
S E M I N A R
on
Semiconductor Physics and Nanotechnology

Mo, 16.01.2023, 11:15 Uhr,

Seminar
via Zoom only

“Understanding energy storage and electrochemical CO₂ capture by supercapacitors”

Dr. Alexander Forse
Department of Chemistry, University of Cambridge, UK

Supercapacitors are high power energy storage devices that will complement batteries in an increasingly electrified future. In this presentation we will discuss a key question in supercapacitor research – how does electrodes structure determine supercapacitor performance? I will show how NMR spectroscopy measurements can be used to find new answers to this question. I will further explore the use crystalline metal-organic framework (MOF) electrodes as model electrode materials for developing structure-performance relationships. Finally, I will present work on electrochemical carbon dioxide capture by supercapacitor energy storage devices - a nascent technique that can bring energy-efficient carbon capture compared to existing amine-based technology.

Zoom – Link:

<https://zoom.us/j/96375934537?pwd=RTIKTWhSdzRHU211YTY1bGFxTUtpZz09>

[Meeting-ID: 963 7593 4537](#)

[Kenncode: =r=4YQ](#)