

Oral Session

August 5 (Sun)

Room S (Mail Hall)

16:30	PL-1	Designing Zeolites for Catalytic Applications Avelino Corma (Instituto de Tecnologia Quimica, Universidad Politecnica de Valencia, Spain)
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August 6 (Mon)

Room X (503)

Room Y (501)

Room Z (502)

9:00	PL-2	The Impacts of Electron Crystallographic Techniques for Structure Elucidation and Discovery of New Zeolites and Metal-Organic Frameworks Xiaodong Zou (Stockholm University, Sweden)
10:00	PL-3	Zeolite Framework as Matrix for Nano-particles of Active Species Takao Masuda (Hokkaido University, Japan)

11:00 Coffee Break

11:30	KX101	Synthetic Control of Acid Site Proximity in Chabazite Zeolites and Consequences for Brønsted Acid Catalysis Rajamani Gounder, John R. Di Iorio, Claire T. Nimlos, Philip M. Kester (Purdue University, USA)	11:30	OY101	Design of Highly Active Catalysts utilizing Novel Layered Silicates HUSs Nao Tsunoji, Maksym V. Opanasenko, Jiří Čejka, Masahiro Sadakane, Tsuneji Sano (Hiroshima University, Japan, J. Heyrovský Institute of Physical Chemistry, Czech Academy of Sciences, Czech Republic)	11:30	OZ101	PST-21 and PST-22: Two New Aluminosilicate Zeolites Nonjointly Built from the 1,3-Stellated Cubic Building Unit Donghui Jo, Gi Tae Park, Jiho Shin, Suk Bong Hong (POSTECH, Korea)
			11:50	OY102	Preparation of 2D Silica Lamellar Composites and Multiple-Responsive Graphene Oxide Intercalation Hybrids Based on Azoimidazolium Surfactants Changxu Lin, Mengchun Xu (Xiamen University, China)	11:50	OZ102	Fabrication of Porous Scaffolds with Hyperbolic Surface Structures Lu Han, Shunai Che (Tongji University, China, Shanghai Jiao Tong University, China)
12:00	KX102	Advanced Zeolite Catalysis Technologies for Clean Air Hong-Xin Li (Zeolyst/PQ Corporation, USA)	12:10	OY103	Formation of Micropores between Perovskite Layers Created with Silsesquioxane Interlayers Sho Kataoka, Yoshihiro Kamimura, Akira Endo (AIST, Japan)	12:10	OZ103	Properties of Water Confined in Periodic Mesoporous Organosilicas: Nanoimprinting the Local Structure Benedikt Mietner, Young Joo Lee, Felix J. Brieler, Michael Fröba (University of Hamburg, Germany)

