Seminar organized by FunMat-II: Spectroscopic methods and synchrotron XRD for materials characterization

Date: March 5, 2020
Time: 9.00 – 15.30
Place: RISE, Isafjordsgatan 28A, 164 40 Kista

Program

9.15 – 9.50	Coffee and registration
9.50 – 10.00	Welcome, short presentation of FunMat-II *Olivier Rod (RISE), Magnus Odén (Linköping University)*
10.00 – 10.40	Materials Research with Positrons – From atomic defects to nano-scale porosimetry *Andreas Wagner (Helmholtz-Zentrum Dresden-Rossendorf)*
10.40 – 11.10	Synchrotron radiation based XPS and XRD characterization of aluminium brazing *Lars-Åke Näslund (Linköping University)*
11.10 – 11.40	Research opportunities at Max IV *Conny Såthe (Max IV)*
11.40 – 12.50	LUNCH
12.50 – 13.30	Ion beam based materials analysis - advanced complementary methods in materials characterization *Daniel Primetzhofer (Uppsala University)*
13.30 – 14.00	In situ and in operando studies of wear resistant coatings using high energy x-ray scattering techniques

Lina Rogström (Linköping University)

14.00 – 14.30	Interface Bonding of Zr1-xAlxN Nanocomposites Investigated by X-ray Spectroscopies and First Principles Calculations *Martin Magnusson (Linköping University)*
14.30 – 15.00	TBD (IR spectroscopy) *Dan Persson (RISE KIMAB)*
15.00 – 15.10	Summary, conclusion
15.10 – 15.40	Coffee and final discussion

FunMat II (Functional Nanoscale Materials) is a second generation competence center in material science. FunMat-II is focusing its efforts to three application areas: functional surfaces for cutting tools, fuel cells, and batteries. We obtain basic knowledge about materials behavior and the physics and chemistry of the synthesis processes, and design new materials with unique properties. Besides this, we study how the materials perform in specific applications. We study all aspects using combinations of theory, modeling, experiments, and field tests. The information obtained is generic and can be applied to a wide range of applications, which makes FunMat-II a true competence center in functional surfaces optimized at the nanoscale. For more information about FunMat-II: https://funmat-ii.se.