

Introduction

Over the last ten years, the Canadian Light Source has developed a unique suite of beamlines to meet the needs of the Canadian synchrotron research community, with capabilities and design characteristics that make many of them globally unique. As illustrated below, our experimental facilities span a spectral range from less 0.01 to approximately 100 000 eV, providing academic researchers and industrial customers with an array of techniques for research in the materials sciences, earth and environmental sciences and life sciences.

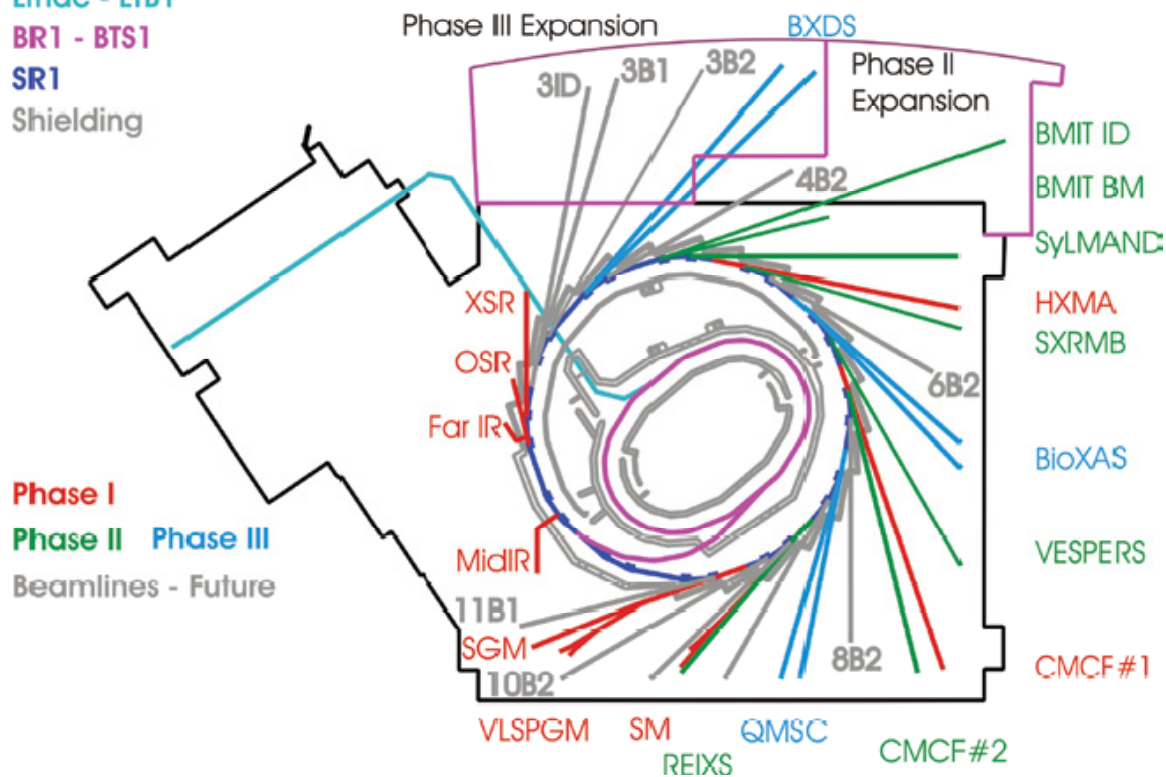
Building

Linac - LTB1

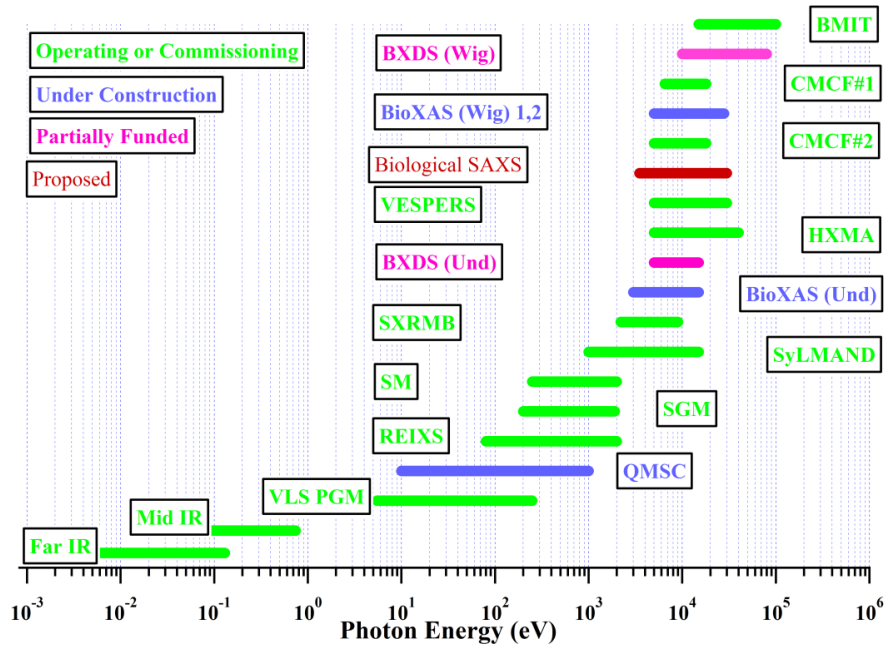
BR1 - BTS1

SR1

Shielding



The picture above shows the current layout of the experimental floor including facilities in all three phases of development. Phase I beamlines are all operational and include High Resolution Spectroscopy Far Infrared (FarIR), Mid Infrared Spectromicroscopy (MidIR), Spherical Grating Monochromator (SGM), Variable Line Spacing – Plane Grating Monochromator (VLS-PGM), Spectromicroscopy (SM), Canadian Macromolecular Crystallography Facility (CMCF1), and Hard X-Ray MicroAnalysis (HXMA). Phase II beamlines are in the latter stages of construction and commissioning and include Resonant Elastic and Inelastic X-ray Scattering (REIXS), CMCF2, Very Sensitive Probe Employing Radiation from a Synchrotron (VESPERs), Soft X-ray Microcharacterization Beamline (SXRMB), Synchrotron Laboratory for Micro and Nano Devices (SyLMAND), and BioMedical Imaging and Therapy (BMIT). The detailed design is underway for phase III beamlines Quantum Materials Spectroscopy Centre (QMSC), BioXAS, and Brockhouse X-ray Diffraction Sector (BXDS).



Hallin, Emil. *Experimental Facility Overview. Canadian Light Source Activity Report 2008. p 164*