



30th August-4th September 2009 · Salamanca (Spain)





TIME SCHEDULE ..... p. 4

TOPICS ..... p. 6

SCIENTIFIC PROGRAMME

Sunday, 30 August ..... p. 7

Monday, 31 August ..... p. 7

Tuesday, 1 September ..... p. 14

Wednesday, 2 September ..... p. 20

Thursday, 3 September ..... p. 27

Friday, 4 September ..... p. 34

PLENARY LECTURES ..... p. 39

Time	Sunday, 30 August	Monday, 31 August	Tuesday, 1 September
09:00		Opening Ceremony	Plenary 2
09:30		Plenary 1	
10:00			3-1 4-11 6-11 11-1
10:30		Coffee Break	3-2 4-12 6-12 11-2
11:00		KN1 KN2 KN3 KN4	Coffee Break
11:30		1-1 4-1 6-1 7-1	KN9 KN10 KN11 KN12
12:00		1-2 4-2 6-2 7-2	3-3 2-1 12-1 11-3
12:30		1-3 4-3 6-3 7-3	3-4 2-2 12-2 11-4
13:00		1-4 4-4 6-4 7-4	3-5 2-3 12-3 11-5
13:30		1-5 4-5 6-5 7-5	3-6 2-4 12-4 11-6
14:00		1-6 4-6 6-6 7-6	3-7 2-5 12-5 11-7
14:30		LUNCH	LUNCH
15:00			
15:30			
16:00		KN5 KN6 KN7 KN8	Plenary 3
16:30		1-7 4-7 6-7 7-7	
17:00	Registration	1-8 4-8 6-8 7-8	3-8 2-6 12-6 11-8
17:30		1-9 4-9 6-9 7-9	3-9 2-7 12-7 11-9
18:00		1-10 4-10 6-10 7-10	3-10 2-8 12-8 11-10
18:30		POSTER SESSION 1 (Coffee)	POSTER SESSION 2 (Coffee)
19:00			
19:30			
20:00	Welcome Party		
20:30			
21:00			
21:30		BAROQUE CONCERT	
22:00			
22:30			



Time	Wednesday, 2 September				Thursday, 3 September				Friday, 4 September			
09:00	Plenary 4				Plenary 5				Plenary 6			
09:30												
10:00	3-11	2-9	10-1	14-1	8-9	2-19	10-11	5-9	1-11	13-5	11-11	5-20
10:30	3-12	2-10	10-2	14-2	8-10	2-20	10-12	5-10	1-12	13-6	11-12	5-21
11:00	Coffee Break				Coffee Break				Coffee Break			
11:30	KN13	KN14	KN15	KN16	KN17	KN18	KN19	KN20	1-13 1-14	KN25	KN26	KN27
12:00	8-1	2-11	10-3	5-1	8-11	2-21	10-13	5-11	1-15	13-7	11-13	5-22
12:30	8-2	2-12	10-4	5-2	8-12	2-22	10-14	5-12	1-16	13-8	11-14	5-23
13:00	8-3	2-13	10-5	5-3	8-13	2-23	10-15	5-13	1-17	13-9	11-15	5-24
13:30	8-4	2-14	10-6	5-4	8-14	2-24	10-16	5-14	1-18	13-10	11-16	5-25
14:00	LUNCH				LUNCH				LUNCH			
14:30												
15:00	SPANISH FIESTA				POSTER SESSION 3 (Coffee)				BANQUET			
15:30												
16:00	8-6	2-16	10-8	5-6	KN21	KN22	KN23	KN24				
16:30	8-7	2-17	10-9	5-7	9-1	13-1	10-18	5-16				
17:00	8-8	2-18	10-10	5-8	9-2	13-2	10-19	5-17				
17:30					9-3	13-3	10-20	5-18				
18:00	SPANISH FIESTA				POSTER SESSION 3 (Coffee)				BANQUET			
18:30												
19:00	SPANISH FIESTA				POSTER SESSION 3 (Coffee)				BANQUET			
19:30												
20:00	SPANISH FIESTA				POSTER SESSION 3 (Coffee)				BANQUET			
20:30												
21:00	SPANISH FIESTA				POSTER SESSION 3 (Coffee)				BANQUET			
21:30												
22:00	SPANISH FIESTA				POSTER SESSION 3 (Coffee)				BANQUET			
22:30												

KN = Keynote

1. Catalysis by Design
2. Catalysis for Chemicals and Fine Chemicals
3. Selective Catalytic Oxidation using Environmentally Friendly Oxidants
4. Upgrading Oils and Improving Fuel Quality
5. Purification and Elimination of Pollutants: Chemical and Photochemical Catalysis Processes
6. Chemicals and Fuels from Biomass
7. Coal and Gas to Liquids
8. Hydrogen Production, Purification and Storage
9. Electrocatalysis and Fuel Cells
10. Synthesis of Nanostructured Catalysts
11. Catalysts at Work
12. Single and Multisite Catalysis: Homogeneous, Enzymatic and Cascade Reactions
13. Catalytic Processes, Catalyst Decay and Regeneration
14. High-Throughput Technologies

### **Abbreviations used in the EuropaCat IX programme:**

PL = Plenary Lecture

KN = Keynote Lecture

O1-1 = Oral Presentation + Topic number - order number

P1-1 = Poster Presentation + Topic number - order number

## SUNDAY 30 AUGUST

**16:30 – 20:00 Registration**

**20:00 Welcome Party**

## MONDAY 31 AUGUST

**09:00 Opening Ceremony, Sala Mayor**

**09:30 Plenary 1, Sala Mayor**

*Nanostructures and Nanospaces in Catalysis*, Enrique Iglesia, University of California at Berkeley, USA

**10:30 Coffe Break**

**10:50 – 13:30 Oral presentations, Sala Mayor**

**10:50 KN1**

*System chemistry of heterogeneous catalysis – the examples of CO and ethylene oxidation*, Scheffler, Matthias

**11:30 O1-1**

*Fabrication of core-shell Ti-containing silica encapsulating FePt magnetic nanoparticles as a spherical nanocatalyst*, Mori, Kohsuke; Sugihara, Kohei; Kondo, Yuichi; Yamashita, Hiromi

**11:50 O1-2**

*Nanostructured Pd-Ga Intermetallic Compounds as High-Performance Catalysts for the Semi-Hydrogenation of Acetylene*, Armbrüster, Marc; Friedrich, Matthias; Grin, Yuri; Schlögl, Robert

**12:10 O1-3**

*Iron-Catalyzed Michael Reactions – From Experiment to Theory and Back*, Christoffers, Jens

**12:30 O1-4**

*Gold cations in ceria: an ideal precursor to highly active gold clusters*, Guan, Yejun; Hensen, Emiel J M

**12:50 O1-5**

*Study of Au/CeZrO<sub>4</sub> catalysts for the low temperature Water Gas Shift reaction; identification of the active Au species*, Daly, Helen; Meunier, Frederic C.; Pilasombat, Ratchaneecorn; Burch, Robbie; Goguet, Alexandre; Hardacre, Christopher

**13:10 O1-6**

*Metal-Organic Frameworks: A Novel Class of Photocatalysts?*, Hernandez Alonso, Maria Dolores; Gascon, Jorge; Almeida, Ana Rita; van Klink, Gerard P.M.; Parga, Jacobo A.; Carneiro, Joana T.; Kapteijn, Freek; Mul, Guido

**10:50 – 13:30 Oral presentations, Sala Menor****10:50 KN2**

*Value drivers for catalytic innovation in oil refining*, Maesen, Theo

**11:30 O4-1**

*Super active and selective hydrotreatment catalyst for ULSD production*, Xiao, Tiancun; Gonzales-Cortes, Sergio; Rugmini, Sreekala

**11:50 O4-2**

*Highly active unsupported HDS catalyst prepared by chemical vapour deposition of Mo(CO)<sub>6</sub> on a nickel-containing metal organic Framework*, Johansson, Frank Bartnik; Brorson, Michael; Helveg, Stig; Larabi, Cherif; Quadrelli, Alessandra

**12:10 O4-3**

*Synergism Co//Mo and Ni//Mo via Hydrogen Spillover in the Petroleum Hydrodenitrogenation*, Gil Llambias, Francisco Javier; Valdevenito, Faviola; García, Rafael; Escalona, Nestor; Agudo, Lopez; Rasmussen, Soren

**12:30 O4-4**

*The Effect of Organic Nitrogen Compounds on Gas Oil Hydrodesulfurization Studied in a Pilot Plant*, Blekkan, Edd Anders; Bergem, Håkon; Otterlei, Camilla; Thorvaldsen, Bodil; Skjølvsvik, Per Aksel; Seljestokken, Bente; Rosvoll, Jorunn Steinsland



**12:50 O4-5**

*Selective and Unexpected Transformations of 2-Methylpropane to 2,3-Dimethylbutane and 2-Methylpropene to 2,3-Dimethylbutene Catalyzed by an Alumina-Supported Tungsten Hydride*, Thivolle-Cazat, Jean

**13:10 O4-6**

*Towards a better understanding of the HDT catalysts deactivation*, Guichard, Bertrand; Roy-Auberger, Magalie; Devers, Elodie; Legens, Christelle; Digne, Mathieu; Rebours, Bernadette; Quoineaud, Anne-Agathe

**10:50 – 13:30 Oral presentations, Sala Castilla****10:50 KN3**

*Catalytic transformations for production of biofuels, specialty chemicals and pharmaceuticals from wood*, Murzin, Dmitry Yu.