12:30	OX103	Copper and Water Positions in Partly Hydrated SCR Catalysts of the Cu-Chabazite Type Bernd Marler, Antje Güneward-Lüke, Hermann Gies, Ulrich Müller, Matthias Feyen, Robert McGuire (Ruhr University Bochum, Germany, BASF SE, Germany)	12:30	OY104	Interlayer Modification of Layer Silicates with 4-Phosphonophenylsilane and Exfoliation to Nanosheets Masafumi Nomi, Atsushi Kondo, Kazuyuki Maeda (Tokyo University of Agriculture and Technology, Japan)	12:30	OZ104	Preparation of Zeolite-like Porous Materials from Silanol-modified Cage Siloxanes Naoto Sato, Kazuma Tochigi, Yoshiyuki Kuroda, Hiroaki Wada, Atsushi Shimojima, Kazuyuki Kuroda (Waseda University, Japan)
12:50		Lunch	12:50		Lunch	12:50		Lunch
14:30	OX104	Cu,Fe-Exchanged Al-rich Zeolites from Organotemplate-free Synthesis as NH₃-SCR Catalysts Z. Zhao, C. Shi, H. Gies, F.-S. Xiao, D. De Vos, T. Yokoi, X. Bao, U. Kolb, M.s Feyen, S. Maurer, R. McGuire, U. Müller, W. Zhang (Dalian University of Technology, China, Ruhr-Universität Bochum, Germany, Zhejiang University, China, KU Leuven, Belgium, Tokyo Institute of Technology, Japan, Dalian Institute of Chemical Physics, China, Johannes Gutenberg-Universität Mainz, Germany, BASF SE, Germany)	14:30	KY105	Synthesis and Predictive Modeling of Self-Assembling Template Free Porous Organosilicas Simon C. Weston (ExxonMobil Research and Engineering Company, USA)	14:30	OZ105	Melting Behavior of Organic Phase Change Material (PCM) Confined in Mesoporous Materials Jihye Choi, Hirotaka Fujita, Masaru Ogura, Akiyoshi Sakoda (The University of Tokyo, Japan)
14:50	OX105	Catalytic Performance of ZSM-5 Zeolites with the Different Al Distributions Toshiyuki Yokoi, Sungsik Park, Junko N. Kondo (Tokyo Institute of Technology, Japan, JST-PRESTO, Japan)	15:00	KY106	Design and Targeted Synthesis of Novel Aluminosilicate Small-pore Zeolites for Desired Applications <u>Dan Xie</u> , Stacey I. Zones, Christopher M. Lew, Cong-Yan Chen, Tracy Davis, Robert Saxton (Chevron Energy Technology Company, USA)	14:50	OZ106	Systematic Functionalization of Isorecticular Zeolite-like Supramolecular Assemblies (ZSAs) and Application in Gas Adsorption and Separation Jiantang Li, Shuang Wang, Yunling Liu (Jilin University, China)
15:10	OX106	Efficient H₂ Production from Formic Acid over Plasmonic Au@Pd Nanoparticle Supported on Metal Organic Framework Meicheng Wen, Kohsuke Mori, Yasutaka Kuwahara, Hiromi Yamashita (Osaka University, Japan, Kyoto University, Japan, JST-PRESTO, Japan)				15:10	OZ107	Boosting Catalytic Performance of MOFs for Steroid Transformations by Confinement within Mesoporous Scaffolds Francisco G. Cirujano, Ignacio Luz, Mustapha Soukri, Cedric Van Goethem, Ivo F.J. Vankelecom, Marty Lail, Dirk E. De Vos (KU Leuven, Belgium, RTI International, USA)
15:30	OX107	Functional Descriptors, Active Intermediates, and the Influence of the Porous Environment for Epoxidations at Framework Substituted Metals within Zeolite BEA Daniel T. Bregante, Nicholas E. Thornburg, Michael Cordon, Rajamani Gounder, Justin M. Notestein, David W. Flaherty (University of Illinois, USA,	15:30	OY107	Diverse Hierarchical Macroscopic Textures of Liquid Crystalline Inorganic Nanosheets Teruyuki Nakato, Yoshihiro Nono, Emiko Mouri (Kyushu Institute of Technology, Japan)	15:30	KZ108	Structurally switchable metal organic frameworks showing highly selective guest adsorption Ryotaro Matsuda (Nagoya University, Japan)

