VSB	TECHNICAL	CENTRE FOR ENERGY	INSTITUTE OF
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# **CzePoCat** 2025

# 13th Czech-Polish Catalytic Symposium

February 7, 2025 from 8:30 to 22:00

Meeting room UA2, Aula VSB-Technical University of Ostrava

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Program				
8:30 - 8:55 -	Registration			
8:55 – 9:00 –	Lucie Obalová, (VSB-Technical University of Ostrava)			
	Opening speech			
1. Section				
Chairman: David Kubička (University of Chemistry and Technology)				
9:00 - 9:30 -	Ondřej Drábek (Czech University of Life Sciences Prague)			
	Aluminum great material for catalysis - dark side of the story			
9:30 - 9:45 -	Tereza Motúzová (VSB-Technical University of Ostrava)			
	Removal of selected pesticides from water by various methods			
9:45 - 10:00 -	Wiktoria Dubiel (Jagiellonian University in Krakow)			
	Influence of titanium species type in siliceous beta zeolite on their catalytic activity in the selective diphenyl sulphide oxidation with hydrogen peroxide			
10:00 – 10:15 – Paulina Gwóźdź (AGH Krakow)				
	Catalytic and photocatalytic potential of the Fe/Co-doped CaTiO_3-SrTiO_3 system			
10:15 – 10:30 – Andrzej Wójtowicz (Jagiellonian University in Krakow)				
	Ceria-based Catalysts for Soot Combustion: Effects of Synthesis Method and Potassium Doping			
10:30 – 11:00 – Coffee break				
2. Section				
Chairman: Joanna E. Olszowka (J. Heyrovský Institute of Physical Chemistry, Prague)				
11:00 – 11:15 – Sylwia Gnyla (Jagiellonian University in Krakow)				
	Cobalt-nickel catalysts deposited on oxide-graphene supports for ammonia decomposition			
11:15 – 11:30 – Divya Kumar (Jagiellonian University in Krakow)				
	Exploring Plasmas Functionalization of Graphenic Surfaces: Experiments, theoretical insights and applications			

11:30 – 11:45 – Aleksandra Gomułka (Jagiellonian University in Krakow)

Copper-modified mesoporous silicas as effective catalysts for low-temperature NH $_3$ -SCR: a comparative study of TIE and ADP methods

11:45 – 12:00 – Sridhar Gowrisankaran (Comenius University Bratislava)

Ferrites with oxygen vacancies: on the mechanistic elucidation of oxidant activation for water treatment

## 12:00 – 12:15 – Karolina Zając (Jagiellonian University in Krakow)

Photocatalysis in Practice: nTiO2 on Polypropylene Surfaces

12:15 - 13:30 - Lunch

3. Section

**Chairman: Olivier Monfort** (Comenius University Bratislava)

13:30 – 14:15 – Jiří Dědeček (J. Heyrovský Institute of Physical Chemistry, Prague)

Green Deal as an Energy Frame of the Future of the Czech Chemical Industry

14:15 – 14:30 – Maria Adamska (Jagiellonian University in Krakow)

New insights into g-C<sub>3</sub>N<sub>4</sub>-Co<sub>x</sub>O<sub>y</sub> photocatalytic system

14:30 – 14:45 – Lei Wang (Jagiellonian University in Krakow)

Development of inverse opal titania photocatalytic films

14:45 – 15:00 – Rudolf Ricka (VSB-Technical University of Ostrava)

Defective  $TiO_2$  for Photocatalytic  $CO_2$  Reduction: Influence of Alkaline Agent and Reduction Temperature Modulation

### 15:00 – 15:30 – Coffee break

### 4. Section

Chairman: . Roman Bulánek (University of Pardubice)

- 15:30 15:45 Karolina Simkovicova (J. Heyrovský Institute of Physical Chemistry, Prague) Insights Into Particle-Support Interactions and Their Role in CO<sub>2</sub> Hydrogenation Catalysis
- **15:45 16:00 Yongqiang Fu** (Poznan University of Technology) Photocatalytic activity of polyaniline/TiO<sub>2</sub> heterostructures
- **16:00 16:15 Yilan Zeng** (Comenius University Bratislava) Titanium Dioxide and Its Many Faces: Stability, Efficiency, and the Unknown
- 16:15 22:00 Discussion and closing ceremony

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