**11:30 O6-1**

*Production of a new generation of liquid fuels from biomass. Hydrodeoxygenation of 2-ethylphenol over sulfided Mo-based catalysts*, Richard, Frédéric; Romero, Yilda; Brunet, Sylvette

**11:50 O6-2**

*Simultaneous HDO of Phenol and Methyl Heptanoate over Sulphided NiMo/ $\gamma$ -Al<sub>2</sub>O<sub>3</sub>*, Rymin, Eeva-Maija; Viljava, Tuula-Riitta; Honkela, Maija; Krause, Outi

**12:10 O6-3**

*Photocatalytic reforming of Glycerol as a Source of Alternative Fuel*, Bowker, Michael; Al-Mazroai, Layla; Davies, Philip; Hayward, James

**12:30 O6-4**

*Platelet sulfonic acid-functionalized SBA-15 materials with short mesochannels: new acid catalysts for efficient synthesis of biodiesel*, Cheng, Soofin; Chen, Shih-Yuan; Yokoi, Toshiyuki; Tsai, Yi-Ling; Jang, Ling-Yun; Tatsumi, Takashi; Chan, Jerry C. C.

**12:50 O6-5**

*Glucose dehydration into HMF by Lewis acidic metal chlorides: development of a heterogeneous MeCl<sub>x</sub>/ionic liquid/SBA-15 catalyst*, Degirmenci, Volkan; Magusin, Pieter; Hensen, Emiel

**13:10 O6-6**

*Highly Efficient Catalytic System for the Selective Production of Hydroxyl-methylfurfural from Sugars*, Zhang, Yugen; Yong, Gen; Chan, Jin Young; Ying, Jackie

**10:50 – 13:30 Oral presentations, Sala León****10:50 KN4**

*The role of DME/Methanol as intermediates to promote modified Fischer-Tropsch process*, Falabella Sousa-Aguiar, Eduardo; G. Appel, Lucia; Zonetti, Priscila C.; Gaspar, Alexandre B.; Eledir Sobrinho

**11:30 O7-1**

*On a quantitative description of the cobalt particle size effect in the Fischer-Tropsch reaction*, den Breejen, Johan P.; Radstake, Paul B.; Bezemer, G. Leendert; Frøseth, Vidar; Holmen, Anders; Bitter, J. Harry; de Jong, Krijn P.

**11:50 O7-2**

*First Principle based Reaction Path Analysis of the Fischer Tropsch Synthesis mechanism*, Zhuo, Ming Kun; Tan, Kong Fei; Borgna, Armando; Saeys, Mark

**12:10 O7-3**

*Adsorption and Dissociation of CO on Body Centered Cubic Transition Metals and Alloys: Effect of Coverage and Scaling Relations*, Scheijen, Freek; Curulla-Ferre, Dani; Niemantsverdriet, Hans

**12:30 O7-4**

*CO<sub>2</sub> reactivity in the Fischer-Tropsch synthesis over cobalt-based catalysts*, Visconti, Carlo Giorgio; Lietti, Luca; Tronconi, Enrico; Forzatti, Pio; Rossini, Stefano; Zennaro, Roberto; Finocchio, Elisabetta

**12:50 O7-5**

*Deactivation and regeneration of cobalt based Fischer-Tropsch synthesis catalysts*, Saib, A.M.; Ciobica, I.M.; Haumann, M.M.; Maloka, J.M.; Moodley, D.J.; Overett, M.J.; Sigwebela, B.H.; van de Loosdrecht, J.; Nthute, D.; van Santen, R.A.; Niemantsverdriet, J.W.

**13:10 O7-6**

*Novel deactivation model for 1-butene double bond migration on amorphous silica-alumina*, Anderson, Jim A.; Agullo, Javier; Wells, Richard

**13:30 Lunch****15:30 – 17:30 Oral presentations, Sala Mayor****15:30 KN5**

*Surface organometallic chemistry: « A predictive approach of heterogeneous catalysis via single site catalysts? »*, Basset, J.M.

**16:10 O1-7**

*Pseudo-bridging Silanols as Versatile Brønsted Acid Sites*, Raybaud, Pascal; Chizallet, Céline

**16:30 O1-8**

*Gamma alumina: a chemically active support as seen from a combination of experiment and theory*, Sautet, Philippe; Wischert, Raphael; Delbecq, Francoise; Copéret, Christophe

**16:50 O1-9**

*Characterization of nanometer-scale roughness in SBA-15 mesoporous silica using image analysis of electron tomograms*, Friedrich, Heiner; Gommès, Cedric J.; de Jongh, Petra E.; de Jong, Krijn P.

**17:10 O1-10**

*Non-localized charge compensation in high-silica zeolitas*, Pidko, Evgeny A.; Hensen, Emiel J.M.; van Santen, Rutger A.

**15:30 – 17:30 Oral presentations, Sala Menor****15:30 KN6**

*Advanced Catalysts for Production of Diesel from Heavy Feedstocks*, Santiesteban, José G. and Lewis, W. Ernie

**16:10 O4-7**

*Influence of dealumination on the pore systems of the HCMC-22 zeolite*, Matias, Patricia; Lopes, José Manuel; Laforge, Sébastien; Magnoux, Patrick; Guisnet, Michel; Ribeiro, Fernando Ramôa

**16:30 O4-8**

*Properties of zeolites driving catalytic transformations of hydrocarbons*, Sazama, Petr; Dedecek, Jiri; Palumbo, Luisa; Bordiga, Silvia; Gábová, Vendula; Wichterlová, Blanka

**16:50 O4-9**

*Effect of biofuels on the efficiency of diesel oxidation catalysts*, Maunula, Teuvo; Pienipaavola, Lauri; Ahola, Juha; Kinnunen, Toni; Stepanek, Jan

**17:10 O4-10**

*Development of monolithic Pd-based catalysts for DME-fueled auxiliary power systems – A renewable hydrogen opportunity*, Pettersson, Lars J.; Nilsson, Marita; Jozsa, Peter

**15:30 – 17:30 Oral presentations, Sala Castilla****15:30 KN7**

*Metal complexes immobilized into porous supports as heterogeneous catalysis for oxidation reactions*, Freire, Cristina

**16:10 O6-7**

*One step conversion of vegetable oil into a mixture of biofuels: fatty acid ethyl esters and glycerol ethyl ethers*, Essayem, Nadine; Lopes De Souza, Rodrigo; Hamad, Berna; Pries De Oliveira, Paulo Gustavo; Araujo Gonzales, Wilma; Sapaly, Gilbert

**16:30 O6-8**

*Oxydehydration of glycerol on mixed oxide catalysts: an alternative route to propylene oxidation*, Deleplanque, Jeremy; Devaux, Jean Francois; Dubois, Jean Luc; Ueda, Wataru

**16:50 O6-9**

*Direct Catalytic Conversion Cellulose into Ethylene Glycol over Bimetallic Catalysts*, Zheng, Mingyuan; Wang, Aiqin; Ji, Na; Pang, Jifeng; Zhang, Tao

**17:10 O6-10**

*Acid-species involved in the depolymerization of cellulose using Amberlyst resins in ionic liquids*, Rinaldi, Roberto; Palkovits, Regina; Schüth, Ferdi

**15:30 – 17:30 Oral presentations, Sala León****15:30 KN8**

*Coal and gas to liquids: Successes and challenges in catalysis*, de Klerk, Arno

**16:10 O7-7**

*Fischer-Tropsch studies in a microstructured reactor*, Myrstad, Rune; Eri, Sigrid; Pfeifer, Peter; Schubert, Klaus; Rytter, Erling; Holmen, Anders

**16:30 O7-8**

*Effect of templates on SAPO-34 acidity and catalytic activity in the methanol-to-olefins reaction*, Álvaro, Teresa; Cocina, Donato; Grande-Casas, Marisol; Onida, Barbara; Sastre, Enrique; Márquez-Alvarez, Carlos

**16:50 O7-9**

*Methane Aromatization over Mo/HZSM-5/Bentonite Catalyst with continuous regeneration in a Two-Zone Fluidized Bed Reactor*, Menendez, Miguel; Soler, Jaime; Herguido, Javier; Gimeno, Maria Pilar

**17:10 O7-10**

*Insights on the effects of  $H_2O$ ,  $CO_2$  and metal surface area on the catalytic partial oxidation of  $CH_4$  at short contact time*, Donazzi, Alessandro; Maestri, Matteo; Michael, Brian C.; Beretta, Alessandra; Forzatti, Pio; Groppi, Gianpiero; Tronconi, Enrico; Schmidt, Lanny D.; Vlachos, Dion G.

