

G-line Commissioning

Detlef Smilgies

CHESS, Cornell University

During this spring G-line has been equipped with a temporary multilayer monochromator in the G cave, in order to start commissioning hutch equipment and perform first experiments. In this mode the beam is unfocused and the full wiggler fan of 50mm had to be limited to 2 mm, in order to handle the heat load on an indirectly cooled multilayer substrate. The G1 station has been build as a clone of D station with collimating slits, guard slit, sample stage, beam stop, and a CCD detector. First SAXS experiments by Xuefa Li et al. showed very encouraging results. The G2 team has commissioned a beam splitting Be single crystal. Two thirds of the intensity of the broad bandwidth beam can be passed through the crystal for use at the G3 station, whereas the narrow-bandwidth crystal reflects 1.5% of the incident flux into the G2 hutch. A four-circle diffractometer has been set up for first test experiments. The G3 team lined up the new Pulsed Laser Deposition chamber on the diffractometer and the beam. Performance of the diffractometer is to be characterized with a test sample. Overall, we hope to finish commissioning the three hutches before the summer down, so that experiments can start after the down.