	Monday, March 11			
	Galleria I & II			
8:15 - 9:15 AM	**Plenary**: "Finding the Active Sites in Heterogeneous Catalysts: Lessons from Olefin Polymerization and Metathesis", **Susannah Scott** (*University of California - Santa Barbara*) (84)　Sponsored by **ExxonMobil**, Introduction by **Bryan Patel**			
9:15 - 9:30 AM	Break			
	Galleria I & II	Galleria III	Post Oak	Tanglewood, Bellaire
	In Honor of Dan Luss I	**Reaction Engineering Fundamentals: Kinetics and Mechanisms I**	**Reaction Engineering of Biofuels and Renewables I**	**CO_2 Capture, Conversion and Reuse**
	Session Chairs Mike Harold (*University of Houston*), Vemuri Balakotaiah (*University of Houston*)	**Session Chairs** Raj Gounder (*Purdue University*), Hsi-Wu Wong (*University of Massachusetts Lowell*),	**Session Chairs** Heather Mayes (*University of Michigan*), Xiaowei Zhou (*Chemours*)	**Session Chair** Michelle Low (*University of the Witwatersrand*) , Sergio Vernuccio (*Northwestern University*)
9:30 - 9:55 AM	"Ignition in Adiabatic Reactors for Oxidative Coupling of Methane", **Guy Marin** (166)	"Modelling of Non-Ideal Particles and Droplets in Fluidsolid and Fluid-Fluid-Solid Processes", **Tapio Salmi**, Vincenzo Russo, Johan Wärnå, Dmitry Murzin and Henrik Grenman (11)	**Keynote**: "Renewable Acrylonitrile Production" Gregg Beckham (159)	"Design of an Actively-Cooled Sabatier Reactor for Thermocatalytic Hydrogenation of CO2: Model-Based Feasibility Analysis and Experimental Proof-of-Concept", Robert Currie, Sogol Sogol Mottaghi-Tabar, Yichen Zhuang and **David Simakov**" (150)
9:55 - 10:20 AM	"Understanding of Peripheral Neuropathy. A Mathematical View", Parul Verma, A. Kienle, Dietrich Flockerzi and **D. Ramkrishna** (171)	"Kinetic Study of Oxidative Coupling of Methane over Sr-Ce-Yb-O Catalyst", **Tian Gu**, Dustin Farmer and Scott Stevenson (98)		"Low Temperature CO2 Conversion using Perovskite Oxides via Chemical Looping Process", John Kuhn, **Debtanu Maiti**, Bryan Hare, Yolanda Daza, Adela Ramos and Venkat Bhethanabotla (48)
10:20 - 10:45 AM	Refreshment Break			
10:45 - 11:10 AM	"Pattern Formation in Biofuel Systems During Batch Hydrolysis of Lignocelluloses", **Saikat Chakraborty**, Sajal K. Dutta and Souvik K. Paul (165)	"Pyrolytic Remediation of Petroleum-Contaminated Soils: Reaction Mechanisms and Process Design Tradeoffs", Julia Vidonish, Pedro Alvarez and **Kyriacos Zygourakis** (105)	"Waste2 to Energy Processing: HTL Upgrading of Food Waste using Inexpensive, Alkaline Waste Catalysts", **Alex Maag**, Alex Paulsen, Ted Amundsen, Paul Yelvington, Geoffrey Tompsett and Michael Timko (122)	**Keynote**: "Towards Sustainable Energy and Materials: Carbon Capture and Conversion using Novel Liquid-Like Nanoscale Hybrid Materials" **Ah-Hyung Alissa Park** (128)
11:10 - 11:35 AM	"Analysis of Linear And Nonlinear Systems In Chemical Engineering Using Symbolic Computation Approaches", **Patrick Mills** (167)	"Nature of Active Sites for Passive NOx Adsorption on 1% Pd-SSZ-13 Catalyst", **Unmesh Menon**, Taha Salavati-fard, Hari Thirumalai, Bhuiyan Md. Mushfikur Rahman, Michael Harold and Lars Grabow (125)	"Developing a Viable Lignin Biorefinery: Sequential Lignin Ozonation, Catalytic Depolyermization, and Resin Formation", Kakasaheb Nandiwale, **Julian Silverman,** Andrew Danby, R. V. Chaudhari and Bala Subramaniam (27)	
11:35 - 12:00 PM	"Mitigating The Effects of Diffusion Limitations In Zeolite Catalysis", **Jeffrey Rimer**, Yufeng Shen and Thuy Le (168)	"Improving Methanol-To-Olefins Turnover Capacity of Cha Materials by Controlling Methanol Transfer Dehydrogenation Rates", **Praveen Bollini** and Aditya Bhan (63)	"Dehydra-Decyclization of Cyclic Ethers For Renewable Rubber Monomers", **Paul Dauenhauer**, Omar Abdelrahman, Stavros Caratzoulas and Dionisios Vlachos (120)	"Dry Reforming of Methane using Two- and Three-Dimensional Metal Carbides", Raj Thakur, Justin Smith and **Carlos Carrero** (124)
12:00 - 12:25 PM	"A Mechanistic Study of Glycerol Conversion to Aromatic Hydrocarbons over Bifunctional Metal-Supported H-ZSM-5 Catalysts", **Yang Xiao** and Arvind Varma (36)	"Uncertainty Quantification Of Surface Catalyzed Kinetic Models And Its Implication For Device Design", Gerhard Wittreich, Dionisios Vlachos and Markos Katsoulakis (40)	"Kinetic Modeling of Oxidation Ethylene Glycol to Glycolic Acid by Mono and Bimetallic Pt Based Catalysts", Honghong Shi, Bala Subramaniam and **Raghunath Chaudhari** (143)	"Carbonation of Vegetable Oils – A Modelling Approach Carbonation of Vegetable Oils – A Modelling Approach", Xiaochuang Cai, Leveneur Sébastien, Zheng Jun Liu, Adriana Freites, Pasi Tolvanen and **Tapio Salmi** (21)
12:25 - 1:30 PM	Lunch on Own			

