## Oral Presentations

**May 13th Room A**
9:00 - 9:15 Opening Ceremony
**Chairperson: J. Sommer (*Université de Strasbourg, France*)**
**PL-1 (9:15 - 10:15)**
J. Lercher *(Technische Universität München, Germany)*
"Understanding Zeolite Activity in Acid-Base Catalyzed Reactions -From the Gas Phase to an Aqueous Environment"

Coffee Break (10:15-10:45)

**Chairpersons: N. A. Brunelli *(Georgia Institute of Technology, USA)*, K. Kamata *(The University of Tokyo, Japan)***
**OA-1 (10:45-11:05)**
S.A. Schmidt*, N. Kumar, K. Eränen, D.Yu. Murzin, T. Salmi (*Åbo Akademi University, Finland)*
"Methyl Chloride Synthesis over $ZnCl_2$ Modified Zeolites and Alumina -Relation Between Acidity, Activity and Selectivity"
**OA-2 (11:05-11:25)**
S. Kamiguchi,[a,]* K. Okumura,[b] S. Nagashima,[c] T. Chihara[c] *([a]RIKEN, Japan; [b]Tottori University, Japan; [c]Saitama University, Japan)*
"Ring-Opening of Tetrahydrofuran to Butyraldehyde Catalyzed by Lewis Acid Sites on Solid-State Molybdenum Sulfide Clusters with an Octahedral Metal Framework"
**Chairpersons: S. D. Jackson *(University of Glasgow, Scotland)*, T. Tanaka *(Kyoto University, Japan)***
**OA-3 (11:25-11:45)**
Y. Zhang, X. Li, J. Ren,* X. Liu, T. Ying, G. Lu, Y. Wang* *(East China University of Science and Technology, China)*
"Design of Niobium Catalysts: Controlling of Lewis and Brönsted Acid Sites"
**KL-A1 (11:45-12:25)**
B. Onida *(Politecnico di Torino, Italy)*
"Acidic and Basic Sites in Ordered Mesoporous Organosilicas"

**Chairperson: M. Onaka *(The University of Tokyo, Japan)***
**PL-2 (13:40 - 14:40)**
K. Ishihara *(Nagoya University, Japan)*
"Rational Design of Supramolecular Catalysts Based on Acid-Base Combination Chemistry"

Coffee Break (14:40-15:00)

**Chairpersons: J. Dedecek (*J. Heyrovsky Institute of Physical Chemistry, Czech Republic*), M. Ogura *(The University of Tokyo, Japan)***

**KL-A2 (15:00-15:40)**
G. Sastre *(Instituto de Tecnologia Quimica, UPV CSIC, Spain)*
"Influence of Shape-Selectivity in Zeolite Catalysts. A Computational View"
**OA-4 (15:40-16:00)**
S. Borghèse,[a] M. Haouas,[b,]* J. Sommer,[a,]* F. Taulelle[b] *([a]Université de Strasbourg, France; [b]Université de Versailles St-Quentin, France)*
"Direct Measurement of the Activation Energy of Hydride Transfer of Isobutane by Double $^{13}C$-$^{2}H$ Isotope Labeling. A Kinetic Study by In-Situ MAS NMR"
**OA-5 (16:00-16:20)**
K. Girling, S.D. Jackson* *(University of Glasgow, Scotland)*
"High Activity Solid Base Catalysts for Alkenyl Aromatic Isomerisation"
**Chairpersons: B. Louis *(Université de Strasbourg, France)*, T. Baba *(Tokyo Institute of Technology, Japan)***
**OA-6 (16:20-16:40)**
W.O. Alabi,[a] B.B. Tope,[a] K. Alam,[a] A.M. Aitani,[a] H. Hattori,[b,]* S.S. Khattaf[a,]* ([a]*King Fahd University of Petroleum & Minerals, Saudi Arabia; [b]Hokkaido University, Japan)*
"Side-Chain Alkylation of Toluene with Methanol to Styrene over Modified Cesium Ion-Exchanged Zeolite X"
**OA-7 (16:40-17:00)**
N.A. Brunelli, H.J. Kim, C.W. Jones* *(Georgia Institute of Technology, USA)*
"Tuning Acid-Base Cooperativity of Amines and Silanols for C-C Bond Forming Reactions through Controlling the Linker Length and Pore Size"
**OA-8 (17:00-17:20)**
F. Sato, S. Sato *(Chiba University, Japan)*
"Acid-Base Concerted Catalysis in the Dehydration of 1,4-Butanediol over $Er_2O_3$"

