FEZA 2023

9th CONFERENCE OF THE FEDERATION OF THE EUROPEAN ZEOLITE ASSOCIATIONS

Portorož-Portorose, Slovenia

2-6 July 2023

Porous materials for a green future

SiZA CROZA ZDS

SCIENTIFIC PROGRAMME

www.feza2023.org

CONTENT

WELCOME

Dear colleagues

On behalf of the Organising Committee, we cordially invite you to attend the **9th Conference of the Federation of European Zeolite Associations (FEZA 2023),** which will be held from the **2nd-6th of July 2023 in Portorož-Portorose, Slovenia.**

The conference is organized by the Slovenian, Croatian and Serbian Zeolite Associations, under the auspices of the Federation of European Zeolite Associations (FEZA), and aims to cover all aspects of science and technology associated with ordered porous materials – from zeolites and zeotypes to metal-organic frameworks and mesoporous materials.
With "Porous materials for a Green future" as the theme, FEZA 2023 will address the most current environmental and energy solutions which are based on porous materials, in line with advanced synthesis procedures, characterization, modelling, data analysis approaches and testing for target applications.

Based on the great success of previous conference editions in Eder, Taormina, Prague, Paris, Valencia, Leipzig, Sofia and the virtual Brighton conference, we are confident that the FEZA 2023 will once again gather scientists from academia and industry with the goal of sharing the latest ideas for the mutual benefit of both basic research and industrial applications of porous systems. The conference will be preceded by a Pre-Conference School aimed at spreading the knowledge on fundamentals and application of zeolites and other porous solids, as well as promoting discussion among young researchers, PhD students and Post-docs.

We are very much looking forward to welcoming you in Portorož-Portorose.

Nataša Zabukovec Logar, Vesna Rakić and Josip Bronić
FEZA 2023 Conference Chairs

COMMITTEES

CHAIRS

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University of Belgrade, Serbia

Josip Bronić
Ruđer Bošković Institute, Croatia

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COMMITTEES

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FEZA SCHOOL PROGRAMME

GRAND HOTEL BERNARDIN PORTOROŽ
ADRIA HALL (11th floor)
Portorož-Portorose, Slovenia

	1 JULY 2023, SATURDAY
13:00-14:15	FEZA Summer School Registration at Grand Hotel Bernardin
14:15-14:30	Opening
14:30-16:00	**WILHELM SCHWIEGER** *Zeolite synthesis* *from the basic understanding to new developments*
16:00-16:30	Coffee Break
16:30-18:00	**GLORIA BERLIER** *Dissemination and Communication in the daily work of a researcher*
18:00-19:30	Free Time
19:30-21:30	Welcome Cocktail

	2 JULY 2023, SUNDAY
9:00-10:30	**ALEKSANDRA DAKOVIĆ** *Natural zeolites - modifications, characterization and applications*
10:30-11:00	Coffee Break
11:00-12:30	**FRÉDÉRIC THIBAULT-STARZYK** *Infrared spectroscopy for characterization and operando studies*
12:30-13:30	Lunch - 10th floor - GRAND RESTAURANT
13:30-15:00	**TOM WILLHAMMAR** *Structural characterization of microporous materials at the atomic scale using electron microscopy*
15:00-15:30	Coffee Break
15:30-17:00	**MONIQUE A. VAN DER VEEN** *Gas adsorption and separation in microporous materials*
17:00-19:00	FEZA 2023 Registration at Grand Hotel Bernardin

PROGRAMME OVERVIEW

	JULY 2	JULY 3		
		EUROPA A + B	EMERALD I	EMERALD II
8:45 – 9:00		Opening Ceremony		
9:00 – 10:00		PLENARY LECTURE 1 Valentin Valchev Recent Advances and Future Challenges in Zeolitic Materials		
		ORAL SESSION 1	ORAL SESSION 2	ORAL SESSION 3
10:00 – 11:00		O1 **(1180)**	O2 **(1253)**	O3 **(1085)**
		O4 **(1250)**	O5 **(1281)**	O6 **(1087)**
		O7 **(1169)**	O8 **(1049)**	O9 **(1346)**
		O10 **(1063)**	O11 **(1184)**	O12 **(1083)**
11:00 – 11:30		Coffee break		
		KEYNOTE LECTURE & ORAL SESSION 4	KEYNOTE LECTURE & ORAL SESSION 5	ORAL SESSION 6
11:30 – 13:00		KL1: Krunoslav Užarević	O13 **(1053)**	O14 **(1105)**
			O15 **(1031)**	O16 **(1047)**
		O17 **(1175)**	O18 **(1191)**	O19 **(1070)**
		O20 **(1196)**	O21 **(1068)**	O22 **(1245)**
		O23 **(1219)**	KL2: Diego Giacomo Gatta	O24 **(1015)**
		O25 **(1228)**		O26 **(1071)**
13:00 – 14:30		Lunch - 10th floor - GRAND RESTAURANT		
		KEYNOTE LECTURE & ORAL SESSION 7	KEYNOTE LECTURE & ORAL SESSION 8	ORAL SESSION 9
14:30 – 16:15		KL3: Dana Medina	O27 **(1051)**	O28 **(1246)**
			O29 **(1057)**	O30 **(1054)**
		O31 **(1013)**	O32 **(1127)**	O33 **(1167)**
		O34 **(1312)**	O35 **(1042)**	O36 **(1158)**
		O37 **(1259)**	O38 **(1145)**	O39 **(1233)**
		O40 **(1086)**	KL4: Tina Düren	O41 **(1262)**
		O42 **(1278)**		O43 **(1165)**
16:15 – 18:00		COFFEE BREAK WITH POSTER SESSION AND SHORT ORAL PRESENTATIONS SHORT ORAL PRESENTATIONS: EUROPA A+B POSTER SESSION HALL: EUROPA C+D		
16:30 – 18:00		SHORT ORAL PRESENTATIONS		
16:30 - 16:35	FEZA 2023 registration	SO 1 **(1052)**		
16:35 - 16:40		SO 2 **(1311)**		
16:40 - 16:45		SO 3 **(1035)**		
16:45 - 16:50		SO 4 **(1151)**		
16:50 - 16:55		SO 5 **(1159)**		
16:55 - 17:00		SO 6 **(1284)**		
17:00 - 17:05		SO 7 **(1269)**		
17:05 - 17:10		SO 8 **(1286)**		
17:10 - 17:15		SO 9 **(1121)**		
17:15 - 17:20		SO 10 **(1109)**		
17:20 - 17:25		SO 11 **(1296)**		
17:25 - 17:30		SO 12 **(1104)**		
17:30 - 17:35		SO 13 **(1268)**		
17:35 - 17:40		SO 14 **(1084)**		
17:40 - 17:45		SO 15 **(1272)**		
17:45 - 17:50		SO 16 **(1226)**		
20:00		Welcome Reception		

PROGRAMME OVERVIEW

	July 4		
	EUROPA A + B	EMERALD I	EMERALD II
8:45 – 9:00			
9:00 – 10:00	PLENARY LECTURE 2 Bert Weckhuysen Spectroscopy and Microscopy of Zeolites and Metal-Organic Frameworks at Work		
10:00 – 11:00	ORAL SESSION 10	ORAL SESSION 11	ORAL SESSION 12
	O44 **(1091)**	O45 **(1019)**	O46 **(1220)**
	O47 **(1333)**	O48 **(1152)**	O49 **(1353)**
	O50 **(1192)**	O51 **(1010)**	O52 **(1234)**
	O53 **(1117)**	O54 **(1065)**	O55 **(1181)**
11:00 – 11:30	Coffee Break		
	KEYNOTE LECTURE & ORAL SESSION 13	KEYNOTE LECTURE & ORAL SESSION 14	ORAL SESSION 15
11:30 – 13:00	KL5: Kevin Maik Jablonka	O56 **(1227)**	O57 **(1141)**
		O58 **(1170)**	O59 **(1182)**
	O60 **(1039)**	O61 **(1123)**	O62 **(1092)**
	O63 **(1028)**	O64 **(1247)**	O65 **(1318)**
	O66 **(1337)**	O67 **(1130)**	KL6: Massimo Migliori
	O68 **(1025)**	O69 **(1066)**	
13:00 – 14:30	Lunch - 10th floor - GRAND RESTAURANT		
	ORAL SESSION 16	KEYNOTE LECTURE & ORAL SESSION 17	KEYNOTE LECTURE & ORAL SESSION 18
14:30 – 16:00	O70 **(1173)**	KL7: Andraž Krajnc	O71 **(1036)**
	O74 **(1064)**		O72 **(1331)**
	O77 **(1326)**	O75 **1133)**	O79**(1137)**
	O80 **(1038)**	O78 **(1023)**	O82 **(1139)**
	O83 **(1256)**	O81 **(1099)**	KL8: Benoît Louis
	O73 **(1183)**	O86 **(1209)**	
16:00 – 18:00	COFFEE BREAK WITH POSTER SESSION AND SHORT ORAL PRESENTATIONS SHORT ORAL PRESENTATIONS: EUROPA A+B POSTER SESSION HALL: EUROPA C+D		
16:30 – 17:15	PEDRO MENDES: TALK ON OPEN SICENCE - 11th floor - MEDITERANEA HALL		
16:55 – 18:00	SHORT ORAL PRESENTATIONS		
16:55 - 17:00	SO 17 (1046)		
17:00 - 17:05	SO 18 (1067)		
17:05 - 17:10	SO 19 (1188)		
17:10 - 17:15	SO 20 (1032)		
17:15 - 17:20	SO 21 (1255)		
17:20 - 17:25	SO 22 (1201)		
17:25 - 17:30	SO 23 (1154)		
17:30 - 17:35	SO 24 (1334)		
17:35 - 17:40	SO 25 (1294)		
17:40 - 17:45	SO 26 (1144)		
17:45 - 17:50	SO 27 (1249)		
17:50 - 17:55	SO 28 (1309)		
17:55 - 18:00	SO 29 (1266)		
19:30 -	Guided Walking Tour to Piran		

PROGRAMME OVERVIEW

	July 5			July 6		
	EUROPA A + B	EMERALD I	EMERALD II	EUROPA A + B	EMERALD I	EMERALD II
8:45 – 9:00						
9:00 – 10:00	**PLENARY LECTURE 3** David Serrano *Opportunities and challenges of zeolite catalysts for the production of sustainable fuels*			**PLENARY LECTURE 5** Paolo Falcaro *Metal-Azolate Frameworks Bio-composites*		
	ORAL SESSION 19	**ORAL SESSION 20**	**ORAL SESSION 21**	**ORAL SESSION 31**	**KEYNOTE LECTURE & ORAL SESSION 32**	**ORAL SESSION 33**
10:00 – 11:00	O87 **(1120)**	O88 **(1327)**	O89 **(1279)**	O137 **(1106)**	KL10: Moisés Pinto	O138 **(1194)**
	O90 **(1072)**	O91**(1050)**	O92 **(1292)**	O139 **(1218)**		O140 **(1176)**
	O93 **(1217)**	O94**(1298)**	O95 **(1187)**	O141 **(1193)**	O142 **(1112)**	O143 **(1060)**
	O96 **(1131)**	O97 **(1254)**	O98 **(1280)**	O144 **(1195)**	O145 **(1148)**	O146 **(1073)**
11:00 – 11:30	Coffee Break			Coffee break		
	CRONSTEDT WINNER LECTURE & ORAL SESSION 22	**ORAL SESSION 23**	**KEYNOTE LECTURE & ORAL SESSION 24**	**ORAL SESSION 34**	**ORAL SESSION 35**	**KEYNOTE LECTURE & ORAL SESSION 36**
11:30 – 13:00	O99 **(1211)**	O 100 **(1140)**	KL 9: Barbara Gil	O150 **(1012)**	O151 **(1161)**	KL 11: Jasna Hrenović
	O101 **(1146)**	O 102 **(1276)**		O153 **(1113)**	O153 **(1080)**	
	O103 **(1212)**	O 104 **(1157)**	O105 **(1258)**			
	O106 **(1282)**	O 107 **(1098)**	O108 **(1341)**	FEZA Ph.D. Prize Winner Lecture Closing Ceremony		
	Cronstedt Winner Jiří Čejka & Wieslaw J. Roth	O 109 **(1122)**	O110 **(1007)**			
		O111 **(1332)**	O112 **(1027)**			
13:00 – 14:30	Lunch - 10th floor - GRAND RESTAURANT					
14:30 – 16:15	**PLENARY LECTURE 4** Pegie Cool *Porous Ti-based photocatalysts for environmental applications*					
	ORAL SESSION 25	**ORAL SESSION 26**	**ORAL SESSION 27**			
	O113 **(1198)**	O114 **(1213)**	O115 **(1242)**			
	O116 **(1055)**	O117 **(1108)**	O118 **(1238)**			
	O119 **(1153)**	O120 **(1082)**	O121 **(1079)**			
16:15 – 16:45	Coffee break					
16:45 – 17:45	**ORAL SESSION 28**	**ORAL SESSION 29**	**ORAL SESSION 30**			
	O 122 **(1293)**	O 123 **(1155)**	O 127 **(1348)**			
	O 128 **(1283)**	O 129 **(1022)**	O 130 **(1074)**			
	O 131 **(1132)**	O 132 **(1206)**	O 133 **(1260)**			
	O 134 **(1172)**	O 135 **(1330)**	O 136 **(1216)**			
20:00	Gala Dinner					