**17:30 – 19:30 Poster Session 1, Topics: 1, 4, 6, 7, 10 and Coffee Break****21:00 Baroque Concert, Congress Venue. Sala Mayor**

**TUESDAY, 1 SEPTEMBER**

**09:00 Plenary 2, Sala Mayor**

*Catalysis for Sustainable Industrial Chemistry*, Gabriele Centi, University of Messina, Italy.

**10:10 – 10:50 Oral presentations, Sala Mayor**

**10:10 O3-1**

*Novel sustainable synthesis of acrylonitrile by microwave-promoted ammoxidation of glycerol*, Calvino-Casilda, Vanesa; Guerrero-Pérez, M. Olga; Bañares, Miguel A.

**10:30 O3-2**

*Novel X-ray and electron microscopy imaging of silica coated V-P-O catalysts*, Dummer, Nicholas; Weng, Weihao; Kiely, Carol; Bartley, Jonathan; Carley, Albert; Kiely, Christopher; Hutchings, Graham

**10:10 – 10:50 Oral presentations, Sala Menor**

**10:10 O4-11**

*From “the geometrical model” to the ab initio molecular design of the Co(Ni)MoS selective phase*, Raybaud, Pascal; Krebs, Emmanuel; Toulhoat, Hervé; Kasztelan, Slavik

**10:30 O4-12**

*Advanced Slurry Hydrocracking of Heavy Oil: Catalyst Fundamentals*, Bhat-tacharyya, Alak; Mezza, Beckay; Bricker, Maureen; Bauer, Lorenz

**10:10 – 10:50 Oral presentations, Sala Castilla**

**10:10 O6-11**

*Ni/CeO<sub>2</sub>-ZrO<sub>2</sub>-MgO catalysts for the dry reforming of biogas: Influence of the support composition and synthesis method on the catalytic behaviour.*, Kambolis, Anastasios; Matralis, Haris; Papadopoulou, Christina

**10:30 O6-12**

*Ethanol Formation from Syngas on Modified Methanol Synthesis Catalysts Prepared by Electrodeposition*, Gupta, Mayank; Spivey, James J.

**10:10 – 10:50 Oral presentations, Sala León****10:10 O11-1**

*Watching catalytic solids at work using in situ Scanning Transmission X-ray Microscopy*, de Smit, Emiel; Swart, Ingmar; Creemer, J. Fredrik; Zandbergen, Henny W.; Weckhuysen, Bert M.; de Groot, Frank M.F.

**10:30 O11-2**

*Label-Free Chemical Imaging of Catalytic Solids using Synchrotron-based Infrared and Coherent Anti-Stokes Raman Scattering Microscopy*, Kox, Marianne H.F.; Domke, Katrin F.; Rago, Gianluca; Day, James; Stavitski, Eli; Bonn, Mischa; Weckhuysen, Bert M.

**10:50 Coffee Break****11:10 – 13:30 Oral presentations, Sala Mayor****11:10 KN9**

*Vanadium oxide-based catalysts: still the basis for research and new findings in selective oxidation*, Cavani, F.

**11:50 O3-3**

*Aerobic oxidation of amines: the simplest preparation of an efficient heterogeneous gold catalyst*, Aschwanden, Linda; Mallat, Tamas; Krumeich, Frank; Grunwaldt, Jan-Dierk; Baiker, Alfons

**12:10 O3-4**

*Balanced catalytic surfactants for sustainable H<sub>2</sub>O<sub>2</sub>-based oxidations in three-liquid-phase microemulsion Systems*, Rataj, Véronique; Fressancourt, Marion; Aubry, Jean-Marie

**12:30 O3-5**

*Novel catalysts based on Pd supported on N-modified CNT for direct and safe synthesis of H<sub>2</sub>O<sub>2</sub>*, Centi, Gabriele; Abate, Salvatore; Perathoner, Siglinda; Di Bella, Debora; Arrigo, Rosa; Villa, Alberto; Su, Dangsheng; Schlogl, Robert

**12:50 O3-6**

*Promoters for the direct synthesis of H<sub>2</sub>O<sub>2</sub> over Au-Pd catalysts*, Edwards, Jennifer Kelly; Carley, Albert; Herzing, Andrew; Kiely, Chris; Hutchings, Graham

**13:10 O3-7**

*Direct synthesis of H<sub>2</sub>O<sub>2</sub> over Au-Pd catalysts for selective oxidation*, Torrente-Murciano, Laura; Chadwick, David

**11:10 – 13:30 Oral presentations, Sala Menor****11:10 KN10**

*Role and needs of catalysis in future refining industry*, Fierro, J.L.G.

**11:50 O2-1**

*Aqueous-Phase Hydrogenation of Acetic Acid over Transition Metal Catalysts: The Role of the Acetyl Species*, Olcay, Hakan; Xu, Ye; Huber, George

**12:10 O2-2**

*Unprecedented Heterogeneously Catalyzed Asymmetric Hydrogenation of C=C Bonds: Enantiodirection by Covalently Tethered Chiral Surface Modifiers*, Beaumont, Simon Kenneth; Watson, David James; John Jesudason, RJ Bennie Ram; Burton, Jonathan; Kyriakou, Georgios; Lambert, Richard Michael

**12:30 O2-3**

*Promoted platinum catalysts with close contact between platinum and promoter for the selective hydrogenation of cinnamaldehyde*, Bitter, Johannes Hendrik; Plomp, Arjan; Asten van, David; de Jong, Krijn; Eerden van der, Ad; Murzin, Dmitry; Maki Arvela, Paivi

**12:50 O2-4**

*Cooperative effects of copper and nickel in selective alkyne hydrogenation*, Bridier, Blaise; Pérez Ramirez, Javier

**13:10 O2-5**

*Chiral Proton Sponges as ligands for Rh and Pd Catalysts in Asymmetric Hydrogenations*, Iglesias, Marta; Aranz, Avi; Villaverde, Gonzalo; Sánchez, Félix

**11:10 – 13:30 Oral presentations, Sala Castilla****11:10 KN11**

*Directed Evolution of Enantioselective Enzymes*, Reetz, Manfred T.



**11:50 O12-1**

*Tandem conversion of glycerol*, Sotenko, Maria Vladimirovna; Lapkin, Alexei

**12:10 O12-2**

*First direct access to structure and valence state of working Cr-based ethylene tetramerization catalysts by operando-EPR under pressure*, Jabor, Jabor K.; McConnell, Ann E. C.; Webb, Paul; Brückner, Angelika

**12:30 O12-3**

*Bioinspired catalysis: Superoxide dismutase mimicking Cu(II)-complexes ligated with mixed amino acids and covalently grafted onto silica gel*, Csendes, Zita; Lacko, Linda; Labadi, Imre; Kiss, Janos T; Palinko, Istvan

**12:50 O12-4**

*Synthesis of chiral phosphites derived from BINOL. New ligands for asymmetric rhodium catalyzed hydroformylation*, Carrilho, Rui Miguel B.; Peixoto, Andreia F.; Abreu, Artur R.; Bayón, J. Carles; Moreno, Maria José S. M.; Pereira, Mariette M.

**13:10 O12-5**

*C-Glycosylphenolic derivatives – Studies towards the use of lanthanide-based catalysts as a reliable alternative for their synthesis*, Galhano dos Santos, Rui; Neng, Nuno; Rauter, Amélia Pilar; Nogueira, José; Bordado, João

**11:10 – 13:30 Oral presentations, Sala León****11:10 KN12**

*Catalysts Live and Up Close: In-situ Chemical Imaging at the Micron- and Nanoscale*, Weckhuysen, Bert M.

