PAUL SCHERRER INSTITUT

PSI facilities newsletter

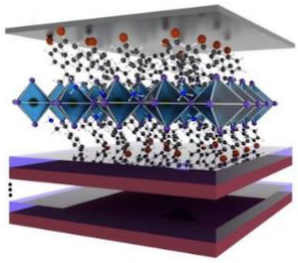
https://www.psi.ch/science/facility-newsletter
https://synchrotron-analysis.ch/

NEW OPPORTUNITIES FOR SMES! FUNDED ACCESS TO EUROPEAN LIGHT SOURCES

Your company may gather invaluable information about your product at the micro-scale by using advanced experiments at European infrastructures. Talk to us about your challenge and benefit from the current LEAPS-INNOV project support.
LEAPS-INNOV is funding an access programme that is tailor-made for SMEs through a programme called "TamaTA-INNOV", for which SMEs can apply using a very simple form.
Read more: https://wayforlight.eu/en/industries/

SLS Techno Trans AG provides industry customers with straightforward access to synchrotron analysis at the Swiss Light (SLS), high performance cleanrooms, and SwissFEL, all located at the Paul Scherrer Institute, Switzerland. These world class research facilities are regularly used by industry to solve problems in materials science, medicine, food science, energy supply and the environment. We will support you, as well, to get access to the LEAPS-INNOV programme. A combination of direct proprietary access to our facilities and LEAPS-INNOV support is possible.
An impressive series of application examples that include typical SLS experiments to solve industrial and social issues are published on our website: *https://synchrotron-analysis.ch/application-examples*.

TUNING THE BERRY CURVATURE IN 2D PEROVSKITE POLARITONS



In recent years, exciton–polariton systems, in which excitons and photons can be strongly coupled, have been establishing as a versatile platform for realizing topological states, a topic of great current interest. Now an international team of researchers demonstrated that one such system offers particularly intriguing capabilities — 2D perovskite crystals (which were characterized at the PXIII beamline of SLS) embedded in a planar microcavity. In these samples not only could they determine different Berry curvatures, an entity of key importance in topological physics. They were also able to actively change the Berry curvature distribution by varying temperature and external magnetic fields. This raises the prospect of exploring topological states in a system that can be tuned without the need of complex fabrication techniques and, importantly, can operate at room temperature.

L. Polimeno et al., *Nature Nanotechnology* ***16****, 1349 (2021)*
DOI: 10.1038/s41565-021-00977-2

SIMULANT MATERIAL COULD AID IN FUKUSHIMA CLEANUP

Researchers from the Paul Scherrer Institute PSI, in a project led by scientists from the University of Sheffield, have developed a new simulation of the most dangerous radioactive debris from the Fukushima nuclear power plant. Their study could give an enormous boost to the cleanup effort. They are publishing their results today in *Nature Materials Degradation*.
Read the full story: *https://www.psi.ch/en/media/our-research/simulant-material-could-aid-in-fukushima-cleanup*

Hao Ding et al., *Nature Materials Degradation, 2nd February 2022*
DOI: 10.1038/s41529-022-00219-3
