## Conference programme

## 1<sup>st</sup> International Conference on Reaction Kinetics, Mechanisms and Catalysis / RKMC 2018

June 6-9, 2018 / Budapest, Hungary / Mercure Budapest Buda\*\*\*

Wednesda	Wednesday, June 6, 2018					
15:00		Registration desk open				
		Room Mátyás I+II				
17:00	17:10	Opening remarks	Gábor Lente Conference Chair	Department of General and Physical Chemistry, University of Pécs, HUNGARY		
17:10	18:20	Kinetics of reactions at solid-liquid interfaces: Solvent effects in porous catalysts	Susannah L. Scott Keynote Speaker	University of California, Department of Chemical Engineering UNITED STATES		
18:20	20:00	Welcome Reception				
Thursday,	Thursday, June 7, 2018					
		Room Mátyás I+II				
9:00	9:50	Benign-by-design (bio)(photo)(electro)catalysts for advanced catalytic processes	Rafael Luque Keynote Speaker	Universidad de Cordoba SPAIN		
9:50	10:30	Plasma-catalytic hybrid process for CO₂ methanation: optimization of operation parameters	Patrick F. Da Costa Invited Speaker	Sorbonne Université Institut Jean Le Rond d'Alembert FRANCE		
10:30	11:00	Coffee Break				
11:00	11:45	Challenges in zeolite synthesis for catalytic applications	Jiri Cejka Keynote Speaker	J. Heyrovsky institute CZECH REPUBLIC		
11:45	12:20	Modified Graphenes: a great challenge as support and catalysts for organic reactions	Vasile I. Parvulescu Invited Speaker	University of Bucharest, Department of Organic Chemistry ROMANIA		
12:20	12:40	Realizations of generalized mass action systems and their use in stability analysis	Katalin M. Hangos	Institute for Computer Science and Control, HAS, Systems and Control Laboratory HUNGARY		
12:40	14:00	Lunch				
		Room Mátyás I.				
14:00	14:20	Kinetic modelling and thermodynamic analysis for hydrodeoxygenation of isoeugenol over bifunctional Pt- H-Beta-zeolite catalysts	Päivi Mäki-Arvela	Abo Akademi University FINLAND		
14:20	14:40	Parahydrogen enhanced NMR studies of metal-free H <sub>2</sub> activation by ansa-aminoboranes	Vladimir Zhivonitko	University of Oulu NMR Research Unit FINLAND		
14:40	15:00	Water oxidation to dioxygen by Ru(bpy)33+ in the presence of colloidal Fe and Co-hydroxide catalysts. Kinetics study and mechanistic insights	Andrei Chikunov	Boreskov Institute of Catalysis SB RAS RUSSIA		

15:00	15:20	Mechanism and kinetics of hydrogen peroxide decomposition on platinum nanocatalysts	Rui Serra Maia	Virginia Tech, Department of Geosciences/Nanoscience UNITED STATES
15:20	15:40	Kinetic model of thiol-en reaction of glutathione with unsaturated phenols	Karina Marsovna Zinatullina	Semenov Institute of Chemical Physics RUSSIA
15:40	16:00	Operando studies of self-sustained reaction rate oscillations in steam reforming and oxidation of hydrocarbons over nickel	Vasily V. Kaichev	Boreskov Institute of Catalysis RUSSIA
		Room Mátyás II.		
14:00	14:20	Syngas production over Ni/yttria-doped layered double hydroxides catalysts	Katarzyna Alicja Świrk	Sorbonne Université Institut Jean Le Rond d'Alembert FRANCE
14:20	14:40	Modulated oscillations - a new self-oscillatory phenomenon during CH₄ oxidation over Ni	Victor Bychkov	Semenov Institute of Chemical Physics RUSSIA
14:40	15:00	Effect of support surface treatment of Co/Graphene Fischer-Tropsch catalysts	He Li	Beijing Institute of Petrochemical Technology School of Chemical Engineering CHINA
15:00	15:20	Effect of medium and nickel salt source in the synthesis of nano-sized nickel catalysts	Anna Adél Ádám	University of Szeged HUNGARY
15:20	15:40	Levulinic acid hydrodeoxygenation over silica-supported Co catalysts	R. Magdolna Mihályi	Research Centre for Natural Sciences, HAS, Green Chemistry Research Group HUNGARY
16:00	16:30	Coffee Break		
		Poster Session		

