

THE FAR-INFRARED BEAMLINE AT THE CANADIAN LIGHT SOURCE

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The far-infrared beamline at the Canadian Light Source. is a state of the art facility, which offers significantly more far-infrared brightness than conventional globar sources. While there is the potential to direct this advantage to many research areas, to date most of the effort has been directed toward high-resolution gas phase studies. The infrared radiation is collected from a bending magnet through a $55 \times 37 \text{ mrad}^2$ port to a Bruker IFS 125 HR spectrometer, which is equipped with a nine compartment scanning arm, allowing it to achieve spectral resolution better than 0.001 cm^{-1} . Currently the beamline can achieve signal to noise ratios up to 8 times that which can be achieved using a traditional thermal source. Data from the recently completed commissioning experiments will be presented along with a general overview of the beamline.