	Northwestern University, USA, Purdue University, USA)				
15:50	OX108	Ethylene Amines by Zeolite Catalysed Gas-phase Amination Andrei-Nicolae Parvulescu, Alvaro Gordillo, Bernd Hinrichsen, Karsten Seidel, Andreas Kuschel, Johann-Peter Melder, Ulrich Müller (BASF SE, Germany, hte GmbH, Germany)	15:50	OY108	Two Aluminophosphate Molecular Sieves Nonjointly Built from Pairs of Enantiomeric Structural Building Units Seungwan Seo, Taimin Yang, Jiho Shin, Donghui Jo, Xiaodong Zou, Suk Bong Hong (POSTECH, Korea, Stockholm University, Sweden)
					16:00
					KZ109
					Polycrystalline MOF Membranes - New Developments Sankar Nair (Georgia Institute of Technology, USA)
16:10	OX109	Effect of Structure and Hierarchical Pores on the Catalytic Properties of Titanosilicate, TS-1 Abdul-Lateef Adedigba, C. Richard A. Catlow, Gopinathan Sankar (University College London, UK)	16:10	OY109	Crystalline Vanadotungstates with High Structural Diversity and Microporosity Zhenxin Zhang, Norihito Hiyoshi, Michikazu Hara, Wataru Ueda (Kanagawa University, Japan, Tokyo Institute of Technology, Japan, AIST, Japan)
16:30	Coffee Break		16:30	Coffee Break	
16:30	Coffee Break		16:30	Coffee Break	
16:50	KX110	Synthesis of Propylene from Renewable Alcohols : Reaction Pathways & Opportunities for Zeolites Nikolai Nesterenko (TOTAL, Belgium)	16:50	OY110	Porous Solid Prepared by Chemical Reactions between Two Different Silica Nanoparticles Keisuke Fukuda, Hideaki Yoshitake (Yokohama National University, Japan)
					16:50
					OZ110
					Concurrent Analysis of NH₃ and NH₄⁺ Species Adsorbed on Dehydrated and Hydrated Zeolite Surfaces by NIR Spectroscopy Masato Takeuchi, Yingtong Bao, Tatsuya Tsukamoto, Masaya Matsuoka (Osaka Prefecture University, Japan)
17:20	KX111	Moving the World: Evolution of Porous Materials in Catalysis for Transportation Fuels Bilge Yilmaz (BASF Corporation, USA)	17:10	OY111	Construction of Zeolite-Like Rings by Site-Selective Condensation of Regioselectively Functionalized Cubic Siloxane Shohei Saito, Hiroaki Wada, Kazuyuki Kuroda, Atsushi Shimojima (Waseda University, Japan)
					17:10
					OZ111
					Visible-light Assisted Reduction of CO₂ Accompanied with Selective Oxidation of Aromatic Alcohols over Co-doped NH₂-MIL-125(Ti) Catalysts Yanghe Fu, Huan Yang, Rongfei Du, Weidong Zhu (Zhejiang Normal University, China)
					17:30
					OZ112
					Cation Influence in Adsorptive Propane/Propylene Separation in ZIF-8 (SOD) Topology Eduardo Andres-Garcia, Javier Lopez-Cabrelles, Lide Oar-Arteta, Beatriz Roldan-Martinez, Marta Cano-Padilla, Jorge Gascon, Guillermo Minguez-Espallargas, Freek Kapteijn (TUDelft, The Netherlands, Universidad de Valencia, Spain, KAUST Catalysis Center, Saudi Arabia)
17:50	OX112	Effect of Hierarchical Structure and Acid Sites in ZSM-5 Zeolite Catalyst on Methanol to Hydrocarbons Reactions Heejoong Kim, Jungkyu Choi (Korea University, Korea)	17:50	OY113	Solvent Free Oxidation of Toluene over Copper Impregnated MCM-22 Rajib Bandyopadhyay, Maaz Nawab (Pandit Deendayal Petroleum University, India)
					17:50
					OZ113
					Active Adsorbents for Molecular Separation Jin Shang, Gang Li, Paul Webley, Eric May (City University of Hong Kong, Hong Kong, The University of Melbourne, Australia, The University of Western Australia, Australia)
18:10	OX113	Selective Dehydration of Sugar Alcohols by High-silica H-beta Zeolites	18:10	OY114	Synthesis of MCM-22 Zeolite with Distinctive Catalytic Performance Enabled by the Improved Seed-assisted
					18:10
					OZ114
					Zeolite-based Thermal Resonant Gas Sensor Julien Grand, Hussein Awala, Kentaro Yamada, Matthieu

Atsushi Fukuoka, Hirokazu Kobayashi, Haruka Yokoyama, Jun-ya Hasegawa (Hokkaido University, Japan)	Method under Reduced Amount of OSDA Yoshihiro Kamimura, Satoshi Suganuma, Naonobu Katada, Satoshi Inagaki, Yoshihiro Kubota, Akira Endo, Yasuo Yamazaki (AIST, Japan, Tottori University, Japan, Yokohama National University, Japan, UniZeo Co., Ltd., Japan)	Denoual, Shu Inoue, Didier Robbes, Agnès Texier-Mita, Yoshio Mita, Svetlana Mintova (Normandie Université, France, University of Tokyo, Japan, Normandie Université, France)
18:30-20:00	Poster I RRR I	

August 7 (Tue)

Room X (503)

Room Y (501)

Room Z (502)

9:00	PL-4	Cu/SSZ-13 Catalysts for the Selective Catalytic Reduction of NOx: Unusual Features of the Complex Redox Reaction Mechanism <u>Charles H.F. Peden</u> , Feng Gao, Donghai Mei, Yilin Wang, Janos Szanyi (Pacific Northwest National Laboratory, USA)
10:00	PL-5	Interfacial Assembly and Engineering of Ordered Functional Mesoporous Materials with Multi-Level Architectures Dongyuan Zhao (Fudan University, China)

