

Project idea/ Field of expertise:

Organisation Name:

Addressed topic(s):

High-Performance Energy Storage Devices Induced by Defective electrodes Materials Science, Solid State Physics Sabanci University

HORIZON-CL5-2023-D2-02-03: Creating a digital passport to track battery materials, optimize battery performance and life, validate recycling, and promote a new business model based on data sharing (Batt4EU Partnership)

HORIZON-CL5-2023-D2-02-01: Advanced materials and cells development enabling large-scale production of Gen4 solid-state batteries for mobility applications (Batt4EU Partnership)

HORIZON-CL5-2024-D2-02-01: Sustainable high-throughput production processes for stable lithium metal anodes for next generation batteries (Batt4EU Partnership)

10th Novembre 2022 – KETs

Thematic Brokerage Workshops





Main research topics are:

. Sabancı . Universitesı

- **Computational biophysics**
 - Polymer thin films

- Energy systems and storage
- Nanosynthesis and fabrication

Continuum theory based computation

Polymers and composites

- **Recycling and environmental technologies**
- Cement research

Advanced manufacturing

Spectroscopy 2D-Materials

Semiconductors and optical materials

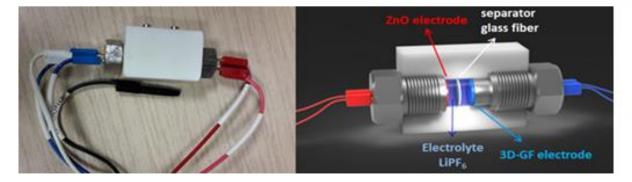
Functional oxides and their theory

Magnetic Resonance meets Batteries/Supercaps

All in: (X band, standard resonator, up to 0.6 T)

UV IRRADIATION SYSTEM (light induced measurements, *insitu*) MANUAL GONIOMETER (angular dependent measurements) Low T measurements (measurement 80-300 K)







Home-made supercapacitor tools



Conductive materials are not well understood when direct currents are applied during an EPR/NMR measurement as it is found in the *in operando* mode for electrochemical systems. Additionally, the utilization of currents for EPR/NMR measurements has not been analyzed if and how the EPR/NMR signal is influenced.

VMP-300

16 channels - The ultimate electrochemical workstation.

EIS capability up to 7 MHz and ultra low current sensitivity with the ULC option

FEATURES

- Compliance: ±12 V
- Control voltage: ±10 V EIS measurement:
- 10 µHz 3 MHz (1%, 1) 10 µHz - 7 MHz (3%, 3%
- Maximum current
- Current ranges: 1 A to 1 µA

- Current resolution: 800 fA (standard board)
- Floating mode
- Analog filtering
- Calibration board
- Full stability control mode (9 bandwiths)

Contact details

Contact person

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