



## SCIENTIFIC PROGRAM

### Monday, December 11<sup>th</sup>

14:00 - 16:00 Registration

---

16:00 - 16:20 Opening Ceremony

16:20 - 17:20 Engineering molecular transformations for the sustainable catalytic conversion of bioprivileged molecules to chemicals and fuels

*M. Neurock*

**PL1**

---

17:20 - 18:40 Welcome cocktail

### Tuesday, December 12<sup>th</sup>

08:20 - 09:20 Catalytic conversion of biomass to fine chemicals and fuels.

*Y. Wang*

**PL2**

09:20 - 09:40 Selective C-C bond scission of biomass derived oxygenates using cerium oxide supported ruthenium catalyst.

*T. Mizugaki, K. Uesugi, K. Nitta, Z. Maeno, T. Mitsudome, K. Jitsukawa and K. Kanedaa*

**O1**

09:40 - 10:00 Selective C-C and C-O hydrogenolysis of sugar polyols to C2-C3 polyols or partially dehydroxylated products.

*M. Rivière, A. Said, D. Da Silva Perez, A. Cabiac, D. Delcroix, N. Perret, C. Pinel and M. Besson*

**O2**

10:00 - 10:20 Development of supported molybdenum catalysts for the deoxydehydration of diols into olefins.

*I. Meiners, L. Sandbrink, K. Beckerle, R. Liffmann, K. Rahimi, J. Okuda and R. Palkovits*

**O3**

---

10:20 - 10:40 Coffee break

## Tuesday (suite)

10:40 - 11:00	Cooperative effect between Au, AuPd and NiO for the base-free oxidation of HMF. <i>D. Bonincontro, A. Lolli, A. Villa, L. Prati, F. Cavani and S. Albonetti</i>	O4
11:00 - 11:20	Recyclable bi-functional Ru@MNP-MWCNT catalysts for succinic acid from glucose. <i>I. Podolean, B. Cajocaru, H. Garcia, S. M. Coman and V. I. Parvulescu</i>	O5
11:20 - 11:40	Cr-free Ni/MgO catalysts for hydrogenation of furfural. <i>C. P. Jiménez-Gómez, J. A. Cecilia, R. Moreno-Tost and P. Maireles-Torres</i>	O6
11:40 - 12:00	C6 diacids from homocitric acid lactone using relay heterogeneous catalysis in water. <i>I. Thapa, S. Ntais, E. A. Baranova, M. Kit Lau, C. S. Hass, J. Millis and R. T. Baker</i>	O7
12:00 - 12:20	High-throughput study of Ni- and Cu-based supported catalysts for low temperature hydrogenation of glucose to sorbitol. <i>R. Wojcieszak, F. Ramos Neves, J. Sha, J. Thuriot, S. Heyte, A. Mazzi, L. Silvester, F. Dumeignil, M. Araque Marin and S. Paul</i>	O8
12:20 - 13:40	Lunch	
13:40 - 15:40	Industrial Session: Biomass to chemicals	
15:40 - 16:40	Coffee break Poster session A	
16:40 - 17:20	Platform molecules from lignocelluloses biomass new challenges and bottlenecks. <i>A. Ruppert</i>	KN1
17:20 - 17:40	Hydrodeoxygenation of stearic acid to n-heptadecane and n-octadecane on Ni/SiO <sub>2</sub> -ZrO <sub>2</sub> catalysts. <i>S. Foraita, Y. Liu, E. Baráth and J. A. Lercher</i>	O9

## Tuesday (suite)

17:40 - 18:00	Methyl palmitate hydrodeoxygenation over Ni-phosphide catalyst: elucidation of the reaction scheme. <i>I.V. Shamanaev, I.V. Deliy, P.V. Aleksandrov, S.I. Reshetnikov and G.A. Bukhtiyarova</i>	O10
18:00 - 18:20	Heterogeneous catalysis for production of biodiesel fuels and subsequent upgrading for high-blend fuels. <i>S.-Y. Chen, T. Mochizuki, M. Toba, Y. Yoshimura, H. Takagi</i>	O11
18:20 - 18:40	One-pot biodiesel production from microalgae with catalytic near-critical esterification. <i>H. F. Yee, M. Komiya, Y. Uemura</i>	O12

