



Polish Zeolite Association
XXIII Zeolite Forum
Niepołomice, June 21-25, 2022

CONFERENCE PROGRAM

21.06.2022

Tuesday

16.00-18.00 Registration

18.00-19.00 Dinner

19.15-20.30 SESSION 1

19.15-19.30 Conference opening

19.30-20.30 **PL1 Plenary Lecture:**

Roger Gläser

Utilizing Zeolitic Catalysts with Complex Hierarchical Pore Systems for Valorization of Renewable Resources

22.06.2022

Wednesday

7.30-9.00 Breakfast

09.00-10.40 SESSION 2

09.00-10.00 **PL2 Plenary Lecture:**

Joeri Denayer

Ferromagnetic zeolite composites for Inductive Heating Thermal Swing Adsorption

10.00-10.20 OP1 *K. Kałahurska, W. Pajerski, A. Kotarba, M. Kubů, Y. Zhang, M. Mazur, J. Přeč, G. Jajko, W. Makowski, W. J. Roth, Barbara Gil*

Platinum nanoparticles supported on zeolite MWW nanosheets prepared via homogeneous solution route

10:20-10:40 OP2 *Jolanta Kowalska-Kuś, A. Held, A. Jankowska, K. Nowińska*
Acetalization of crude glycerol with acetone on zeolites in a continuous-flow process

10.40-11.00		Coffee break
11.00-12.50		SESSION 3
11.00-11.20	OP3	<u>Stanisław Dźwigaj</u> Chemical Engineering of Metal Single-Site Zeolite for application in Heterogeneous Catalysis
11.20-11.40	OP4	<u>Małgorzata Rutkowska, W. Dubiel, A. Jankowska, Z. Piwowarska, A. Kowalczyk, K. Maćkosz, J. Kawałko, L. Chmielarz</u> Zeolite spheres. Do they work better in catalysis?
11.40-12.00	OP5	<u>Aleksandra Jankowska, A. Kowalczyk, M. Rutkowska, M. Michalik, L. Chmielarz</u> Silica and silica-alumina spherical MCM-41 modified with copper species by template ion-exchange (TIE) method as potential catalysts for low-temperature NH ₃ -SCR process
12.00-12.30	SP1	<u>Anton Paar – presentation of products</u>
12.30-14.00		Lunch break
14.00-15.00		SESSION 4
14.00-14.20	OP6	<u>Agata Tabero, A. Jankowska, A. Ostrowski, E. Janiszewska, A. Held, J. Kowalska-Kuś, S. Kowalak</u> Proton conductivity of molecular sieve composites based on imidazole and KIT-6 mesoporous materials
14.20-14.40	OP7	<u>Ardian Nurwita, M. Trejda, P. Decyk, M. Ziótek</u> The Impact of 3-(trihydroxysilyl)-1-propanesulfonic Acid Treatment on the State of Vanadium Incorporated on SBA-15 Matrix
14.40-15.00	OP8	<u>Agnieszka Held, N. Biereśniewicz, J. Kowalska-Kuś, E. Janiszewska, K. Nowińska</u> Epoxidation of propane with oxygen and/or nitrous oxide over silica-supported vanadium catalysts
15.00-15.15		coffee break
15.15-16.30		POSTER SESSION

16.45-18.45 **General Meeting of the Polish Zeolite Association**
19.30-22.30 **Conference banquet**

23.06.2022
Thursday

7.30-9.00 Breakfast

09.00-10.40 **SESSION 5**

9.00-10.00 **PL3** **Plenary lecture:**
Pascal D. C. Dietzel
Structure-property relationships in open metal site MOFs

10.00-10.20 OP9 *Damian Jędrzejowski, D. Matoga*
Tetrazine click chemistry as a gentle method of covalent functionalization of metal-organic frameworks: JUK-20 case studies

10.20-10.40 OP10 *Andrzej Sławek, W. Makowski*
The Influence of Crystal Size and Framework Dynamics on Adsorption of n-Alkanes in ZIF-8

10.40-11.10 coffee break

11.10-12.30 **SESSION 6**

11.10-11.30 OP11 *Gabriela Jajko, P. Kozyra, W. Makowski*
Influence of structural defects in UiO-66 material and air humidity on adsorption of toluene as a model volatile organic compound

11.30-11.50 OP12 *Patrycja Gryta, G. Jajko, P. Kozyra, W. Makowski*
Application of quasi-equilibrated temperature programmed desorption and adsorption for studying the water adsorption properties and hydrothermal stability of MIL-96(Al)

11.50-12.10 OP13 *Magdalena Lupa, P. Kozyra, D. Matoga*
Inducing anhydrous and water-assisted high proton conductivity in metal-organic frameworks by mechanochemical approach