**Chairperson: F.C. Jentoft *(University of Oklahoma, USA)***
**2013 Acid-Base Catalysis Young Scientist Award Lecture (17:30-18:00)**
B. Louis (*Université de Strasbourg, France*)
"Tailored-made zeolites for chemical reactions"

**Poster Session 1: *Salvia and Dahlia* room (18:00-19:30)**
**PA-001 ~ PA-076, RRR-001 ~ RRR-011**

**May 14th Room A**

**Chairperson: J.C. Vedrine *(Université Pierre et Marie Curie, France)***
**PL-3 (9:00-10:00)**
B. Weckhuysen *(Universität Utrecht, The Netherlands)*
"Nanoscale Imaging of Acidity, Porosity and Reactivity within Molecular Sieves"

Coffee Break (10:00-10:20)

**Chairpersons: F.-S. Xiao *(Zhejiang University, China)*, T. Yokoi *(Tokyo Institute of Technology, Japan)***
**OA-9 (10:20-10:40)**
Y. Kubota,* S. Inagaki K. Takechi *(Yokohama National University, Japan)*
"Hexane Cracking Catalyzed by MSE-type Zeolite as a Solid Acid Catalyst"
**OA-10 (10:40-11:00)**
O. Muraza,[a,]* I. Bakare,[a] T. Tago,[b] H. Konno,[b] A.M. Al-Amer,[a] Z.H. Yamani,[a] Y. Nakasaka,[b] T. Masuda[b] *([a]King Fahd University of Petroleum and Minerals, Saudi Arabia; [b]Hokkaido University, Japan)*
"Hierarchical MTT Zeolite for Selective Cracking of *n*-Hexane to Propylene"
**OA-11 (11:00-11:20)**
P. Wu,* B. Zhang, Y. Ji, Y. Wang *(East China Normal University, China)*
"MWW Structure-Related Aluminosilicates for Selective Synthesis of Aromatics"
**Chairpersons: P. Wu *(East China Normal University, China)*, Y. Kubota *(Yokohama National University, Japan)***
**OA-12 (11:20-11:40)**
L. Ren,[a] Q. Wu,[b] X. Meng,[b] F.-S. Xiao[b,]* *([a]Jilin University, China; [b]Zhejiang University, China)*
"Solidothermal Route for Synthesizing Zeolite Catalysts"
**KL-A3 (11:40-12:20)**
S.-B. Liu *(Academia Sinica, Taiwan)*
"Acidity of Solid and Liquid Acids Scaled by $^{31}P$ NMR Chemical Shifts of Phosphorous Probe Molecules"

**Chairperson: E. Iglesia *(University of California at Berkeley, USA)***
**PL-4 (13:40 - 14:40)**
U. Olsbye *(Oslo University, Norway)*
"On the Acid-Catalyzed Conversion of Methanol to Hydrocarbons"

Coffee Break (14:40-15:00)

**Chairpersons: Y. Tang *(Fudan University, China)*, T. Komatsu *(Tokyo Institute of Technology, Japan)***
**KL-A4 (15:00-15:40)**
N. Katada *(Tottori University, Japan)*

"Acid Strength of AlOHSi Unit in Aluminosilicate"