PLENARY SPEAKERS

PEGIE COOL
University of Antwerp, Belgium

Pegie Cool received her PhD in Science at the University of Antwerp, Belgium. She was postdoctoral fellow of the FWO-Flanders and was associated at the Texas A&M University, USA and at the University of Queensland, Australia. Currently she is full professor and head of the research group 'Laboratory of Adsorption and Catalysis' at the Chemistry Department of the University of Antwerp. P. Cool is member of the Board of Directors of the European Nanoporous Materials Institute of Excellence (ENMIX), and Board Member of the Dutch Zeolite Association (DZA); member of the editorial board of Microporous and Mesoporous Materials. Her main area of research expertise is on novel nanoporous materials for sorption and (photo)catalysis with the main focus on environmental applications.

PAOLO FALCARO
Graz University of Technology, Austria

Paolo Falcaro received his PhD in Materials Engineering from Bologna University in 2006. He worked in applied research for industry (Civen/Nanofab Italy) and at Australian national research organization (CSIRO). In 2016, he joined Graz University of Technology as a full professor in Bio-based Materials Technology. During the same year he became adjunct professor at the University of Adelaide (Australia). In 2017 he received the ERC consolidator grant. His research focuses mostly on metal organic frameworks (MOFs), mesoporous materials and functional nanoparticles for applications including sensing, environmental remediation, biotechnology and device fabrication.

DAVID SERRANO
IMDEA Energy and Rey Juan Carlos University, Madrid, Spain

David Serrano received his Ph.D. from UCM (1990). He was a visiting Associate in CALTECH (1991) and in UCSB (2006). From 2001-2002, David Serrano was the vice-rector for Research and Technological Innovation at URJC (2001-2002). Since 2002, he was elected as a full Professor of Chemical Engineering at URJC and he is the Director of the IMDEA Energy Institute since its creation in 2007. Prof. Serrano's main topics of interest includes hierarchical zeolites and wastes/residues valorization. Author of c.a. 250 scientific publications with a h index of 72 (Google scholar). Additionally, he has been a researcher in 80 projects, coordinator of the FP7 CASCATBEL project and was awarded the ERC Advanced Grant in 2021.

PLENARY SPEAKERS

VALENTIN VALTCHEV

Laboratory for Catalysis and Spectrochemistry, ENSICAEN, Normandy University, Caen, France

Valentin Valtchev is Research Director at the LCS in Caen, France, and Visiting Professor at the China Academy of Science. His research involves synthesizing and modifying zeolites and other porous solids used for catalysis, separation, and molecular recognition. He has published over 300 refereed journal papers and delivered over 50 plenary and keynote lectures. Valentin Valtchev is the recipient of the FEZA "Baron Axel fon Cronstedt" award (2014), IZA "Donald Breck" award (2016), and the IZA award (2022). Valentin Valtchev was elected President of the International Zeolite Association in the period 2016-2019.

BERT WECKHUYSEN

Utrecht University, The Netherlands

Bert Weckhuysen, a Distinguished University Professor at Utrecht University (The Netherlands), received his Master and PhD degrees from Leuven University (Belgium) in 1991 and 1995 respectively. He worked as a postdoc at Lehigh University (USA) and Texas A&M University (USA). He has (co-)authored ~700 publications in peer-reviewed journals and received many scientific awards, including the Royal Dutch Chemical Society Gold Medal, Netherlands Catalysis and Chemistry Award, Emmett Award in Fundamental Catalysis, International Catalysis of the International Association of Catalysis Societies, Bourke Award from the Royal Society of Chemistry, Spinoza Award from the Netherlands Organization for Scientific Research, and Tanabe Prize in Acid-Base Catalysis. In 2015, he was appointed Knight in the Order of the Netherlands Lion. Weckhuysen is an elected member of a.o. the Royal Dutch Academy of Sciences, Royal Flemish Academy of Belgium for Sciences and Arts, and European Academy of Science.

KEYNOTE SPEAKERS

TINA DÜREN
University of Bath, UK

Tina Düren is Professor in Chemical Engineering at the University of Bath from 2014. She obtained her PhD degree in Process Engineering from the Hamburg University of Technology in 2002 and was a Postdoctoral Researcher at Northwestern University, USA. From 2004 to 2014 she hold a lecturer and reader position at the University of Edinbourgh. She uses molecular simulation techniques to design innovative porous materials with properties tailored for specific applications, including carbon capture and hydrogen purification to liquid phase adsorption, nanomedicine and heterogeneous catalysis.

DIEGO GIACOMO GATTA
University of Milan, Italy

G. Diego Gatta (b. 1974) is professor of mineral sciences at the University of Milan, Italy. He has authored or co-authored more than 200 journal articles on mineralogical applications of single-crystal and powder X-ray and neutron diffraction, electron microscopy and various spectroscopies. The diverse areas of research encompassed by his work include the structure and chemistry of natural and synthetic open-framework silicates and their behaviour under extreme conditions. He is recipient of the "Max Hey Medal 2008" of the Mineralogical Society of Great Britain and Ireland and of "Medal for Research Excellence 2013" of the European Mineralogical Union.

BARBARA GIL
Jagiellonian University, Kraków, Poland

Prof. Barbara Gil is a full Professor and the Head of Zeolite Chemistry Group in the Faculty of Chemistry of the Jagiellonian University. She has specialized in the synthesis and characterization of micro- and mesoporous materials. Her main areas of interests are the classical 3D zeolites and the new class of lamellar 2D zeolites, MOFs and ordered silica mesoporous materials. Her research combines IR spectroscopy with catalysis and drug delivery. She is an expert in quantitative characterization of acidic and redox centers in general and in environmentally important reaction, such as selective catalytic reduction of nitrogen oxides, catalytic combustion of volatile organic compounds, and other acid-catalyzed reactions. She is a co-author of over 140 scientific articles.

JASNA HRENOVIĆ
University of Zagreb, Croatia

Jasna Hrenović is employed at the University of Zagreb, Faculty of Science, Department of Biology, Division of Microbiology from 1996. Today she is working as a full professor. Her scientific interest is bacteriology and covers; bacterial ecology and epidemiology, bacteria in wastewater treatment and geomicrobiology. She has published 109 scientific papers that are cited 2089 times according to Scopus base with H-index 23. Moreover, she has published four book chapters, two university books and 114 conference papers. She was the president of the Croatian Zeolite Association for four years.

KEYNOTE SPEAKERS

BENOÎT LOUIS

CNRS, Institute of Chemistry and Processes for Energy, Environment and Health (ICPEES), University of Strasbourg, France

Benoît Louis is Research Director, University of Strasbourg – CNRS, Institute of Chemistry and Processes for Energy, Environment and Health (ICPEES). He graduated from the University of Strasbourg (1998) and completed his PhD at the Swiss Federal Institute of Technology (EPFL, 2002). His scientific interests encompass heterogeneous catalysis, zeolites and porous materials, biomass valorisation, alkane activation chemistry, CO2 capture and conversion and more generally C1 chemistry. He co-authored about 165 papers, 4 book chapters and 4 patents. Besides, Benoît acted as guest Professor at the Federal University of Rio de Janeiro (2013-2018) and at the Beijing Forestry University (2017-2018). In 2013, he was the first laureate of the Young Scientist Award in Acid-Base Catalysis (Tokyo) and awarded by the French Chemical Society SCF Catalysis Division Prize. He also received the CNRS Bronze medal in 2009.

ANDRAŽ KRAJNC

National Institute of Chemistry, Slovenia

Andraž Krajnc obtained his Ph.D. in Nanosciences and Nanotechnologies from Jožef Stefan International Postgraduate School in 2017, with a focus on NMR study of nanoporous materials for heat storage applications. In recognition of his work, he received the Pregl PhD award in 2018. He specializes in the development and application of solid-state NMR methods for investigating porous materials, batteries, and structural analyses of inorganic compounds. His current research involves the development and characterization of microporous aluminophosphates for atmospheric water harvesting and the examination of defects in metal-organic framework materials. With 38 scientific papers published in highly distinguished journals, he has demonstrated expertise and dedication in advancing the understanding of porous materials through innovative research.

DANA MEDINA

Ludwig Maximilian University of Munich, Germany

Dr. Dana Medina-Tautz obtained her Ph.D. in Chemistry in 2010 from Bar-Ilan University. In 2011 Dana moved to the Ludiwg-Maximilians-Universität München as a Minerva fellow to conduct a postdoctoral research, where she is leading in her current capacity a research group and perusing her habilitation. The research pursued by Dana's group is focused on the design and synthesis of functional porous crystalline frameworks, particularly 2D layered structures. Large part of the research is dedicated to the development of novel on-surface deposition techniques with the goal of bringing periodic porous materials towards thin film applications in electronics, sensing and sieving.

MASSIMO MIGLIORI

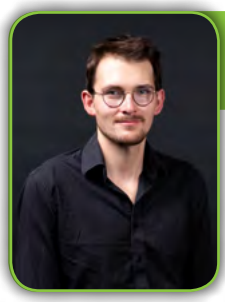
University of Calabria, Italy

Massimo Migliori is Associated Professor of "Industrial and Technolgical Chemistry" at University of Calabria (ITALY), serving as member of the Synthesis Commission of the IZA, since July 2022. His main research fields are focused on synthesis and characterization of zeolites and zeotypes. Specific topics are (i) the synthesis of zeolite-based materials, with different topology, for sustainable production of synthetic fuels and "green chemistry" intermediates and (ii) carbon-based nanocristalline materials from zeolite replica for light gases storage and purification and (electro-)catalytic applications.

KEYNOTE SPEAKERS

MOISES PINTO
University of Lisbon, Portugal

Moisés Luzia Pinto, PhD in Physical Chemistry, is Associate Professor of Chemical Engineering at Instituto Superior Técnico (IST), University of Lisbon. He is currently the President of research center CERENA. MLP has been developing research in the field of adsorbent materials and related applications in the past 15 years, with several types of materials. In more recent years, his work has been mostly focusing on the application of materials for gas separation/purification, gas storage and therapeutic gas delivery.



KEVIN MAIK JABLONKA
Laboratory of Molecular Simulation (LSMO), EPFL, Switzerland

Kevin Jablonka obtained his bachelor's degree in chemistry at TU Munich. He joined EPFL for his master's studies (and an extended study degree in applied machine learning), after which he joined Berend Smit's group for a Ph.D. He is now leading a research group at the Helmholtz Institute for Polymers in Energy Applications of the University of Jena and the Helmholtz Center Berlin. Kevin's research interests are in the digitization of chemistry. For this, he has been contributing to the cheminfo ELN ecosystem. He also developed a toolbox for digital reticular chemistry. Using tools from this toolbox, he addressed questions from the atom up to the pilot-plant scale. Kevin is also an expert in the use of large language models in chemistry and co-leads the ChemNLP project (with support from OpenBioML.org and Stability.AI).

