New method for coherent characterisation of nano particles at NanoMAX

Determining strain in nanoparticles is tricky at the best of times. With Bragg coherent diffraction imaging (BCDI) of nanoparticles, smaller particles are more likely to pitch and roll unpredictably. Alexander Björling and colleagues turn this uncontrollable motion to their advantage. Read the full story

A nanobeam focus on magnetic structure and crystalline orientation

Recent advances have led to the discovery of spin caloritronic materials, which couple spin, charge, and heat currents to directly convert thermal energy to electrical power. Research at NanoMAX beamline describes a novel method to reveal magnetic micro & nano-structure in garnet. Read the full story

Imaging the X-ray focus of NanoMAX with a single nanowire

Researchers from Lund University have imaged the beam focus at the hard X-ray nanoprobe NanoMAX using a single nanowire as the detector. The result is an unprecedented ultrahigh-resolution 3D image of the 88 nanometre diameter focus revealing fine details of the beam. Read the full story

IDing chemical content to increase usefulness of solid waste ashes

Fortum Waste Solutions, Sysav, Eon, Stena and NOAH, in collaboration with researchers from RISE and Chalmers, used Balder beamline to identify chemical species of copper and zinc in ashes that remain after burning solid waste. Their findings hold potential to increase the possible uses of non-toxic ashes. Read the full story

Two-dimensional materials offer versatile corrosion protection

2D materials can be used as a coating to protect copper from corrosion. A recent study conducted at HIPPIE beamline shows that the onset of corrosion can be delayed from room temperature up to more than 120°C. Read the full story

SCIENTÍFika seminar series

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