

Program



10th Czech-Italian-Spanish Conference (CIS-10) on Molecular Sieves and Catalysis

Liblice Castle
June, 9-12 2025

9. 6. 2025		
18:00	Registration	
20:00	Welcome Party	
10. 6. 2025		
8:45	Opening	
Chair:		Jiří Čejka, Girolamo Giordano
9:00	PL1	<u>Cristina Martínez</u> DESIGNING ZEOLITE-BASED CATALYSTS FOR INDUSTRIALLY RELEVANT CHEMICAL PROCESSES
9:45	OP1	<u>E. Giglio</u> , G. Ferrarelli, F. Salomone, E. Corrao, S. Bensaid, M. Migliori, R. Pirone, G. Giordano HIERARCHICAL ZEOLITES FOR DIMETHYL ETHER DEHYDRATION INTO LIGHT OLEFINS
10:00	OP2	<u>P. Sánchez-Morena</u> , J. Jurado-Sánchez, C. Márquez-Álvarez, L. Gómez-Hortigüela, J. Pérez-Pariente EXCEPTIONAL CATALYTIC ACTIVITY OF GERMANOSILICATE GTM-4 IN THE OXIDATION OF CYCLOHEXENE WITH MOLECULAR OXYGEN
10:15	OP3	<u>E. Shamma</u> , A. Seidlová, J. Přech, M. Opanasenko, M. Shamzhy XYLENE ISOMERIZATION OVER IWW ZEOLITE WITH A THREE-MODAL PORE STRUCTURE: THE EFFECT OF CRYSTAL MORPHOLOGY
10:30	Break	
Chair:		Maksym Opanasenko, Rosa María Martín-Aranda
11:00	OP4	<u>A. López Albero</u> , D. de la Calle, J. Cueto, M. Alonso-Doncel, D.P. Serrano SYNTHESIS AND CATALYTIC PROPERTIES OF ZSM-11 ZEOLITES WITH CONTROLLED NANOARCHITECTURES
11:15	OP5	N. Uricoechea, G. Morales, <u>M. Paniagua</u> , J.A. Melero ENHANCED ALDOL CONDENSATION OF BIOMASS-DERIVED LEVULINIC ACID AND FURFURAL USING METAL-MODIFIED ACID ZEOLITES FOR THE PRODUCTION OF AVIATION FUEL INTERMEDIATES
11:30	OP6	<u>A. Olšovská</u> , M. Kamlar, J. Veselý, J. Čejka, M. Mazur ANCHORING Pd NANOPARTICLES TO ZEOLITE SURFACE SILANOLS TO DEVELOP HETEROGENEOUS TSUJI-TROST ALLYLATION CATALYSTS
11:45	OP7	<u>M. Kubů</u> , V. Přibyl, M. Shamzhy SYNTHESIS AND CHARACTERIZATION OF -EWT ZEOLITE
12:00	Lunch	
Chair:		Pavla Eliášová, Enrico Catizzzone
14:00	OP8	<u>I. Arnaiz</u> , L. Perea, Y. Awoke, M. Sánchez-Sánchez, M. Grande-Casas, I. Díaz, C. Márquez-Alvarez, E. Sastre SYNTHESIS OF ZSM-5 FROM NATURAL MORDENITE FROM SPAIN AND THE APPLICATION IN MTH PROCESS

