SCHOOL ON CATALYSIS

Liblice, May 28-30, 2024

Tuesday, May 28

12.00		**Bus Departure from the Faculty of Science (Hlavova 8, Praha 2, Albertov)**
13:00		**Arrival at Liblice Castle – Accommodation - Registration**
14:00-14:05		*Opening and Introduction*
		Chair: Jiří Čejka
14:05-14:35	PL1	*Career in Industrial Catalysis* Paul Diddams (Charles University, Prague, Czech Republic)
14:35-14:55	PL2	*Low kV EM-Imaging for high surface sensitivity* Ivana Buriánová (ZEISS)
14:55-15:30	PL3	*How to write a grant proposal* Carlos Melo (Charles University, Prague, Czech Republic)
15:30-16:00		Joint Event – Part 1
16:00-16:30		***Coffee Break***
		Chair: Michal Mazur
16:30 -17:40		Flash Poster presentations (1-20)
17:40-19:15		POSTER SESSION
19:30		***Welcome (Garden) Party – depending on the weather***

Wednesday, May 29

		Chair: Pavla Eliášová
9:00-9:55	PL4	*The key role of catalysis in developing a man-made C-cycle* Michele Aresta (IC2R Innovative Catalysis for Carbon Recycling)
9:55-10:25		***Coffee Break***
		Chair: Mariya Shamzhy
10:25-12:25		Student Oral Presentations – 1-5 (10 minutes/each + 10 minutes for questions) – 6-10 (10 minutes/each + 10 minutes for questions)
12:25-14:00		***Lunch***
		Chair: Carlos Melo and Paul Diddams
14:00-15:00		Joint Event – Part 2
15:00-17:20		Presentations of Joint Event
16:00-16:20		***Coffee Break***
17:20-18:30		Joint Event – Part 3 – Evaluation - Feedback
19:30		***Dinner***

Thursday, May 30

Chair: Roman Bulánek

9:00-9:50	PL5	*Catalysis in Polymer Synthesis* Ondřej Sedláček (Charles University, Prague, Czech Republic)
9:50-10:50	PL6	*How to start a new company* Jan Neuman (Nenovision)
10:50-11:10		***Coffee Break***

Chair: Ondřej Sedláček

11:10-11:50	PL7	*New developments and approaches in HR-TEM for catalysis* Michal Mazur (Charles University, Prague, Czech Republic)
11:50-12:30	PL8	*Emerging trends in catalysis: from transition metals to main group catalysts* Martin Hulla (Charles University, Prague, Czech Republic)
12:30-12:35		*Closing remarks*
12:35-13:30		***Lunch***
13.30		***Bus Departure from Liblice***

ORAL PRESENTATIONS

O1 Acid site strength and pore size of zeolites affect their catalytic performance in thymol synthesis
F. Poorsharbaf Ghavi, P. Golis, M. Kubů, J. Přech, M. Opanasenko - Faculty of Science, Prague

O2 Stabilization of Ru-Ni catalysts on MCM-56: Synthesis and hydrodeoxygenation performance
D. Sudakova, S. Kolesár, J. Přech, M. Mazur - Faculty of Science, Prague

O3 Interplay of framework and extra-framework Fe zeolite species increases C3-C4 olefinicity in paraffin cracking
A. Kurbanova, D. Zákutna, K. Gołąbek, A.I. Dugulan, P. Diddams, M.-F. Hsieh, N. Bats, J. Přech - Faculty of Science, Prague

O4 Zeolite-catalyzed synthesis of asymmetric ethers: key characteristics of an efficient catalyst
Z. Silná, J. Přech, M. Kubů, P. Golis, M. Shamzhy, T. Soták, J. Čejka - Faculty of Science, Prague

O5 Hexacoordinated tin complexes catalyse imine hydrogenation with H_2
A. Žáková, P. Saha, A. Paparakis, M. Zábranský, G. Gastelu, J. Kukla, J.G. Uranga, M. Hulla - Faculty of Science, Prague

