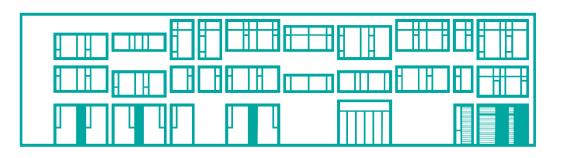
VSB	TECHNICAL	CENTRE FOR ENERGY	INSTITUTE OF
ηн	UNIVERSITY	AND ENVIRONMENTAL TECHNOLOGIES	ENVIRONMENTAL
	OF OSTRAVA	TECHNOLOGIES	TECHNOLOGY



# **CzePoCat** 2022

# 10<sup>th</sup> Czech-Polish Catalytic Symposium

April 29, 2022 from 8:00 to 22:00

Meeting room UA 178, Aula VŠB-Technical University of Ostrava

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### Program

# 8:00 – 8:20 – Registration

8:20 – 8:30 – Lucie Obalová, Jana Kukutschová (VSB- Technical University of Ostrava) Opening speech

# 1. Section

Chairman: Anna Srebowata (Polish Academy of Sciences)

9:00 – 9:15 – Aleksandra Pietraszek (Jagiellonian University in Krakow)

Mesoporous silicas modified by TIE method as the basis of catalysts for selected environmental processes

9:15 – 9:30 – Rudolf Ricka (VSB- Technical University of Ostrava)

Hydrogen production from methanol-water mixture over NiO/TiO<sub>2</sub> nanorods structure photocatalysts

9:30 – 9:45 – Tomasz Kondratowicz (University of Pardubice)

Controlled silica core removal from SiO2@MgAl core-shell system as a tool to prepare well-oriented and highly active catalysts

9:45 – 10:00 – Kasidid Yaemsunthorn (Jagiellonian University in Krakow)

Phase-based optimization of  $\text{TiO}_2$  photocatalyst and the application on selective nitro-to-amine reduction

10:00 – 10:15 – Tereza Bílková (VSB- Technical University of Ostrava)

Potassium surface and bulk promotion of cobalt based mixed oxides for direct NO decomposition

10:15 – 10:30 – Jáchym Mück (University of Pardubice)

Potential of mixed oxides with transition metal in ethanol valorisation

# 10:30 - 10:45 - Coffee break

# 2. Section

Chairman: Lucjan Chmielarz (Jagiellonian University in Krakow)

10:45 – 11:00 – Emil Kowalewski (Polish Academy of Sciences)

Catalytic hydrogenation of nitrocyclohexane as an alternative pathway for synthesis of value-added products

11:00 – 11:15 – Martyna Przydacz (Lodz University of Technology)

Influence of Fe addition to Ni-based catalysts for the hydrodeoxygenation of hydroxymethylfurfural to value-added molecules

11:15 – 11:30 – Alena Kulišťáková (VSB- Technical University of Ostrava)

Photochemical treatment (UV/O $_3$ +UV/H $_2$ O $_2$ ) of waste gas emissions containing organic pollutants in pilot plant unit

11:30 – 11:45 – Sridhar Gowrisankaran (The Comenius University in Bratislava)

New insights into the mechanism of photocatalysis and Fenton based processes

11:45 – 12:00 – Anna Jakimińska (Jagiellonian University in Krakow)

Fluorescent probes in monitoring photocatalytic processes induced in hybrid plasmonic metal-semiconductor systems

 $CO_2$ 

**12:00 – 12:15 – Barbora Grycová** (VSB-Technical University of Ostrava) LRI ENREGAT enters the 4th year of operation

# 12:15 - 13:30 - Lunch

3. Section

Chairman: Agnieszka Ruppert (Lodz University of Technology)
13:30 – 13:45 – Magdalena Saramok (LRN – New Chemical Syntheses Institute)
Removal of NOx on a Zeolite Catalyst from Nitric Acid Plant
13:45 – 14:00 – Viktoriia Liapun (The Comenius University in Bratislava)
Anodic TiO <sub>2</sub> nanotubes: past accomplishments and future perspectives
14:00 – 14:15 – Kaja Spilarewicz-Stanek (Jagiellonian University in Krakow)
Investigation of the heterojunction systems for photocatalytic reduction of
14:15 – 14:30 – Marcel Šihor (VSB-Technical University of Ostrava)
Anodization of large area Ti: versatile material for photocatalytic process

- 14:30 14:45 Krystian Mróz (Jagiellonian University in Krakow) Impact of synthesis factors on the electronic structure of Zinc Sulfide
- 14:45 15:00 Aneta Smýkalová (VSB-Technical University of Ostrava)
  Photocatalytic decomposition of Ofloxacin and Ampicillin using g-C<sub>3</sub>N<sub>4</sub>

## 15:00 - 15:15 - Coffee break

## 4. Section

- Chairman: . David Kubička (University of Chemistry and Technology)
- 15:15 15:30 Bartosz Zawadzki (Polish Academy of Sciences)

Continuous-flow hydrogenation of 2-methyl-2-pentenal using cobalt-based catalysts

15:30 – 15:45 – Kamil Urbanek (Jagiellonian University in Krakow)

SnFe<sub>3</sub>O<sub>4</sub> as a semiconductor CO<sub>2</sub> reduction photocatalyst

**15:45 – 16:00 – Kateřina Klemencova** (VSB-Technical University of Ostrava)

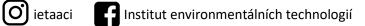
Catalytic pyrolysis of polypropylene

- 16:00 16:15 Chaiyasit Phawa (Jagiellonian University in Krakow) Matching facet pairs of anatase TiO<sub>2</sub> for photoelectrochemical water splitting reaction
- 16:15 16:30 Guru Karthikeyan Thirunavukkarasu (The Comenius University in Bratislava)
  2D TiO<sub>2</sub> nanostructures: promising material for bacterial eradication
- **16:30 16:45 Pavel Izák** (Institute of Chemical Process Fundamentals) Game with chiral matter

Acknowledgement: This symposium was supported by "Research Infrastructure ENREGAT -Energy Waste Recovery and Gas Treatment, ID: LM2018098".









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