

Workshop on Hard X-ray Science (XHS): Opportunities for Diamond Anvil Cell Research at High X-ray Energies



Wednesday 18 June 2025 - Thursday 19 June 2025

European XFEL

Programme

Wednesday | June 18, 2025

08:30 - 09:00 | Registration, Coffee & Snacks

09:00 - 09:10 | Welcome - *Sakura Pascarelli*

09:10 - 09:40 | Overview & Introduction - *Sakura Pascarelli, Ulf Zastrau*

09:40 - 10:20 | DAC science at HED - *Zuzana Konopkova*

10:20 - 11:00 | Technical Overview - *Cornelius Strohm*

11:00 - 11:20 | Coffee Break & Group Picture

Session one: X-ray and Laser heating methods | Chair: *Zuzana Konopkova*

11:20 - 12:00 | X-ray and Laser heating methods - *Malcolm McMahon*

12:00 - 12:40 | Measurements of thermal conductivity, SOP - *Stewart McWilliams*

12:40 - 14:00 | Lunch Break

14:00 - 14:40 | Phase transitions in metals using X-ray heating - *Agnes Dewaele*

14:40 - 15:20 | Melting, dynamics of re-crystallisation from melt in binary/ternary systems -
Guillaume Morard

15:20 - 15:40 | Kinetics of synthesis of new compounds, chemical reactions - *Alexander Goncharov*

15:40 - 16:00 | Coffee Break

Session Two - New experiments and opportunities | Chair: *Rachel Husband*

16:00 - 16:30 | Ultrafast light switched phenomena - *Yu Lin*

16:30 - 17:00 | Transient grating spectroscopy (TGS) coupled with static high pressure - *Ian Ocampo*

17:00 - 17:45 | Visit to the Exhibition Center

18:00 - 21:00 | Dinner in BeamStop

Thursday | June 19, 2025

Session Three - Specialties, other DAC methods | Chair: *Cornelius Strohm*

09:00 - 09:40 | Overview on past experiments on measuring electronic phase transitions with X-ray
Emission Spectroscopy in IC1 - *Christian Sternemann*

09:40 - 10:20 | View on the PCI with DACs, concept and state - *Rachel Husband*

10:20 - 11:00 | Overview on general dDAC experiments at EuXFEL - *Earl O'Bannon*

11:00 - 11:20 | Coffee Break

11:20 - 12:00 | Low-Z experiments - melting on diamond update - *Clemens Prescher*

12:00 - 13:00 | Discussion & Closeout

13:00 | Lunch