Monday	Galleria I & II	Galleria III	Post Oak	Tanglewood, Bellaire
	In Honor of Dan Luss II	**Reaction Engineering Fundamentals: Kinetics and Mechanisms II**	**Reaction Engineering of Biofuels and Renewables II**	**Shale Gas Conversion**
	Session Chairs Mike Harold *(University of Houston)*, Vemuri Balakotaiah *(University of Houston)*	**Session Chairs** Hsi-Wu Wong *(University of Massachusetts Lowell)* , Dan Hickman *(The Dow Chemical Company)*	**Session Chairs** Xiaowei Zhou *(Chemours)*, Bala Subramaniam *(University of Kansas)*	**Session Chairs** Kaiwalya Sabnis *(SABIC)*, Ryan Hartman *(NYU)*
1:30 - 1:55 PM	"Chemical Reaction Engineering: Quo Vadis", **Jan Lerou** (173)	"A Crystallite Scale Approach to Predict Oxygen Storage Capacity of a Ceria-Based Three-Way Catalyst", **Rajbala Rajbala** and Divesh Bhatia (127)	**Keynote**: "Unbiased Enhanced Sampling of Enzymatic Catalysis for Mechanism Discovery and Engineering" **Heather Mayes** (162)	"Activity and Stability of Yolk-Shell Nanotube Catalysts for Tri-Reforming of Methane", Sunkyu Kim, Jochen Lauterbach and **Erdem Sasmaz** (58)
1:55 - 2:20 PM	"No Equations, No Variables, No Space and No Time - Data and the Modeling of Complex Dynamical Systems", **Yannis Kevrekidis** (174)	"Kinetic Analysis and Design of Catalytic Redox Cycles", **Kumar Ranjan Rout**, Endre Fenes, Hongfei Ma, De Chen and Terje Fuglerud (14)		"Kinetics and Mechanism of the Sulfur Oxidative Coupling of Methane (Socm) Reaction over Sulfided Iron Oxide Catalyst", **Sagar Udyavara**, Shanfu Liu, Matthias Peter, Tracy. L. Lohr, Tobin. J. Marks and Matthew Neurock (145)
2:20 - 2:45 PM	"Thermodynamics of Carbon Dioxide as a Feedstock, and its Conversion through Electrochemistry with Renewable Power", **James Lattner** (169)	"Regeneration Strategies for Methane Oxidation Catalysts", **Patrick Lott,** Andreas Gremminger, Alexey Boubnov, Mario Eck, Dmitry E. Doronkin, Maria Casapu, Jan-Dierk Grunwaldt and Olaf Deutschmann (6)	"Microkinetic and First-Principles Mechanistic Study of Eugenol Hydrotreatment over Ru/C", **Miha Grilc**, Ana Bjelić, Matej Huš and Blaž Likozar (42)	"Scale Up of Oxidative Coupling of Methane", **Sagar Sarsani**, Aaron Gillette, Tian Gu, David West and Vemuri Balakotaiah (108)
2:45 - 3:10 PM	Refreshment Break			
3:10 - 3:35 PM	"Chemical Reaction Engineering for Inherently Safer Chemical Processing and Process Intensification", **Benjamin A. Wilhite** (172)	"Understanding the Solvent Effects to Achieve Unprecedented Yield of Methyl-Esterification with Diazomethane in a Microreactor", **Changfeng Yang**, Gang Qian, Leslaw Mleczko, Xuezhi Duan and Xinggui Zhou (90)	"Modeling and Analysis of Biphasic Microreactors for Biomass-Derived Carbohydrates' Conversion", **Tai-Ying Chen**, Dionisios Vlachos and Matteo Maestri (29)	**Keynote**: "Catalytic Reaction Engineering In Acidic Zeolites For Converting Light Hydrocarbons", **Raj Gounder** (92)
3:35 - 4:00 PM	"Wall Temperature Modulates Transversal Pattern Formation and Dynamics in Shallow, Non-adiabatic Packed-bed Reactors", K. Narendiran and **Ganesh A. Viswanathan** (81)	"Kinetic Modelling of Ammonia Temperature Programmed Desorption using the Sestak Berggren Equation: An *In Silico* Study", **Rebecca Gibson**, Mark Simmons, Athanasios Tsolakis, Hugh Stitt, John West and Robert Gallen (28)	"Induction of Thermal and Fluorescence effects on Hydrotehrmal Char during Raman Spectroscopy", **Avery Brown** and Michael Timko (157)	
4:00 - 4:25 PM	"Dynamic Accumulation as a Tool for Materials Characterization", Yixiao Wang, **Gregory Yablonsky**, M. Ross Kunz, Harry Rollins, Skyler Siebers and Rebecca Fushimi (129)	"Compact Profile Reactor for Spatially Resolved Kinetic and Spectroscopic Measurements on Solid Catalysts", **Raimund Horn**, Oliver Korup and Michael Schmidt (22)	"Multiscale Dynamics of Hemicellulose Hydrolysis for Biofuel Production", Sajal Kanti Dutta and **Saikat Chakraborty** (67)	"Microkinetic Modeling of Light Alkene Oligomerization on Acidic Zeolites", **Sergio Vernuccio**, Elsa Koninckx, Elizabeth Bickel, Han-Ting Tseng, Rajamani Gounder, Fabio Ribeiro and Linda Broadbelt (99)
4:30 - 6:30 PM	**Poster Session (with Refreshments)**			**(Woodway II - 4th Level)**