14:15	OP9	S. Kolesár , P.A. Diddams, M. Mazur SYNTHESIS OF ZEOLITE-SUPPORTED BIMETALLIC NANOPARTICLES FOR LIGNIN VALORISATION
14:30	OP10	R. de la Serna , I. Arnaiz, J. Jurado, C. Márquez-Álvarez, J. Pérez-Pariente, L. Gómez-Hortigüela INVERSION OF CHIRALITY IN GTM-4 ENANTIO-ENRICHED ZEOLITE DRIVEN BY A MINOR CHANGE OF THE STRUCTURE-DIRECTING AGENT
14:45	OP11	P. Bruno , E. Catizzone, F. Pietramale, M. Migliori, R. Mancuso, B. Gabriele, G. Giordano BIOGAS VOC VALORIZATION: THE CASE OF ZEOLITE-CATALYZED D-LIMONENE ETHOXYLATION
15:00	OP12	J. Xie , J. Přech, M. Kubů, M. Mazur, J. Čejka PALLADIUM/ZEOLITE NANOCCLUSERS IMPROVE SELECTIVITY FOR PARTIAL HYDROGENATION OF ALKYNES
15:15	OP13	D. de la Calle , J. Cueto, R.A. García-Muñoz, D.P. Serrano SYNTHESIS OF BIO-JET FUEL PRECURSORS BY ALDOL CONDENSATION OF FURFURAL AND CYCLOPENTANONE USING TITANIUM OXIDE-MODIFIED USY ZEOLITES
15:30	OP14	Y. Zhang , C. Bornes, J. Přech, M. Shamzhy QUANTIFICATION OF Zr-ACID SITES IN ZEOLITES: IN SITU FTIR AND NMR SPECTROSCOPIC STUDIES
15:45	OP15	I. Arnaiz, C. Márquez-Álvarez, M. Zubimendi, M. Asunción Molina, A.M. Beale, J. Pérez-Pariente, M. Sánchez-Sánchez CATALYTIC TRANSFORMATION OF DIALKYLUREAS INTO METHANE BY Ru-MOFs
16:00	Excursion Lobeč Brewery	
20:00	Barbecue (if weather allows)	
11. 6. 2025		
Chair:		David Serrano, Domenico Caputo
9:00	PL2	Michal Otyepka 2D-CHEMISTRY OF FLUOROGRAPHENE TOWARD FUNCTIONAL GRAPHENE DERIVATIVES FOR CATALYTIC APPLICATIONS
9:45	OP16	M. Kamlar , S. Putatunda, I. Císařová, J. Veselý ENANTIOSELECTIVE SYNTHESIS OF SPIROCYCLIC ISOXAZOLONES USING CONIA-ENE TYPE REACTION
10:00	OP17	M. Pitínová , A. Krnáčová, A. Shafiq, I. Danylo, L. Koláčný, J. Luxa, M. Veselý STYRENE HYDROFORMYLATION CATALYZED BY RHODIUM SUPPORTED ON 3D AND 2D TRANSITION METAL DICHALCOGENIDES
10:15	OP18	M. Mancinelli , C. Bonadiman, R. Tassinari, B. Davide, D. Enrico, C. Caterina, A. Pavese, A. Martucci ASSESSMENT OF ZEOLITE EFFICIENCY IN HEAVY METAL REMOVAL FROM MSWI FLY ASH LEACHATES
10:30	Break	