11:00 Coffee Break

11:30	KX201	Engineering Zeolite Porosity for Superior Catalytic Performance Javier Garcia-Martinez (University of Alicante, Spain)	11:30	OY201	Ultrafast and Continuous-Flow Synthesis of Aluminosilicate CHA-Type Zeolite Using Cycloalkylammonium as an Organic Structure-Directing Agent Andrei-Nicolae Parvulescu, Watcharop Chaikittisilp, Kenta Iyoki, Shoko Miyagi, Chokkalin-gam Anand, Ulrich Müller, Tatsuya Okubo, Toru Wakihara (BASF-SE, Germany, The University of Tokyo, Japan)	11:30	OZ201	Mesoporous Organosilica Films Assisting Laser Desorption/Ionization in Mass Spectrometry Yasutomo Goto, Norihiro Mizoshita, Yuri Yamada, Yoshifumi Maegawa, Junko Amano, Shinji Inagaki (Toyota Central R&D Labs., Inc., Japan, The Noguchi Institute, Japan)
			11:50	OY202	Development of a Continuous Microwave/Ultrasound-assisted Synthesis Process for Producing Zr-Fum MOF Nicholas M. Musyoka, Victor Thulari, Jianwei Ren, Mkhulu Mathe, Henrietta W. Langmi (Council for Scientific and Industrial Research (CSIR), South Africa)	11:50	OZ202	Molecularly Imprinted Porous Aromatic Frameworks and Their Composite Components for Selective Extraction of Uranium Ions Guangshan Zhu (Northeast Normal University, China)
12:00	KX202	New Concepts in the Design of Heterogeneous Catalysts						

	Jorge Gascon (KAUST Catalysis Centre (KCC), Saudi Arabia)	12:10 OY203	Synthesis of Novel Aluminosilicate YNU-5 and Enhancement of Thermal Stability of the Framework by Post-synthetic Treatment Naoto Nakazawa, Yuka Yoshida, Satoshi Inagaki, Yoshihiro Kubota (Yokohama National University, Japan)	12:10 OZ203	Exchange of Tetrapositive Cations into Zeolites for Zeolite-Based Inorganic Scintillators. Crystal Structures and Scintillation Properties of Hf⁴⁺- and Zr⁴⁺-Containing LTA Joon Young Kim, So Yeon Yoon, Nam Ho Heo, Karl Seff (Kyungpook National University, Korea, University of Hawaii, USA)	
12:30	OX203	Hierarchical Zeolites for Valorization of Levulinic Acid Manikandan Krishnamurthy, Cheralathan K. Krishnan (Vellore Institute of Technology, India)	12:30 OY204	Broadening The Scope for Fluoride-free Synthesis of Siliceous Zeolites Vivek Vattipalli, Abdul Mughis Paracha, Weiguo Hu, Huiyong Chen, Wei Fan (University of Massachusetts Amherst, USA)	12:30 OZ204	Silver Containing Zeolites for the Adsorption of Radioactive Methyl Iodide in Nuclear Power Plants S. Sauerbeck, A. Tißler, T. Cotter, O. Büttner, M. Miklautsch, N. Losch (Clariant Produkte (Deutschland) GmbH, Germany, AREVA GmbH, Germany)
12:50	Lunch		12:50 Lunch		12:50 Lunch	
14:30	OX204	Recent Advances in Thermo-Chemical Conversion of Biomass Michael Stöcker (SINTEF Materials and Chemistry, Norway)	14:30 KY205	π-π Interaction of Aromatic Groups in Amphiphilic Molecules Directing For Highly Ordered Mesoporous Zeolite Shunai Che (Shanghai Jiao Tong University, China)	14:30 OZ205	Characterization of Zeolite BEA in Liquid Phase Adsorption using Probe Molecules Dave Hartig, Thomas Waluga, Stephan Scholl (Technische Universität Braunschweig, Germany, Hamburg University of Technology, Germany)
14:50	OX205	Upgrading of Jatropha Bio-oil over Mesoporous Sulfide Catalysts to Produce Renewable Transport Fuels Shih-Yuan Chen, Masayasu Nishi, Takehisa Mochizuki, Hideyuki Takagi (AIST, Japan)	15:00 KY206	Cooperative Effects of Inorganic and Organic Structure-Directing Agents in Zeolite Synthesis Jeffrey D. Rimer (University of Houston, USA)	14:50 OZ206	Nanoscale Infrared Imaging of Zeolites Using Photo-induced Force Microscopy Donglong Fu, Joel E. Schmidt, Katie Park, Guusje Delen, Özgün Attila, Florian Meirer, Derek Nowak, Sung Park, Bert M. Weckhuysen (Utrecht University, The Netherlands, Molecular Vista Inc., USA)
15:10	OX206	Core-Shell Structured Metal and Metal Oxide@Zeolites as Efficient Heterogeneous Catalysts Liang Wang, Feng-Shou Xiao (Zhejiang University, China)			15:10 OZ207	AI Organization in the Framework of the SSZ-13 Zeolite Stepan Sklenak, Kinga Mlekodaj, Veronika Pashkova, Robert Karcz, Petr Klein, Edyta Tabor, Jiri Dedecek (J. Heyrovsky Institute of Physical Chemistry, The Czech Academy of Sciences, Czech Republic)
15:30	OX207	Nano-flowered Ce@MOR Hybrids with Modulated Acid Properties for the Vapor-phase Dehydration of 1,3-Butanediol into Butadiene Lin Fang, Fangli Jing, Jingya Lu, Bingwen Hu, Marc Pera-Titus (Solvay, China, Sichuan University, China, ECNU, China)	15:30 OY207	Synthesis and Structure Determination by Electron Diffraction Tomography of the New Zeolite ITQ-45 Fernando Rey, Raquel Simancas, Manuel Hernandez, Jorge Simancas, Alejandro Vidal, Jose L. Jorda, Ute Kolb, Enrico Mugnaioli, Teresa Blasco, German Sastre, Joaquín MartínezTriguero, Angel Cantin, Maria T. Navarro, Pablo J. Bereciartua, Avelino Corma (Instituto de Tecnología Química (UPV-CSIC), Spain, Johannes Gutenberg University Mainz, Germany)	15:30 OZ208	Determination of Acid Site Location in Dealuminated MCM-68 with 12-10-10-ring Structure by 27Al MQMAS NMR and FT-IR Spectroscopy with Probe Molecules Ryoichi Otomo, Toshiaki Nishitoba, Ryota Osuga, Yusuke Kunitake, Yuichi Kamiya, Takashi Tatsumi, Toshiyuki Yokoi (Hokkaido University, Japan, Tokyo Institute of Technology, Japan, NITE, Japan, JST-PRESTO, Japan)