**11:50 O11-3**

*The Ignition of the Catalytic Partial Oxidation of Methane - Filming a Catalyst at Work*, Kimmerle, Bertram; Grunwaldt, Jan-Dierk; Baiker, Alfons; Glatzel, Pieter; Boye, Pit; Stephan, Sandra; Schroer, Christian G.

**12:10 O11-4**

*Adsorption on catalyst surfaces as revealed through NMR relaxometry*, Weber, Daniel; Mitchell, Jonathan; McGregor, James; Roberts, S Tegan; Huang, Zhenyu; Gladden, Lynn F

**12:30 O11-5**

*Simultaneous selective detection of surface and liquid phase species by PM-IRRAS at catalytic solid-liquid interfaces: First design and performance*, Urakawa, Atsushi; Meier, Daniel M.; Baiker, Alfons

**12:50 O11-6**

*In-situ time-resolved XRD study of cobalt alumina supported Fischer-Tropsch catalysts: Direct evidence of cobalt particle sintering and carbidization at the realistic reaction conditions*, Karaca, Héline; Hong, Jingping; Fongarland, Pascal; Roussel, Pascal; Griboval-Constant, Anne; Lacroix, Maxime; Hortmann, Kai; Safonova, Olga; Khodakov, Andrei Y.

**13:10 O11-7 Sala León**

*Reduction-reoxidation studies of TiO<sub>2</sub> submonolayer coverages on MCM-48 to characterize the formation of oxygen vacancies*, Strunk, Jennifer; Vining, William C.; Bell, Alexis T.

**13:30 Lunch****15:30 Plenary 3, Boudart Award Lecture, Sala Mayor**

*Designing mono-and multifunctional catalysts and processes*, Avelino Corma, Instituto de Tecnología Química, UPV-CSIC, Spain

**16:40 – 17:40 Oral presentations, Sala Mayor****16:40 O3-8**

*“One-pot” Aerobic Epoxidation of Alkenes over Au/CeO<sub>2</sub> and Ti-mesoporous Material by “in situ” Generation of Organic Peroxides*, Aprile, Carmela; Domine, Marcelo E.; Corma, Avelino; Garcia, Hermenegildo; Mitchell, Chris

**17:00 O3-9**

*Selective oxidation of monosaccharides using polymer-stabilized metal nanoparticles*, Sulman, Esther M.; Doluda, Valentin Yu.; Nikoshvili, Linda Zh.; Dzwigaj, Stanislaw; Kustov, Leonid M.; Tkachenko, Olga P.; Bykov, Alexey V.; Schennikov, Sergey V.; Matveeva, Valentina G.; Sulman, Mikhail G.

**17:20 O3-10**

*Chiral catalytic ionic liquids for enantioselective sulfide oxidation*, Quarantelli, Carla; Bigi, Franca; Gunaratne, Nimal; Seddon, Kenneth

**16:40 – 17:40 Oral presentations, Sala Menor****16:40 O2-6**

*Cu/SiO<sub>2</sub> and Cu/SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> catalysts for carbene insertion reactions*, Fraile, José M.; Mayoral, José A.; Ravasio, Nicoletta; Roldán, Marta; Zaccheria, Federica

**17:00 O2-7**

*Bifunctional copper catalysts for an atom efficient ether synthesis*, Ravasio, Nicoletta; Zaccheria, Federica; Psaro, Rinaldo

**17:20 O2-8**

*The origin of catalytic activity of a nonporous Cu-MOF possessing saturated metal sites*, Jiang, Dongmei; Urakawa, Atsushi; Mallat, Tamas; Baiker, Alfons

**16:40 – 17:40 Oral presentations, Sala Castilla****16:40 O12-6**

*A novel approach for O<sub>2</sub>-driven chemo-enzymatic oxidation reactions*, Hollmann, Frank; Aksu, Seda; Arends, Isabel

**17:00 O12-7**

*Novel Possibilities for Biocatalytic C-C Bond Formation: Substrate Scope of the Berberine Bridge Enzyme*, Schrittwieser, Joerg Hannes; Resch, Verena; Sattler, Johann; Winkler, Andreas; Macheroux, Peter; Kroutil, Wolfgang

**17:20 O12-8**

*Regioselective synthesis of resveratrol derivatives by enzymatic acylation or glycosylation*, Torres, Pamela; Poveda, Ana; Jimenez-Barbero, Jesús; Ballesteros, Antonio; Plou, Francisco J.

**16:40 – 17:40 Oral presentations, Sala León****16:40 O11-8**

*Following the evolution of iron complexes supported on carbon nanofibres during the CWAO of phenol*, Maroto-Valiente, Angel; Soria-Sánchez, María; Alvarez-Rodriguez, Jesus; Muñoz, Vicenta; Rodriguez Ramos, Inmaculada; Guerrero-Ruiz, Antonio

**17:00 O11-9**

*Selective hydrogenation of acetylene in ethylene-rich feedstocks over novel Pd Ce /Al<sub>2</sub>O<sub>3</sub> catalysts*, Mantarosie, Loredana; Saih, Youssef; Headdock, Gareth; Hardacre, Chris

**17:20 O11-10**

*Understanding The Operation Of A Commercial NO<sub>x</sub>-Storage-Reduction Material Using Operando IR*, Meunier, Frederic Christian; Dupre, Juliette; Bazin, Philippe; Marie, Olivier; Daturi, Marco; Jeandel, Xavier

**17:40 – 19:30 Poster Session 2**, Topics: 2, 3, 9, 11, 12, 14 and **Coffee Break**.

**WEDNESDAY, 2 SEPTEMBER****09:00 Plenary 4, Sala Mayor**

*Hydrocarbon processing – present and future challenges for catalysis*, Rigutto, M. S. Shell Research and Technology Centre Amsterdam, The Netherlands.

**10:10 – 10:50 Oral presentations, Sala Mayor****10:10 O3-11**

*Study of Ni-Nb-O catalysts for oxidative dehydrogenation of ethane to ethylene: origin of efficiency and study of stability versus time on stream.*, Savova, Bistra; Loridant, Stéphane; Filkova, Diana; Millet, Jean-Marc

**10:30 O3-12**

*V-Mo-Nb-O containing hydrotalcite-like materials as precursors of catalysts for oxidative dehydrogenation of hydrocarbons and alcohols*, Belomestnykh, Inna; Isaguliant, Georgii; Danilov, Vjacheslav; Krasnobaeva, Olga; Nosova, Tatyana; Elisarova, Tatyana

**10:10 – 10:50 Oral presentations, Sala Menor****10:10 O2-9**

*Activity and selectivity of novel SSZ-33 and SSZ-35 zeolites in isopropylation of p-xylene*, Musilová-Pavlačková, Zuzana; Zones, Stacey I.; Čejka, Jiří

**10:30 O2-10**

*Acidity characterization of SAPO-5 materials. A catalytic approach*, Richter, Manfred; Hoang, Dang-Lanh; Dang, Thi Thuy Hanh; Bentrup, Ursula; Eckelt, Reinhard; Martin, Andreas

**10:10 – 10:50 Oral presentations, Sala Castilla****10:10 O10-1**

*Electrochemically grown CeO<sub>2</sub> nanotubes with enhanced catalytic activity*, González-Rovira, Leandro; Sánchez-Amaya, José M.; López-Haro, Miguel; Hungria, Ana B.; del Río, Eloy; Chen, Xiaowei; Midgley, Paul A.; Calvino, José J.; Bernal, Serafin; Botana, F. Javier

**10:30 O10-2**

*In-situ Observation of Pt Nanoparticle Sintering and Redispersion on Ce Based Oxide for Automotive Exhaust Gas Catalysts*, Hirata, Hirohito; Miura, Masahide; Nagai, Yasutaka; Dohmae, Kazuhiko; Takagi, Nobuyuki; Kishita, Keisuke; Tanabe, Toshitaka; Hara, Naoyuki; Lepage, Muriel; Shinjoh, Hirofumi; Matsumoto, Shin'ichi

**10:10 – 10:50 Oral presentations, Sala León****10:10 O14-1**

*A promising flow reactor technology: applications of a structured compact reactor in catalytic flow chemistry*, Fan, Xiaolei; Plucinsky, Pawel K.; Lapkin, Alexei A.

