



Contribution ID: 366 Contribution code: THP027

Type: Poster Presentation

Development of the rocking curve imaging setup at BL17-2 at SSRL

Thursday 14 August 2025 16:00 (2 hours)

We report on the implementation of the rocking curve imaging setup with a silicon (111) channel-cut crystal beam expander at Stanford Synchrotron Radiation Light source (SSRL) B17-2. B17-2 is a high-brightness, in-vacuum undulator (IVU) hard X-ray (~5 –18 keV) beamline optimized for material scattering applications. Recently, we utilized it to perform rocking curve imaging (RCI) of diamond and silicon crystals. The expander is installed in addition to the previously existing RCI optics setup. We achieved horizontal beam magnifications of up to 2.25x at 6.951 keV and 2.5x at 9.831 keV. This work presents the updated RCI setup and experimental results to validate the performance of the Si (111) expander. Future improvements to the setup are also mentioned.

Please consider my poster for contributed oral presentation

No

Would you like to submit this poster in student poster session on Sunday (August 10th)

No

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

Authors: BALCAZAR, Mario (SLAC National Accelerator Laboratory); HONG, Ye (SLAC National Accelerator Laboratory)

Co-authors: HALAVANAU, Aliaksei (SLAC National Accelerator Laboratory); ZHU, Diling (SLAC National Accelerator Laboratory); TASCA, Kelin (European X-Ray Free-Electron Laser); SATO, Takahiro (SLAC National Accelerator Laboratory)

Presenter: BALCAZAR, Mario (SLAC National Accelerator Laboratory)

Session Classification: THP: Thursday Poster Session

Track Classification: MC2 - Photon Sources and Electron Accelerators