

6th Solid-state Chemistry & Ionics workshop

Schedule

- Date: 10/23(Fri) 2026, 16:00 ~ 17:00
- Place: I2CNER Hall, I2CNER, Kyushu University
- Fee: free
- Chair: Yoshihiro Yamazaki, Kyushu University
- Vice-chair: Junji Hyodo, Kyushu University
- Cooperation: Platform of Inter-/Transdisciplinary Energy Research (Q-PIT)

Program

- 16:00~17:00 Prof. Wolfgang Zeier, University of Münster & Helmholtz-Institute Münster, Germany

Local structures, strain, and phonons in fast ionic conductors

The advent of solid-state batteries has spawned a recent increase in interest in lithium conducting solid electrolytes. However, many open questions remain when trying to optimize electrolytes and understand solid state battery chemistries. In this presentation, we will discuss local structures and straining in ionic conductors raising the question if average structural solutions are really the best descriptor of ionic conductors. In a second part of this presentation, we will explore the introduction of dislocations in sulfide ion conductors and the influence on the ionic transport. In the final part of this presentation, we will explore the thermal conductivity of ionic conductors and explore ion – phonon relationships by understanding local anharmonic vibrations.

Bio: Wolfgang Zeier holds a chair in Solid State Chemistry at the University of Münster. In addition, he heads a department at the Helmholtz-Institute Münster, Ionics in Energy Storage. His research interests encompass the fundamental structure-to-property relationships in solids, with a focus on thermoelectric and ion-conducting materials, as well as solid-solid interfacial chemistry for all-solid-state batteries.