**OA-13 (15:40-16:00)**

E.G. Derouane,[a,b] J.C. Védrine,[c,]* R. Ramos Pinto,[a,d] P.M. Borges,[a] L. Costa,[a] M.A.N.D.A. Lemos,[a] F. Lemos,[a] F. Ramôa Ribeiro[a] *([a]Universidade Técnica de Lisboa, Portugal; [b]Universidade do Algarve, Portugal; [c]Université P.&M. Curie, France; [d]Universidade Técnica de Lisboa, Portugal)*

"The Acidity of Zeolites: Concepts, Measurements and Relation of Catalysis"

**OA-14 (16:00-16:20)**

J. Dedecek,* P. Klein, V. Pashkova, P. Sazama, B. Wichterlova, Z. Sobalik *(Academy of Sciences of the Czech Republic, Czech Republic)*

"Distribution of Brönsted Acid Sites in ZSM-5 Zeolites, Its Control, and Effect on Cracking of Hydrocarbons"

**OA-15 (16:20-16:40)**

B.T.L. Bleken, S. Bordiga, S. Svelle, U. Olsbye, K.P. Lillerud* *(University of Oslo, Norway)*

"FT-IR Spectroscopy with Probe Molecules on Nanosheet H-ZSM-5"

**Poster Session 2: *Salvia and Dahlia* room (16:40-18:20)**

**PB-001 ~ PB-072, RRR-012~ RRR-016**

**Banquet: *Green Wind* room (18:30-20:30)**

**May 15th Room A**

**Chairperson: Michikazu Hara *(Tokyo Institute of Technology, Japan)***
**PL-5 (9:00-10:00)**
G. Busca *(Universita degli Studi di Genova, Italy)*
"Surface Acid and Basic Sites on Aluminas and Silica-Aluminas"

Coffee Break (10:00-10:20)

**Chairpersons: A.A. Tsyganenko *(St.Petersburg State University, Russia)*, T. Sano *(Hiroshima University, Japan)***
**OA-16 (10:20-10:40)**
Q. Qian,[a] J. Ruiz-Martínez,[a] M. Mokhtar,[b] A.M. Asiri,[b,c] S.A. Al-Thabaiti,[b] S.N. Basahel,[b] B.M. Weckhuysen[a,]* *([a]Utrecht University, The Netherlands; [b] King Abdulaziz University, Saudi Arabia; [c]King Abdulaziz University, Saudi Arabia)*
“Single-Particle Spectroscopy of Large SAPO-34 Crystals at Work: Methanol-to-Olefins vs. Ethanol-to-Olefins”
**OA-17 (10:40-11:00)**
J. Blancharda,[a,]* C. Dupont,[a] Y. Millot,[a] J.-M. Krafft,[a] T. Takahashi,[b] H. Yasuda,[b] A. Tougerti,[c] S. Cristol,[c] *([a]Université Pierre et Marie CURIE, France; [b]National Institute of Advanced Industrial Science and Technology (AIST), Japan; [c]Université des Sciences et Technologies de Lille, France)*
“FTIR and XAS as Tools to Identify the Acid Sites Amorphous Silica-Aluminas”
**OA-18 (11:00-11:20)**
T. Torikai,[a,]* Y. Senga,[a] K. Nakai,[a] N. Katada[b] *([a]BEL Japan, Inc., Japan; [b]Tottori university, Japan)*
“Development of Fully-Automatic Ammonia IRMS-TPD Analyzer”
**Chairpersons: J. Blanchard *(Université Pierre et Marie Curie et du CNRS , France)*, H. Hattori *(Hokkaido University, Japan)***
**OA-19 (11:20-11:40)**
A.A. Tsyganenko* *(St.Petersburg State University, Russia)*
“FTIR Testing of Surface Acidity and Basicity”
**KL-B2 (11:40-12:20)**
Z. Liu *(Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China)*
"Mechanism Research on Methanol to Olefin Reaction"

Closing Remark (12:20~)