## Wednesday, December 13<sup>th</sup>

08:20 - 09:20	Catalytic conversion of lignocellulosic biomass to soluble sugars. <i>A. Fukuoka</i>	PL3
09:20 - 09:40	Enhanced two-step simultaneous catalytic production of sorbitol and xylitol directly from cellulose and hemicellulose (corncob xylan). <i>L. S. Ribeiro, J. J.M. Órfão and M. F. R. Pereira</i>	O13
09:40 - 10:00	Maximization of C5 sugars from wheat bran over heterogeneous catalysts. <i>N. Sánchez-Bastardo and E. Alonso</i>	O14
10:00 - 10:20	A straightforward synthesis of methyl levulinate from lignocellulose catalyzed by mixed-acid catalyst systems. <i>K. Tominaga, K. Nemoto, Y. Kamimura, A. Yamada, Y. Yamamoto and K. Sato</i>	O15
10:20 - 10:40	Coffee break	
10:40 - 11:20	The role of heterogeneous catalysis in biomass conversion. <i>B. Sels</i>	KN2

## Wednesday (suite)

11:20 - 11:40	Tungsten carbide: remarkably efficient catalyst for selective cleavage of lignin C-O bonds. <i>C. Li, H. Guo, J. Ji, A. Wang and T. Zhang</i>	O16
11:40 - 12:00	Reductive fractionation of lignocellulosic biomass into lignin aromatic monomers and cellulose pulp. <i>X. Huang, J. Zhu, O. M. Morales Gonzalez, B. M. S. Hendriks, X. Ouyang, T. I. Korányi, M. D. Boot and E. J. M. Hensen</i>	O17
12:00 - 12:20	SC organic solvents coupled to heterogeneous catalysis: a unique tool for selective wood components liquefaction into chemicals. <i>M. Eternot, F. Rataboul and N. Essayem</i>	O18
12:20 - 13:40	Lunch	
13:40 - 14:00	[Ru(triphos)(CH <sub>3</sub> CN) <sub>3</sub> ](OTf) <sub>2</sub> as a homogeneous catalyst for the hydrogenation of biomass derived 2,5-hexanedione and 2,5-dimethylfuran in aqueous acidic medium. <i>E. Latifi, A. Marchese, M. Hulls, D. V. Soldatova and M. Schlaf</i>	O19
14:00 - 14:20	Ring rearrangement of HMF to a cyclopentanol derivative on combination catalysts of Pt/SiO <sub>2</sub> and lanthanide oxides. <i>J. Ohyama, Y. Ohira and A. Satsuma</i>	O20
14:20 - 14:40	Synthesis of ethyl lactate with methyl-functionalized mesoporous Sn-silicates prepared by the aerosol-assisted sol-gel process. <i>A. Vivian, D. P. Debecker and C. Aprile</i>	O21
14:40 - 15:00	Catalytic hydrogenation of levulinic acid to ethyl valerate using bifunctional Co-SBA-xAl catalysts. <i>R. Mariscal, M. Muñoz-Olasagasti, M. López Granados, C. P. Jiménez-Gómez, J. A. Cecilia, P. Maireles-Torres and J. A. Dumesic</i>	O22
15:00 - 15:20	High catalytic performances of Aquivion® PFSA, a reusable solid perfluorosulfonic acid polymer, in the biphasic glycosylation of glucose with fatty alcohols. <i>A. Karam, K. De Oliveira Vigier, S. Marinkovic, B. Estrine, C. Oldani and F. Jérôme</i>	O23

## Wednesday (suite)

15:20 - 15:40	Synthesis of glycerol carbonate through the direct carbonation of glycerol over metal oxide catalysts. <i>C. J. A. Mota and L. P. Ozório</i>	O24
15:40 - 16:00	Pd supported catalysts for the transformation of alkytrans type compounds under mild reaction conditions. <i>Z. Raad, J. Toufaily, T. Hamieh and M. E. Domine</i>	O25
16:00 -	Visit of Lyon : old city and Boat trip & banquet	
<hr/>		
<b>Thursday, December 14<sup>th</sup></b>		
08:20 - 09:20	Novel strategies to convert biomass to fuels - Towards a zero-carbon footprint future. <i>A. Lercher</i>	PL4
09:20 - 09:40	Catalytic transformation of biomass into advanced biofuels and bio-products. <i>O. D. Mante, D. C. Dayton, K. Wang and J. Peters</i>	O26
09:40 - 10:00	Performance study of supported Mo <sub>2</sub> C catalysts on the hydropyrolysis of residual biomass for biofuels production. <i>M. A. Machado, S. He, K. Seshan and V. Teixeira da Silva</i>	O27
10:00 - 10:20	Catalytic fast pyrolysis of biomass: superior selectivity of hierarchical zeolite to aromatics. <i>L.Y. Jia, M. Tarrighi, J. Hertzog, V. Carré, F. Aubriet, M. Bettahar, G. Mauviel, L. Pinard and A. Dufour</i>	O28
10:20 - 10:40	Coffee break	
10:40 - 11:20	Studies on the structure and catalytic depolymerization of lignin. <i>P. Bruijninx</i>	KN3