Friday, Ju	Friday, June 8, 2018				
		Room Mátyás I.			
9:00	9:20	Catalytic reactions imaged at the nanoscale: study of gold-silver alloys by field emission techniques	Luc Jacobs	Université libre de Bruxelles Chemical Physics of Materials and Catalysis CPMCT BELGIUM	
9:20	9:40	Interlayer dynamics of active sites of promoted transition metal sulfide catalysts and the mechanisms of hydrodesulfurization and alcohol synthesis	Victor Kogan	Zelinsky Institute of Organic Chemistry Russian Academy of Sciences RUSSIA	
9:40	10:00	Mechanochemically modified hydrazine reduction method for the synthesis of nickel nanoparticles and their catalytic activities	Katalin Musza	University of Szeged HUNGARY	
10:00	10:20	Effect of the support nature on the acivity and selectivity of palladium catalysts in the aqueous-phase hydrogenation of furfural	Roman M. Mironenko	Institute of Hydrocarbons Processing of the Siberian Branch of Russian Academy of Sciences RUSSIA	
10:20	10:40	Hydrogenation of hydroxy-substituted naphthalenes using Ru catalysts	Iva Paterova	UCT Prague CZECH REPUBLIC	
		Room Mátyás II.			
9:00	9:20	Heterogeneous acid catalysts for preparation of substituted tetrahydropyranols	Eliska Vyskocilova	University of Chemistry and Technology Prague CZECH REPUBLIC	
9:20	9:40	Highly active and stable zirconium phosphate grafted on KIT-6 for renewable p-xylene production via cycloaddition of biomass-derived intermediates	Saravanan Kasipandi	Sungkyunkwan University School of Chemical Engineering SOUTH KOREA	

9:40	10:00	Polymer cross-metathesis, a new interchain reaction: the kinetics and mechanism of interactions between polynorbornenes and polyoctenamers	Yulia I. Denisova	A.V. Topchiev Institute of Petrochemical Synthesis, Russian Academy of Science RUSSIA
10:00	10:20	Recovery of $\text{TiO}_2$ substrates using solar-like radiation for photocatalytic applications	David Alejandro Mena Valencia	Escuela Politécnica Nacional Departamento de Ciencias Nucleares ECUADOR
10:40	11:10	Coffee Break		
		Room Mátyás I.		
11:10	11:30	Novel metal sulfonate polymers as heterogeneous catalyst	Elisabet Dunach	CNRS Organic chemistry FRANCE
11:30	11:50	Effects of preparation method on the properties of cobalt supported ceria catalysts for steam reforming of ethanol	Magdalena Greluk	University of Maria Curie-Sklodowska POLAND
11:50	12:10	Fe modified vermiculites dopped with ceria as catalysts for selective catalytic reduction of $NO_x$ with $NH_3$	Bogdan Samojeden	AGH University of Science and Technology POLAND
12:10	12:30	Role of the catalyst support in hydrogen production from formic acid over noble metals and $\text{MoS}_2$	Dmitri A. Bulushev	Boreskov Institute of Catalysis, SB RAS RUSSIA
		Room Mátyás II.		
11:10	11:30	Investigation of Mo-containing Pt-based electrocatalyst with improved CO tolerance for PEM fuel cells	Adam Vass	Institute of Materials and Environmental Chemistry, Research Centre for Natural Sciences, HAS HUNGARY
11:30	11:50	Bridging the gaps: multiscale analysis of nonlinear behaviors by environmental microscopies	Cédric Barroo	Université Libre de Bruxelles BELGIUM
11:50	12:10	DFT study of CO oxidation on ligand-protected gold nanoclusters	Daria Pichugina	Moscow State University Chemistry RUSSIA
12:10	12:30	Bentonite based nano catalyst for biodiesel synthesis	Amir Bagheri Garmarudi	IKIU Chemistry Department IRAN
12:30	14:00	Lunch		
		Room Mátyás I+II		
14:00	14:45	Dry reforming of methane over Ni-based catalysts: Advances in catalysts design	Leonarda Francesca Liotta Keynote Speaker	Consiglio Nazionale delle Ricerche (CNR) Istituto per lo Studio dei Materiali Nanostrutturati (ISMN) ITALY
14:45	15:20	Strong metal-support interactions in supported gold catalysts and their application in catalysis	Junhu Wang Invited Speaker	Dalian Institute of Chemical Physics Chinese Academy of Sciences Mossbauer Effect Data Center, CHINA
15:20	15:40	Kinetics of nickel-oxalate precipitation in a well-stirred batch system	Gabor Schuszter	University of Szeged HUNGARY
15:40	16:00	Potentiometric scanning electrochemical microscopic mapping of the distributed Belousov-Zhabotinsky oscillating reaction	András Kiss	University of Pécs Department of General and Physical Chemistry HUNGARY
16:00	16:30	Coffee Break		
16:30	18:00	Poster Session		