**May 13th Room B**

9:00 - 9:15 Opening Ceremony

**Chairperson: J. Sommer (*Université de Strasbourg, France*)**

**PL-1 (9:15 - 10:15)**

J. Lercher *(Technische Universität München, Germany)*

"Understanding Zeolite Activity in Acid-Base Catalyzed Reactions -From the Gas Phase to an Aqueous Environment"

Coffee Break (10:15-10:45)

**Chairpersons: Kevin C.-W. Wu *(National Taiwan University, Taiwan)*, N. Katada *(Tottori University, Japan)***

**KL-B1 (10:45-11:25)**

Y.-K. Park *(Korea Research Institute of Chemical Technology, Korea)*

"Challenges in Catalytic Cracking for the Production of Light Olefins: Consideration in Catalyst and Process Design"

**OB-1 (11:25-11:45)**

A. Nau,[a] F. Geilen,[b] H.-W. Zanthoff[b,]* *([a]Technical University Dortmund, Germany; [b]Evonik Industries, Germany)*

"Advanced Catalysts for the Production of Isobutene from MTBE"

**OB-2 (11:45-12:05)**

Y.-W. Chen,* S.-J. Chu *(National Central University, Taiwan)*

"Disproportionation of Trimethylbenzene over Beta Zeolite"

**OB-3 (12:05-12:25)**

R.Y. Brogaard,[a] B.M. Weckhuysen,[a,b,c] J.K. Nørskov[a,b,]* *([a]Stanford University, USA; [b]National Accelerator Laboratory, USA; [c]Utrecht University, The Netherlands)*

"Guest-Host Interactions of Arenes in H-ZSM-5 and Their Impact on Methanol-to-Hydrocarbons Deactivation Processes"

**Chairperson: M. Onaka *(The University of Tokyo, Japan)***

**PL-2 (13:40 - 14:40)**

K. Ishihara *(Nagoya University, Japan)*

"Rational Design of Supramolecular Catalysts Based on Acid-Base Combination Chemistry"

Coffee Break (14:40-15:00)

**Chairpersons: I. Nowak *(Adam Mickiewicz University, Poland)*, T. Mitsudome *(Osaka University, Japan)***

**OB-4 (15:00-15:20)**

T. Kimura, K. Kamata, N. Mizuno* *(The University of Tokyo, Japan)*

"Efficient Chemical Fixation of $CO_2$ at Atmospheric Pressure Catalyzed by a Monomeric Tungstate"

**OB-5 (15:20-15:40)**

K. Motokura,* S. Matsunaga, H. Noda, A. Miyaji, T. Baba *(Tokyo Institute of Technology, Japan)*

“Water-Accelerated Allylsilylation of Alkenes Using a Proton-Exchanged Montmorillonite as a Solid Acid Catalyst”

**OB-6 (15:40-16:00)**

K. Nakajima,[a,b] M. Kitano,[a] M. Hara[a,c,*] *([a]Tokyo Institute of Technology, Japan: [b]PRESTO, Japan Science and Technology Agency, Japan; [c]ALCA, Japan Science and Technology Agency, Japan)*

“Selective Production of Lactic Acid from Triose over Phosphate/$TiO_2$ with Water-Tolerant Lewis Acid Sites”

**Chairpersons: A. Andersson *(Lund University, Sweden)*, J. N. Kondo *(Tokyo Institute of Technology, Japan)***

**OB-7 (16:00-16:20)**

R. Baran,[a,b] I.I. Kamińska,[c] S. Casale,[b] T. Onfroy,[b] A. Śrębowata,[c,*] S. Dzwigaj[b,*] *([a]AGH University of Science and Technology, Poland; [b]Université Pierre et Marie Curie et du CNRS, France; [c]Institute of Physical Chemistry, Polish Academy of Sciences, Poland)*

“Hydrodechlorination of 1,2-Dichloroethane on Nickel Loaded Beta Zeolites: Influence of the Acidity and Nickel State on Product Selectivity”

**OB-8 (16:20-16:40)**

S. Diallo-Garcia, M.B. Osman, J.M. Krafft, Y. Millot, G. Costentin* *(Université Pierre et Marie Curie et du CNRS, France)*