## Thursday (suite)

11:20 - 11:40	Deactivation phenomena in ex-situ catalytic fast biomass pyrolysis over ZSM-5-based catalysts with focus on the location and nature of coke deposits. <i>E. Heracleous, A.A. Lappas, H. Hernando, P. Pizarro, D. P. Serrano, T. Fakin, A. Horvat, A. M. Hernandez Gimenez, P. C. A. Bruijnincx and B. M. Weckhuysen</i>	O29
11:40 - 12:00	The effect of $\text{WO}_3$ loading on the activity of Pt/ $\text{WO}_3/\text{ZrO}_2$ catalysts for hydrogenolysis of tetrahydrofurfuryl alcohol. <i>S. Feng, A. Nagao, K. Aihara, H. Miura and T. Shishido</i>	O30
12:00 - 12:20	Aqueous phase reforming (APR) of ethylene glycol over bimetallic platinum-cobalt supported on ceria-zirconia mixed oxides. <i>S. Jeon and J. Wook Bae</i>	O31
12:20 - 13:40	Lunch	
13:40 - 15:40	Industrial Session: Biomass to biofuels	
15:40 - 16:40	Coffee break Poster session B	
16:40 - 17:20	Tuning solid catalysts for aldol condensation. <i>F. C. Jentoft</i>	KN4
17:20 - 17:40	Understanding the stability of $\gamma$ -Alumina in aqueous medium for biomass conversion. <i>R. Réocreux, M. Ianuzzi, P. Sautet and C. Michel</i>	O32
17:40 - 18:00	Ketonization of aldehydes and carboxylic acids: catalysts, mechanism and scope. <i>M. Renz, B. Oliver-Tomas, L. M. Orozco and A. Corma</i>	O33
18:00 - 18:20	Conjugation-driven radical mechanism for low-temperature C-O bond activation on metal oxide catalysts. <i>A. V. Mironenko and D. G. Vlachos</i>	O34

## Thursday (suite)

18:20 - 18:40	Towards combining heterogeneous electro-catalysis and bio-electro-synthesis. <i>K. Chatzipanagiotou, L. Jourdin, C.J.N. Buisman, D.P.B.T.B Strik, J.H. Bitter</i>	O35
---------------	--	-----

## Friday, December 15<sup>th</sup>

08:20 - 09:00	Microwaves and catalysis for the fast and selective valorization of biomass: hydrolysis, oxidation and hydrogenation reactions. <i>J. A. Lopez Sanchez</i>	KN5
09:00 - 09:20	Hydrogenolysis of dibenzofuran derived from lignin: significant enhancement of the activity of Pt/SiO <sub>2</sub> by modification of MgO. <i>J. Zhang, C. Li, X. Chen and C. Liang</i>	O36
09:20 - 09:40	Catalytic oxidation of lignin and lignin model compounds by methyltrioxorhenium (MTO). <i>L. Svärd, H. Lange, M. Reinikainen, A. Kalliola, K. Niemelä, C. Crestini and P. Simell</i>	O37
09:40 - 10:00	Oxidative and reductive strategies for pyrolytic lignin valorization. <i>M. B. Figueirêdo, R. H. Venderbosch and H. J. Heeres</i>	O38
10:00 - 10:20	Catalytic oxidative cleavage of C-C bond converts lignin models and extracts to aromatic chemicals. <i>F. Wang, H. Liu, T. Hou and M. Wang</i>	O39
10:20 - 10:40	Coffee break	
10:40 - 11:20	H-transfer with methanol and heterogeneous catalysts for the reduction of bio-based building blocks. <i>F. Cavani</i>	KN6

## Friday (suite)

11:20 - 11:40	Visible-light-driven self-hydrogen transfer hydrogenolysis of lignin models and extracts into phenolic products. <i>N. Luo, M. Wang and F. Wang</i>	O40
11:40 - 12:00	Sustainable bisphenols from renewable softwood lignin feedstock for polycarbonates and cyanate ester resins. <i>S.-F. Koelewijn, S. Van den Bosch, T. Renders, W. Schutyser, B. Lagrain, M. Smet, J. Thomas, W. Dehaen, P. Van Puyvelde, H. Witters and B. F. Sels</i>	O41
12:00 - 12:20	Combined catalytic and biotechnological approach for production of 5-HMF and ethanol from cellulose. <i>O. P. Taran, K. N. Sorokina, T. B. Medvedeva, Y. V. Samoylova, A. V. Piligaev and V. N. Parmon</i>	O42
12:20 - 12:40	Concluding remarks	