KRUNOSLAV UŽAREVIĆ
Ruđer Bošković Institute, Zagreb, Croatia

Kruno gained his Ph.D. in coordination chemistry in 2009 in the Department of Chemistry, University of Zagreb. After Marie-Curie NewFelPro FP7 fellowship in the Friščić group (McGill University, Montreal, Canada), he started in 2016 as a Head of Laboratory for Green Synthesis at RBI in Zagreb. As of 2021, he founded Laboratory for Applied and Sustainable Chemistry. His main scientific focus is on developing mechanochemical and solvent-free procedures for synthesizing various classes of functional materials, from supramolecular receptors and organic compounds to highly-porous functional metal-organic frameworks (MOFs) and their nonconventional composites for catalytic and spintronic applications. The particular part of his research involves designing new and advanced milling reactors and developing new methodologies for in situ monitoring of mechanochemical and aging reactions. These include synchrotron X-ray diffraction, Raman spectroscopy, and thermal methods. Kruno loves to spend his free time outdoors climbing, skiing, and hiking, best in the company of his wife Mia and daughter Maura. He is however just as happy in the gardens that he makes wherever he goes.

2020 FEZA CRØNSTEDT AWARD WINNERS

JIŘÍ ČEJKA
Charles University, Czech Republic

Jiří Čejka is Professor of Physical Chemistry at the Faculty of Science, Charles University, Prague. He received his PhD at the Czechoslovak Academy of Sciences in 1988 and spent 6 months at Technical University of Vienna with Professor J.A. Lercher in 1991. From 2019, he is a member of the Czech Learned Society.

His research interests involve synthesis of zeolites, mesoporous, and novel nano-structured materials, physical chemistry of sorption and catalysis, and investigation of the role of porous catalysts in transformations of hydrocarbons and their derivatives.

WIESLAW J. ROTH
Jagiellonian University, Poland

Wieslaw J. Roth is a professor at the Faculty of Chemistry of the Jagiellonian University, where he has been employed since 2012. Before that he worked for 21 years as a researcher at Mobil R&D and ExxonMobil Research and Engineering in Clinton, in Jew Jersey USA. NJ. He is a graduate of the Wroclaw University of Technology (MSc Eng.) and Southern Illinois University in Carbondale (PhD). He received the Donald W. Breck Award of the IZA in 1994, "R&D 100" Award in 1998 and Thomas Alva Edison Patent Award in 2008, for discovery and commercialization of mesoporous materials. His current research focuses on 2D zeolite and recently resulted in direct exfoliation of zeolites into nanosheets in solution.

FEZA 2023

PROGRAMME

PROGRAMME

JULY 03, 2023, MONDAY

08:00 - 08:45	REGISTRATON	
08:45-09:00	OPENING CEREMONY	HALL: EUROPA A + B
09:00 -10:00	**PLENARY LECTURE:** Recent Advances and Future Challenges in Zeolitic Materials ***Valentin Valchev***	
10:00-11:00	ORAL SESSION 1	HALL: EUROPA A + B
10:00-10:15	O1 **(1180)** Interzeolite conversion for fast and continuous zeolite synthesis ***Elena Brozzi***	
10:15-10:30	O4 **(1250)** Partial Interzeolite Transformation for the Fabrication of Superior Catalysts for the Conversion of Bulky Molecules ***Javier García-Martínez***	
10:30-10:45	O7 **(1169)** Stabilization effects of pore fillers in post-synthetic, liquid-mediated modification of zeolites ***Kenta Iyoki***	
10:45-11:00	O10 **(1063)** Structural transformation of IWV into new zeolite ***Maksym Opanasenko***	
10:00-11:00	ORAL SESSION 2	HALL: EMERALD I
10:00-10:15	O2 **(1253)** Organic and Inorganic Structure Directing Agents in the Synthesis of Zeolites ***German Sastre***	
10:15-10:30	O5 **(1281)** Dynamics of [Cu(NH3)2]+ species in Cu-CHA catalysts from machine learning driven atomistic simulations ***Reisel Millan***	
10:30-10:45	O8 **(1049)** Relation between a zeolite microstructure and its silver loading for an optimized xenon adsorption ***Arthur Millet***	
10:45-11:00	O11 **(1184)** Host-Guest MFI assemblies: correlated disorder and phase transition inhibition by a small guest modification ***Bruno Alonso***	
10:00-11:00	ORAL SESSION 3	HALL: EMERALD II
10:00-10:15	O3 **(1085)** Impact of pore structure of CHA and GIS zeolites on gas adsorption/separation ***Rémy Guillet-Nicolas***	
10:15-10:30	O6 **(1087)** Si-O-C Cross-Linking between zeolite Nanoparticles and GO in Composite Membranes to Trigger High Permeance, Selectivity, and Stability in Gas/Liquid Separation ***Hailing Guo***	
10:30-10:45	O9 **(1346)** Scaling-up of zeolite membrane manufacturing for natural gas treatment in industrial scale ***Hannes Richter***	

PROGRAMME

10:45-11:00 O12 **(1083)** Organo-functionalized silicas for selective solid-phase extraction of critical materials
Justyna Florek

11:00-11:30 **COFFEE BREAK**

11:30-13:00 **KEYNOTE LECTURE & ORAL SESSION 4** **HALL: EUROPA A + B**

11:30 -12:00 **KEYNOTE LECTURE:** Green and rational synthesis of porous metal-organic frameworks and their non-conventional forms via mechanochemistry
Krunoslav Užarević

12:00-12:15 O17 **(1175)** Developing reactor-based solutions for monitoring and controlling of Zeolite synthesis
Amirhossein Javdani

12:15-12:30 O20 **(1196)** In situ investigation of zeolite synthesis while milling at elevated temperatures
Ana Palčić

12:30-12:45 O23 **(1219)** Chemical Recycling of Polyolefins using Nickel Bi-functional Catalyst via Hydrocracking- A Single -Source Precursor Approach
Edidiong Asuquo

12:45:13:00 O25 **(1228)** Synthesis, Structure Determination and Adsorption Properties of the Zeolitic Germanosilicate ITQ-69-
Susana Valencia

11:30-13:00 **KEYNOTE LECTURE & ORAL SESSION 5** **HALL: EMERALD I**

11:30 -11:45 O13 **(1053)** Dependency of frameworks and cations on the functionality of trapdoor zeolite
Dankun Yang

11:45-12:00 O15 **(1031)** P-induced crystal-fluid interaction in 6-membered ring zeolites: the case of ERI, OFF and EAB topologies
Tommaso Battiston

12:00-12:15 O18 **(1191)** Revealing the Amorphous-to-Crystalline Transformation in Zeolite Synthesis Using In Situ High-Energy X-ray Total Scattering Measurement
Peidong Hu

12:15-12:30 O21 **(1068)** Investigation of CO2 adsorption on a selection of zeolites by in-situ high-resolution powder X-ray diffraction, isotherm modeling and simulation
Loïc Benariac-Doumal

12:30:13:00 **KEYNOTE LECTURE:** Channels vs. cages: How cavities geometry govern the pressure-mediated crystal-fluid interaction
Diego Giacomo Gatta

11:30-13:00 **ORAL SESSION 6** **HALL: EMERALD II**

11:30 -11:45 O14 **(1105)** Investigating the Potential of MOF-808-based Adsorbents for Light Olefin/Paraffin Separations
Mahsa Najafi

11:45-12:00 O16 **(1047)** A comprehensive dynamic separation of CO2/N2 using nanosized chabazite zeolite: combined experimental and theoretical study
Sajjad Ghojavand

PROGRAMME

12:00-12:15 O19 **(1070)** Mixture equilibrium data from intermediate plateaus of breakthrough curves: alcohols on all silica BEA zeolite
Tom Van Assche

12:15-12:30 O22 **(1245)** Development of robust adsorbents with balanced binding affinity for ambient NO2 adsorption
Jin Shang

12:30-12:45 O24 **(1015)** Hydrogen Activation on Molecular Molybdenum Sulfide Clusters Encapsulated Within the Pores of NaY Zeolites
Rachit Khare

12:45-13:00 O26 **(1071)** UV filter-zeolite composites protecting goods and health
Rossella Arletti

13:00-14:30 **LUNCH - 10th floor - GRAND RESTAURANT**

14:30-16:15 **KEYNOTE LECTURE & ORAL SESSION 7** **HALL: EUROPA A + B**

14:30-15:00 **KEYNOTE LECTURE:** On-surface Molecular Frameworks - Synthesis Properties and Function
Dana Medina

15:00-15:15 O31 **(1013)** Single-Walled Zeolite Nanotubes
Christopher Jones

15:15-15:30 O34 **(1312)** Nitrogen surface modifications for increased interactions between metal clusters and surface of 3D graphene-like zeolite-templated carbon
Nikola Kostkova

15:30-15:45 O37 **(1259)** Advances in Zeolite-Templated Carbon Synthesis: Investigating the Effect of Temperature and Zeolite Acidity
Alexander Sachse

15:45-16:00 O40 **(1086)** Engineering highly porous alumina materials for catalysis and adsorption
Peng Bai

16:00-16:15 O42 **(1278)** Superfast Synthesis of Carbon Xerogels
Abdurrahman Bilican

14:30-16:15 **KEYNOTE LECTURE & ORAL SESSION 8** **HALL: EMERALD I**

14:30-14:45 O27 **(1051)** Unifying Sorption Isotherm for Micro-, Meso-, and Macroporous Materials
Christoph Buttersack

14:45-15:00 O29 **(1057)** Adsorption and Transport in Zeolitic Materials
Coasne Benoit

15:00-15:15 O32 **(1127)** Analysis of Sorption Isotherms of Zeolites with the Excess Surface Work – Thermodynamical and Quantum Mechanical Description
Jürgen Adolphs

15:15-15:30 O35 **(1042)** Atomistic modelling approaches to study the adsorption of emerging organic contaminants in hydrophobic zeolites
Michael Fischer

PROGRAMME

15:30-15:45 O38 **(1145)** Tracking light olefin diffusion in zeolite MFI via machine learning techniques
Pieter Cnudde

15:45-16:15 **KEYNOTE LECTURE:** Cation meets guests – how cations can be exploited for gas-phase separations in flexible zeolites and metal-organic frameworks
Tina Düren

14:30-16:15 **ORAL SESSION 9** **HALL: EMERALD II**

14:30-14:45 O28 **(1246)** Surfactant-templated zeolites as basic catalysts for multicomponent synthesis
Noemi Linares

14:45-15:00 O30 **(1054)** Catalytic fast pyrolysis on zeolites: activity and stability of different structures and acidic catalysts for anisole transformation
Nathan Pichot

15:00-15:15 O33 **(1167)** Catalytic Activity of YFI-type Zeolite for Methylation and Isomerization of Naphthalene Derivatives
Manami Matsuo

15:15-15:30 O36 **(1158)** Effective Proton Conduction over the Zeolite for Hydrogen Production through Water Electrolysis at Neutral Condition
Keigo Tashiro

15:30-15:45 O39 **(1233)** Macroscopic zeolitic beads with hierarchical porosity as versatile heterogeneous catalysts and CO2-adsorbents
Paolo Pescarmona

15:45-16:00 O41 **(1262)** Catalytic Decomposition of Methane for Producing Hydrogen Gas and Carbon Nanotubes
Tamás Koranyi

16:00-16:15 O43 **(1165)** Carbon Capture in Fully Hydrated Mordenite
Tina Nenof

16:15-16:45 **COFFEE BREAK**

16:15-18:00 **POSTER SESSION** **HALL: EUROPA C + D**

16:30-17:50 **SHORT ORAL PRESENTATIONS** **HALL: EUROPA A + B**

16:30 - 16:35 SO 1 **(1052)** The Synthesis of Ultra-Thin BPH Nanosheets with Exceptional Adsorption Properties
Edwin Clatworthy

