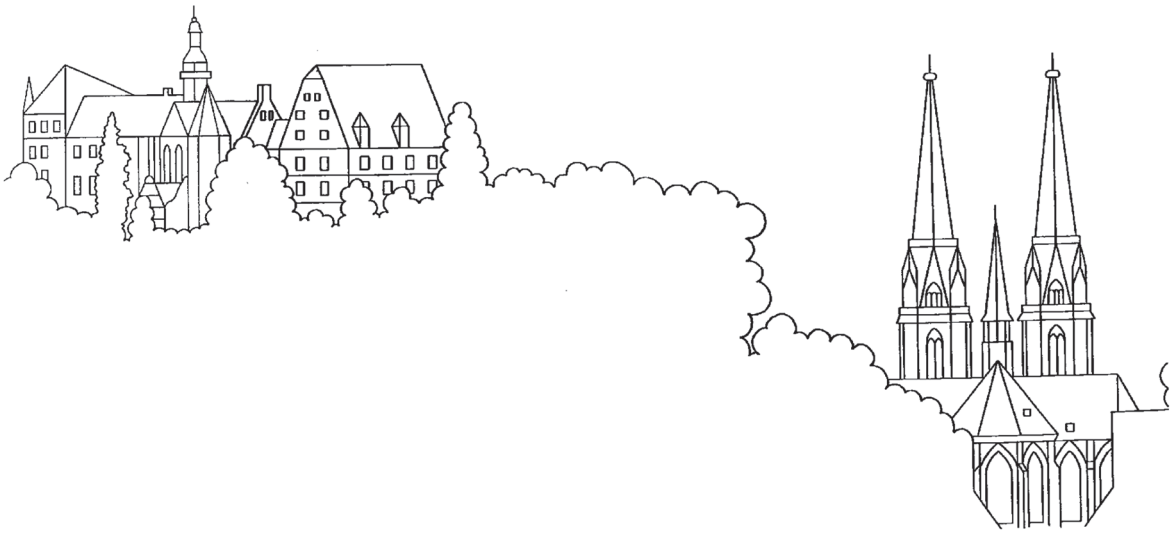

4th Conference on Energy Landscapes and Structure in Ion Conducting Solids (ELSICS)

September 30 – October 2, 2024

Conference location

TTZ Conference Center, Marburg, Germany

Software-Center 3, 35037 Marburg

Contact:

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Deadline for registration: June 30th, 2024

Energy Landscapes and Structure in Ion Conducting Solids (ELSICS)

The potential energy landscape of mobile ions in solid-state materials and the atomic scale structure are intimately interrelated. This interrelation and the resultant properties, e.g. the mobility of the ions, is of paramount interest in contemporary material science with direct applications in energy storage and conversion. Understanding the interplay of structure, energy landscape and ionic transport of ionic solids is of crucial importance for a knowledge-based development of improved and new functionalities of these materials.

The DFG Research Unit ELSICS (FOR 5065) has been founded in December 2020 with the goal to quantify the energy distribution of ionic sites in solids on the basis of atomically resolved structures and in conjunction with ionic transport properties with a truly concerted effort of experimental and theoretical research groups. This joint effort involves state-of-the-art expertise from diverse experiments [charge attachment induced transport (CAIT), time-of-flight secondary ion mass spectrometry (ToF-SIMS), solid-state nuclear magnetic resonance (NMR), atom probe tomography (APT) and analytical and high-resolution transmission electron microscopy (HR-TEM)], as well as dedicated solid-state matter theory for crystalline and amorphous materials.

Previous ELSICS conferences were held in Marburg (September 2021), Göttingen (September 2022) and Ulm (October 2023).

The 4th ELSICS Conference will take place in Marburg (DE) from September-30 to October-2, 2024. This 4th conference will collect presentations from invited speakers as well as contributed presentations (both oral and posters).

Key topics for progress reports are

- Ion transport in amorphous, crystalline and poly-crystalline solids
- Short range versus long-range transport as seen by NMR, CAIT and IS
- Energy landscapes in ion conducting solids: site energy distribution, populated vs. unpopulated sites
- Interrelation between atomically resolved structure and energy landscapes
- Predictive methods for correlating energy landscapes to material structure and function

At the point of this announcement, the conference is planned as a meeting in presence. We expect being able to host up to 60 participants. For those with travel restrictions we will consider offering participation via a Video platform. There will be a small fee to cover costs incurring for the conference room, catering (lunch and coffee breaks) and conference material.

Call for Abstracts

The program will include 10 invited speakers. There is the possibility to present contributed talks subject to the number of slots available (approximately 20). We also intend to hold a Poster-Session.

For further details contact the chairperson (weitzel@chemie.uni-marburg.de) or the www page at https://www.uni-marburg.de/en/fb15/for5065/meetings.

Confirmed invited Speakers

Prof. Leo van Wüllen (Augsburg)
Prof. Jincheng Du (University of North Texas)
Prof. Katsuyo Thornton (University of Michigan)
Prof. Takahisa Omata (Tohoku University)
Dr. Rotraut Merkle (Stuttgart)
Prof. Yue Qi (Brown University)
Prof. Hellmut Eckert (Sao Carlos)
Prof. Dina Fattakhova-Rohlfing (Jülich)

Travel Information

Marburg can easily be reached by all means of transportation.

Arriving by plane
The nearest major airport to Marburg is Frankfurt International Airport. There are regular train connections from Frankfurt to Marburg.
Arriving by train
Marburg can be conveniently reached by train. The next ICE train stations are Frankfurt and Kassel where you can connect to regional trains (Deutsche Bahn).
Arriving by car
Marburg is located approximately 100 km north of Frankfurt. It can be reached via A5 / B3 from south, or via A49 / B3 from north

Conference supported by

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