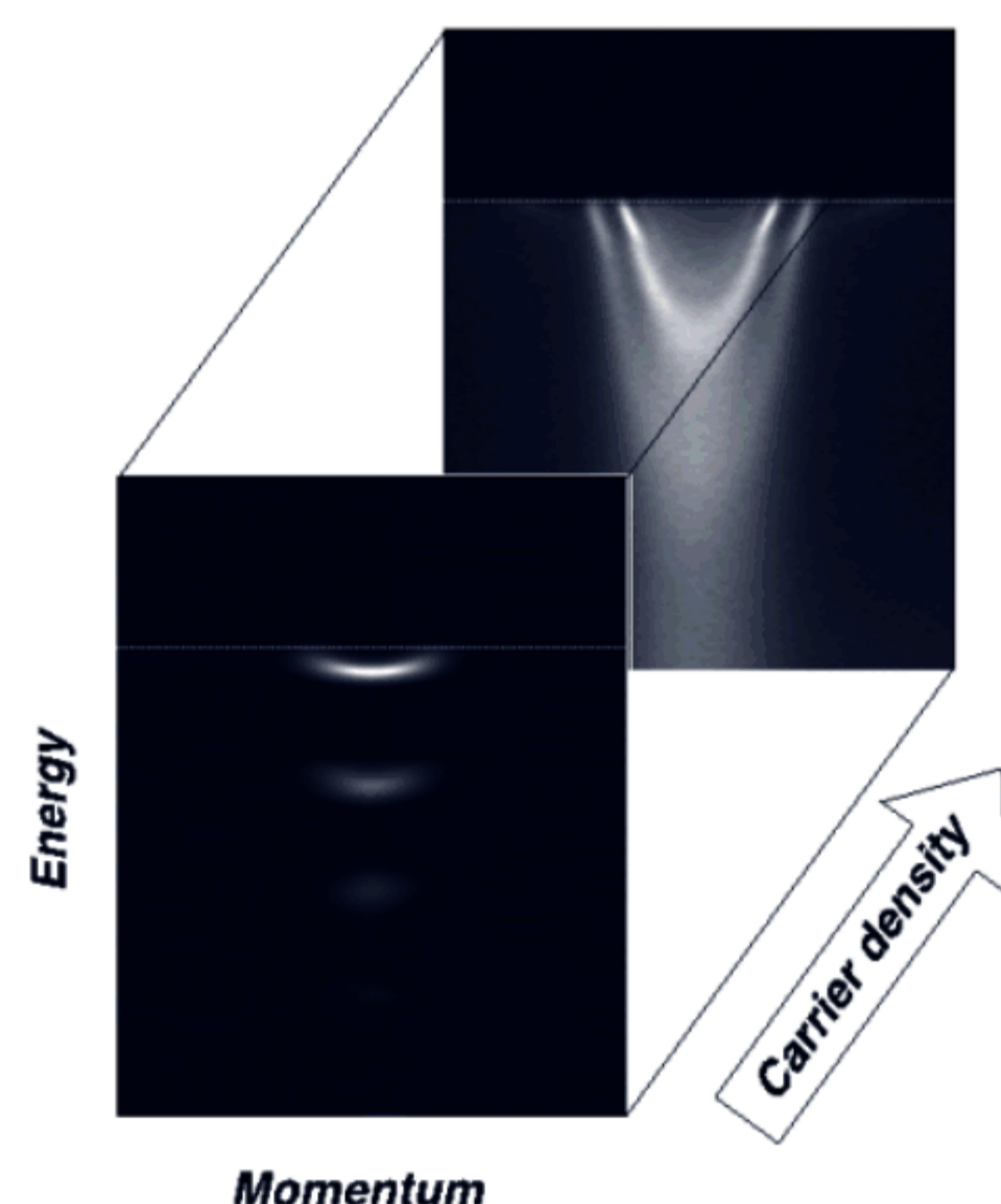


Research highlights

Tailoring Novel Superconductivity

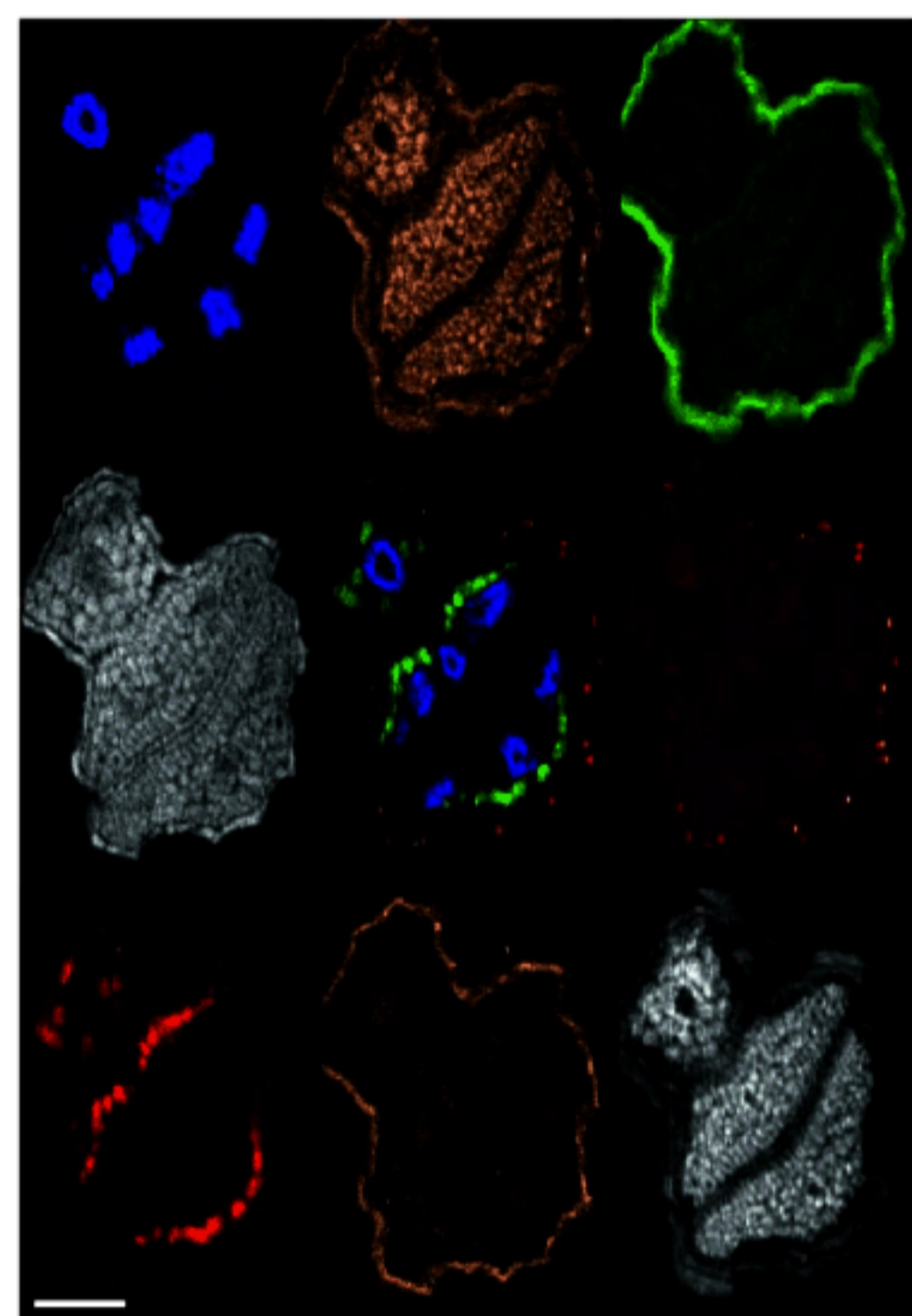


Wang et al. Tailoring the nature and strength of electron–phonon interactions in the SrTiO₃(001) 2D electron liquid. *Nature Materials* (2016). DOI: [10.1038/NMAT4623](https://doi.org/10.1038/NMAT4623)

The Angle Resolved Photoemission Spectroscopy (ARPES) measurements performed on 2DEL at STO surface revealed that, at low carrier density, electrons are always accompanied by a quantized dynamic lattice deformation. Together with the electron, these phonon-cloud formed a new composite quasiparticle called Fröhlich polaron. Read more:

<https://www.psi.ch/swissfel/highlights>

Researchers find key to zinc rich plants to combat malnutrition



L.I. Olsen et al. *Nature Plants*, article number: 16036 (2016), published online: 11 April 2016

DOI: [10.1038/nplants.2016.36](https://doi.org/10.1038/nplants.2016.36)

The diet in many developing countries is lacking zinc, but researchers have just solved the riddle of how to get more zinc into crop seeds. The discovery has been published in *Nature Plants*, and the research was led by University of Copenhagen. Read more: <https://www.psi.ch/sls/scientific-highlights-and-news>

New Instruments & Methods

First EIGER X 16M detector in operation at the Swiss Light Source

The macromolecular crystallography beamline X06SA at the Swiss Light Source, a synchrotron operated by Paul Scherrer Institute, is the first one in the world to upgrade its detector to an EIGER X 16M.

<https://www.psi.ch/macromolecular-crystallography/first-eiger-x-16m-in-operation-at-the-swiss-light-source>

3D nanostructure of a bone made visible

PSI researchers developed an imaging method that combines small-angle scattering with tensor tomography to probe nanoscale structures in three-dimensional macroscopic samples in a non-destructive way. The method is available at the SLS for all users in the pilot mode.

<https://www.psi.ch/media/3d-nanostructure-of-a-bone-made-visible>