16:35 - 16:40 SO 2 **(1311)** Synthesis of FAU and CHA Type Zeolites from Class C Fly Ash: Effect of Alkaline Agent and Synthesis Conditions
Selin Cansu Gölboylu

16:40 - 16:45 SO 3 **(1035)** Direct Interzeolite Trasformation of Borosilicate MWW to Metallosilicate BEA-Type Zeolites and Their Application as Lewis Acid Catalysts
Sungjoon Kweon

16:45 - 16:50 SO 4 **(1151)** Development of Silanol-defect-free Titanium-silicalite-1 with Advanced Catalytic Performance via Defect-healing Treatment
Boqing Li

PROGRAMME

16:50 - 16:55 SO 5 **(1159)** Stabilization of platinum clusters on monolayers of MWW zeolite from liquid dispersion
Michal Mazur

16:55 - 17:00 SO 6 **(1284)** Zeolite-Templated Carbon Metal-Supported Catalysts for Heterogeneous Reactions
Petr Sazama

17:00 - 17:05 SO 7 **(1269)** Hydrated Silicate Ionic Liquids as a platform for ordered and non-ordered silicates
Dries Vandenabeele

17:05 - 17:10 SO 8 **(1286)** Seed-directed Syntheses of Zeolites in a Versatile Borosilicate System with the Presence of Octyltrimethylammonium Chloride
Zhendong Wang

17:10 - 17:15 SO 9 **(1121)** Defect modification on metal-organic framework UiO-66 via modulated synthesis for aldol condensation reaction
Ruixue Zhao

17:15 - 17:20 SO 10 **(1109)** Differences of selectivity in converting carbohydrates with Lewis-acidic zeolites
Yacine Boudjema

17:20 - 17:25 SO 11 **(1296)** Methane dehydroaromatization on Mo-ZSM-5 "donut"-like catalysts
Hugo Cruchade

17:25 - 17:30 SO 12 **(1104)** Activation of molecular oxygen over binuclear iron sites in CHA
Agnieszka Kornas

17:30 - 17:35 SO 13 **(1268)** Dual functional porous solid acids with enhanced activity and stability for transformation of glucose to 5-hydroxymethylfurfural
Shih-Yuan Chen Chen

17:35 - 17:40 SO 14 **(1084)** Synthesis of bio jet-fuel precursors through furfural and cyclopentanone aldol condensation using metal oxides deposited over n-ZSM-5 zeolite
Jennifer Cueto

17:40 - 17:45 SO 15 **(1272)** How ammonia, water or oxygen affect at adsorbed N2O on different Fe spieces in ZSM-5? DFT study for deN2O process.
Izabela Kurzydym

17:45 - 17:50 SO 16 **(1226)** Dynamic Adsorption of CO2/N2 and CO2/CH4 on cation-exchanged Gismondine: A Breakthrough Analysis
Jaouad Al Atrach

20:00 **WELCOME RECEPTION**

PROGRAMME

JULY 04, 2023, TUESDAY

09:00 -10:00 **PLENARY LECTURE :** Spectroscopy and Microscopy of Zeolites and Metal-Organic Frameworks at Work
HALL: EUROPA A + B
Bert Weckhuysen

10:00-11:00 **ORAL SESSION 10** **HALL: EUROPA A + B**

10:00-10:15 O44 **(1091)** Aluminium and Acid Site Evolution during Zeolite Crystallization and Thermal Activation
Julien Devos

10:15-10:30 O47 **(1333)** Simultaneous mesoporization and metal incorporation offers synthetic and catalytic benefits
Martin d'Halluin

10:30-10:45 O50 **(1192)** Micelles Formation inside Zeolites: A Combined 13C NMR and Raman Microspectroscopy Study
Monica J. Mendoza Castro

10:45-11:00 O53 **(1117)** Hierarchical Al- and Sn-Beta Zeolites as Catalysts for the Conversion of Biomass-Derived Substrates
Nataliya Shcherban

10:00-11:00 **ORAL SESSION 11** **HALL: EMERALD I**

10:00-10:15 O45 **(1019)** Operando investigation of [Cu-O-Cu]2+ and [CuOH]+ Sites in Cu-CHA and Cu-MOR Zeolites for Selective Oxidation of Methane to Methanol
Dieter Plessers

10:15-10:30 O48 **(1152)** Operando IR-GC-MS monitoring of the catalytic recycling of polyolefins on embryonic zeolites
Jean-Pierre Gilson

10:30-10:45 O51 **(1010)** Local occupancy in zeolite pores influence the performance of methanol-to-hydrocarbons catalysts
Nikolay Kosinov

10:45-11:00 O54 **(1065)** Infrared Spectroscopy for Understanding of Emerging Zeolite Catalysts
Mariya Shamzhy

10:00-11:00 **ORAL SESSION 12** **HALL: EMERALD II**

10:00-10:15 O46 **(1220)** Novel ZTC materials for the electrocatalytic upgrading of furfural to high added value products
Georgia Papanikolaou

10:15-10:30 O49 **(1353)** Improving the renewable production of naphthalenes using ZSM-5 zeolite
Jennifer Cueto

15:30-15:45 O52 **(1234)** Comprehensive Understanding of Base Catalysis Derived from N species in silica and carbon frameworks
Masaru Ogura

10:45-11:00 O55 **(1181)** Green Kinetic Promoters for Sustainable Energy Storage in Zeolitic Ice (1181)
Ahmed Omran

11:00-11:30 **COFFEE BREAK**

PROGRAMME

11:30-13:00 **KEYNOTE LECTURE & ORAL SESSION 13** **HALL: EUROPA A + B**

11:30-12:00 **KEYNOTE LECTURE:** Big-data in porous materials: science beyond understanding
Kevin Maik Jablonka

12:00-12:15 O60 **(1039)** Reactive neural network potentials for various classes of zeolites
Lukáš Grajciar

12:15-12:30 O63 **(1028)** Internal Hydrogen Bonds Of H-Mfi
Henning Windeck

12:30-12:45 O66 **(1337)** The Role of Alkali Cations in Precursor Liquids for Zeolite Formation, the Case of Hydrated Silicate Ionic Liquids
Vekeman Jelle

12:45-13:00 O68 **(1025)** Development Of Machıne Learnt Potentıals For Molecular Dynamıcs Sımulatıons Of Amorphous Metal–Organıc Frameworks
Nicolas Castel

11:30-13:00 **ORAL SESSION 14** **HALL: EMERALD I**

11:30 -11:45 O56 **(1227)** In-situ investigation of water harvesting by CAU-10-X (X= OH, CH3) metal organic frameworks: a 2-steps process
Gwilherm Nénert

11:45-12:00 O84 **(1170)** Investigation of the nature and stability of aluminum sites in ZEO-1 via in situ infra-red spectroscopy and solid-state NMR
Mohammad Fahda

12:00-12:15 O61 **(1123)** Strength of Zr Lewis acid sites decides on terpene reduction selectivity
Jan Přech

12:15-12:30 O64 **(1247)** Interaction of ethene with silver on small pore Ag-zeolites
Fernando Rey

12:30-12:45 O67 **(1130)** Possible CO2 capture at a nanoconfined LiBH4 in the pores of ZIF-8
Anton Meden

12:45-13:00 O69 **(1066)** Measuring low amounts of adsorbates - challenges and solutions
Sebastian Ehrling

11:30-13:00 **KEYNOTE LECTURE & ORAL SESSION 15** **HALL: EMERALD II**

11:30 -11:45 O57 **(1141)** High pressure intrusion of sodium perchlorate aqueous solutions in pure silica zeolites:structure-dependent negative osmotic effect
Andrey Ryzhikov

11:45-12:00 O59 **(1182)** Light olefins through dimethyl ether conversion over MFI-type zeolites: effect of superficial passivation on catalytic performance and stability
Emanuele Giglio

12:00-12:15 O62 **(1092)** Activation of molecular oxygen over Fe-FER and Fe-*BEA zeolites (1092)
Kinga Mlekodaj

PROGRAMME

12:15-12:30 O65 **(1318)** 2D-Cobalt MOF Nanosheets for Superior Electrocatalytic Water Oxidation in Neutral Media
Pascual Oña-Burgos

12:30-13:00 **KEYNOTE LECTURE:** An overview on recent application of Zeolite Templated Carbon in light gases adsorptionand (electro-)catalysis
Massimo Migliori

13:00-14:30 **LUNCH - 10th floor - GRAND RESTAURANT**

14:30-16:10 **ORAL SESSION 16** **HALL: EUROPA A + B**

14:30-14:45 O70 **(1173)** Propane dehydrogenation to propylene over Pt and Ga MFI zeolites
Adriana Souza de Oliveira

14:45-15:00 O74 **(1064)** Pd containing zeolite catalyst for dimethyl carbonate synthesis: Catalytic active sites and reaction mechanism
Chunzheng Wang

15:00-15:15 O77 **(1326)** Zeolites shift equilibria of transfer hydrocyanations and hydroformylations
Dirk De Vos

15:15-15:30 O80 **(1038)** One-Pot Synthesis of Menthol from Citral over Nickel Containing Extrudates Containing Zeolites and Clay Binders
Dmitry Murzin

15:30-15:45 O83 **(1256) Production of Fuel Additives from Crude Glycerol Using Acid Zeolites**
Isabel Santos-Vieira

15:45-16:00 O73 **(1183)** Tuning of CO2 capture and conversion performances by cation exchange in metal-organic frameworks
Matjaž Mazaj

14:30-16:00 **KEYNOTE LECTURE & ORAL SESSION 17** **HALL: EMERALD I**

14:30-15:00 **KEYNOTE LECTURE:** NMR as a tool in porous materials investigation
Andraž Krajnc

15:00-15:15 O75 **(1133)** Solid-state NMR spectroscopic investigation of supported fluorinated ionic liquids for interface-enhanced supported ionic liquid phase catalysts
Cindy Ly Tavera Méndez

15:15-15:30 O78 **(1023)** Symmetry-based recoupling in 29Si NMR to probe heteroatoms in zeolites: A combination of experimental and theoretical approaches
Eddy Dib

15:30-15:45 O81 **(1099)** NMR Crystallography of Monovalent Cations in Silicon-rich Zeolites Na+ Siting and the Local Structure of Na+ Sites in Ferrierites
Jiri Dedecek

15:45-16:00 O86 **(1209)** From powder to 3d shaped LTA zeolite for carbon dioxide capture
Valentina Crocella

PROGRAMME

14:30-16:00 **KEYNOTE LECTURE & ORAL SESSION 18** **HALL:EMERALD II**

14:30-14:45 O71 **(1036)** Experimental determination of characteristic curves of zeolites with a hydrothermal stability test setup
Henri Schmit

14:45-15:00 O72 **(1331)** One-Step Conversion of Glycerol into Glycidol in a Gas-Phase Packed-Bed Continuous-Flow Reactor over Cesium-Treated ZSM-5 Catalysts
Andrii Kostyniuk

15:00-15:15 O79**(1137)** Which species deactivate the catalyst in MDA reaction: molybdenum and/or coke?
Camille Longue

15:15-15:30 O82 **(1139)** Tuning hydrocracking process parameters
Patricia Kooyman

15:30-16:00 **KEYNOTE LECTURE:** Are Zeolites Still Key Players for the XXIth Century Energy Roadmap?
Benoît Louis

16:00-16:30 **COFFEE BREAK**

16:00-18:00 **POSTER SESSION** **HALL: EUROPA C + D**

16:30-17:15 Talk on Open Science **11th floor - MEDITERANEA HALL**
Pedro Mendes

16:55-18:00 **SHORT ORAL PRESENTATIONS** **HALL: EUROPA A + B**

16:55-17:00 SO 17 **(1046)** Microscopic Origins of the xenon/krypton separation in MOFs
Emmanuel Ren

17:00-17:05 SO 18 **(1067)** Computational-aided development of MOFs for the capture of polar Volatile Organic Compounds
Carla V. Soares

17:05-17:10 SO 19 **(1188)** Reactant Shape Selectivity for Polyolefin Pyrolysis Catalyzed by Zeolite
Hiroki Masuda