<i>Chair:</i>		<i>Michal Mazur, Patricia Pizarro</i>
11:00	OP19	C.A. Chirinos , P.J. Megía, A.J. Vizcaíno, J.A. Calles, A. Carrero ENHANCED OXIDATIVE STEAM REFORMING OF BIO-OIL AQUEOUS PHASE USING NOBLE METAL-DOPED Co/CeO ₂ /SBA-15 CATALYSTS
11:15	OP20	K. Knotková , S. Essid, J. Halamek, R. Bulánek THE ISSUE OF COPPER ENCAPSULATION IN MICROPOROUS MATERIALS
11:30	KL1	Mariya V. Shamzhy FT-IR SPECTROSCOPY FOR CHARACTERIZATION OF SOLID CATALYSTS
12:00	Lunch	
<i>Chair:</i>		<i>Michal Horáček, Carlos Marquez Alvarez</i>
14:00	OP21	D. Valdivieso-Vera, I. Santos-López, I. Barroso-Martín, E. Rodríguez-Castellón, G.A. Flores-Escamilla, J. Cano, M.O. Guerrero-Pérez BIOFUEL SYNTHESIS FROM SHORT-CHAIN ALCOHOL CONDENSATION OVER Cu/MgAl CATALYSTS
14:15	OP22	G. Pérez-Martín , J. Cueto, M. Paniagua, G. Morales, J.A. Melero, D.P. Serrano CONVERSION OF FURFURAL INTO VALUABLE BIOPRODUCTS CATALYZED BY ZrO ₂ -MODIFIED NANOCRYSTALLINE ZSM-5 ZEOLITE
14:30	OP23	K. Veselá , J. Přech ZEOLITE-AMINE COMPLEX CATALYZES MEERWEIN-PONNDORF-VERLEY TYPE HYDROGEN TRANSFER REACTIONS
14:45	OP24	E. Martín , P. Gabal, A. Lwazzani, J.H. Badia, J. Guilera ENHANCING MACROPOROSITY IN SHAPED ZEOLITES FOR HYDROCRACKING
15:00	OP25	A. Erlebach, D. Willimetz, I. Saha, C. Lei, T. Benešová, C. Bornes, C.J. Heard, L. Grajciar PREDICTIVE DYNAMICAL MODELLING OF ZEOLITIC CATALYSTS VIA A FLEXIBLE REACTIVE MACHINE LEARNING FRAMEWORK
15:15	OP26	M. Inés Ávila , M. Alonso-Doncel, J. Cueto, L. Briones, G. Gómez-Pozuelo, J.M. Escola, D.P. Serrano, A. Peral, J.A. Botas EFFECT OF ION-EXCHANGED H-USY ZEOLITES ON THE CATALYTIC UPGRADING OF PYROLYSIS LIGNIN-DERIVED BIO-OILS
15:30	OP27	T. Nechvílová, L. Dolejšová Sekerová, E. Vyskočilová, I. Paterová EXPLORING THE BASICITY OF THERMOLABILE HYDROTALCITE CATALYSTS: THEIR ROLE IN ALDOL CONDENSATION OF CITRAL WITH PENTAN-2-ONE AND OPTIMIZATION OF ANTHRANILIC ACID SORPTION AS METHOD FOR BASICITY DETERMINATION
15:45	Break	
<i>Chair:</i>		<i>Jan Veselý, Paolo Aprea</i>
16:15	OP28	A. Díaz, J. Cueto, D.P. Serrano, I. Moreno CATALYTIC HYDROPYROLYSIS OF CHLORELLA VULGARIS
16:30	OP29	A. Shafiq , M. Pitinova, I. Danylo, M. Vesely HYDROGENATION OF CINNAMALDEHYDE BY PLATINUM SUPPORTED ON 2D AND 3D TRANSITION METAL SULFIDES

16:45	OP30	L. Amodio, J. Cueto, A. Souza, J. López, H. Hernando, P. Pizarro , D.P. Serrano DEHALOGENATION OF WEEE PLASTICS VIA LOW-PRESSURE HYDROPYROLYSIS OVER PD-SUPPORTED CATALYSTS
17:00	OP31	J. Moravčík , L. Kaluža METAL OXIDE CATALYSTS FOR CARBON-CARBON CONDENSATION REACTIONS OF BIOALCOHOLS
17:15	OP32	M. Linares , A. Pérez, M. Orfila, R. Sanz, J. Marugán, R. Molina, J.A. Botas SYNTHESIS AND MACROSCOPIC SHAPING OF $\text{La}_{0.8}\text{A}'_{0.2}\text{NiO}_{3\pm\delta}$ ($\text{A}' = \text{Al, Ca AND Ba}$) PEROVSKITES FOR RENEWABLE H_2 PRODUCTION BY THERMOCHEMICAL WATER SPLITTING
17:30	OP33	J. Vysloužil , P. Volfová PRAGOLAB AND ELECTRON MICROSCOPY
17:45	OP34	G. Morales , F.J. Landazábal, M. Ventura, M. Paniagua, J.A. Melero SULFONIC ACID-MODIFIED SBA-15 SILICAS FOR THE PRODUCTION OF AVIATION FUEL PRECURSORS FROM ACETOIN
18:00	OP35	R. Kendra , L. Grajciar FREE ENERGY CALCULATIONS IN ZEOLITE SYSTEMS USING OPTIMAL GRID REFINED (OGRE) UMBRELLA SAMPLING
19:30		Farewell Dinner
12. 6. 2025		
Chair:		Roman Bulánek, Manuel Moliner
9:00	PL3	Girolamo Giordano BIO-ALCOHOLS CONVERSION: THE ROLE OF ZEOLITIC CATALYSTS
9:45	OP36	J. Tapiador, P. Leo, D. Choquesillo-Lazarte, G. Orcajo NEW MANGANESE-BASED MOF MATERIAL FOR CO_2 ADSORPTION AND VALORIZATION
10:00	OP37	P. Topka , K. Soukup, J. Kupčík, J. Balabánová, O. Šolcová ELECTROSPUN NANOFIBER MATS: PERSPECTIVE CATALYST SUPPORTS WITH HIGH POROSITY
10:15	OP38	J.V.C. Carmo, A.C. Oliveira, C. Cardoso, E. Rodríguez-Castellón , J. Jimenez-Jimenez Cu-CONTAINING YTRIUM ALUMINUM GARNET FOR ETHYLBENZENE OXIDATION: EFFECTS OF Cu CONTENTS ON THE SELECTIVITY TO ACETOPHENONE
10:30		Break
10:50	KL2	Joaquín Pérez-Pariente ON THE RECOVERY OF FORGOTTEN KNOWLEDGE AND ITS APPLICATION IN MODERN CATALYSIS. A PERSONAL VIEW
11:20		Closing
12:00		Departure

