

Wednesday 24th January 2024

The Swedish Materials Science beamline at PETRA III

This satellite meeting focusses on the in-line branch P21.2 of the Swedish Materials Science beamline at PETRA III which is dedicated to multi-modal materials characterization by high-energy synchrotron radiation. The status of the beamline will be presented and future developments will be discussed. Selected experimental case studies will be presented by users. An activity report of the Center for X-rays in Swedish Materials Science (CeXS), the academic host of the SMS beamline, will be presented.

Programme

12:00-13:00: Get together and light lunch

13:00-13:30: “Status and developments at the SMS in-line branch P21.2”, U. Lienert (DESY)

Surface diffraction

13:30-13:55: ‘Dynamic CO₂ electroreduction catalysis’, Arno Bergmann (Fritz-Haber-Institute of the MPG)

13:55-14:20: ‘Application of High Energy GISAXS for the study of Pt nanoisland growth in electrochemical environment’, Timo Fuchs (Christian-Albrechts-University, Kiel)

14:20-14:45: ‘Spatially Resolved Surface X-Ray Diffraction on Polycrystalline Surfaces’, Hanna Sjö, (Lund University)

14:45-15:15: Break

Bulk samples

15:15-15:40: ‘MiniMelt: An instrument for real-time tracking of electron beam additive manufacturing’, Hans-Henrik König (KTH)

15:40-16:05: ‘Deformation of Magnesium by grain resolved diffraction’, Gaoming Zhu (Shanghai Jiao Tong University/DESY)

16:05-16:30: ‘Strain Mapping in additively manufactured metals via HE XRD microbeam’, Konrad Kosiba (Leibniz Institute for Solid State and Materials Research) (zoom)

16:30-17:00: “Activities of the Center for X-rays in Swedish Materials Science (CeXS)”, P. Hedström (KTH)

17:00-17:30: Open discussion (on demand)

Beamline tours available after the workshop or on Thursday. Please contact beamline staff.