17:10-17:15 SO 20 **(1032)** Evidence for the role of radicals in the synthesis of Zeolite-Templated Carbons: a new approach at the solid state
Alain Moissette

17:15-17:20 SO 21 **(1255)** Structural aspects affecting phase selection in inorganic zeolite synthesis
Karel Asselman

17:20-17:25 SO 22 **(1201)** Insights into Lewis acidic nature of extra-framework aluminum centers incorporated in zeolites by ion-exchange
Syeda Rabia Batool

17:25-17:30 SO 23 **(1154)** Zeolites "local redox potential" by studying photoelectron transfer according to the Marcus theory
Matthieu Hureau

PROGRAMME

17:30-17:35 SO 24 **(1334)** XANES analysis of trimetal Cu-Mn-Fe porous silica supported catalysts for foto-Fenton-like wastewater treatment
Ksenija Maver

17:35-17:40 SO 25 **(1294)** Quantitative locating titanium in the framework of titanium silicalite-1 by exploiting anomalous X-ray powder diffraction at the Ti absorption K-edge
Przemyslaw Rzepka

17:40-17:45 SO 26 **(1144)** Tuning size and properties of bioNICS-1 framework via acid modulation
Tia Kristian Tajnšek

17:45-17:50 SO 27 **(1249)** Strategy for structural analysis of disorder within the AlPO4-LTA framework
Janez Volavšek

17:50-17:55 SO 28 **(1309)** Water structure in silica mesopores: effect of pore wall polarity
Christian Weinberger

17:55-18:00 SO 29 **(1266)** Moving electrode electrochemical impedance spectroscopy for in situ zeolite crystallisation monitoring
Nikolaus Doppelhammer

19:30 **GUIDED WALKING TOUR TO PIRAN**

PROGRAMME

JULY 05, 2023, WEDNESDAY

09:00 -10:00 **PLENARY LECTURE :** Opportunities and challenges of zeolite catalysts for the production of sustainable fuels
HALL: EUROPA A + B
David Serrano

10:00-11:00 **ORAL SESSION 19** **HALL: EUROPA A + B**

10:00-10:15 O87 **(1120)** The impact of initial gel properties on the inner architecture and catalytic performance of zeolites
Zhengxing Qin

10:15-10:30 O90 **(1072)** Tuning the properties of dendritic ZSM-5 zeolite synthesized by protozeolitic nanounits functionalization with amphiphilic organosilanes
María del Mar Alonso-Doncel

10:30-10:45 O93 **(1217)** Tuning the aluminum distribution and acidity of ZSM-5 zeolites using the mineralizing agents during syntheses
Shadi Al-Nahari

10:45-11:00 O96 **(1131)** Beyond Interzeolite Conversion: Establishing close Control over Al distributions in SSZ-13 zeolite by Regulation of Crystallization kinetics
Sven Robijns

10:00-11:00 **ORAL SESSION 20** **HALL: EMERALD I**

10:00-10:15 O88 **(1327)** Local and nanoscale water behaviour in acidic zeolite catalysts
Alexander O'Malley

10:15-10:30 O91**(1050)** Methanol dynamics in methanol-to-hydrocarbon zeolite catalysts – A molecular dynamics and quasielastic neutron scattering study
Claire-Louise Woodward

10:30-10:45 O94**(1298)** How to determine the intrinsic Brønsted acidity of aluminosilicate zeolites
Miroslav Rubes

10:45-11:00 O97 **(1254)** Computational modeling of acidity and spectra of hydroxyl groups in zeolites
Georgi Vayssilov

10:00-11:00 **ORAL SESSION 21** **HALL: EMERALD II**

10:00-10:15 O89 **(1279)** Truly combining the advantages of zeolite and polymeric membranes: SSZ-39/polyimide membranes with unrivalled performance for CO2 removal
Michiel Dusselier

10:15-10:30 O92 **(1292)** Direct Air-Capture of CO2 into Modified Zeolitic Frameworks for the Production of Platform Chemicals and Green Fuels
Ali Abdel-Mageed

PROGRAMME

10:30-10:45 O95 **(1187)** V/ Conversion of Rapid Plastic Pyrolysis Gases on Zeolite Catalysts
Shigeo Satokawa

10:45-11:00 O98 **(1280)** Zeolite-supported noble metal catalysts for CO2 methanation: influence of preparation conditions
Daniela Spataru

11:00-11:30 **COFFEE BREAK**

11:30-13:00 **CRONSTEDT WINNER LECTURE & ORAL SESSION 22** **HALL: EUROPA A + B**

11:30 -11:45 O99 **(1211)** High-silica (B, Fe)-BEA zeolite synthesis and application in HMF etherification
Enrico Catizzone

11:45-12:00 O101 **(1146)** Effects of binders on the performance of morphology HZY/HZM-5 zeolites in hydrocarbons to light olefins
Edidiong Asuquo

12:00-12:15 O103 **(1212)** One-pot synthesis of chabazite with homogenously distributed Fe species using a novel Fe organometallic template
Adam Deacon

12:15-12:30 O106 **(1282)** Copper nanoparticles supported on ZIF-8: comparison of two Cu2+ reduction processes and application as alcohol oxidation catalysts
Julien Reboul

12:30-13:00 **CRONSTEDT WINNER LECTURE:** Two-dimensional zeolites: origin, expansion, and perspectives
Jiří Čejka & Wieslaw J. Roth

11:30-13:00 **ORAL SESSION 23** **HALL: EMERALD I**

11:30 -11:45 O100 **(1140)** DFT modelling of catalytic transformations of adsorbed species in zeolite systems
Hristiyan Aleksandrov

11:45-12:00 O102 **(1276)** Theoretical modeling of pathways for the transformation of fructose and xylose to carboxylic acids over Na-BEA zeolite
Izabela Czekaj

12:00-12:15 O104 **(1157)** Activation Barrier for Benzene Methylation with Methane Lowered by Strong Benzene Adsorption
Etsushi Tsuji

12:15-12:30 O107 **(1098)** MWW Silicates: from the 2D Precursors to the 3D Active Zeolites
Francesca Rosso

12:30-12:45 O109 **(1122)** On the nature of extraframework aluminum and Bronsted acid site interactions in a methanol-to-hydrocarbon catalyst
Jenna Mancuso

12:45-13:00 O111 **(1332)** Insight into the interdependence of Ni and Al in bifunctional Ni/ZSM-5 catalysts by Ni K-edge XAS analysis
Iztok Arčon

11:30-13:00 **KEYNOTE LECTURE & ORAL SESSION 24** **HALL: EMERALD II**

PROGRAMME

11:30 -12:00 **KEYNOTE LECTURE:** Zeolite nanosheets in solution - precursors of ‚unfeasible' nanoscale materials
Barbara Gil

12:00-12:15 O105 **(1258)** Zeolites as the flexible platform for developing metal supported catalysts for CO2 valorisation reactions
Xiaolei Fan

12:15-12:30 O108 **(1341)** Intensification of one-pot CO2 hydrogenation to DME over 3D printed zebra catalytic beds
Giuseppe Bonura

12:30-12:45 O110 **(1007)** CO2 as an oxidant during dehydrogenation of propane to propene over activated carbon based catalysts
Petar Djinović

12:45-13:00 O112 **(1027)** Optimizing Porosity and Acidity of Faujasite Zeolites For Sugar Transformation
Yuna Han

13:00-14:30 **LUNCH - 10th floor - GRAND RESTAURANT**

14:30 -15:30 **PLENARY LECTURE:** Porous Ti-based photocatalysts for environmental applications **HALL: EUROPA A + B**
Pegie Cool

15:30-16:15 **ORAL SESSION 25** **HALL: EUROPA A + B**

15:30-15:45 O113 **(1198)** Porous materials for hybrid functional nanocomposites: metal and organic nanowires confined in zeolites and mesoporous silica
Marco Fabbiani

15:45-16:00 O116 **(1055)** Zeolite-based Hybrid Structured Adsorbents with Tunable Morphology and Architecture through Synergistic Combination with Polyimides
Seyed Saeid Hosseini

16:00-16:15 O119 **(1153)** Zeolite synthesis from natural bauxite by low-temperature vapor phase treatment
Claudia Belviso

15:30-16:15 **ORAL SESSION 26** **HALL: EMERALD I**

15:30-15:45 O121 **(1213)** A combined computational and experimental approach to predict NOx and CO adsorption to AgX - application to the diesel engines
Hubert Monnier

15:45-16:00 O117 **(1108)** Understanding the evolution of microporosity during hierarchization treatments of zeolites containing side pockets
Mohamed Benamar

16:00-16:15 O120 **(1082)** Experimental observation of adsorptive cage effects of 1-alkenes in aluminium-paired chabazite zeolites
Niels De Witte

15:30-16:15 **ORAL SESSION 27** **HALL: EMERALD II**

15:30-15:45 O115 **(1242)** Efficient top-down strategy for synthesis of catalytically active Co3O4 nanoparticles trapped in well-communicated mesoporous silica shells
Anna Rokicińska

PROGRAMME

15:45-16:00 O118 **(1238)** Pt zeolites as active catalysts for the hydrogenation of chlorates in water phase
Antonio Eduardo Palomares

16:00-16:15 O121 **(1079)** Capture of VOCs from forest fires by zeolitic adsorbents
Marie Ollivier

16:15-16:45 **COFFEE BREAK**

16:45-17:45 **ORAL SESSION 28** **HALL: EUROPA A + B**

16:45-17:00 O122 **(1293)** Mechanochemical route for synthesis of Fe-substituted zeolites with well-dispersed framework Fe species
Atsushi Muramatsu

17:00-17:15 O128 **(1283)** Synthesis of YFI-type Zeolites and Introduction of Hierarchical Structure and Framework Ti for Catalytic Applications
Yoshihiro Kubota

17:15-17:30 O131 **(1132)** Engineering Lewis acidity in MFI and CHA zeolite catalysts by electrochemical release of heteroatoms during synthesis
Gleb Ivanushkin

17:30-17:45 O134 **(1172)** A phosphazene based route for synthesis of extra-large pore zeolite UTD-1 (1172)
Raquel Simancas

16:45-17:45 **ORAL SESSION 29** **HALL: EMERALD I**

16:45-17:00 O123 **(1155)** 6Li solid-state NMR studies on Li+/CHA-type zeolite for N2 and O2 adsorption
Satoshi Inagaki

17:00-17:15 O129 **(1022)** Direct Location of Guest Molecules in Porous Crystalline Materials by Three-Dimensional Electron Diffraction
Zhehao Huang

17:15-17:30 O132 **(1206)** Scanning transmission electron microscopy for structure elucidation of low dimensional zeolitic materials
Tom Willhammar

17:30-17:45 O135 **(1330)** Advanced electron microscopy for the investigation of FAU-Y thermal dealumination – structural patterning revealed
Virgile Rouchon

16:45-17:45 **ORAL SESSION 30** **HALL: EMERALD II**

16:45-17:00 O127 **(1348)** Charge transfer complexes between iodine and titanium-based MOFs: MIL-125 and MIL-125(NH2)
Pedro Andrade

17:00-17:15 O130 **(1074)** Removal of low trace ppb level perfluorooctanesulfonic acid (PFOS) with ZIF-8 coatings involving adsorbent degradation
Tom R.C. Van Assche

17:15-17:30 O133 **(1260)** Use of Zeolites for Future Automotive Emissions Control
Veselina Georgieva

17:30-17:45 O136 **(1216)** Catalytic activation of N2O and CH4 over Metal-exchanged zeolites

PROGRAMME

Toshiyuki Yokoi

20:00 **GALA DINNER**

JULY 06, 2023, THURSDAY

09:00 -10:00 **PLENARY LECTURE:** Metal-Azolate Frameworks Bio-composites — **HALL: EUROPA A + B**
Paolo Falcaro

10:00-11:00 **ORAL SESSION 31** — **HALL: EUROPA A + B**

10:00-10:15 O137 **(1106)** MFU-4-type Scaffolds Featuring Open Bidentate Bibenzimidazole Coordination Sites
Dirk Volkmer