15:50	OX208	Encapsulated Metal Nanoparticles in Zeolites for Selective Catalysis Jerrick Mielby, Søren Kegnæs (Technical University of Denmark, Denmark)	15:50	OY208	Solvent-free Synthesis of Zeolites Xiangju Meng, Qinming Wu, Chaoqun Bian, Changsheng Zhang, Feng-Shou Xiao, Andrei-Nicolae Parvulescu, Robert McGuire, Ulrich Müller (Zhejiang University, China, BASF Catalysts (Shanghai) Co., Ltd., China, BASF SE, Germany)	15:50	OZ209	Multi-Scale Revelations into How Shaped Catalyst Body Formulations Unintentionally Impact Their Performance Gareth T. Whiting, A.D. Chowdhury, Nikos Nikolopoulos, Ioannis Nikolopoulos, Sang-Ho Chung, B. M. Weckhuysen (Utrecht University, The Netherlands)
16:10	Excursion		16:10			16:10		

August 8 (Wed)

Room X (503)

9:00	PL-6	New Covalent Organic Frameworks: Synthesis, Adsorption, Ion exchange, and Cascade Catalysis Yushan Yan (University of Delaware, USA)
10:00	PL-7	Tuning Zeolite Properties: In-situ versus Post-Synthesis Methods Valentin Valtchev (ENSICAEN, France)

11:00 Coffee Break

Room Y (501)