O6 Dehalogenation and upgrading of pyrolysis products for use in the petrochemical industry
J. Snow, A. Kašpárek, J. Lederer, P. Kuráň - UniCRE

O7 CO_2 Hydrogenation via Fischer-Tropsch Synthesis over Tandem Catalysts
B. Ucar - UniCRE

O8 Soot combustion over ceria-based catalysts synthesised by various methods
A. Wójtowicz - Jagiellonian University, Cracow

O9 Enhancing the electrocatalytic activity of cobalt spinel with plasma
M. Lofek, P. Stelmachowski - Jagiellonian University, Cracow

O10 Integrating Modular Induction Reactor for On-Demand Ammonia Synthesis
A. Sedminek, S. Gyergyek, J. Teržan, B. Likozar - National Institute of Chemistry, Ljubljana

POSTERS – Short Oral Presentations

Po01 Lewis acid zeolite catalysts via chemical modification of extra-large pore germanosilicates
T. Zakeri, P. Golis, J. Přech, M. Opanasenko, M. Shamzhy – Faculty of Science, Prague

Po02 Zeolite-amine complex: exploring its impact on reaction pathways
K. Veselá, J. Přech - Faculty of Science, Prague

Po03 Lewis-acid zeolite catalysts by post-synthesis isomorphous substitution: pore size effect
E. Shamma, M. Opanasenko, M. Shamzhy – Faculty of Science, Prague

Po04 Toward quantification of open and closed Zr sites in zeolite catalysts: FTIR spectroscopic study
Y. Zhang, S. Samanta, J. Přech, M. Shamzhy - Faculty of Science, Prague

Po05 Thermal stability of Pt species supported on MFI zeolite with various Al content
F. Krakl, C.J. Heard, M. Mazur - Faculty of Science, Prague

Po06 Silanol-rich zeolites as supports for heterogenization of Pd catalysts
A. Olšovská, M. Kamlar, M. Mazur - Faculty of Science, Prague

Po07 Mechanochemistry as a tool for incorporation of metal nanoparticles into layered zeolites
S. Kolesár, D. Sudakova, J. Přech, M. Mazur- Faculty of Science, Prague

Po08 Photo(electro)catalytic conversion of CO_2 over Cu_2O/MXene composites
M. Linková, P. Eliášová, J. Čejka - Faculty of Science, Prague

Po09 Reaction kinetics of citronellal Meerwein–Ponndorf–Verley reduction over Lewis acid sites in Beta/MFI zeolites
J. Xie, J. Přech - Faculty of Science, Prague

Po10 Synthesis and characterization of UZM-9 zeolite
B. Koreň, M. Kubů - Faculty of Science, Prague

Po11 Chiral amine catalysts supported on mesoporous materials
M. Živný, M. Opanasenko, M. Kamlar, J. Čejka, J. Veselý - Faculty of Science, Prague

Po12 Chiral Conjugated Acids of N-Heterocyclic Carbenes: Synthesis and Utility in Stereoselective Spirocyclization Reaction
D. Čermák, L. Lóška, V. Dočekal, J. Veselý - Faculty of Science, Prague

Po13 Preparation of Immobilized BINOL-Derived Chiral Phosphoric Acid
M. Franc, J. Veselý - Faculty of Science, Prague

Po14 Synthesis of Bifunctional Organocatalysts Combining N-Heterocyclic Carbene and Thiourea Units
M. Pěnička, V. Dočekal, J. Veselý – Faculty of Science, Prague

Po15 The scope of photocontrolled cationic RAFT polymerization
M. Orságh – Faculty of Science, Prague

Po16 Influence of FCC catalyst matrix content on the yield structure during tests on the ACE unit
K. Vondrášková, M. Pšenička - UniCRE

Po17 Preparation and characterization of dhbq MOF
AA. Kuťáková, K. Knotková, R. Bulánek – University of Pardubice