10:15-10:30 O139 **(1218)** Synthesis of carboxylphosphonate MOFs and exploring their potential in CO2RR
Oriyomi Ogunbanjo

10:30-10:45 O141 **(1193)** A fast an easy microwave recipe to Metal nanoparticles@Metal-Organic-Frameworks with catalytic hydrogenation activity
Ignacio Lemir

10:45-11:00 O144 **(1195)** Zr-based metal–organic frameworks as catalysts for the aldol condensation of biomass-derived furfural into bio-jet fuel precursors
Gabriel Morales

10:00-11:00 **KEYNOTE LECTURE &ORAL SESSION 32** — **HALL: EMERALD I**

10:00-10:30 **KEYNOTE LECTURE:** Gasotransmitters delivery vehicles from nanoporous materials
Moisés Pinto

10:30-10:45 O142 **(1112)** Confined water cluster formation in water harvesting by metal organic frameworks: CAU-10-H versus CAU-10-CH3
Monique van der Veen

10:45-11:00 O145 **(1148)** L-arginine-containing MSN (Arg@MSN) embedded in dental adhesive for targeting cariogenic bacteria
Rafael García Muñoz

10:00-11:00 **ORAL SESSION 33** — **HALL: EMERALD II**

10:00-10:15 O138 **(1194)** Carboxylate BODIPY functional zinc based metal-organic frameworks: towards solid state luminescence
Alexis Tran

10:15-10:30 O140 **(1176)** Mitoxantrone-derivatives as Drug Structure-Directing Agents for the synthesis of MSNs for Breast Cancer Treatment
Eva Romaní Cubells

10:30-10:45 O143 **(1060)** Copper-containing faujasite as a modifier of ANFO-type explosives
Łukasz Kuterasiński

10:45-11:00 O146 **(1073)** A step towards circular economy: REEs recovery from spent fluorescent lamps exploiting NH4-13X zeolite cation exchange properties
Francesco Colombo

PROGRAMME

11:00-11:30	COFFEE BREAK	
11:30-12:00	ORAL SESSION 34	HALL: EUROPA A + B
11:30 -11:45	O150 **(1012)** ZIF-8@PEO composite as a new generation of conversion coatings: insight into the structure ***Valeryia Kasneryk***	
11:45-12:00	O153 **(1113)** Probing the Active Sites of Defect-engineered UiO-66 by FTIR Spectroscopy ***Vera Butova***	
11:30-12:00	ORAL SESSION 35	HALL: EMERALD I
11:30 -11:45	O147 **(1161)** Experimental and Computational Mechanisms that govern Long-term Stability of CO2 adsorbed ZIF-8 Based Porous Liquids ***Tina Nenoff***	
11:45-12:00	O153 **(1080)** Two and Three CO2 Molecules Bonded to One Cation Exchanged in Faujasite ***Konstantin Hadjiivanov***	
11:30-12:00	KEYNOTE LECTURE	HALL: EMERALD II
11:30 -12:00	**KEYNOTE LECTURE:** Interactions of bacteria and zeolites ***Jasna Hrenović***	
12:00-13:00	FEZA Ph.D. Prize Winner Lecture CLOSING CEREMONY	HALL: EUROPA A + B

POSTER SESSION

16:00 - 18:00 — **3 - 4 JULY 2023** — **EUROPA C + D**

NO	Paper No	Presenter	Title
P01	1011	Michael Stöcker	Research Integrity: Ethics in Research
P02	1016	Rachit Khare	Effects of Hydrothermal Ageing on the Dynamic Nature of Active Sites in Cu-exchanged Small Pore Zeolites
P03	1017	Barbara Kalebić	On the Adsorption of Ciprofloxacin by Clinoptilolite and Use of Non-Thermal Atmospheric Pressure Plasma for Regeneration of the Spent Zeolite
P04	1021	Nevenka Rajić	Photocatalytic activity of clinoptilolite-rich zeolitic tuffs from different regions
P05	1024	Aljaž Škrjanc	Organic dye doped ZIF-8 for CO2 capture in 50% relative humidity
P06	1026	Lusine Harutyunyan	Characterization of Natural Zeolites of Armenia, Georgia and Kazakhstan and their Thermally Modified Forms
P07	1029	Nediljka Vukojević Medvidović	Electrocoagulation coupled with synthetic and natural zeolite in wastewater treatment – electrode surface and efficiency analysis
P08	1030	Konstantin Marcinowski	Cu-exchanged CHA-type Zeolites for H2/D2 Separation
P09	1032	Alain Moissette	Evidence for the role of radicals in the synthesis of Zeolite-Templated Carbons: a new approach at the solid state
P10	1034	Magdalena Andrunik	Immobilization of carbendazim and simazine using zeolites and zeolite-carbon composite
P11	1035	Sungjoon Kweon	Direct Interzeolite Trasformation of Borosilicate MWW to Metallosilicate BEA-Type Zeolites and Their Application as Lewis Acid Catalysts
P12	1037	Marija Švegovec	Solvent Assisted Ligand Exchange of ZIF-4 for glass preparation
P13	1040	Christian Schroeder	Tandem Metal Oxide-Zeolite Catalysts for CO2 Utilization
P14	1041	Tobias Beger	Understanding the Interplay of Pore Width and Amine Loading of PEI-Loaded Silica on CO2 Adsorption
P15	1043	Patricia Seidel	Diffusion and Adsorption of 2-Methylpentane and 3-Methylpentane in Silicalite-1 Crystals
P16	1044	Rémy Guillet-Nicolas	Ab initio screening of divalent cations embedded in chabazite for separation operations involving CH4, CO2, H2 and N2
P17	1046	Emmanuel Ren	Microscopic Origins of the xenon/krypton separation in MOFs
P18	1048	Nikolas Király	Tetrahedral Pb(II) Metal-Organic Framework: synthesis, characterization and adsorption properties
P19	1052	Edwin Clatworthy	The Synthesis of Ultra-Thin BPH Nanosheets with Exceptional Adsorption Properties
P20	1056	Katie Morton	Zeolites for biomass transformation: Probing the dynamics and adsorption of lignin derived cresol isomers within zeolites
P21	1058	Estefanía Bello	NH3-SCR Catalysts for heavy-duty diesel vehicles: Preparation of CHA-type zeolites with low-cost templates
P22	1061	Mihai Bordeiasu	Co-based MOFs for biomass-derived molecules upgrading
P23	1062	Muhammad Wakeel Shakil	Diffusion of Sugar Alcohols, Mono- and Disaccharides in Zeolite Na-Y

POSTER SESSION

16:00 - 18:00 — **3 - 4 JULY 2023** — **EUROPA C + D**

NO	Paper No	Presenter	Title
P24	1067	Carla V. Soares	Computational-aided development of MOFs for the capture of polar Volatile Organic Compounds
P25	1069	Zhi Lin	Manipulation of synthesis for stabilizing the structure via crystal engineering of synergistic combination: an example of niobium silicate
P26	1075	Mariia Lemishka	Multispectroscopic study of molecular oxygen dissociation over zeolites
P27	1076	Miriam Seebach	Beyond Tin-containing Zeolites – Novel Heterogeneous Porous Tin-Organic Frameworks for the Catalytic Conversion of Ketones
P28	1077	George Dunkley	The effect of different Si/Al ratios on the release rate of anti-cancer drug 5-Fluorouracil from zeolite beta.
P29	1078	Juna Bae	Strategies to control the Al distribution in zeolites: thermodynamic and kinetic aspects
P30	1084	Jennifer Cueto	Synthesis of bio jet-fuel precursors through furfural and cyclopentanone aldol condensation using metal oxides deposited over n-ZSM-5 zeolite
P31	1089	Puseletso Leponesa	Hydrocracking of Fisher-Tropsch wax over Pt/BEA nanosheets
P32	1095	Ambroise de Izarra	Molecular simulation of aqueous electrolyte solution insertion in zeosils in the osmotic ensemble
P33	1096	Francesca Bonino	Optimization of the Ti Insertion into Titanium Silicalite-1 Catalyst through the Design of Experiment Approach
P34	1101	Andreas Erlebach	Machine learning accelerated simulations of platinum nanoparticles on hydroxylated silica supports
P35	1104	Agnieszka Kornas	Activation of molecular oxygen over binuclear iron sites in CHA
P36	1107	Hana Jirglova	Strategy to maximize Al contribution in form of Al pairs in ZSM-5 zeolite
P37	1109	Yacine Boudjema	Differences of selectivity in converting carbohydrates with Lewis-acidic zeolites
P38	1114	Deborah Brako-Amoafo	How Machine learning potentials and Molecular dynamics (NNP-MD) help in NMR characterisation of zeolites
P39	1115	Rebecca Reber	Ultrasonic diagnostic for investigating the seed formation of Linde Type Y in absence and presence of morphology modifying agents
P40	1116	Janina Carolin Höner	Tricationic 1,4,7-Triazacyclononane cobalt complex as SDA in the synthesis for different zeotypes
P41	1119	Kristin Gleichmann	Industrial Manufacturing of Zeolite Molecular Sieves
P42	1121	Ruixue Zhao	Defect modification on metal-organic framework UiO-66 via modulated synthesis for aldol condensation reaction
P43	1124	Lionel Zoubritzky	Easy and fast identification of crystalline topologies with CrystalNets.jl
P44	1125	Rositca Nikolova	Modeling of probe molecule adsorption and Si vacancy formation in YNU-2 zeolite
P45	1126	Jürgen Adolphs	Influence of Water Vapor Treatment for NH3-TPD on Zeolites
P46	1129	Nataliya Shcherban	Hierarchical Zeolite Catalysts for Cycloaddition Reactions under Carbon Dioxide Pressure

POSTER SESSION

16:00 - 18:00 — **3 - 4 JULY 2023** — **EUROPA C + D**

NO	Paper No	Presenter	Title
P47	1134	Lukáš Grajciar	Reliability of framework Al positions assignments in zeolites based on computational investigation: MFI
P48	1135	Pau Ferri Vicedo	Approaching enzymatic catalysis with zeolites: an ab initio and experimental study of alkylaromatics competing reactions.
P49	1136	Petko Petkov	Incorporation of Ti in Si-form and Al-Si-form of YNU-5 zeolite - DFT study
P50	1138	Manuel Melero	Solvothermal synthesis of Covalent Triazine Frameworks as metal-free heterogeneous photocatalysts in coupling of benzylamine
P51	1144	Tia Kristian Tajnšek	Tuning size and properties of bioNICS-1 framework via acid modulation
P52	1150	Raquel Simancas	Simple preparation of amorphous aluminosilicates as efficient ion exchangers for ammonium cations from aqueous solutions
P53	1151	Boqing Li	Development of Silanol-defect-free Titanium-silicalite-1 with Advanced Catalytic Performance via Defect-healing Treatment
P54	1154	Matthieu Hureau	Zeolites "local redox potential" by studying photoelectron transfer according to the Marcus theory
P55	1159	Michal Mazur	Stabilization of platinum clusters on monolayers of MWW zeolite from liquid dispersion
P56	1160	Nathan Pichot	Anisole disproportionation over HZSM-5 zeolites: assessing the impact of Si/Al ratio on poisoning through kinetic modeling and DFT calculations
P57	1162	Kristijan Lorber	Photo-thermal decomposition of ammonia over Ni-Ag/SBA-15 catalysts
P58	1163	Maciej Trejda	Transformation of fructose to HMF - the impact of Brønsted acid site location in SBA-15 materials
P59	1164	Katarina Sokic	Clinoptilolite/hydroxyapatite composite: sorbent preparation and application
P60	1166	Taisei Saito	Hydrogen production by water electrolysis cell using zeolite membrane
P61	1168	Shinya Kokuryo	High coke deposition resistance by Cr6+ loading on zeolite defects: reduced regeneration in low-density polyethylene cracking
P62	1171	Noah Perreau	Influence Of The Water Loading Ratio On The Diffusion Of HTO Radiolysis Products H2, O2 And H2O2 In Z4A
P63	1174	Nikola Jakupec	Synthesis of CHA zeolite via thermally controlled mechanochemistry
P64	1177	Glorija Medak	Influence of zeolite form on acidity after mechanochemical exchange
P65	1179	Suzana Mal	Co-SDA-free green synthesis of small pore aluminophosphate
P66	1186	Sibele Pergher	High Silica FAU and MOR zeolites synthesis and characterization
P67	1188	Hiroki Masuda	Reactant Shape Selectivity for Polyolefin Pyrolysis Catalyzed by Zeolite
P68	1189	Piyapatch Techasarintr	Direct synthesis of Sn-containing MWW-type zeolites and their physicochemical properties
P69	1199	Mladenka Jurin	Monitoring thermo-milling of natural zeolite clinoptilolite