11:30	KX301	Synthesis of Nanosized Zeolites for Different Catalytic Applications Manuel Moliner (Instituto de Tecnologia Quimica, Universidad Politecnica de Valencia, Spain)	11:30	OY301	Seed-directed Synthesis of Multipore Zeolites: Replacement of Complex Organic Structure-Directing Agents to Simple Tetraalkylammonium Kenta Iyoki, Sibel Sogukkanli, Toru Wakihara, Yoshihiro Kubota, Tatsuya Okubo (The University of Tokyo, Japan, Yokohama National University, Japan)	11:30	OZ301	Modeling Zeolite Catalysis at Operating Conditions by Combining Advanced Molecular Dynamics and Microkinetic Modeling Kristof De Wispelaere, Thomas Bligaard, Veronique Van Speybroeck (Ghent University, Belgium, SLAC National Accelerator Laboratory, USA)
12:00	KX302	Active Site Cooperativity in Zeolite Catalysis Evgeni Pidko (Delft University of Technology / ITMO University, St. Petersburg, The Netherlands)	11:50	OY302	Zincosilicate RSN-type Material Synthesis from Various Zinc Sources Ana Palčić, Josip Bronić, Maja Buljan, Valentin Valtchev (Ruđer Bošković Institute, Croatia, ENSICAEN, UNICAEN, CNRS, France)	11:50	OZ302	Infrared Investigation of Dynamic Behavior of Brønsted Acid Sites on Zeolites at High Temperatures Ryota Osuga, Toshiyuki Yokoi, Kazuki Doitomi, Hajime Hirao, Junko N. Kondo (Tokyo Institute of Technology, Japan, JST-PRESTO, Japan, City University of Hong Kong, Hong Kong, Nanyang Technological University, Singapore)
			12:10	OY303	Synthesis and X-ray Diffraction Study of Highly Siliceous Faujasites Stanislav Ferdov, Nao Tsunoji, Tsuneji Sano (University of Minho, Portugal, Hiroshima University, Japan)	12:10	OZ303	Probing the Location and Speciation of Zeolite Elements at the Nanoscale with Correlated Atom Probe Tomography and Scanning Transmission X-Ray Microscopy Joel E. Schmidt, Ilse K. van Ravenhorst, Ramon Oord,

					Xinwei Ye, Jonathan D. Poplawsky, Bert M. Weckhuysen (Utrecht University, Netherlands, Oak Ridge National Laboratory, USA)
12:30	OX303	Effect of Zeolitic vs. Amorphous Environments Surrounding Grafted Cations on Silicate Surfaces: Tuning Structure, Catalytic Activity, and Stability N. Grosso-Giordano, A. Yeh, M. Aigner, C. Schroeder, A. Solovyov, A. Okrut, H. Koller, S. Zones, A. Katz (University of California at Berkeley, USA, Westfälische Wilhelms-Universität Münster, Germany, Chevron Energy Technology Company, USA)	12:30	OY304	A Ti(IV)-based Metal-Organic Framework Featuring Defect-Rich Ti-O Chains as Oxidative Desulfurization Catalyst S. Smolders, B. Bueken, A. Krajnc, K. Sentosun, M. Wharmby, S. Bals, G. Mali, M. B. J. Roeffaers, D. E. De Vos (KU Leuven, Belgium, National Institute of Chemistry, Slovenia, University of Antwerp, Belgium, Deutsches Elektronen-Synchrotron, Germany)
12:30	OZ304	Exploring Hypothetical Zeolite Structures Yi Li, Jihong Yu (Jilin University, China)			

12:50

Lunch

12:50

Lunch

12:50

Lunch

14:30	OX304	Zeolite Shaping: Control of the Zeolite Acid Properties and Description of the Zeolite/Binder Interface C. Demaret, K. Kennes, C. Chizallet, M. Rivallan, E. Guillon, O. Delpoux, A. Méthivier, M. J. Roeffaers, B. Harbuzaru (IFP Energies Nouvelles, France, KU Leuven, Belgium)	14:30	KY305	Spectroscopic Insights into the Synthesis, Activation and Catalytic Activity of Zeolites Paul Wright (University of St Andrews, UK)	14:30	OZ305	Structural Characterization of Porous Materials by Electron Diffraction Tomography Haishuang Zhao, Isabel Großkreuz, Hao Xu, Yaşar Krysiak, Bernd Marler, Hermann Gies, Xiangju Meng, Feng-Shou Xiao, and Ute Kolb (Johannes Gutenberg-University Mainz, Germany, Ruhr-University Bochum, Germany, Zhejiang University, China)
14:50	OX305	Syntheses Pathways to MFI and FAU Type Layered Zeolites and the Related Catalytically Performance Albert Machoke, A. Inayat, B. Reiprich, R. R. Marthala, Martin Hartmann, Wilhelm Schwieger (Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Germany)	15:00	KY306	Zeolites: Advances and New Platform for Applications Jihong Yu (Jilin University, China)	14:50	OZ306	Structural Determination of Nanoporous Materials by Rotation Electron Diffraction Zehao Huang, Xiaodong Zou (Stockholm University, Sweden)
15:10	OX306	Enhancing Hydronium-ion-catalyzed Reactions in Nanoscopic Confiners Hui Shi, Yuanshuai Liu, Donald M. Camaioni, Johannes A. Lercher (TU München, Germany, Pacific Northwest National Laboratory, USA)				15:10	OZ307	Investigation of Zeolite-Polymer Interphase in Mixed-Matrix Membranes by Fractal Analysis Çiğdem Atalay-Oral, Melkon Tatlier (Istanbul Technical University, Turkey)
15:30	OX307	Ceria-modified MCM-68 as an Efficient Catalyst for the Dimethyl Ether-to-Olefin Reaction Yoshihiro Kubota, Qiao Han, Kizuku Enoeda, Satoshi Inagaki (Yokohama National University, Japan)	15:30	OY307	Cation Modulating Electrocatalyst Derived from Bimetallic Metal-Organic Frameworks for Overall Water Splitting Yang Wang, Mingbo Wu, Guohui Yang, Yoshiharu Yoneyama, Noritatsu Tsubaki (University of Toyama, Japan, China University of Petroleum, China)	15:30	KZ308	Rational Design of Solid Adsorbent for Post-Combustion CO₂ Capture via Temperature Swing Adsorption Minkee Choi (Korea Advanced Institute of Science and Technology (KAIST), Korea)

