

Oral Session

August 5 (Sun)

Room S (Mail Hall)

Chairperson: Takashi Tatsumi (National Institute of Technology and Evaluation)

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)

Chairperson: Yoshihiro Kubota (Yokohama National University)

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)
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Chairperson: Masahiko Matsukata (Waseda University)

10:00	PL-3	Zeolite Framework as Matrix for Nanoparticles of Active Species Takao Masuda (Hokkaido University, Japan)
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11:00 Coffee Break

Chairpersons: David W. Flaherty (University of Illinois)

Hiromi Yamashita (Osaka University)

Chairpersons: Peng Bai (China University of Petroleum)

Hideaki Yoshitake (Yokohama National University)

Chairpersons: Sankar Nair (Georgia Institute of Technology)

Isao Ogino (Hokkaido University)

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 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)	
12:30	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)		

12:50

Lunch

Chairpersons: Rajamani Gounder (Purdue University)

Yoshihiro Kamimura (AIST)

Chairpersons: Rajib Bandyopadhyay (Pandit Deendayal Petroleum University)

Kazuyuki Maeda (Tokyo University of Agriculture and Technology)

Chairpersons: Jorge Gascon (KAUST)

Atsushi Shimojima (Waseda University)

14:30	OX104	<p>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)</p>	14:30	KY105	<p>Synthesis and Predictive Modeling of Self-Assembling Template Free Porous Organosilicas Simon C. Weston (ExxonMobil Research and Engineering Company, USA)</p>	14:30	OZ105	<p>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)</p>
14:50	OX105	<p>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)</p>	15:00	KY106	<p>Design and Targeted Synthesis of Novel Aluminosilicate Small-pore Zeolites for Desired Applications Dan Xie, Stacey I. Zones, Christopher M. Lew, Cong-Yan Chen, Tracy Davis, Robert Saxton (Chevron Energy Technology Company, USA)</p>	14:50	OZ106	<p>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)</p>
15:10	OX106	<p>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)</p>	15:30	OY107	<p>Diverse Hierarchical Macroscopic Textures of Liquid Crystalline Inorganic Nanosheets Teruyuki Nakato, Yoshihiro Nono, Emiko Mouri (Kyushu Institute of Technology, Japan)</p>	15:10	OZ107	<p>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)</p>
15:30	OX107	<p>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, Northwestern University, USA, Purdue University, USA)</p>				15:30	KZ108	<p>Structurally switchable metal organic frameworks showing highly selective guest adsorption Ryotaro Matsuda (Nagoya University, Japan)</p>

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

Chairpersons: Weiping Zhang (Dalian University of Technology)

Nao Tsunoji (Hiroshima University)

Chairpersons: Suk Bong Hong (POSTECH)

Kohsuke Mori (Osaka University)

Chairpersons: Lu Han (Tongji University)

Manabu Miyamoto (Gifu University)

16:50	KX110	Chasing the Holy Grail: Routes For the Selective Synthesis of Propylene from Alcohols 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	OY112	Synthesis, Characterization and Catalytic Application of Mesoporous Alumina Peng Bai, Zifeng Yan, Svetlana Mintova (China University of Petroleum (East China), China, LCS, ENSICAEN, University of Caen, CNRS, France)	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 Atsushi Fukuoka, Hirokazu Kobayashi, Haruka Yokoyama, Jun-ya Hasegawa (Hokkaido University, Japan)	18:10	OY114	Synthesis of MCM-22 Zeolite with Distinctive Catalytic Performance Enabled by the Improved Seed-assisted 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)	18:10	OZ114	Zeolite-based Thermal Resonant Gas Sensor Julien Grand, Hussein Awala, Kentaro Yamada, Matthieu 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)

Chairperson: Masaru Ogura (The University of Tokyo)

9:00	PL-4	<p>Cu/SSZ-13 Catalysts for the Selective Catalytic Reduction of NOx: Unusual Features of the Complex Redox Reaction Mechanism</p> <p>Charles H.F. Peden, Feng Gao, Donghai Mei, Yilin Wang, Janos Szanyi (Pacific Northwest National Laboratory, USA)</p>
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Chairperson: Tatsuo Kimura (AIST)

10:00	PL-5	<p>Interfacial Assembly and Engineering of Ordered Functional Mesoporous Materials with Multi-Level Architectures</p> <p>Dongyuan Zhao (Fudan University, China)</p>
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11:00 Coffee Break

Chairpersons: Søren Kegnæs (Technical University of Denmark)

Chairpersons: Fernando Rey (Universitat Politècnica de Valencia)

Chairpersons: Michael Fröba (University of Hamburg)

Takahiko Takewaki (Mitsubishi Chemical)

Yasutaka Kuwahara (Osaka University)

Ryoichi Otomo (Hokkaido University)