POSTER SESSION

16:00 - 18:00 — **3 - 4 JULY 2023** — **EUROPA C + D**

NO	Paper No	Presenter	Title
P70	1200	Mladenka Jurin	Zeolite-Catalyzed 1,2-Dibromination of Cinnamates Using 1,3-Dibromo-5,5-dimethylhydantoin as a Bromine Source
P71	1201	Syeda Rabia Batool	Insights into Lewis acidic nature of extra-framework aluminum centers incorporated in zeolites by ion-exchange
P72	1204	Sarra Abdi	Sn-containing ADORable Zeolites as Lewis Acid Catalysts with Tunable Porosity for the Meerwein–Ponndorf–Verley Reduction of Citronellal
P73	1207	Jakob Brauer	On the ability of all-silica zeolites to adsorb complex organic molecules of environmental concern: An efficient computational screening strategy
P74	1210	Patricia Kooyman	Structural and physicochemical trends in phosphorus-treated conventional and hierarchical ZSM-5 catalysts for upgrading of FT-wax
P75	1214	Hubert Monnier	Investigations of CO, NO and water adsorption on Nickel faujasites to treat the exhaust gas diesel: DFT, synthesis and adsorptions
P76	1215	Mujtba Alnasser	Ethane Dehydrogenation Process Performance Evaluation Of Fe, Cr And Mo Catalysts Supported Over ZSM-5
P77	1223	Supak Tontisirin	Hierarchical Nanocrystal Aggregate SAPO-34 for n-Butanol Conversion to Olefins
P78	1226	Jaouad Al Atrach	Dynamic Adsorption of CO2/N2 and CO2/CH4 on cation-exchanged Gismondine: A Breakthrough Analysis
P79	1229	Ibrahim Khalil	Single-atom Ru on zeolite catalyst for the valorization of muconic acid via isomerization and hydrogenation reactions
P80	1237	Paul Lacomi	Hydrophobicity and Vapour Adsorption Studies of Zeolitic Imidazolate Frameworks
P81	1241	Ivana Landripet	Influence of some cations on the acid strength of hierarchical Mordenite
P82	1243	Piotr KuStrowski	Transition metal oxides supported on zeolite-decorated ceramic monoliths prepared by 3D printing technique for catalytic combustion of volatile organic compounds
P83	1248	Lukasz Sadowski	Utilization of Waste Granite Powder in Porous Cement-based Materials for Sustainable Construction
P84	1249	Janez Volavšek	Strategy for structural analysis of disorder within the AlPO4-LTA framework
P85	1251	Max Bols	Tuning Fe active sites in zeolites
P86	1255	Karel Asselman	Structural aspects affecting phase selection in inorganic zeolite synthesis
P87	1263	Natalia Sobus	Application of heterogeneous catalysis in the conversion of lignocellulosic biomass
P88	1264	Stepan Sklenak	Structure and Oxidation Properties of the Distant Binuclear Vanadium V(II) Cationic Sites in Si-Rich Zeolites
P89	1266	Nikolaus Doppelhammer	Moving electrode electrochemical impedance spectroscopy for in situ zeolite crystallisation monitoring
P90	1267	Hilario Jose Verdeguer Asensio	Incorporation of titanium in ITQ-15 and its application as catalyst
P91	1268	Shih-Yuan Chen Chen	Dual functional porous solid acids with enhanced activity and stability for transformation of glucose to 5-hydroxymethylfurfural
P92	1269	Dries Vandenabeele	Hydrated Silicate Ionic Liquids as a platform for ordered and non-ordered silicates

POSTER SESSION

16:00 - 18:00 — **3 - 4 JULY 2023** — **EUROPA C + D**

NO	Paper No	Presenter	Title
P93	1270	Suk Bong Hong	Synthesis and Crystal Growth Mechanism of PST-2: An Aluminosilicate SBS/SBT Zeolite Intergrowth
P94	1271	Anita Bašić	Influence of PBT diameter on Copper Sorption on Zeolite NaX in Baffled Batch Reactor
P95	1272	Izabela Kurzydym	How ammonia, water or oxygen affect at adsorbed N2O on different Fe spieces in ZSM-5? DFT study for deN2O process.
P96	1274	Katharina Peikert	Characterization of zeolites using hydrogen, and oxygen adsorption with a particular focus in ultra-micropores
P97	1275	Izabela Czekaj	One-pot method of production carboxylic acids from cellulose-derived glucose over Na-BEA zeolite.
P98	1284	Petr Sazama	Zeolite-Templated Carbon Metal-Supported Catalysts for Heterogeneous Reactions
P99	1285	Jessica Rae Bedward	Bio-ethanol Upgrading Catalysed by Multifunctional Zeolites
P100	1286	Zhendong Wang	Seed-directed Syntheses of Zeolites in a Versatile Borosilicate System with the Presence of Octyltrimethylammonium Chloride
P101	1289	Maiko Nishibori	X-ray absorption and emission spectroscopy for structure analysis of Fe-substituted zeolites synthesized by mechanochemical method
P102	1290	Saki Fujimoto	Transient analysis of propylene and propane permeation through Ag-X membrane
P103	1291	Mahiro Matsushita	Decomposition of polypropylene in organic solvents using Beta-type zeolite
P104	1294	Przemyslaw Rzepka	Quantitative locating titanium in the framework of titanium silicalite-1 by exploiting anomalous X-ray powder diffraction at the Ti absorption K-edge
P105	1295	Vesna Rakić	Hierarchical ZSM-5 based catalysts for simultaneous abatement of CO and NOx at low temperatures
P106	1296	Hugo Cruchade	Methane dehydroaromatization on Mo-ZSM-5 “donut”-like catalysts
P107	1297	Paolo Lotti	The role of temperature in P-induced crystal-fluid interaction: a study on LAU and HEU topologies
P108	1299	Sevinj Osmanova	Low-Temperature Hydrogenation of Carbon Dioxide to Methanol by Catalysts Based on Mono-Bi-Trinuclears Derivatives of Ferrocene and Bentonite-Derived Mesoporous Support
P109	1303	Pedro S. F. Mendes	Modelling the balance between catalytic cycles in methanol-to-olefins conversion over H-ZSM-5
P110	1304	Radim Pilar	Selective hydrogenation of 1,3-butadiene over Pd nanoclusters in 3D graphene-like zeolite templated carbon catalysts
P111	1306	Alexander Wotzka	Low Temperature Swing Adsorption on Ion Exchanged Zeolites for Direct Air Capture of Ambient Carbon Dioxide
P112	1307	Daniel Costa	An Open-Source Pipeline to Transform Zeolite Scientific Papers in PDF Format into Machine-Readable Format.
P113	1308	Jaroslava Morávková	Platinum nanoparticles on Zeolite Templated 3D graphene-like carbon for benzene hydrogenation
P114	1309	Michael Tiemann	Water structure in silica mesopores: effect of pore wall polarity
P115	1311	Selin Cansu Gölboylu	Synthesis of FAU and CHA Type Zeolites from Class C Fly Ash: Effect of Alkaline Agent and Synthesis Conditions

POSTER SESSION

16:00 - 18:00 — **3 - 4 JULY 2023** — **EUROPA C + D**

NO	Paper No	Presenter	Title
P116	1317	Antonija Jurić	Preliminary Investigation of the Hg(II) Chloride Complexes Sorption Onto the Fabricated Modified Natural Zeolite Clinoptilolite
P117	1319	Filipa Ribeiro	BEA zeolite-based TiO2 composites for gas-phase ethylene photooxidation
P118	1320	Daniel Pereira	Understanding CO2 sorption mechanisms in sustainable cellulose and chitosan aerogels
P119	1328	Sevinj Osmanova	Effect of Precursor on the Activity of MnOx-Na2WO4/Mordenite Catalyst for Direct Conversion of Methane to C2 hydrocarbons
P120	1334	Ksenija Maver	XANES analysis of trimetal Cu-Mn-Fe porous silica supported catalysts for foto-Fenton-like wastewater treatment
P121	1336	Vikram Sagar Tatiparthi	Catalytic CO2 hydrogenation to formic acid by an indirect hydrogen source
P122	1338	Praveen Kumar	Cleaner one-pot transformation of glycerol to green liquid fuel using Cu-based oxide derived from hydrotalcite structured materials
P123	1339	Jelena Papan Djaniš	Nanohybrid based on biological renewable lignin and zirconia
P124	1345	Piotr Kunecki	Fly Ash Derived Zeolites As Potential Sorbents For Elemental Mercury Removal From Simulated Gas Stream
P125	1349	Siyeon Lee	Selective catalytic oxidation of ammonia over cobalt silicate MWW-type zeolites
P126	1350	Yunhye Cho	Synthesis of stannosilicates by interzeolite transformation and their catalytic activity in glucose conversion
P127	1352	Tomislav Ivanković	The potential for bioaugmentation of wastewater treatment plants by bioparticles made of natural zeolite
P128	1354	Nicolae Guzo	TiO2-CQDs nanocomposites for photocatalytic degradation of diclofenac
P129	1357	Xiaoxin Chen	Core-Shell SSZ-13@Al2O3 Architecture: A Strategy to boost Pd-Catalyzed Passive NOx Adsorption Performance
P130	1365	Shihang Liang	Efficient microwave synthesis of nano-zeolite β with enhanced acid sites for liquid-phase alkylation of benzene with ethylene
P131	1368	Ludovico Giuseppe Barbata	Synthesis and luminescence study of Zr-MOF-808 before and after Rhodamine B dye soaking
P132	1369	Ana Palčić	Synthesis of Cu-CHA zeolites and evaluation of their catalytic performance in C3H6/NO-SCR reaction
P133	1373	Valentina Crocellà	Disclosing the peculiar phase-change behavior of perfluorinated MIL53(Al) metal organic framework: the effect of temperature and CO2 adsorption
P134	1374	Andreas Puškarić	Monolithic metal organic framework CALF-20 composite for enhanced CO2 adsorption
P135	1358	Dong Fan	Achieving Superlong Lifetime for Mordenite Catalysed DME Carbonylation
P136	1359	Miao Yang	Recognizing the Minimum Structural Units Driving the Crystallization of SAPO-34 from a Top-Down Process
P137	1163	Maciej Trejda	Transformation of fructose to HMF - the impact of Brønsted acid site location in SBA-15 materials
P138	1248	Lukasz Sadowski	Utilization of Waste Granite Powder in Porous Cement-based Materials for Sustainable Construction