12.10-12.30	OP14	<i>Monika Szufla, A. Choroś, D. Matoga</i> Incorporating pendant sulfonic groups into metal-organic frameworks using pre-assembly chlorosulfonation strategy
12.30-14.30		lunch break
14.30-16.00		SESSION 7
14.30-15.00	SP2	<i>MS Spektrum – presentation of products</i>
15.00-15.20	OP15	<i>Łukasz Kuterasiński, A. Wojtkiewicz, M. Sadowska, P. Żeliszewska, B. D. Napruszewska, M. Zimowska, M. Pytlik, A. Biessikirski</i> On the role of faujasite in the production of ANFO-type explosives
15.20-15.40	OP16	<i>Małgorzata Smoliło-Utrata, K. Tarach, K. Samson, M. Gackowski, D. Rutkowska-Żbik, K. Góra-Marek</i> Oxidative Dehydrogenation of Propane over Vanadium-Containing Faujasite Zeolite. Spectroscopic approach to study vanadium sites in desilicated zeolite Y
15.40-16.00	OP17	<i>Adrian Walkowiak, Ł. Wolski, M. Ziótek</i> Ferrocene-containing molecular sieves as effective heterogeneous photo-Fenton catalysts for ciprofloxacin removal from water
16.30-18.30		"Sitkówka" Volleyball match
19.00		Dinner (grill party)
24.06.2022		
Friday		
7.30-9.00		Breakfast
9.00-10.20		SESSION 8
9.00-10.00	PL4	Plenary Lecture: Jiří Dědeček Enzymes inspired binuclear sites for activation of molecular oxygen and selective oxidation of hydrocarbons

10.00-10.20	OP18	<i>N. Sobuś, <u>Izabela Czekaj</u></i> Zeolites for levulinic acid production from lignocellulosic biomass
10.20-10.40		coffee break
10.40-11.40		SESSION 9
10.40-11.00	OP19	<i><u>Izabela Kurzydym, I. Czekaj</u></i> Comparison of mechanisms of deNO _x process on Cu-Fe bimetallic system with OH group on bridged oxygen in FAU and MFI zeolites - analysis of transformation energies and ionicity of individual stages
11.00-11.20	OP20	<i><u>Monika Ciszewska, A. Węgrzyn, D. Cież, S. Skórkiewicz, P. Miśkowiec, A. Bereziartua Unanue</u></i> Simultaneous analysis of multiple pharmaceuticals and their removal using mesoporous silica SBA-15 modified with organic functional groups
11.20-11.40	OP21	<i><u>Agnieszka Szymaszek-Wawryca, U. Díaz, B. Samojeden, M. Motak</u></i> Comparison of the catalytic performance of modified natural and synthetic layered aluminosilicates in selective catalytic reduction of nitrogen oxides with ammonia
12.00-13.00		Lunch
13.00-18.30		Excursion to the Wiśnicz castle
18.30-19.30		Dinner
25.06.2022		
Saturday		

7.00-8.00 Breakfast

Poster presentations:

- P01. *A. Birczyński, Agnieszka M. Szymocha, W. Węglarz, Z. Lalowicz*
Acetone-d₆ mobility in confinement of D-ZSM-5 structure: A deuteron NMR study
- P02. *Wiktoria Dubiel, M. Rutkowska, Z. Piwowarska, A. Kowalczyk, K. Maćkosz, L. Chmielarz*
Modern zeolite materials of SiO₂@ZSM-5 type as catalysts for the biofuel synthesis

- P03. Agnieszka Held, E. Janiszewska, M. Kot, M. Pietrowski, M. Zieliński
Silica with specified acid properties as a support of iridium catalyst for toluene hydrogenation
- P04. Izabela Czekał, N. Sobuś
Clinoptilolite as an adsorbent of odors in gastronomy and breeding
- P05. Aleksandra Pietraszek, A. Kowalczyk, Z. Piwowarska, M. Rutkowska, L. Chmielarz
Catalytic functionalization of MCM-41, MCM-48 and HMS mesoporous silicas by TIE method - comparison studies
- P06. Jolanta Kowalska-Kuś, E. Janiszewska, A. Held, A. Jankowska, K. Nowińska
Modified silicalite-1 as acid or base catalysts for management of glycerol
- P07. P. J. Jodłowski, G. Kurowski, Łukasz Kuterasiński, M. Sitarz, P. Jeleń, J. Jaśkowska, A. Kołodziej, A. Pajdak, Z. Majka, A. Boguszevska-Czubara
On the Application of Defective UiO-66 structure type MOF to Prevent the Onset of Heart Defects
- P08. K. Tarach, K. Góra-Marek, Małgorzata Smoliło-Utrata, J. Martínez Triguero, F. Rey
Silver sites speciation assessment in operando UV-Vis and FT-IR studies
- P09. K. Tarach, O. Rogala, Małgorzata Smoliło-Utrata, K. Pyra, J. Martínez-Triguero, F. Rey, K. Góra-Marek
Ethylene Oligomerization Over Zeolite Catalysts - Coke Nature Assessment by Spectroscopic and Chromatographic Methods
- P10. Mateusz Rozmyślak, Ł. Wolski
Catalysts containing CeO₂ and CePO₄ – synthesis, characterization and application in the degradation of methylene blue
- P11. Sylwia Skórkiewicz, A. Węgrzyn, M. Ciszewska, W. Gierat, A. Katarzyńska, D. Majda, P. Miśkowiec, E. Cela
Recyclability of hydrotalcite-derived adsorbents for removal of selected pharmaceuticals in column mode
- P12. Agnieszka Szymaszek-Wawryca, U. Díaz, B. Samojeden, M. Motak
Catalytic performance of modified MCM-22 in selective catalytic reduction of nitrogen oxides with ammonia
- P13. Agata Tabero, A. Jankowska, E. Janiszewska, A. Ostrowski, A. Held, J. Kowalska-Kuś, S. Kowalak
Proton conductivity of imidazole composites embedded in AFI structure
- P14. Karolina Charzewska, O. Surma, G. Moskal, A. Węgrzyn, D. Majda, M. Molenda
Cobalt free cathode active material for more sustainable and ethical energy storage materials
- P15. Dominik Strojewski, A. Krupa
State of the art in the field of nano spray dried porous drugs