

Fakultät für Naturwissenschaften

Institut für Chemie



lädt ein

gemeinsam mit der Gesellschaft
Deutscher Chemiker
zum



Vortrag
von Frau

**Dr. Liza Herrera
Diez**

Centre of Nanoscience and
Nanotechnology
**CNRS-Université
Paris Saclay**

"Oxygen-based magneto-ionics: mechanisms, recent developements and perspectives"

am: 23. Mai 2024
um: 16:00 Uhr
WO: im Raum 1/232

Die kleine Kaffeerunde vor dem Vortrag beginnt
um 15:30 Uhr im Raum 1/232.

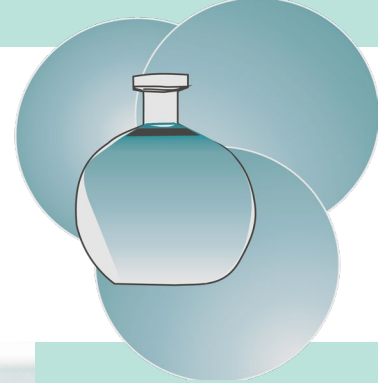
Das Mitbringen von eigenen Trinkgefäßen ist
erwünscht.

Gäste sind herzlich willkommen!



TECHNISCHE UNIVERSITÄT
IN DER KULTURHAUPTSTADT EUROPAS
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Oxygen-based magneto-ionics: mechanisms, recent developements and perspectives

The ability to manipulate magnetic properties through ionic motion in ferromagnetic/oxide structures in a non-volatile way, rather than the volatile purely electronic means, presents exciting opportunities for the development of functionalities like reconfigurable multistate memories and the implementation of cumulative gate effects in spintronics devices. Oxygen-based magneto-ionics takes inspiration from memristor technologies and offers one of the most advanced approaches today for controlling magnetic properties using ionics.

In this talk, I will discuss the chemical-physical mechanisms underlying the observed effects on magnetic properties and explore the various available device geometries. Furthermore, I will provide an overview of recent advancements and novel functionalities enabled by oxygen-based magneto-ionics in spintronics devices, while also addressing the challenges and opportunities associated with this field.