“Identification of the Active Sites Responsible for the Atypical Performances of Hydroxyapatite Basic System in the Ethanol Conversion in *n*-Butanol”

**KL-A5 (16:40-17:20)**

Y. Kamiya *(Hokkaido University, Japan)*

"Quantitative Understanding of Surface Acidity of Supported Heteropolyacids"

**Poster Session 1: *Salvia and Dahlia* room (18:00-19:30)**

**PA-001 ~ PA-076, RRR-001 ~ RRR-011**

**May 14th Room B**

**Chairperson: J.C. Vedrine *(Université Pierre et Marie Curie, France)***
**PL-3 (9:00-10:00)**
B. Weckhuysen *(Universität Utrecht, The Netherlands)*
"Nanoscale Imaging of Acidity, Porosity and Reactivity within Molecular Sieves"

Coffee Break (10:00-10:20)

**Chairpersons: H. Matsuhashi *(Hokkaido University of Education, Japan)*, A. Takagaki *(The University of Tokyo, Japan)***
~~**KL-B3 (10:20-11:00)**~~
~~B.M. Reddy *(Indian Institute of Chemical Technology, India)*~~
~~"Zirconia-Based Green Solid Acids for Organic Synthesis"~~
**OB-20 (10:20-10:40)**
H. Yamazaki, T. Yokoi, T. Tatsumi, J. N. Kondo* *(Tokyo Institute of Technology)*
"FT-IR Study on the Mechanism of Methanol-to-Olefin Reaction"
**OB-21 (10:40-11:00)**
A. Muramatsu,[a] M. Nakaya,[a] K. Omata,[b], M. Yamada,[c] Y. Yamazaki,[a] *([a]Tohoku University, [b]Shimane University, [c]Akita National College of technology)*
"Regeneration for Promotion to Catalytic Activity of H-ZSM-5 for DME Conversion to Olefin"
**OB-9 (11:00-11:20)**
R. Znaiguia,[a,b] P. Rey,[b] J.-M. Millet,[a] S. Loridant[a,]* ([a]*CNRS-Université Claude Bernard Lyon 1, France; [b]Adisseo France SAS, France*)
"Gas Phase Dehydration of Glycerol to Acrolein over Tungstated Zirconias: Key Parameters for Higher Stability and Acrolein Selectivity"

**Chairpersons: N. Essayem *(IRCELYON-CNRS-Lyon1, France)*, S. Sato *(Chiba University, Japan)***
**OB-10 (11:20-11:40)**
M. Massa, A. Andersson* *(Lund University, Sweden)*
"Performance of Supported Nb- and W-Oxides in the Gas-Phase Dehydration of Glycerol to Acrolein"
**OB-11 (11:40-12:00)**
L.-Z. Tao, B. Yan, Z. Hu, Y. Liang, B.-Q. Xu* *(Tsinghua University, China)*
"Catalytic and Acid-Base Properties of $Ta_2O_5 \cdot xH_2O$ for Acrolein Production by Gas-Phase Dehydration of Glycerol"
**OB-12 (12:00-12:20)**
T. Mizugaki, T. Yamakawa, R. Arundhathi, T. Mitsudome, K. Jitsukawa, K. Kaneda* *(Osaka University, Japan)*
"Selective Hydrogenolysis of Glycerol to Valuable Chemicals Using Pt-$AlO_x$/$WO_3$ Catalysts"

**Chairperson: E. Iglesia *(University of California at Berkeley, USA)***

**PL-4 (13:40 - 14:40)**
U. Olsbye *(Oslo University, Norway)*
"On the Acid-Catalyzed Conversion of Methanol to Hydrocarbons"

Coffee Break (14:40-15:00)

