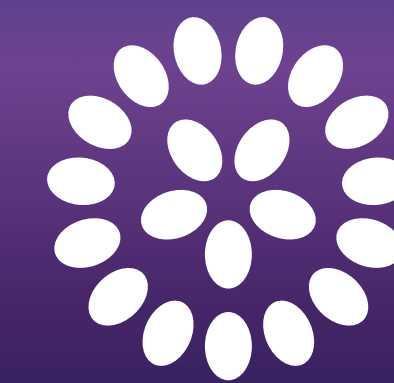# MatScatNet – A Cloud Database for Sharing X–ray & Neutron Scattering Data for Materials Research

OSCARS
Open Science Clusters' Action
for Research & Society

The MatScatNet project aims at enhancing materials research by creating a high-quality, open-access database for sharing X–ray and neutron scattering data. Such a centralised platform will facilitate collaboration among researchers, industries, and research infrastructures (RIs), thereby promoting an Open Science approach and supporting innovation in fields such as nanotechnology, energy, and pharmaceuticals.
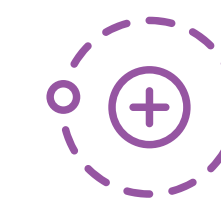
PaNOSC
Photon and Neutron Science

Challenge

The lack of an openly accessible, structured repository for experimental data hinders research and collaboration. This gap limits researchers' access to crucial data, slowing down the materials discovery process.

Solution

An Open Science database populated with high-quality experimental data, and user-friendly tools that improve the searchability and reusability of powder diffraction patterns and pair distribution function data, also through new algorithms to improve the speed, identification and findability of data.

Scientific Impact

MatScatNet will significantly advance materials research by fostering collaboration between academia and industry, ultimately enhancing the pace of materials discovery.

Partners

Momentum Transfer - A Venture of Chemovator GmbH, European Synchrotron Radiation Facility (ESRF)

https://bit.ly/OSCARS-fundedproject-MatScatNet