**SLS - EXTREME ULTRAVIOLET FOR SCALABLE SILICON QUANTUM DEVICES**

Extreme-ultraviolet light (EUV) is the key to state-of-the-art mass production of the classical electronics which drives the continuing information revolution. Scientists from PSI, UCL, EPFL and ETHZ have now used the Swiss Light Source (SLS) to perform the first experiments to demonstrate the potential of EUV for the manufacture of silicon-based quantum nanoelectronics, the building block for truly scalable quantum computers.

*Read more: https://www.psi.ch/de/psd/scientific-highlights*

Procopios Constantinou, et al., *Nature Communications* 15, 694 (2024)
https://doi.org/10.1038/s41467-024-44790-6

---

**SLS — OBSERVING LASER-INDUCED RECRYSTALLIZATION**

We present a new method to induce local recrystallization based on a selective laser-based heat treatment technique. The successive stages of recrystallization are studied by in situ X-ray diffraction combined with electron microscopy observations. This work paves the way for local tailoring of microstructures using laser treatments.

*Read more: https://www.psi.ch/en/lsc/scientific-highlights-and-news*

Claire Navarre, et al., *Materials and Design* 238 (2024) 112628
DOI: 10.1016/j.matdes.2023.112628

---

**SWISSFEL — THE SECRET LIFE OF AN ELECTROMAGNON**

Scientists have revealed how lattice vibrations and spins talk to each other in a hybrid excitation known as an electromagnon. To achieve this, they used a unique combination of experiments at the X-ray free electron laser SwissFEL. Understanding this fundamental process at the atomic level opens the door to ultrafast control of magnetism with light.

*Read more: https://www.psi.ch/en/science/psd-highlights*

Hiroki Ueda, et al., *Nature Communications*, Online, 27. November 2023
DOI: 10.1038/s41467-023-43581-9

---

Paul Scherrer Institut, 5232 Villigen PSI, Switzerland, useroffice@psi.ch, http://www.psi.ch