**10:30 O14-2**

*Discovery MOF for the alkylation of large polyaromatics. Combining Rational design and High Throughput Screening*, Ravon, Ugo; Farrusseng, David; Domine, Marcello. E.; Chizallet, Celine; Bats, Nicolas

**10:50 Coffee Break****11:10 – 13:30 Oral presentations, Sala Castilla****11:10 KN13**

*Oxidative dehydrogenation of ethane as a real alternative in the ethylene production*, López Nieto, José M.

**11:50 O8-1**

*Preparation of ordered mesoporous Ni-Mg- $Al_2O_3$  nanocomposites and their catalytic property for methane steam reforming reaction*, Naito, Shuichi; Yoshida, Akihiro; Shen, Weihua; Komatsubara, Kenta; Hagiwara, Tomoya

**12:10 O8-2**

*Nickel based Catalyst for Steam Reforming on Metal Foil Substrate*, Khinsky, Alexander; Klemkaite, Kristina; Albertazzi, Simone; Basile, Francesco; Benito, Patricia; Fornasari, Giuseppe; Vaccari, Angelo

**12:30 O8-3**

*Multifunctional Composites for  $H_2$  Production via Sorption Enhanced Steam Reforming*, He, Li; Chen, De

**12:50 O8-4**

*High purity hydrogen production via sorption enhanced reforming: Development of a new hybrid ( $CO_2$  sorbent and reforming catalyst) material,  $NiO-CaO-Ca_{12}Al_4O_{33}$* , Martavaltzi, Christina. S.; Lemonidou, Angeliki. A

**13:10 O8-5**

*Design of monolithic catalysts for hydrogen and syngas production by autothermal/steam reforming of natural gas and biofuels*, Sadykov, Vladislav A.; Mezentseva, Natalia V.; Alikina, Galina M.; Pelipenko, Vladimir; Usoltsev, Vladimir; Tikhov, Sergey; Smorygo, Oleg; Ulyanitskii, Vladimir; Ross, Julian

**11:10 – 13:30 Oral presentations, Sala Menor****11:10 KN14**

*Fine chemistry: a multidisciplinary approach*, Vaccari, Angelo

**11:50 O2-11**

*Catalytic properties of hierarchical Beta zeolite and hybrid zeolitic-ordered mesoporous Beta materials in Fine Chemistry reactions*, García Muñoz, Rafael A.; Serrano Granados, David P.; Vicente Crespo, Gemma; Linares Serrano, María

**12:10 O2-12**

*Alkylation of anisole and phenol catalyzed by niobium phosphate*, Lachter, Elizabeth Roditi; Pereira, Cynthia Cristina Mendes; de la Cruz, Marcus Henrique Campino

**12:30 O2-13**

*Active Sites for Ethene Dimerization on Nickel Ion-loaded Mesoporous Silica Catalysts*, Tanaka, Masashi; Itadani, Atsushi; Kuroda, Yasushige; Iwamoto, Masakazu

**12:50 O2-14**

*Effective gold heterogeneous catalysts for cycloisomerization of  $\gamma$ -acetylenic carboxylic acids*, Neatu, Florentina; Li, Zhi; Richards, Ryan; Toullec, Patrick Y.; Michelet, Veronique; Dumbuya, Karifala; Gottfried, Michael J.; Steinrück, Hans-Peter; Parvulescu, Vasile I.

**13:10 O2-15**

*Propene metathesis with Mo-Si-Al catalysts: why the non-hydrolytic sol-gel preparation offers unique opportunities*, Debecker, Damien P.; Bouchmella, Karim; Poleunis, Claude; Eloy, Pierre; Bertrand, Patrick; Gaigneaux, Eric M.; Mutin, P. Hubert

**11:10 – 13:30 Oral presentations, Sala Castilla****11:10 KN15**

*Chemistry and processing of Nanostructured and Hierarchically structured Functional Inorganic and Hybrid Solids*, Sanchez, Clément

**11:50 O10-3**

*Are nanocrystals of faujasite viable catalysts?*, Di Renzo, Francesco; Benabdallah, Rachida; Bengueddach, Abdelkader

**12:10 O10-4**

*Novel Routes for Synthesizing Mesoporous Zeolites with Improved Catalytic Properties*, Xiao, Feng-Shou

**12:30 O10-5**

*Silica layers on zeolites to enhance catalytic performance in hydrocarbon separation*, Reitmeier, Stephan J.; Gobin, Oliver C.; Jentys, Andreas; Lercher, Johannes A.

**12:50 O10-6**

*Ionothermal Synthesis of SAPO Molecular Sieves with LTA and AFI Framework Structures*, Fayad, Elie Jean; Bats, Nicolas; Kirschhock, Christine. E.A.; Rebours, Bernadette; Quoineaud, Anne-Agathe; Martens, Johan

**13:10 O10-7**

*Tuning visible photocatalytic activity of titanate-nanotubes for H<sub>2</sub> generation*, Muthukonda Venkatakrishan, Shankar; Schmidlin, Loic; Keller, Nicolas; Keller, Valérie

**11:10 – 13:30 Oral presentations, Sala León****11:10 KN16**

*A Decade of High Throughput Experimentation in Partial Oxidation Catalysis: Challenges and Perspectives*, Schunk, Stephan Andreas

**11:50 O5-1**

*Modeling NO<sub>x</sub> Storage and Reduction Catalysts – An Overview*, Libuda, Joerg; Desikusumastuti, Aine; Staudt, Thorsten; Happel, Markus; Sobota, Marek; Lykhach, Yaroslava; Laurin, Mathias; Qin, Zhihui; Shaikhutdinov, Shamil; Gardonio, Sandra; Lizzit, Silvano; Baraldi, Alessandro; Grönbeck, Henrik; Vines, Francesc; Neyman, Konstantin M.; Görling, Andreas; Rohr, Friedemann

**12:10 O5-2**

*Porous clay heterostructures (PCHs) obtained from natural and synthetic cationic layered clays in the role of DeNO<sub>x</sub> catalysts*, Lucjan, Chmielarz; Piotr, Kustrowski; Barbara, Gli; Zofia, Piwowarska; Barbara, Dudek; Roman, Dziembaj

**12:30 O5-3**

*Fluidized bed plasmas reactor for catalyst pretreatment. Application for SCR NO<sub>x</sub> by hydrocarbons in stationary and mobile sources*, FOIX, Marjorie; Guyon, Cédric; Tatoulian, Michael; Da Costa, Patrick

**12:50 O5-4**

*Hydrogen: the main NO<sub>x</sub> reducing agent at low temperature for a CNG 3-way catalyst?*, Salaun, Marc; Capela, Sandra; Etienne, Carole; Gagnepain, Laurent; da Costa, Patrick



**13:10 O5-5**

*Low-Temperature H<sub>2</sub>-SCR of NO<sub>x</sub> on a Novel Pt/MgO-CeO<sub>2</sub> Catalyst: Effects of Pd and Support Primary Crystal Size*, Efstathiou, Angelos M; Savva, Petros G; Wenning, Ulrike; Schoedel, Nicole

**13:30 Lunch****15:30 – 16:30 Oral Presentations, Sala Mayor****15:30 O8-6**

*H<sub>2</sub> production: Mechanism for methane steam reforming over transition metal catalysts*, Sehested, Jens; Jakobsen, Jon G.; Helveg, Stig; Jones, Glenn; Bligaard, Thomas; Nørskov, Jens K.

**15:50 O8-7**

*Steam reforming of methane over Ir/Ce<sub>0.9</sub>Gd<sub>0.1</sub>O<sub>2-x</sub>: a kinetic and mechanistic study*, Toyir, Jamil; Mosqueda, Bertha; Belatel, Hafsia; Kaddouri, Akim; Gélín, Patrick

**16:10 O8-8**

*Selective Methanation of CO over Supported Noble Metal Catalysts*, Panagiotopoulou, Paraskevi; Kondarides, Dimitris; Verykios, Xenophon

**15:30 – 16:30 Oral Presentations, Sala Menor****15:30 O2-16**

*N-doped carbon nanotubes as catalyst support*, Chizari, Kambiz; Janowska, Izabela; Ersen, Ovidiu; Florea, Ileana; Houllé, Matthieu; Pham-Huu, Cuong

**15:50 O2-17**

*Synthesis and reactions of mesoporous mordenite*, Prins, Roel; Li, Xianfeng; van Bokhoven, Jeroen A.

**16:10 O2-18**

*Replacing alkanes for olefins in aromatic alkylation*, Danilina, Nadiya; van Bokhoven, Jeroen Anton

**15:30 – 16:30 Oral Presentations, Sala Castilla****15:30 O10-8**

*A highly selective Au/TiO<sub>2</sub> coated capillary microreactor for hydrogenation of  $\alpha,\beta$ -unsaturated aldehydes*, Protasova, Lidia N.; Rebrov, Evgeny V.; Berenguer-Murcia, Angel; Ismagilov, Zinifer R.; Schouten, Jaap C.