Po18 H4MTA as a ligand in porous coordination network for heterogenous catalysis
N. Király, N. Vargová, V. Meynen, R. Gyepes, V. Zeleňák, M. Almáši – J.P. Šafárik University, Košice

Po19 Porous coordination network PCN-160 as a heterogeneous catalyst
N. Vargová, N. Király, R. Serbin, V. Zeleňák, M. Almáši - J.P. Šafárik University, Košice

Po20 SO_3H-modified UiO-66 materials as advantageous catalysts for the Friedel-Crafts acylation reaction
M. Bauzá, P. Leo, C. Palomino, A. Martín, G. Orcajo, G. Turnes, F. Martínez – University of Baleares

Po21 Low-temperature conversion of nitrogen oxides in the presence of modern heteroatomic MWW zeolites
A. Jankowska, K. Fidowicz, N. Kokowska, A. Kowalczyk, L. Chmielarz - Jagiellonian University, Cracow

Po22 Titanium modified zeolites of MWW topology as effective catalysts in diphenyl sulphide oxidation process with the use of hydrogen peroxide
W. Dubiel, A. Furgał, A. Kowalczyk, U. Díaz, L. Chmielarz – Jagiellonian University, Cracow

Po23 Operando DRIFT studies of cobalt catalysts: investigation of the reaction mechanism of steam reforming of ethanol
O. Wasiłek – Jagiellonian University, Cracow

Po24 Comparison of natural and synthetic supports for photocatalysts for the coprocessing of CO2 and water under solar irradiation
I. Abubakar Yusuf, M. Aresta, T. Baran, D. Caringella, M. Kashif, A. Dibenedetto – University of Bari

Po25 Biomass to Bubbles: Catalysis for the sustainable production of surfactants from awkward bio-sourced platform molecules
M. Kashif, A. Dibenedetto, I. Yusuf Abubakar, M. Aresta – University of Bari

Po26 Graphene Covalently-Functionalized with Acetonitrile as a Green Alternative to Cyanographene
V. Hrubý V. Šedajová, M. Otyepka – CATRIN-RCPTM Olomouc

Po27 Liquid-assisted grinding as a greener alternative to supported metal oxide catalyst preparation
K. Vodlan, M. Huš, B. Likozar – National Institute of Chemistry, Ljubljana

Po28 Unraveling the deoxydehydration mechanism over Re/C catalyst
M. Gabrič, B. Hočevar, M. Grilc, B. Likozar – National Institute of Chemistry, Ljubljana

Po29 Magnetic nanocomposite catalyst for furfural valorization
J.-S. Pavelić, A. Sedminek, Ž. Ponikvar, A. Kocjan, D. Makovec, B. Likozar, S. Gyergyek, M. Grilc – National Institute of Chemistry, Ljubljana

Po30 Electrified CO_2 reduction
A. Blažič – National Institute of Chemistry, Ljubljana

Po31 Catalytic ring-opening oxidation of lignin aromatics
V. Škopek, E. Jasiukaityte Grojzdek, B. Likozar – National Institute of Chemistry, Ljubljana

Po32 Supported metal halides as ammonia absorption materials
A. Zamljen, B. Likozar – National Institute of Chemistry, Ljubljana

Po33 Hydrogenation of liquid organic hydrogen carriers over Ru catalysts
E. Rakić, B. Likozar – National Institute of Chemistry, Ljubljana

Po34 Density Functional Theory Study of Ethanol synthesis from CO2 Hydrogenation on Cu-Based Zeolites
C. Chen, M. Huš, B. Likozar – National Institute of Chemistry, Ljubljana

Po35 Coordination of ligands on cobalt cation as a way to influence FAU type zeolite acidity during ion exchange
G. Medak, F. Dalena, M. Cindric, S. Mintova - ENSICAEN, Caen

Po36 AFM-in-SEM: Complex structural analysis of catalyst materials
R. Dao, V. Hegrová, Z. Sofer, D. Zůza, J. Neuman – Nenovision, Brno

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