August 2024 12:45 (15 minutes)

The Quantum Material Spectroscopy Center (QMSC) is a state-of-the art XUV and soft X-ray beamline facility at the Canadian Light Source. The QMSC operates within the photon energy range from 15 to 1200 eV and is intended for spin- and angle-resolved photoemission spectroscopy (SARPES and ARPES). A distinctive feature of the QMSC is the combination of two independent end stations dedicated to SARPES and ARPES experiments with a unique source consisting of a pair of 4 m long APPLE type undulators. The low- and high-energy undulators are installed side by side in a switch yard arrangement and provide the highest possible photon flux within this photon energy range. Complete polarization control in both linear and circular modes is available. Moreover, the quasi-periodic magnetic structure of the low-energy undulator results in optimized suppression of the higher order harmonics. The beamline is based on the Variable Line Spacing Plane Grating Monochromator (VLS PGM) design and delivers 10^{12} - 10^{13} photons/second at the experimental stations with a resolving power higher than 10^4 over the full photon energy range.

I plan to submit also conference proceedings

Yes

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