15:50	OX308	How Lewis Acidity Affects ZSM-5 Performance in Methanol-to-Olefins Reaction I. Yarulina, J. Goetze, K. De Wispelaere, E. Abou-Hamad, V. Van Speybroeck, B. M. Weckhuysen, F. Kapteijn, J. Gascon (Delft University of Technology, The Netherlands, King Abdullah University of Science and Technology, Saudi Arabia, Utrecht University, The Netherlands, Ghent University, Belgium)	15:50	OY308	Spray-Drying Synthesis of Hollow Polycrystalline ZIF-8 MOF Shunsuke Tanaka, Ryo Miyashita (Kansai University, Japan)	16:00	KZ309	Measurement of N₂/Ar/H₂O Adsorption Isotherms on Zeolites from Very Low Pressures Akira Endo (AIST, Japan)
16:10	OX309	Oriented Control of Catalytic Performance of Zeolites for Conversion of Methanol to Olefins Sen Wang, Liping Li, Jialing Chen, Tingyu Liang, Yanyan Chen, Junfen Li, Mei Dong, Zhangfeng Qin, Jianguo Wang, Weibin Fan (Institute of Coal Chemistry, Chinese Academy of Sciences, China)	16:10	OY309	Mechanism of Zeolite and Germanosilicate Hydrolysis Lukáš Grajciar, Christopher J. Heard, J. Čejka, R. E. Morris, Petr Nachtigall (Charles University, Czech Republic, University of St Andrews, UK)			
16:30-20:00	Poster II RRR II							

August 9 (Thu)

Room X (503)

Room Y (501)

Room Z (502)

9:00	OX401	Improving Methanol-to-olefins Turnover Capacity of CHA Materials by Controlling Methanol Transfer Dehydrogenation Rates Praveen Bollini, Aditya Bhan (University of Houston, USA, University of Minnesota, USA)	9:00	KY401	Design and Synthesis Large-Pore and/or New Zeolite Structures from Layered Precursors <u>Peng Wu</u> , Le Xu, Hao Xu, Xinyi Ji, Jingang Jiang, Haihong Wu (East China Normal University, China)	9:00	OZ401	Characterization of Adsorption-Desorption and Diffusion of Carbon Dioxide in Micropores of Low Silica X Zeolite by Frequency Response Method Akihiko Matsumoto, Kango Sakashita, Hiromitsu Ito (Toyohashi University of Technology, Japan)
9:20	OX402	Active Species for Direct Methylation of Benzene with Methane on Co/MFI Zeolite Catalyst Koshiro Nakamura, Hitoshi Matsubara, Kana Yamamoto, Ryosuke Itagaki, Kazu Okumura, Etsushi Tsuji, Satoshi Suganuma, Naonobu Katada (Tottori University, Japan, Kogakuin University, Japan)	1E+05			9:20	OZ402	Investigation of the Optimum Conditions for Adsorptive Hydrogen Storage Stephan Glante, Martin Hartmann (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany)
9:40	OX403	Control of the Distribution of Framework Al in ZSM-5 Zeolite via TiCl₄-vapor Treatment Satoshi Inagaki, Narumi Yamada, Mai Nishii, Yoshihiro Kubota (Yokohama National University, Japan)	9:30	KY402	Control of Al distribution in zeolite framework and its impact on hydrothermal stability and catalytic properties Toshiyuki Yokoi (Tokyo Institute of Technology, Japan)	9:40	OZ403	Acetic Acid Concentration through MFI Membranes Prepared on Porous Silica Substrates Mikihiro Nomura, Hikari Uehara, Kohei Suzuki, Daishi Takayama, Ayumi Ikeda, Takuya Okuno, Hiromasa Tawarayama, Shinji Ishikawa, Kazuya Kuwahara (Shibaura