Room Mátyás I+II

9:00	9:35	Selective partial oxidation catalysts: material science at all length scales	Gerhard Mestl Invited Speaker	Clariant AG Catalysts GERMANY
9:35	10:10	Microreactor technology as a tool for revealing kinetic and mechanistic features of catalytic reactions	Dmitry Murzin Invited Speaker	Åbo Akademi University FINLAND
10:10	10:30	Computational generation of reaction schemes with complex dynamics	Gabor Szederkenyi	Pazmany Peter Catholic University HUNGARY
10:30	11:00	Coffee Break		
11:00	11:35	Alternating catalytic reactions	Zeljko Cupic Invited Speaker	Institute for Chemistry, Technology and Metallurgy Center of Catalysis and Chemical Engineering SERBIA
11:35	12:10	Classification of reactions featuring clock behavior	Attila K. Horváth Invited Speaker	University of Pécs Department of Inorganic Chemistry HUNGARY
12:10	12:30	Catalytic peroxide fractionation processes for the green biorefinery of wood	Boris Nikolaevich Kuznetsov	Institute of Chemistry and Chemical Technology SB RAS RUSSIA
12:30	14:00	Lunch		
14:00	14:20	Catalytic processing of plant waste resulting in formation of useful products	Olga Kasaikina	Semenov Institute of Chemical Physics Laboratory of Liquid Phase Oxidation RUSSIA
14:20	14:40	Use of isotopic tracers to obtain mechanistic understanding in the conversion of lignin to alkylphenol monomers	Emma K. Gibson	University of Glasgow UNITED KINGDOM
14:40	15:00	Enhanced activity and structural stability of CO hydrogenation on phosphorus-modified ordered mesoporous Co <sub>3</sub> O <sub>4</sub> -Al <sub>2</sub> O <sub>3</sub>	Jong Wook Bae	Sungkyunkwan University School of Chemical Engineering SOUTH KOREA
15:00	15:20	Kinetic modeling and experimental studies of the methanol to hydrocarbons reaction over H-ZSM-5 zeolite	Dmitry B. Lukyanov	University of Bath UNITED KINGDOM
15:20	15:40	Tetragonal versus monoclinic zirconia in Ni/ZrO <sub>2</sub> catalysts: effect on the catalytic activity for glycerol steam reforming	Samer Aouad	University of Balamand Chemistry LEBANON
15:40	15:50	Closing remarks	Gábor Lente Conference Speaker	Conference Chair Department of General and Physical Chemistry, University of Pécs, HUNGARY
19:00	22:00	Conference Dinner	<b>Márványmenyasszony Restaurant</b> H-101 Budapest, Márvány u. 6.	Meeting Point: 18:45, Hotel Lobby Mercure Budapest Buda****

The Organisers reserve the right to make changes in the Conference programme