



Contribution ID: 150 Contribution code: WEP18

Type: Poster Presentation

Design of a mirror chamber for the FL24 with 5-axis precision adjustment and additional fast pneumatic movement out of the beam

Wednesday 17 September 2025 17:00 (1 hour)

For the new pulse-length-preserving monochromator beamline FL23 at FLASH2, the beam is horizontally decoupled from the straight line at FL24 by means of a non-planar mirror. The mirror is adjustable in all three rotational degrees of freedom. The bearings for yaw and pitch are mounted outside the vacuum. For the roll movement, the mirror is mounted in two bearings that have a large enough opening so that the beam can also be guided straight past the mirror. In addition, the different layers can be approached by translation along the vertical axis. All drives are outside the vacuum. The horizontal movement can be adjusted with high precision and is also pneumatically driven, allowing rapid movement out of the beam for fast operation of the FL24 beamline.

Footnotes

Funding Agency

Author: BIENERT, Hilmar (Deutsches Elektronen-Synchrotron DESY)

Co-authors: Mr STEFFEN, Boris (Deutsches Elektronen-Synchrotron DESY); PLÖNJES-PALM, Elke (Deutsches Elektronen-Synchrotron DESY); BRENNER, Günter (Deutsches Elektronen-Synchrotron DESY); Mr BOLAT, Hakan (Deutsches Elektronen-Synchrotron DESY); Mr HESSE, Mathias (Deutsches Elektronen-Synchrotron DESY); SPRUNG, Michael (Deutsches Elektronen-Synchrotron DESY)

Presenter: BIENERT, Hilmar (Deutsches Elektronen-Synchrotron DESY)

Session Classification: Wednesday Poster Session

Track Classification: BEAMLINES: Optics