**15:50 O10-9**

*Stabilization of ionic gold supported on sulphated lanthanum oxide*, Goguet, Alexandre; Ace, Matthew; Saih, Youssef; Sá, Jacinto; Kavanagh, Joy; Hardacre, Christopher

**16:10 O10-10**

*FTIR spectroscopy of (reverse) water-gas shift reaction on Ga<sub>2</sub>O<sub>3</sub>*, Foettinger, Karin; Jochum, Wilfried; Kloetzer, Bernhard; Rupprechter, Guenther

**15:30 – 16:30 Oral Presentations, Sala León****15:30 O5-6**

*Phenol degradation by Fenton's Process using catalytic in situ generated hydrogen peroxide*, Yalfani, Mohammad S.; Contreras, Sandra; Medina, Francesc; Sueiras, Jesus

**15:50 O5-7**

*Fe-laponite as heterogeneous photo-Fenton catalyst for phenol degradation in water*, Vicente, Miguel Angel; Gil, Antonio; Vione, Davide; Siminiceanu, Ilie; Iurascu, Beatrice

**16:10 O5-8**

*Optimization of oxide catalyst for low temperature N<sub>2</sub>O abatement– synergy of bulk and surface double doping*, Sojka, Zbigniew; Stelmachowski, Paweł; Maniak, Gabriela; Zasada, Filip; Piskorz, Witold; Kotarba, Andrzej; Inger, Marek; Wilk, Marcin

**17:30 Spanish Fiesta**

## THURSDAY, 3 SEPTEMBER

### **09:00 Plenary 5, Sala Mayor**

*Activation of alkanes*, J. Lercher, Technical University of Munich, Germany

### **10:10 – 10:50 Oral presentations, Sala Mayor**

#### **10:10 O8-9**

*The influence of the support acidity and the preparation method on the steam reforming activity of Ni/ $\gamma$ -Al<sub>2</sub>O<sub>3</sub> catalysts*, Tribalis, Antonis; Kontoyannis, Christos; Panagiotou, George; Bourikas, Kyriakos; Kordulis, Christos

#### **10:30 O8-10**

*A million-channel reformer on a fingertip: moving down the scale in hydrogen production*, López, Eduardo; Irigoyen, Aitor; Trifonov, Trifon; Rodríguez, Angel; Alcubilla, Ramón; Llorca, Jordi

### **10:10 – 10:50 Oral presentations, Sala Menor**

#### **10:10 O2-19**

*Palladium-catalyzed methoxycarbonylation of ethylene with acid-functionalized ionic liquids as phase-separable media*, Riisager, Anders; Xiong, Jianmin; Fehrmann, Rasmus

#### **10:30 O2-20**

*Ionic liquids as reaction modifiers in the heterogeneously catalyzed selective hydrogenation of citral*, Arras, Jürgen; Ruppert, Dominik; Steffan, Martin; Shayeghi, Yalda; Claus, Peter

### **10:10 – 10:50 Oral presentations, Sala Castilla**

#### **10:10 O10-11**

*Structure Property Relationships of Supported Mo<sub>x</sub>O<sub>y</sub>-SBA-15 Catalysts*, Walter, Anke; Huang, Zhida; Bensch, Wolfgang; Ressler, Thorsten

#### **10:30 O10-12**

*A Surface Science Approach to the Preparation of Alumina-Supported Ni Mo Catalysts in Aqueous Solution*, Tougeri, Asma; Carrier, Xavier; Che, Michel

**10:10 – 10:50 Oral presentations, Sala León****10:10 O5-9**

*Structured Metal-Zeolite Catalysts for the Catalytic Combustion of VOCs*, Silva, Elisabete Ribeiro; Silva, João Miguel; Vaz, M. Fátima; Oliveira, Fernando Costa; Ribeiro, Fernando Ramôa; Ribeiro, M. Filipa

**10:30 O5-10**

*Reactivation of TiO<sub>2</sub>-doped Pd/SiO<sub>2</sub> catalysts for complete methane oxidation*, Melaet, Gêrôme; Kruse, Norbert

**10:50 Coffee Break****11:10 – 13:30 Oral presentations, Sala Mayor****11:10 KN17**

*Au ions in oxide matrices: the making of a good water-gas shift catalyst*, Flytzani-Stephanopoulos, Maria; Yanping Zhai, Rui Si; Weiling Deng; Allard, Lawrence F.; Overbury, Steven H.; Frenkel; Anatoly I.

**11:50 O8-11**

*Carbon-supported Mg(Ni) Nanocrystallites for Hydrogen Storage*, Bogerd, Rene; Adelhelm, Philipp; Tatiparti, Sankara S.; de Jong, Krijn P.; de Jongh, Petra E.

**12:10 O8-12**

*Synthesis and hydrogen sorption properties of sodium hydride/carbon nanocomposites*, Adelhelm, Philipp; Gao, Jinbao; de Jong, Krijn; de Jongh, Petra

**12:30 O8-13**

*Hydrogen adsorption and purification in a metal-organic framework with accessible metal sites*, Dietzel, Pascal D. C.; Blom, Richard; Johnsen, Rune E.; Fjellvåg, Helmer; Chavan, Sachin; Groppo, Elena; Bordiga, Silvia

**12:50 O8-14**

*Oxygen Adsorption on Pt/Ni Overlayers with Density Functional Theory*, Ercan, Elif; Sumer, Aslihan; Aksoylu, Ahmet Erhan

**13:10 O8-15**

*Novel catalysts for Water Gas Shift reaction*, Goscianska, Joanna; Ziolek, Maria; Gibson, Emma; Daturi, Marco

**11:10 – 13:30 Oral presentations, Sala Menor****11:10 KN18**

*Catalysis, GreenChemistry and FineChemicals: Bridging the Gap*, Sheldon, Roger A.

**11:50 O2-21**

*Hydrogenation of Carboxylic Acids over P-Mo-V Heteropoly Compounds*, Kozhevnikov, Ivan

**12:10 O2-22**

*Effect of preparation conditions on the properties of M-Rh bimetallic catalysts made by organometallic grafting*, Mounir, Chamam; Attila, Wootsch; Laurence, Pirault-Roy; Károly, Lázár; Zoltán, Paál

**12:30 O2-23**

*Recyclable Polymer and Silica Supported Ruthenium(II)-Salen Bis-Pyridine Catalysts for the Asymmetric Cyclopropanation of Olefins*, Gill, Christopher S.; Venkatasubbaiah, Krishnan; Jones, Christopher W.

**12:50 O2-24**

*Single-site Biomimetic Amino Acid Complexes for the Benign Oxidation of Hydrocarbons and Alcohols*, Dzierzak, Joanna; Xuereb, David; Gianotti, Enrica; Bottinelli, Emanuela; Berlier, Gloria; Raja, Robert

**13:10 O2-25**

*New proline derivatives as recyclable catalysts for aldol reaction*, Gruttadauria, Michelangelo; Giacalone, Francesco; Salvo, Anna Maria Pia; Lo Meo, Paolo; Riela, Serena; Noto, Renato

**11:10 – 13:30 Oral presentations, Sala Castilla**

**11:10 KN19**

*Hierarchical Zeolite Catalysts*, Christensen, Claus Hviid

**11:50 O10-13**

*Discoveries of New Nanocatalysis Phenomena: Electron Flow at Oxide-Metal Interfaces and Homogeneous Catalysis using Monodisperse Metal Nanoparticles*, Antoine Hervier, Sergey N. Maximoff, Cole A. Witham, Wenyu Huang, Chia-Kuang Tsung, John N. Kuhn, J. R. Renzas, Jeong Y. Park, F. Dean Toste and Gabor A. Somorjai

**12:10 O10-14**

*Recent Revolutionary Advances in Electron Microscopy and their Impact on the Study of Solid Catalysts*, Thomas, John Meurig; Hernandez-Garrido, Juan Carlos; Raja, Robert

**12:30 O10-15**

*Tuning of Stearate-Based Cu Colloids for Methanol Synthesis and ATR-FTIR Investigation of Strong Metal-Support Interactions*, Rittermeier, André; Schimpf, Sabine; Zhang, Xiaoning; Ge, Wenyu; Fischer, Roland A.; Muhler, Martin

**12:50 O10-16**

*TEM Investigation of Defect-Rich Sulfated Zirconia: Structure — Performance Relationships*, Giliard, Nicole; Kasatkin, Igor; Jentoft, Friederike C.; Behrens, Malte; Schlögl, Robert

**13:10 O10-17**

*Surfactant stabilized metal nanoparticles as nanoreactors for the oxidation of alcohols*, Deniau, Benoit; Meenakshisundaram, Sankar; Bartley, Jonathan; Taylor, Stuart; Eastoe, Julian; Hutchings, Graham

**11:10 – 13:30 Oral presentations, Sala León****11:10 KN20**

*Cathodes for the Intermediate Temperature Solid Oxide Fuel Cell*, Kilner, J. A.

