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The Canadian Macromolecular Crystallography Facility 08ID-1 Beamline at the Canadian Light Source.
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The 08ID-1 beamline is the initial phase of the Canadian Macromolecular Crystallography Facility (CMCF). The CLS is a 2.9 GeV ring that produced its first light in the diagnostic beamline in December of 2003. At 08ID-1 the first light was detected at the front end in September 2005, the first monochromatic light after the double crystal monochromator in November 2005 and the first monochromatic light in the experimental enclosure in December 2005. We have been commissioning a beamline which is illuminated by a small-gap in-vacuum hybrid undulator (SGU), located in the upstream half of the straight section and chicaned inboard by 0.75 mrad. The downstream half of this section is reserved for the future SGU for the 08ID-2 beamline. The scientific goal of the 08ID-1 beamline is to operate a protein crystallography beamline suitable for studying small crystals and crystals with large unit cells.

Structural studies at other synchrotrons have been carried out on PEP carboxykinase, which is a key enzyme in gluconeogenesis. The overall structure represents a new protein fold. In addition there is a unique mononucleotide fold.

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