

Finnish Catalysis Society - Young Scientist Forum 2022

Friday, April 8, 2022, Turku/Åbo

9.00 Welcoming address and breakfast, information from EFCATS (professor D. Murzin), roundwalk in Aurum building (Henriksgatan 2)

10.45 Bus transportation from Aurum to Kakolan Ruusu (Rose of Kakola)

11.30 KL1 Juha Siitonen (Aalto University): Unconventional organocatalysts in synthesis

12.00-12.15 L1 Sari Rautiainen (VTT): Unique pathway to platform chemicals - 2,5-furandicarboxylic acid and muconic acid from sugar diacids

12.15-12.30 L2 German Araujo Barahona (Åbo Akademi & Universidad de Valladolid)

Development of solid foam catalysts for production of sugar alcohols

12.30-12.45 L3 Emma Verkama (Aalto University): Competitive hydrodeoxygenation and hydrodenitrogenation reactions in the hydrotreatment of fatty acid and amine mixtures

12.45-13.00 L4 Wander Pérez Sena (Åbo Akademi & Normandie Université INSA-Rouen): Carbonation of vegetable oil derivatives using bifunctional heterogenous catalyst

13.00-14.00 Lunch and networking at Kakolan Ruusu

14.00-14.30 KL2 Efthymios Kantarelis (Kungliga tekniska högskolan (KTH), Stockholm): The role of catalysis in defossilizing industrial and society – a Swedish perspective

14.30-14.45 L5 Niko Heikkinen (VTT): Protecting heterogeneous active metal sites with Atomic Layer Deposition (ALD) overcoating

14.45-15.00 L6 Emiliano Salucci (Università di Napoli & Åbo Akademi): Intraparticle model for non-uniform active phase distribution catalysts

15.00-15.15 L7 Timo Weckman (University of Jyväskylä): Water assisted alcohol oxidation on gold

15.15-15.30 L8 Luca Mastroianni (Åbo Akademi & Università di Napoli)

Oxidation of alcohols promoted by gold in a microreactor: a kinetic and modeling study

15.30-16.00 KL3 Pasi Virtanen (Åbo Akademi): Supported ionic liquid catalysts (SILCA) – From first ideas to present innovations

16.00-16.15 L9 Santosh Govind Khokarale (Umeå universitet): Acrylic plastic precursors synthesis through homo- and heterogeneous processes: Does processes are sustainable and green?

16.15-16.30 L10 Lars Gell (University of Jyväskylä)

Influence of a Cu-zirconia interface structure on CO₂ adsorption and activation

16.30-16.45 L11 Pavel Maksimov (LUT University): Sorption-enhanced methanol synthesis

16.45- AL Best thesis in Finnish Catalysis – Award ceremony and award winner's lecture, coffee and poster session

17.30 Annual meeting of Finnish Catalysis Society and networking

18.45 Transportation down from Kakola hill with the Funicular of Kakola

19.00 Dinner at Restaurant Rantakerttu; sauna

AL = award lecture, KL = keynote lecture, L = lecture

POSTERS, please see next page (the posters should be printed in advance, size A0, preferably laminated)

Young Scientist Forum 2022 - Poster presentations

P1 Aki Braunschweiler (VTT): Light olefin production from CO₂

P2 Tommaso Cogliano (Università di Napoli & Åbo Akademi): Epoxidation of linseed oil by performic acid produced in situ

P3 Aitor Arandia Gutiérrez (Aalto University): Atomic layer deposition (ALD) of zinc on supported copper catalysts for carbon dioxide hydrogenation

P4 Mouad Hachhach (Åbo Akademi): Modelling of arabinose oxidation in a trickle bed reactor (TBR)

P5 Piotr Jablonski (Umeå University): Sustainable, highly selective, and metal-free thermal depolymerization of poly-(3-hydroxybutyrate) to bio-crotonic acid in recoverable ionic liquids

P6 Aku Lempelto (University of Jyväskylä): CO₂ reduction to methanol at a Cu/Zn-zirconia interface via DFT calculations

P7 Mark Martinez Klimov (Åbo Akademi): Hydrodeoxygenation of isoeugenol for the production of renewable jet fuel

P8 Jay Pee Oña (Åbo Akademi): Electrocatalytic conversion of glucose and xylose on highly dispersed mesoporous carbon-supported Au nanocatalysts

P9 Francesco Sandri (Università di Padova & Åbo Akademi): Selectivity enhancement of coordinating solvents in the direct synthesis of hydrogen peroxide

P10 Tyko Viertiö (VTT): Hydroisomerization of Fischer-Tropsch wax to chemicals and fuels

P11 Jihong Yim (Aalto University): Propagation of atomic layer deposited films in microchannels: a case study using reaction-diffusion model

P12 Nemanja Vucetic (Åbo Akademi): Preparation of valuable organic chemicals through Heck reaction over a supported ionic liquid catalyst (SILCA)

P13 Pasi Tolvanen (Åbo Akademi): Methanol synthesis in a stirred batch reactor – application of the total pressure method and reaction-diffusion modelling

P14 Ananias Medina (Åbo Akademi): Valorization of glycerol via catalytic hydrochlorination: from kinetics to avant-garde reactor structures

P15 Maryam Sabooni Asre Hazer (University of Jyväskylä): Isomer dynamics of [Au₆(NHC-S)₄]²⁺

Young Scientist Forum 2022 – Photo Exhibition *Primavera*

Around 70 photos with the topic *Primavera* - Spring will be on display in the conference site – enjoy the masterpieces of photographic art!