**11:50 O5-11**

*Photocatalytic Activity of TiO<sub>2</sub>-SiO<sub>2</sub> Thin Films*, Korkmaz Erdural, Beril; Karakas, Gurkan; Bakir, Ufuk

**12:10 O5-12**

*Photocatalytic degradation of methyl orange using TiO<sub>2</sub> as catalyst*, Sandoval-Robles, Guillermo; Del Angel-Sánchez, Teresa; García-Alamilla, Ricardo; Silva-Rodrigo, Rebeca; Moctezuma-Velazquez, Edgar

**12:30 O5-13**

*Nitrogen modified TiO<sub>2</sub> photocatalyst as a effective azo dye adsorbent in various pH value*, Choina, Julia; Janus, Magdalena; Morawski, Antoni Waldemar

**12:50 O5-14**

*Titanate-based nanotubes for photocatalytic degradation of chemical warfare (CW) agents under UVA and solar light. Applications to self-decontaminating functionalized textiles and paints*, Grandcolas, Mathieu; Louvet, Alain; Keller, Nicolas; Keller, Valérie

**13:10 O5-15**

*Supported silver nanoparticles with high catalytic activity prepared through a photochemical approach*, Scire, Salvatore; Crisafulli, Carmelo; Giuffrida, Salvatore; Mazza, Carmelo; Riccobene, Paolo Maria; Pistone, Alessandro; Ventimiglia, Giorgio; Bongiorno, Corrado; Spinella, Corrado

**13:30 Lunch****15:30 – 17:30 Oral Presentations, Sala Mayor****15:30 KN21**

*Catalytic Processes in Solid Electrolyte Cells*, Dimitrakakis, Nikolaos and Stoukides, Michael

**16:10 O9-1**

*Electrochemical promotion of NO reduction by C<sub>2</sub>H<sub>4</sub> in presence of O<sub>2</sub> on thin Rh and Pt catalyst films in monolithic electropromoted reactors: Reversible and permanent electropromoted state*, Souentie, Stamatios; Hammad, Ahmad; Vayenas, Constantinos

**16:30 O9-2**

*Modulation of oscillatory CO oxidation on platinum using electrochemical promotion of catalysis*, Vernoux, Philippe; Lizarraga, Leonardo; Guth, Michel; Billard, Alain

**16:50 O9-3**

*Reforming Methanol to Electricity in a High Temperature PEM Fuel Cell*, Avgouropoulos, George; Papavasiliou, Joan; Geormezi, Maria; Kallitsis, Joannis; Ioannides, Theophilos; Neophytides, Stylianos

**17:10 O9-4**

*All-Oxide Anodes for Hydrocarbon-Fuelled Solid Oxide Fuel Cells*, Serra, Jose M.; Vert, Vicente B.; Morlanés, Natalia; Melo, Francisco V.; Concepción, Patricia

**15:30 – 17:30 Oral Presentations, Sala Menor****15:30 KN22**

*Control of Deactivation by Catalyst Design*, Spencer, M.S.

**16:10 O13-1**

*Understanding automotive exhaust catalysis: Reaction and interaction between CO and NO on the surface of Rh(100)*, Jansen, Maarten; Nieuwenhuys, Ben; Niemantsverdriet, Hans

**16:30 O13-2**

*Catalytic production of methane from CO<sub>2</sub> and H<sub>2</sub> at room temperature and atmospheric pressure: a new way to recycle the CO<sub>2</sub> and a basis for the development of a new process with 100% selectivity*, Marc, Jacquemin; Patricio, Ruiz

**16:50 O13-3**

*CO<sub>2</sub> hydrogenation via the electrochemical promotion of catalysis at atmospheric pressure using a monolithic electropromoted reactor equipped with Rh, Pt and Cu catalytic electrodes*, Papaioannou, Evangelos John; Souentie, Stamatios; Hammad, Ahmad; Vayenas, Costantinos George

**17:10 O13-4**

*Removal of Airborne Pollutants Using Continuous Solar Photoreactors*, Coronado, Juan M.; Suarez, Silvia; Portela, Raquel; Granda, Fidel; Sánchez, Benigno; Ávila, Pedro; Restrepo, Gloria

**15:30 – 17:30 Oral Presentations, Sala Castilla**



**15:30 KN23**

*Controlling the synthesis of 10-ring zeolites for catalytic applications*, Čejka, Jiří; Žilková, Naděžda; Kubů, Martin; Brzobohatá, Silvie; Burton Allen W.; and Stacey I. Zones

**16:10 O10-18**

*The control of selectivity in the vapor-phase, acid-catalytic dehydration of glycerol to acrolein*, Ballarini, N.; Cavani, F.; Guidetti, S.; Marinelli, L.; Piccinini, M.; Signoreto, M.

**16:30 O10-19**

*Synthesis and catalytic performance of high-temperature stable nanocomposites by a versatile nanoparticle-mediated Pechini method*, Zhao, Tiejun; Boullosa-Eiras, Sara; Yu, Yingda; Yu, Xiaofeng; Raen, Steinar; Ronning, Magnus; Chen, De; Holmen, Anders

**16:50 O10-20**

*Liquid Phase Enantio-differentiating Hydrogenation of Acetophenone Over Nanostructured Pd Catalysts*, Chen, Xueying; Qiao, Minghua; Fan, Kangnian; He, Heyong

**17:10 O10-21**

*Development of highly selective Pt-Sn catalysts on mesoporous titania for hydrogenation of citral to unsaturated alcohol*, Kerzhentsev, Mikhail A.; Matus, Ekaterina V.; Ismagilov, Ilyas Z.; Protasova, Lidia N.; Rebrov, Evgeny V.; Ismagilov, Zinifer R.; Schouten, Jaap C.

**15:30 – 17:30 Oral Presentations, Sala León****15:30 KN24**

*Can High-Throughput Technologies bring knowledge-based added value to conventional research? EU strategies and case studies in the domain of heterogeneous catalysis*, Mirodatos, C.

**16:10 O5-16**

*Analysis Of Operational Conditions For The Regeneration Step In NSR Monolith Catalysts*, Pereda-Ayo, Beñat; Duraiswami, Divakar; López-Fonseca, Rubén; González-Velasco, Juan Ramón

**16:30 O5-17**

*Operando analysis of nitrate reduction on NSR catalyst: Effect of reductants and their concentrations*, Saito, Yoshinori; Shimizu, Ken-ichi; Nobukawa, Takeshi; Satsuma, Atsushi

**16:50 O5-18**

*Catalytic Soot Oxidation studied by ETEM*, Simonsen, Søren Bredmose; Dahl, Søren; Johnson, Erik; Molenbroek, Alfonsus; Chorkendorff, Ib; Helveg, Stig

**17:10 O5-19**

*Gold and silver catalysts for abatement of environmentally harmful materials: modelling the structure dependency*, Frey, Krisztina; Peto, Gabor; Iablokov, Viacheslav; Kruse, Norbert; Guzzi, Laszlo

**17:30 – 19:30 Poster Session 3, Topics: 5, 8, 13 and Coffee Break****21:00 Banquet****FRIDAY, 4 SEPTEMBER****09:00 Plenary 6, Sala Mayor**

*Biomass Conversion to Chemicals*, Pierre Gallezot, IRCELYON, Université Lyon1 - CNRS, France

**10:10 – 10:50 Oral Presentations, Sala Mayor****10:10 O1-11**

*Selectivity in catalytic hydrogenation by modified transition metal catalysts: insights from DFT calculations*, Sautet, Philippe; Loffreda, David; Delbecq, Francoise; Torres, Daniel; Techner, Detre; Knop-Gericke, Axel; Schlögl, Robert

**10:30 O1-12**

*Ammonia adsorption at hydroxylated different low-indices  $V_2O_5$  surfaces. Ab initio DFT*, Witko, Malgorzata; Hejduk, Pawel; Szaleniec, Maciej