POSTER SESSION

16:00 - 18:00 — **3 - 4 JULY 2023** — **EUROPA C + D**

NO	Paper No	Presenter	Title
P1139	1365	Shihang Liang	Efficient microwave synthesis of nano-zeolite β with enhanced acid sites for liquid-phase alkylation of benzene with ethylene
P1140	1358	Dong Fan	Achieving Superlong Lifetime for Mordenite Catalysed DME Carbonylation
P1141	1359	Miao Yang	Recognizing the Minimum Structural Units Driving the Crystallization of SAPO-34 from a Top-Down Process
P1142	1372	Nikola Jakupac	Synthesis of polycyanometallate complexes in zeolite cavities
P1143	1147	Jan Marčec	Transition metal modified microporous materials for thermal battery
P1144	1128	Barbara Puhr	Advanced X-ray Characterization of Zeolites
P145	1335	Miguel Angel Hernandez	Healing and bactericidal activity of Nanoparticles supported on zeolites small pore
P146	1190	Harumi Ikuta	Selective hydrogenation of pyroglutamic acid into pyroglutaminol over YFI zeolite-supported Ru catalyst
P147	1236	Marvi Kaushik	Effect of zeolite framework on NO adsorption-desorption in passive NOx adsorbers
P148	1313	Dian H. Wahyudi	Role of catalyst support with bicontinuous concentric lamellar morphology for dry reforming of methane
P149	1235	Iqra Ahangar	To gain an insight into the possible intermediate formation in methane dehydroaromatization on Molybdenum encapsulated in ZSM-5 Catalyst using DFT
P150	1156	Vera Blkbaeva	Tuning of the Mo2C-based catalyst for oxidative ethane dehydrogenation with CO2
P151	1329	Gabriel Herrera-Pérez	Application of Rietveld Refinement in the Quantification of Crystalline Phases in Medium Pore Zeotype Structures
P152	1287	Abdulsalami Kovo	A facile approach towards Hierarchical Zeolite Y Synthesis from Inexpensive Precursor
P153	1225	Priti Mangrulkar	Enhancing the Electrochemical Performance of Asymmetric Supercapacitors with Ni-CO Metal organic Framework
P154	1231	Diwa Mishra	Comparison of Antioxidant Activity of Natural and Synthetic Zeolites
P155	1149	V. Petranoskii	One-pot synthesis of M-Faujasite (M=Fe, Co, Ni)
P156	1347	Debabrata Samanta	Impact Of Blended Education System On Outcome Based Learning And Sector Skills Development
P157	1300	Edward Stacey	Computational Anharmonic Simulations of H2O in NaZSM5
P158	1240	Mohd Ussama	Rational Tailoring of Solvent Recipes for Acid-Catalyzed Dehydration of Biomass-Derived Lactones inside the Zeolite Pore
P159	1088	Pingping Wu	Construction of PdIn-In2O3 interfaces on mesoporous silica support for benzyl alcohol partial oxidation
P160	1305	Jian ZHENG	Precise Regulation of Hydrocarbons Adsorption Conformation over Zeolites
P161	1371	Qi Ding	One-Step Ethylene Purification from Ternary Mixtures in Metal– Organic Frameworks with Customized Pore Chemistry
P162	1367	Huanling Xie	Preparation and related application of mesoporous magnetic materials
P163	1370	Zhaoqiang Zhan	Pore Chemistry in Ultramicroporous Materials for inverse CO2/C2H2 Separation

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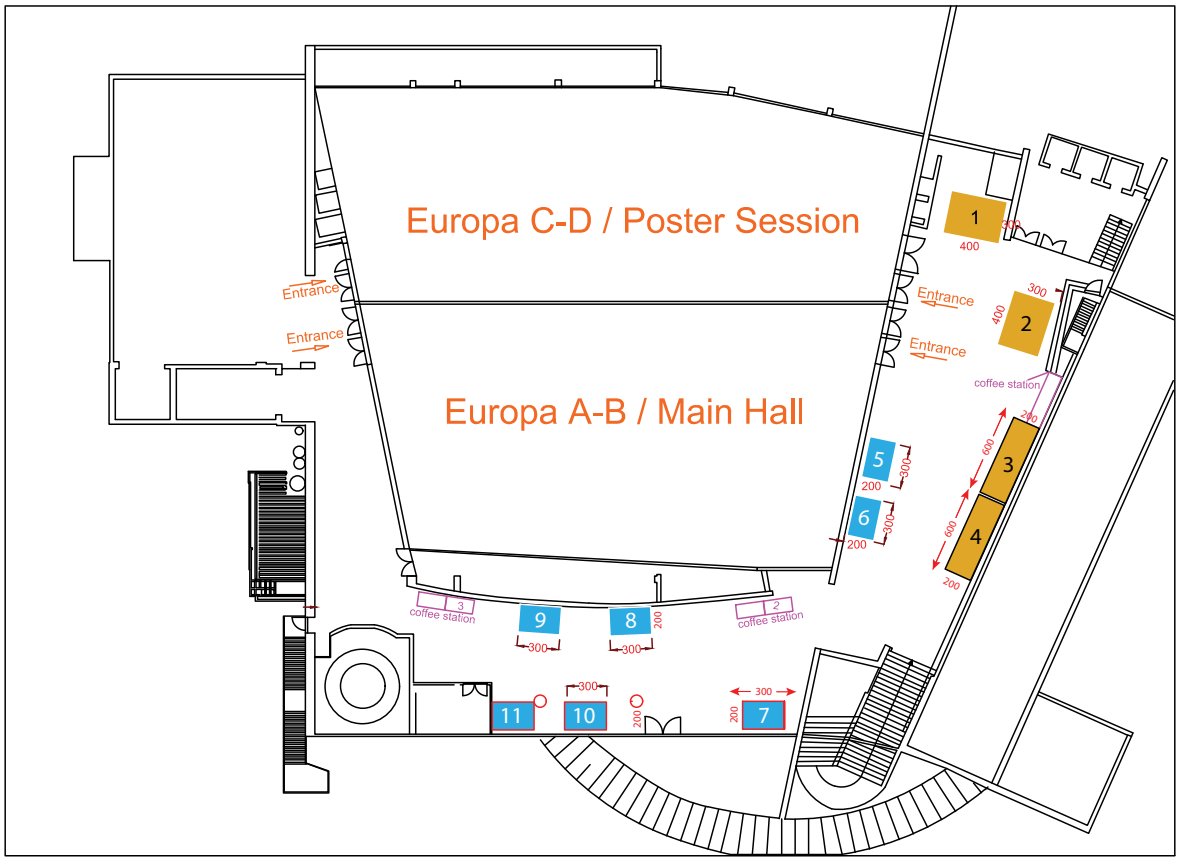

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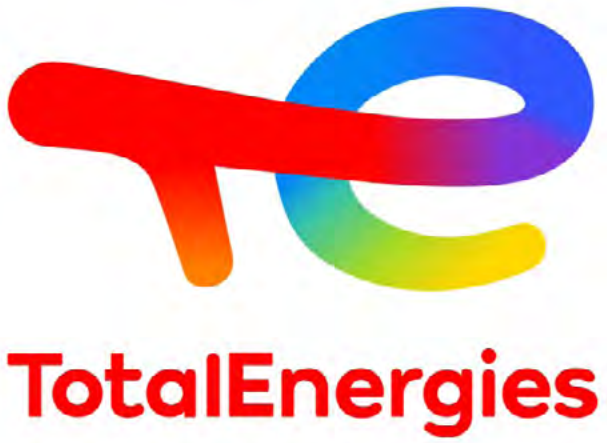
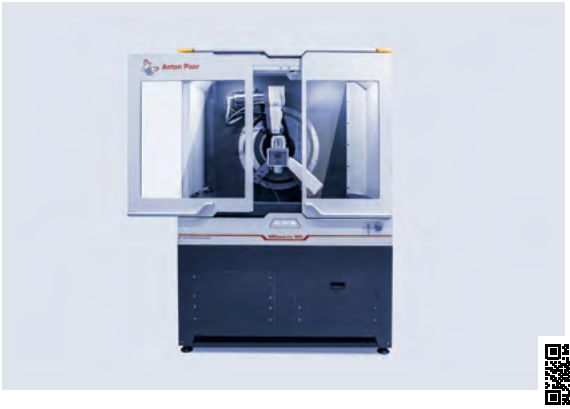


TotalEnergies is a global multi-energy company that produces and markets energies: oil and biofuels, natural gas and green gases, renewables and electricity. Our more than 100,000 employees are committed to energy that is ever more affordable, cleaner, more reliable and accessible to as many people as possible. Active in more than 130 countries, TotalEnergies puts sustainable development in all its dimensions at the heart of its projects and operations to contribute to the well-being of people. The Feluy Research Centre, TotalEnergies OneTech Belgium largest R&D Centre with personnel in excess of 400 people, pools catalyst expertise for petrochemicals, base chemicals, and refining. Its main mission is to improve and develop new technologies and new polyolefins jointly with the Mont/Lacq (France) and La Porte (United States) research centres. To carry this through, TotalEnergies OneTech Belgium prospects and develops technology based on the Group's objectives, cooperates with the factories, and assists customers both in making optimum use of the products and in developing new applications. The proximity of the research centre, the polymer production plant and the sales teams within the same site makes for better and more frequent contacts between people, promotes synergies, and, through greater efficiency, helps reduce the product development cycle. Over half the grades marketed today have been developed, improved or renewed in the last five years, which proves the success of the organisation in place.

COMPANY ADVERTISEMENT

Anton Paar



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COMPANY ADVERTISEMENT

SILKEM

Silkem was established in 1992 on the foundations of 40 years of experience in the production of aluminium hydroxide and other types of alumina in Kidričevo, Slovenia. After the production in the red section of the old alumina plant was closed down, successful adaptations and an innovative approach enabled the start of two basic production programmes: zeolites with silicates and special alumina. Years of experience in the production of aluminium oxides and decades of continuous development have made Silkem a widely recognized manufacturer of special materials in the fields of zeolites, silicates, molecular sieves, special alumina and boehmites. Silkem sells its products in more than 40 markets. The company's strategic advantage and an important part of its development strategy are its flexibility and the dynamic ability to adapt in meeting quality and logistic needs of its customers. Close cooperation with customers and own development of new products enable a continuous expansion and specialization of the production programmes. Over the last few years, the company has managed to rejuvenate the research activities, with newly built R&D laboratory that allows the synthesis, post-synthetic modifications and preparation of various materials on the laboratory and pilot/semi-industrial scale. Mentioned development laboratory is implemented with all the necessary equipment for various technological processes in the preparation of zeolite materials such as synthesis, filtration, drying, granulation and calcining. Over the years, the company has become a recognized partner of research institutions and companies in various commercial and international R&D projects.

GENERAL INFORMATION

VENUE

FEZA SCHOOL
1st-2nd July
Adria Hall- 11th floor
Grand Hotel Bernardin
Obala 2
6320 Portorož-Portorose
Slovenia

FEZA CONGRESS
2nd-6th July
Grand Hotel Bernardin
Obala 2
6320 Portorož-Portorose
Slovenia

CONFERENCE SECRETARIAT

DEKON
CONGRESS & TOURISM

Maslak Mah. Büyükdere Cad. U.S.O. Center No:245 Kat.1 34453 Sarıyer-İstanbul/Türkiye
Phone: +90 212 347 63 00
Fax: +90 212 347 63 63
E-mail: secretariat@feza2023.org

The Conference Secretariat Desk will be located at the groundfloor (11th floor).

Opening hours:
Sunday 2nd July: 16:45 - 19:30
Monday 3rd July - 08:00 -18:00
Tuesday 4th July- Wednesday 5th July - 09:00-18:00
Thursday 6th July: 09:00-13:00

CONGRESS BADGE

All participants must wear the Congress identification badges. Entrance to meeting rooms and exhibition area will not be allowed to any person without badge.

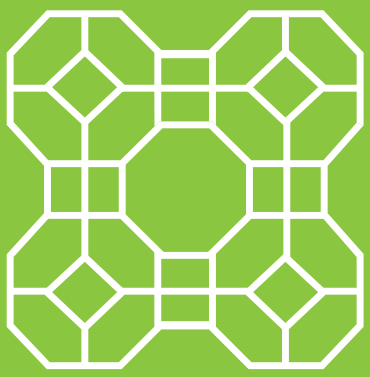
SOCIAL ACTIVITIES

Monday 3rd July | 20:00
Welcome Reception
Internation Terrace by the Church - Hotel Histrion
Obala 2b
6320 Portorož-Portorose
Slovenia

Tuesday 4th July | 19:30
Guided Walking Tour to Piran

Wednesday 5th July | 20:00
Gala Dinner
Grand Hotel Bernardin Beach Area
Obala 2
6320 Portorož-Portorose
Slovenia

NOTES



FEZA 2023

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Portorož-Portorose, Slovenia

2-6 July 2023

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ORGANIZERS

Slovenian, Croatian and Serbian Zeolite Associations

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