Contribution ID: **136** Contribution code: **TUP52** Type: **Poster Presentation**

SPring-8 BL12B2 Attenuator Design

Tuesday 16 September 2025 17:00 (1 hour)

The light source of the BL12B2 beamline is one of the bending magnets in SPring-8; with this beamline, scientists can conduct experiments in X-ray absorption spectroscopy, high-resolution X-ray scattering, protein crystallography, and micro-beam scattering. The SPring-8-II will undergo an upgrade in the next few years. The attenuator, designed for the future upgrade of BL12B2, features nine filters and is cooled by the chamber wall. Each filter carrier can absorb 100 W, and the carrier's maximum temperature is lower than 75 ℃ when the wall temperature is 25 ℃. The attenuator also provides the pumping station function; it has a 6" port for the ion and turbo pump. The attenuator filter is driven by a pneumatic actuator, which positions the filter on the beam and in the cooling position. This attenuator was already installed in the SPring-8 BL12B2 beamline in April 2025.

Footnotes

Funding Agency

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Session Classification: Tuesday Poster Session

Track Classification: BEAMLINES: Beamlines and Instruments