					Institute of Technology, Japan, Sumitomo Electric Industries, LTD. Japan)			
10:00	OX404	Zeolite Catalyzed Prins Condensation of Formaldehyde with C3-C4 Olefins Efterpi (Efi) Vasiladou, Raul Lobo (University of Delaware, USA)	10:00	OY403	Interconnected Hierarchical ZSM-5 with Tunable Acidity Prepared by a Dealumination-realumination Process: A Superior MTP Catalyst Junjie Li, Min Liu, Xinwen Guo, Chunshan Song (Dalian University of Technology, China, Pennsylvania State University, USA)	10:00	OZ404	Molecular Sieving Effect of Silicalite-1 Coating on ZSM-5 Manabu Miyamoto, Shumpei Ono, Yasunori Oumi, Shigeyuki Uemiya, Stijn Van der Perre, Gino V. Baron, Joeri F. M. Denayer (Gifu University, Japan, Vrije Universiteit Brussel, Belgium)
10:20	Coffee Break		10:20	Coffee Break		10:20	Coffee Break	
10:50	OX405	Catalytic Etherification of HMF: Direct versus Acetalization Routes Siglinda Perathoner, Paola Lanzafame, Georgia Papanikolaou, Gabriele Centi, Massimo Migliori, Enrico Catizzone, Alfredo Aloise, Girolamo Giordano (University of Messina, Italy, University of Calabria, Italy)	10:50	OY404	Hydrothermal Mmodification of Zeolite HY to Hierarchical Porous High Silica Zeolite HY Chithravel Venkatesan, Jeong-Chul Kim, Hongjun Park, Jongho Han, Ryong Ryoo (Institute for Basic Science (IBS), Korea, KAIST, Korea)	10:50	OZ405	Fabrication of Zeolite NaA Membranes on Ceramic Hollow Fibers in Clear Solution without Aid of Nanoseeds Nanke Ma, Rui Wang, Zhengbao Wang (Zhejiang University, China)
11:10	OX406	Hierarchical ZSM-5 Zeolite; Potential Catalyst for Maximizing Ethylene and Propylene Nabil Al-Yassir, Khalid Al-Majnouni, Ahmed Al-Zenaidi, Wojciech Supronowicz, Naif Al-Dalaan, Ahmed Al-Shehri, Vidya Sagar Guggilla, S. Al-Khattaf, M. Aitani, M. A. Bari Siddiqui (SABIC Technology and Innovation, Saudi Arabia, SABIC, India, KFUPM, Saudi Arabia)	11:10	OY405	Internally-controlled Desilication of High-silica Zeolites: An SSZ-13 Case G. T. M. Kadja, M. K. Wardhani, A. T. N. Fajar, V. Suendo, R. R. Mukti (Institut Teknologi Bandung, Indonesia)	11:10	OZ406	Influence of Seeds on the Permeation Properties of FAU Zeolite Membranes Izumi Kumakiri, Takuya Saeda, Kouji Hashimoto, Kazuhiro Tanaka, Hidetoshi Kita (Yamaguchi University, Japan)
11:30	OX407	The Mechanism of Improving Hydro-thermal Stability of Zeolites in FCC Catalysts by Adding Aluminum Mono-Phosphate (Al-P) Atsuhisa Sekimoto, Yuji Saka, Norihito Chiyoda, Hiroki Watanabe, Satoshi Inagaki, Yoshihiro Kubota (Cosmo Oil Corp. Ltd., Japan, Yokohama National University, Japan)	11:30	OY406	Base-Resistant Absorbents Prepared Using Diamino Group-Grafted Mesoporous Silica Uniformly Coated with Zirconia Layers Masaki Okamoto, Haruka Satake, Hiroyuki Seki (Tokyo Institute of Technology, Japan, JXTG Nippon Oil & Energy Co., Japan)	11:30	OZ407	Evaluation of Gas Permeation Properties through CHA-type Zeolite Membrane using Molecular Simulation Yasuhisa Hasegawa, Chie Abe ¹ , Satoshi Imasaka, Masaya Itakura, Daisuke Gondo, Kazuhiro Yano, Koichi Sato (AIST, Japan, Hitachi Zosen Corporation, Japan)
11:50	Closing Remarks							