POSTERS	
Po01	<u>N. Benmebirouk-Pareja</u> , A. Plá-Hernández, A.E. Palomares REDUCTION OF CHLORATES IN THE AQUEOUS PHASE BY SUPPORTED PLATINUM CATALYST
Po02	P. Lafuente, <u>R.M. Blanco</u> , M. Sánchez-Sánchez, E. Sastre NEW AND EFFICIENT IN-SITU SUPPORT OF ENZYMES BASED ON THE AMORPHOUS PRECURSOR OF A SUSTAINABLE ZIF-8
Po03	F. Rosso, A. Airi, H. Tabatabaeizadeh, M. Signorile, S. Galliano, S. Bordiga, V. Crocellà, <u>F. Bonino</u> DESIGN OF EXPERIMENTS APPROACH APPLIED TO THE STUDY OF THE HYDROTHERMAL SYNTHESIS OF METAL-SUBSTITUTED ZEOLITES
Po04	M. Cavallo, M. Dosa, R. Nakazato, N.G. Porcaro, M. Signorile, M. Quintelier, J. Hadermann, N.C. Rosero-Navaro, K. Tadanaga, S. Bordiga, V. Crocellà, <u>F. Bonino</u> ATR-IR STUDY OF LAYERED DOUBLED HYDROXIDE AS ELECTROCATALYSTS FOR CO ₂ RR
Po05	M. Roldán-Matilla, <u>A. Cerpa-Naranjo</u> , M.L. Rojas-Cervantes, I. Lado-Touriño, M. Fuencisla-Gilsanz, J. Pérez-Piñeiro METAL NANOCLUSTERS ON PEGYLATED GRAPHENE OXIDE FOR CATALYTIC APPLICATIONS
Po06	<u>M. Franc</u> , J. Veselý ASYMMETRIC SYNTHESIS OF SPIROPYRROLIDINES USING SYNERGISTIC CATALYSIS
Po07	R. de la Serna, J. Jurado-Sánchez, J. Pérez-Pariente, <u>L. Gómez-Hortigüela</u> HOST-GUEST TRANSFER OF CHIRALITY DURING ASYMMETRIC CATALYSIS IN GTM CHIRAL ZEOLITE MATERIALS
Po08	<u>J. Jurado-Sánchez</u> , R. de la Serna, C. Márquez-Álvarez, J. Pérez-Pariente, L. Gómez-Hortigüela SYSTEMATIC STUDY OF THE SYNTHESIS OF THE CHIRAL GERMANOSILICATE GTM-4 AT DIFFERENT GE CONTENTS
Po09	<u>F. Krákl</u> , Ch.J. Heard, P. Eliášová, M. Mazur ALUMINIUM CONTENT IN MFI ZEOLITES AS A FACTOR INFLUENCING THE THERMAL STABILITY OF Pd AND Pt NANOPARTICLES
Po10	<u>L. Leonova</u> , G. Pampararo, V. Vykoukal, L. Simonikova, F. Devred, P. Eloy, A. Styskalik, D.P. Debecker ETHANOL DEHYDRATION WITH AEROSOL-MADE MESOPOROUS ALUMINOSILICATES FEATURING DISPERSED ACTIVE SITES
Po11	<u>N. Lusiani</u> , O. Sedláček CATIONIC RING-OPENING POLYMERIZATION-INDUCED SELF-ASSEMBLY (CROPISA) OF 2-OXAZOLINES: FROM BLOCK COPOLYMERS TO ONE-STEP GRADIENT COPOLYMER NANOPARTICLES
Po12	<u>M. Mariyaselvakumar</u> , A. Kurbanova, M.M. Álvarez Izaguirre, S. Kurucová, J. Přech SELECTIVE TRANSITION METAL-BASED HYDROGENATION CATALYSTS VIA REDUCTIVE DEMETALLATION OF ZEOLITES
Po13	V. Calvino-Casilda, I. Sobczak, M. Ziolk, <u>R. Martin-Aranda</u> GREEN SYNTHESIS AND MESOPOROUS CELLULAR FOAMS.EFFECT OF GOLD DOPANT