**Chairpersons: C.J.A. Mota *(Universidade Federal do Rio de Janeiro, Brazil)*, W. Ueda *(Hokkaido University, Japan)***
**OB-13 (15:00-15:20)**
K. Ebitani,[a,]* D. Saumya,[a,b] T. Jaya,[a] S. Nishimura[a] *([a]Japan Advanced Institute of Science and Technology, Japan; [b]University of Delhi, India)*
"One-Pot Conversions of Sugars into Furfurals and Sugar Alcohols Using Heterogeneous Catalysts"
**OB-14 (15:20-15:40)**
D. Stošić,[a] S. Bennici,[a] S. Sirotin,[b] C. Calais,[c] J.-L. Couturier,[c] J.-L. Dubois,[d] A. Travert,[b] A. Auroux[a,*] *([a]Université Lyon 1, France; [b]Université de Caen, France; [c]ARKEMA, Centre de Recherche Rhône Alpes, France; [d]ARKEMA, Direction Recherche & Développement, France)*
"Tuning the Selectivity in Glycerol Dehydration Reaction by Precise Control of Acid-Base Features of Solid Catalysts"
**OB-15 (15:40-16:00)**
Y. Matsuura, A. Onda,* S. Ogo, K. Yanagisawa *(Kochi University, Japan)*
"Selective Conversion of Lactic Acid into Acrylic Acid over Hydroxyapatite Catalysts"
**KL-B4 (16:00-16:40)**
E. Iglesia *(University of California at Berkeley, USA)*
"Condensation and Esterification Catalysis of Oxygenates on Acid-Base Site Pairs"

**Poster Session 2: *Salvia and Dahlia* room (16:40-18:20)**
**PB-001 ~ PB-072, RRR-012~ RRR-016**

**Banquet: *Green Wind* room (18:30-20:30)**

**May 15th Room B**

**Chairperson: Michikazu Hara *(Tokyo Institute of Technology, Japan)***
**PL-5 (9:00-10:00)**
G. Busca *(Universita degli Studi di Genova, Italy)*
"Surface Acid and Basic Sites on Aluminas and Silica-Aluminas"

Coffee Break (10:00-10:20)

**Chairpersons: G. Giordano *(University of Calabria, Italy)*, A. Fukuoka *(Hokkaido University, Japan)***
**KL-B5 (10:20-11:00)**
B.F. Sels *(Katholieke Universiteit Leuven, Belgium)*
"Future Aspects of Chemocatalysis for Cellulosic Biomass Conversion"
**OB-16 (11:00-11:20)**
B. Katryniok,[a,b,c,*] S. Paul,[a,b,c] F. Dumeignil,[a,c,d] *([a]Université Lille Nord de France, France; [b]Ecole Centrale de Lille, France; [c]UCCS (UMR CNRS 8181), France, [d]Maison des Universités, France)*
"Dehydration of Glycerol to Acrolein – A Revised Picture of the Influence of Acidity and Basicity"
**Chairpersons: B.-Q. Xu *(Tsinghua University, China)*, K. Nakajima *(Tokyo Institute of Technology, Japan)***
**OB-17 (11:20-11:40)**
I. Agirrezabal-Telleria,[a,*], P.L. Arias,[a] E.K. Kemnitz[b] *([a]University of the Basque Country, Spain; [b]Humboldt-Universität Berlin, Germany)*
"Catalytic Activity and Reaction Mechanism of Bifunctional Partially Hydroxylated $MgF_2$ Catalysts for the Dehydration of Xylose to Furfural"
**OB-18 (11:40-12:00)**
A. Fukuoka,* H. Kobayashi, M. Yabushita *(Hokkaido University, Japan)*
"Conversion of Cellulose into Platform Chemicals by Heterogeneous Catalysis"
**OB-19 (12:00-12:20)**
A.L. de Lima,[a] M. Guarnier,[a] C.M. Ronconi,[b] C.J.A. Mota[a] *([a]Universidade Federal do Rio de Janeiro, Brazil; [b]Universidade Federal Fluminense, Brazil)*
"Synthesis of Heterogeneous Basic Nanocatalysts for Biodiesel Production"

Closing Remark (12:20~)