

EU Brokerage Event

on Industrial KET* in Horizon Europe

*Key Enabling Technologies

10th November 2022 • Strasbourg

Conference &
Bilateral/B2B Meetings

Calls
2023- 2024

Project idea/ Field of expertise:

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

Organisation Name:

Sabanci University

Addressed topic(s):

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)



Sabancı
Universitesi

Main research topics are:

Computational biophysics

Polymers and composites

Polymer thin films

Energy systems and storage

Nanosynthesis and fabrication

Continuum theory based computation

Recycling and environmental technologies

Advanced manufacturing

Cement research

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)



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.

Premium

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 μ Hz - 3 MHz (1%, 1')
 - 10 μ Hz - 7 MHz (3%, 3')
- Maximum current: ± 500 mA
- Current ranges: 1 A to 1 μ A
- Current resolution: 800 fA (standard board)
- Floating mode
- Analog filtering
- Calibration board
- Full stability control mode (9 bandwidths)



Home-made supercapacitor tools



Contact details

Contact person

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