11:30	KX201	<p>Engineering Zeolite Porosity for Superior Catalytic Performance</p> <p>Javier Garcia-Martinez (University of Alicante, Spain)</p>	11:30	OY201	<p>Ultrafast and Continuous-Flow Synthesis of Aluminosilicate CHA-Type Zeolite Using Cycloalkylammonium as an Organic Structure-Directing Agent</p> <p>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)</p>	11:30	OZ201	<p>Mesoporous Organosilica Films Assisting Laser Desorption/Ionization in Mass Spectrometry</p> <p>Yasutomo Goto, Norihiro Mizoshita, Yuri Yamada, Yoshifumi Maegawa, Junko Amano, Shinji Inagaki (Toyota Central R&D Labs., Inc., Japan, The Noguchi Institute, Japan)</p>
12:00	KX202	<p>Microporous crystals for the design of heterogeneous catalysts for C1 activation</p> <p>Jorge Gascon (KAUST Catalysis Centre (KCC), Saudi Arabia)</p>	11:50	OY202	<p>Understanding Catalyst (de)activation in methane oxidation</p> <p>Hadi Hosseiniamoli, Adi Setiawan, Naseer A Khan, Guangyu Zhao, Eric Kennedy, Michael Stockenhuber (The University of Newcastle, Australia, Malikussaleh University, Indonesia, University of Engineering & Technology, Pakistan)</p>	11:50	OZ202	<p>Photocatalytic CO₂ Reduction by Mesoporous Silica-Coated Photocatalyst Particles</p> <p>Kei Inumaru, Koki Ikeda (Hiroshima University, Japan)</p>

	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	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

Chairpersons: Javier Garcia-Martinez (University of Alicante)
Satoshi Inagaki (Yokohama National University)

Chairpersons: Wei Fan (University of Massachusetts Amherst)
Shigeo Satokawa (Seikei University)

Chairpersons: Silke Sauerbeck (Clariant Produkte)
Junko N. Kondo (Tokyo Institute of Technology)

14:30 OX204	Recent Advances in Thermo-Chemical Conversion of Biomass Michael Stöcker (SINTEF Materials and Chemistry, Norway)	14:30 KY205	A Hierarchical MFI Zeolite with Ordered Mesostructure 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)

<p>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)</p>	<p>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)</p>	<p>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, Toshiki Nishitoba, Ryota Osuga, Yusuke Kunitake, Yuichi Kamiya, Takashi Tatsumi, Toshiyuki Yokoi (Hokkaido University, Japan, Tokyo Institute of Technology, Japan, NITE, Japan, JST-PRESTO, Japan)</p>
<p>15:50 OX208 Encapsulated Metal Nanoparticles in Zeolites for Selective Catalysis Jerrick Mielby, Søren Kegnæs (Technical University of Denmark, Denmark)</p>	<p>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)</p>	<p>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)</p>
<p>16:10 Excursion</p>		

August 8 (Wed)

Room X (503)

Room Y (501)

Room Z (502)

Chairperson: Norikazu Nishiyama (Osaka University)

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

11:00 Coffee Break

Chairpersons: Weibin Fan (Institute of Coal Chemistry)
Noritatsu Tsubaki (University of Toyama)

Chairpersons: Pert Nachtigall (Charles University)
Koji Nishi (National Defense Academy Japan)

Chairpersons: Minkee Choi (KAIST)
Akira Endo (AIST)

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

		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	12:50 Lunch

Chairpersons: Alexander Katz (University of California at Berkeley)
Yasuhisa Hasegawa (AIST)

Chairpersons: Ana Palčić (Ruđer Bošković Institute)
Naonobu Katada (Tottori University)

Chairpersons: Kristof De Wispelaere (Ghent University)
Akihiko Matsumoto (Toyohashi University of Technology)

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 Zhehao 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)

Chairpersons: Massimo Migliori (University of Calabria)

Teruoki Tago (Tokyo Institute of Technology)

Room Y (501)

Chairpersons: R. R. Mukti (Institut Teknologi Bandung)

Masaki Okamoto (Tokyo Institute of Technology)

Room Z (502)

Chairpersons: Weidong Zhu (Zhejiang Normal University)

Izumi Kumakiri (Yamaguchi University)

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 Peng Wu, 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 Hiromitsu Ito, Kango Sakashita, Akihiko Matsumoto (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)	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)	9:20	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)	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)	9:40	OZ403	Acetic Acid Concentration through MFI Membranes Prepared on Porous Silica Substrates Mikihiko 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) Vasiliadou, Raul Lobo (University of Delaware, USA)	10:20			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

Chairpersons: Raul Lobo (University of Delaware)

Chairpersons: Peng Wu (East China Normal University)

Chairpersons: Martin Hartmann(Friedrich-Alexander-Universität Erlangen-Nürnberg)

Shunsuke Tanaka (Kansai University)

Mikihiro Nomura (Shibaura Institute of Technology)

Yasunori Oumi (Gifu University)

10:50	OX405	<p>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)</p>	10:50	OY404	<p>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)</p>	10:50	OZ405	<p>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)</p>
11:10	OX406	<p>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)</p>	11:10	OY405	<p>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)</p>	11:10	OZ406	<p>Influence of Seeds on the Permeation Properties of FAU Zeolite Membranes Izumi Kumakiri, Takuya Saeda, Kouji Hashimoto, Kazuhiro Tanaka, Hidetoshi Kita (Yamaguchi University, Japan)</p>
11:30	OX407	<p>The Mechanism of Improving Hydrothermal 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)</p>	11:30	OY406	<p>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)</p>	11:30	OZ407	<p>Evaluation of Gas Permeation Properties through CHA-type Zeolite Membrane using Molecular Simulation Yasuhisa Hasegawa, Chie Abe¹, Satoshi Imasaka, Masaya Itakura, Daisuke Gondo, Kazuhiro Yano, Koichi Sato (AIST, Japan, Hitachi Zosen Corporation, Japan)</p>
11:50		Closing Remarks						