**10:10 – 10:50 Oral Presentations, Sala Menor**

**10:10 O13-5**

*In situ UV-vis-NIR spectroscopic study of sulfated zirconia deactivation during n-butane isomerization*, Chan-Thaw, Carine Edith; Garin, Francois; Jentoft, Friederike C.; Schlögl, Robert

**10:30 O13-6**

*The structure and mechanistic impact of carbon deposits in dehydrogenation reactions*, McGregor, James; Zeitler, J Axel; Parrott, Edward PJ; Gladden, Lynn F; Tessonnier, Jean-Philippe; Hansen, Thomas W; Su, Dangsheng; Schlögl, Robert

**10:10 – 10:50 Oral Presentations, Sala Castilla****10:10 O11-11**

*Mean field modelling of the oxidation of CO on Fe<sub>2</sub>O<sub>3</sub> Catalyst*, Waglöhner, Stefan; Reichert, Dirk; Balle, Peter; Geiger, Bastian; Kureti, Sven

**10:30 O11-12**

*In situ Au(110) surface structure evolution under CO (10<sup>-9</sup> – 500 Torr): atomic level environmental STM study*, Cadete Santos Aires, Francisco José; Languille, Marie-Angélique; Jugnet, Yvette; Bertolini, Jean-Claude

**10:10 – 10:50 Oral Presentations, Sala León****10:10 O5-20**

*Adsorption and oxidation reaction of formaldehyde on Pt- and Ag-based catalysts*, De Rogatis, Loredana; de Leitenburg, Carla; Trovarelli, Alessandro

**10:30 O5-21**

*Advanced solutions for the pollution abatement from ships cruising the motorways of the sea*, Hickey, Neal; Boscarato, Ilan; Kaspar, Jan

**10:50 Coffee Break****11:10 – 13:10 Oral Presentations, Sala Mayor****11:10 O1-13**

*Functional model of the iron oxide catalyst for styrene production – the role of ferrite phases and dopants*, Kotarba, Andrzej; Rožek, Weronika; Kuśtrowski, Piotr; Sojka, Zbigniew

**11:30 O1-14**

*BaO/Pt(111) Model NO<sub>x</sub> Storage/Reduction Catalysts*, Szanyi, Janos; Mudiyanselage, Kumudu; Yi, Cheol-Woo

**11:50 O1-15**

*Molecular Design, Function, and Commercial Application of Shape Selective Catalysts for the Petrochemical Industry*, Stern, David L.

**12:10 O1-16**

*Nano-sized metal oxides as highly active SCR deNO<sub>x</sub> catalysts*, Kristensen, Steffen Buus; Kunov-Kruse, Andreas Jonas; Fehrmann, Rasmus; Riisager, Anders

**12:30 O1-17**

*Synergetic effect between a polyoxometallate and lanthanum molybdate  $\alpha$ -La<sub>2</sub>Mo<sub>2</sub>O<sub>9</sub> for the oxidation of isobutane into methacrylic acid and methacrolein*, Huynh, Q.; Selmi, A.; Corbel, G.; Massin, L.; Lacorre, P.; Millet, J.M.M.

**12:50 O1-18**

*Catalytic properties of conducting polymers*, Turek, Wincenty; Plis, Agnieszka; Hasik, Magdalena; Stochmal, Edyta

**11:10 – 13:10 Oral Presentations, Sala Menor****11:10 KN25**

*Aspects of Catalyst Deactivation*, Cerqueira, Henrique S.

**11:50 O13-7**

*Particles size effect in the series of variously supported metal catalysts investigated with the use of parahydrogen-induced polarization*, Zhivonitko, Vladimir Valeryevich; Kovtunov, Kirill Victorovich; Beck, Irene Egonovna; Koptyug, Igor Valentinovich; Bukhtiyarov, Valery Ivanovich

**12:10 O13-8**

*Evaluation of hydrogenation reaction mechanism and NMR imaging of catalytic hydrogenation in microreactors using parahydrogen*, Kovtunov, Kirill Victorovich; Zhivonitko, Vladimir Valerevich; Koptyug, Igor Valentinovich; Beck, Irene Egonovna; Bukhtiyarov, Valery Ivanovich; Bouchard, Louis

**12:30 O13-9**

*Catalytic microreactors for steam reforming of methanol*, Montes, Mario; Echave, Francisco Javier; Arzamendi, Gurutze; Centeno, Miguel Angel; Almeida, Luciano C.; Sanz, Oihane; Gandía, Luis María; Odriozola, José Antonio

**12:50 O13-10**

*High Temperature Methanation and Steam-Reforming: Model for sintering of Nickel Catalysts*, Sehested, Jens; Helveg, Stig; Nørskov, Jens K.

**11:10 – 13:10 Oral Presentations, Sala Castilla****11:10 KN26**

*Watching synthesis and catalysis of mixed metal molybdates: Benefits from spectroscopic coupling techniques*, Brückner, Angelika

**11:50 O11-13**

*Encapsulation of platinum by iron oxide layer promotes CO oxidation*, Sun, Ying-Na; Qin, Zhi-Hui; Lewandowski, Mikolaj; Shaikhutdinov, Shamil; Freund, Hans-Joachim

**12:10 O11-14**

*The CO oxidation over polycrystalline oxygenated Ru at atmospheric pressure*, Rosenthal, Dirk; Girgsdies, Frank; Timpe, Olaf; Weinberg, Gisela; Schlögl, Robert

**12:30 O11-15**

*Adsorption-Desorption Induced Structural Changes of Cu-MOF Evidenced by Solid State NMR and EPR Spectroscopy*, Jiang, Yijiao; Huang, Jun; Kasumaj, Besnik; Jeschke, Gunnar; Hunger, Michael; Mallat, Tamas; Baiker, Alfons

**12:50 O11-16**

*Mechanistical insights into the role of water on the selective oxidation of acrolein to acrylic acid on mixed oxide catalysts*, Blickhan, Nina; Jekewitz, Tim; Endres, Silvia; Drochner, Alfons; Vogel, Herbert

**11:10 – 13:10 Oral Presentations, Sala León**

**11:10 KN27**

*Catalytic depollution of air: mobile and stationary sources*, Duprez, Daniel

**11:50 O5-22**

*Catalytic membrane combining ultrafiltration of water with hydroperoxide catalytic wet oxidation of small organic molecules*, Landau, Miron V.; Huzman, Veronica; Oren, Yoram; Herskowitz, Moti

**12:10 O5-23**

*Mechanistic and kinetic analysis of speed of oxygen release from three-way catalysts with millisecond-time resolution*, Kondratenko, Evgenii; Sakamoto, Yoshiyuki; Okumura, Kohei; Shinjoh, Hirofumi

**12:30 O5-24**

*Co/Pd-HFER zeolite as a potential catalyst for hydrogen supply in natural gas exhaust gases*, Capela, Sandra; Bartolomeu, Rui; Djéga-Mariadassou, Gerald; Da Costa, Patrick; Ribeiro, Fernando Ramôa; Henriques, Carlos; Ribeiro, M. Filipa

**12:50 O5-25**

*Iron doping TiO<sub>2</sub> nanoparticles by solvothermal synthesis for azo dyes removal*, Vargas, Ximena Maria; Marin, Juan Miguel; Restrepo, Gloria

**13:10 Closing Ceremony, Sala Mayor****13:30 Lunch**

## MONDAY 31 AUGUST

### **09:30 Plenary 1**

*Nanostructures and Nanospaces in Catalysis*, Enrique Iglesia, University of California at Berkeley, USA

## TUESDAY, 1 SEPTEMBER

### **09:00 Plenary 2**

*Catalysis for Sustainable Industrial Chemistry*, Gabriele Centi, University of Messina, Italy

### **15:30 Plenary 3, Boudart Award Lecture**

*Designing mono- and multifunctional catalysts and processes*, Avelino Corma, Instituto de Tecnología Química, UPV-CSIC, Spain

## WEDNESDAY, 2 SEPTEMBER

### **09:00 Plenary 4**

*Hydrocarbon processing – present and future challenges for catalysis*, M. S. Rigutto, Shell Research and Technology Centre Amsterdam, The Netherlands

## THURSDAY, 3 SEPTEMBER

### **09:00 Plenary 5**

*Activation of alkanes*, J. Lercher, Technical University of Munich, Germany

## FRIDAY, 4 SEPTEMBER

### **09:00 Plenary 6, Sala Mayor**

*Biomass Conversion to Chemicals*, Pierre Gallezot, IRCELYON, Université Lyon 1 - CNRS, France

