

NANOOSTRAVA 2025

ENERGY & ENVIRONMENT

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MAY 19–22

Aula VSB-TUO

17. listopadu 2172/15, Ostrava
Czech Republic



**INDRAJIT
GHOSH**

PHOTOREDOX CATALYSIS
WITH ONE OR TWO PHOTONS
& AN ELECTRON TRANSFER

VSB - Technical University of Ostrava,
CEET, CNT (MELab), Czech Republic

ADVANCED
NANOSTRUCTURED
MATERIALS AND
INNOVATIVE
TECHNOLOGIES

**TUĞRUL
ÇETINKAYA**

THE FUTURE OF BATTERIES
AND SUPERCAPACITORS:
UNLOCKING THE POWER
OF 2D MATERIALS

Sakarya University, Sakarya, Turkey



**PAVLA
ČAPKOVÁ**

NANOSTRUCTURED
MATERIALS FOR SOLID
STATE HYDROGEN STORAGE

J. E. Purkyně University in Ústí nad
Labem, Faculty of Science, CENAB,
Ústí nad Labem, Czech Republic

MATERIALS AND
TECHNOLOGY FOR
ENVIRONMENT

**SRIKANTH
PONNADA**

ADVANCING LI-S BATTERIES:
TWO-DIMENSIONAL (2D)
HETEROSTRUCTURES
FOR ENHANCED PERFORMANCE
AND LONGEVITY

VSB - Technical University of Ostrava,
CEET, CNT, Czech Republic



INSTRUMENTATION-
DRIVEN DESIGN AND
CHARACTERIZATION
OF MATERIALS

**ROBERT
KOSYDAR**

PD-NANOPARTICLES
SUPPORTED ON BACTERIAL
NANOCELLULOSE AS A CATALYST
FOR THE HYDROGENATION OF
POLYFUNCTIONAL REAGENTS
CONTAINING C=O AND C=C BOND

Jerzy Haber Institute of Catalysis
and Surface Chemistry, Krakow, Poland



**HATEM
AKBULUT**

FABRICATION OF HIGH-
PERFORMANCE GRAPHENE
OXIDE-REINFORCED NI-P
COMPOSITE COATINGS VIA
ULTRASONIC-ASSISTED PULSE
ELECTRODEPOSITION

Sakarya University, Sakarya, Turkey

MATERIALS
FOR ENERGY
HARVESTING
AND STORAGE
TECHNOLOGIES

**PETR
PRAUS**

GRAPHITIC CARBON
NITRIDE: WHAT IS NOT
TALKED ABOUT

VSB - Technical University
of Ostrava, CEET, IET, Czech Republic



**ARISTEIDIS
BAKANDRITSOS**

LOW-DIMENSIONAL FUNCTIONAL
MATERIALS FOR ENERGY SECURITY

VSB - Technical University of
Ostrava, CEET, CNT (MELab), Czech
Republic; CATRIN-RCPTM, Palacký
University Olomouc, Czech Republic



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The topics of the current year of the NanoOstrava 2025 conference reflect the basic visions of the two major projects REFRESH and MATUR, in which the Nanotechnology Centre, CEET, VSB-TUO is actively involved.

The **MATUR** project aims at creating a centre of excellence in materials and technologies for sustainable development, which aims at interdisciplinary research with a high potential for the creation of cutting-edge and future applicable research results with overlap into various fields of human society in an international context. The MATUR Centre of Excellence will be built on an excellent research team and on the development of international cooperation between research organisations.

The **REFRESH** project is the „flagship“ and a key tool in achieving SMARAGD’s vision. It represents a major investment to strengthen research excellence in the Moravian-Silesian Region. The project will build a unique European infrastructure for research and technology transfer in the fields of sustainable energy, digitalization of industrial production, automation in transport, environmental technologies, and smart material technologies.



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ANALYTICAL & MEASURING & TESTING



Performance
by the **ZF Bystrzyca**
folklore ensemble
at the party



SAVE THE DATE

April 21 2025

**Early bird
registration**

April 20 2025

**Last date of submission
of abstract**

May 19 2025

**Last date
for registration**

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