Po14	<u>M. Moliner</u> , B. Bohigues, I. Millet, P. Concepción, A. Corma, P. Serna HIGHLY STABLE SUBNANOMETRIC PT CLUSTERS IN ALL SILICA KDOPED ZEOLITES: IMPLICATIONS FOR THE CO OXIDATION REACTION
Po15	E. García-Rojas, J. Tapiador, P. Leo, C. Martos, G. Orcajo TUNABLE UiO-66-TYPE MOFs FOR EFFICIENT GLYCEROL VALORIZATION VIA ACETALIZATION REACTION
Po16	R. Millán , M. Boronat MOBILITY OF SOLVATED CU CATIONS IN CU-CHA PREDICTED BY MACHINE LEARNING ACCELERATED MOLECULAR DYNAMICS
Po17	J.P. Nascimento, A.C. Oliveira, E. Rodríguez-Castellón , O. Guerrero-Pérez, J. Pedro Holgado, A. Caballero SURFACE-SENSITIVITY OF THE MESOPOROUS CARBON SUPPORTED IRON CATALYSTS FOR CARBIDES PHASES DURING FISCHER–TROPSCH SYNTHESIS
Po18	N. Barrios-Bermúdez; A. Cerpa-Naranjo; R. M. Martín-Aranda; M.L. Rojas-Cervantes MONTMORILLONITES IMPREGNATED WITH Co(II) AND/OR Fe(II) AS ACTIVATORS OF PEROXYMONOSULFATE FOR THE DEGRADATION OF DYES
Po19	B. Urbán , A. Udnoor, M. Horáček, M. Lamač, J. Demel DEOXYGENATION AND DEHALOGENATION CATALYSIS WITH ACTIVATED BORANE – A POROUS POLYMERIC LEWIS ACID
Po20	E. Vrbková , L. Stoupová, E. Vyskočilová MONTMORILLONITE – ECO-FRIENDLY AND EFFECTIVE CATALYST IN SYNTHESIS OF BIOLOGICALLY ACTIVE COMPOUNDS WITH BICYCLO[3.3.1] MOIETY
Po21	E. Vrbková, L. Dolejšová Sekerová, E. Vyskočilová MONTMORILLONITE AS AN EFFICIENT CATALYST IN TERPINYL METHYL ETHER PREPARATION FROM DIFFERENT SOURCES
Po22	T. Zakeri , F. Sandri, P. Mäki-Arvela, M. Shamzhy, D. Murzin, M. Opanasenko HIERARCHICAL ZEOLITES IN THE DIELS-ALDER REACTION OF FURFURAL AND ETHANOL: ROLE OF POROSITY AND ACID SITES
Po23	A. Pinto, L. Amodio, M. Kubů, J. Cueto, P. Eliášová, P. Pizarro, J. Čejka, D.P. Serrano CATALYTIC POST-TREATMENT OF CHLORINATED PYROLYSIS OIL FROM PLASTIC WASTE USING MWW AND TNU ZEOLITES
Po24	G. Ferrarelli, E. Catizzone , M. Migliori, G. Giordano SIMULTANEOUS DEHYDRATION OF METHANOL AND ETHANOL: EFFECT OF THE ZEOLITE STRUCTURE ON CONVERSION AND PRODUCTS DISTRIBUTION
Po25	O.V. Shvets, M. Mazur, M. M. Kurmach, P. Golis, P.S. Yaremov, O. Petrov, N.D. Shcherban, M. V. Shamzhy , J. Čejka TOPOLOGY-ACIDITY-CATALYTIC ACTIVITY INTERPLAY IN HIERARCHICAL NANOLAYERED ALUMINOSILICATE ZEOLITES



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