Schedule of Presentations

Tuesday, March 12

Galleria I & II

Time				
8:15 - 9:15 AM	**Plenary**: "Advancing Reaction Engineering Through New Separations", **Joan Brennecke** *(University of Texas at Austin)* (160) Sponsored by **The Dow Chemical Company**, Introduction by **Dan Hickman**			
9:15 - 9:30 AM	**Break**			
9:30 - 10:20 AM	**Aris Award Address**: "Catalyst and Reactor Design Strategies for Lignin Upgrading", **Yuriy Román-Leshkov** *(MIT)* (170) Sponsored by **UOP - A Honeywell Company**, Introduction by **Kurt VandenBussche**			
10:20 - 10:30 AM	**Break**			

Time	Galleria I & II	Galleria III	Post Oak	Tanglewood, Bellaire
	Multiphase Reaction Engineering	**Multiscale Modeling and Reaction Pathway Analysis**	**Reaction Engineering for Microwave, Photochemical, and Acoustically-driven Processes**	**Heterogeneous and Homogeneous Catalytic Reaction Engineering I**
	Session Chairs Subhashini Vashisth *(Eastman),* Tony Dixon *(Worcester Polytechnic Institute)*	**Session Chairs** Ashish Mhadeshwar *(ExxonMobil),* Sergio Vernuccio *(Northwestern University)*	**Session Chairs** Enrico Tronconi *(Politecnico di Milano),* Elizabeth Carter *(Honeywell UOP)*	**Session Chairs** Jeff Rimer *(University of Houston),* Praveen Bollini *(University of Houston)*
10:30 - 10:55 AM	**Keynote**: "Experimental Investigation of the Effects of Fluidizing Gas on Copper-Manganese Mixed Oxide's Reactivity for Chemical Looping Combustion of CH_4", **Bihter Padak** and Turna Barua (61)	"Following The Evolution of Molecular Structures in Biomass Pyrolysis using Kinetic Monte Carlo Simulations", **Ziwei Wang** and Matthew Neurock (146)	"Lab-Scale and Field-Scale Study of Siloxane Contaminants Removal from Landfill Gas", Alireza Divsalar, Hasan Divsalar, Matthew Dods, Richard Prosser, Theodore Tsotsis and **Fatemeh Sadat Zebarjad** (59)	"Simulated Moving Bed Reactor for P-Xylene Production: Modeling, Simulation, and Optimization", **Qian Shi**, Jonathan C. Gonçalves, Alexandre F. P. Ferreira and Alírio E. Rodrigues (45)
10:55 - 11:20 AM		"Multiscale Modeling for Non-Oxidative Methane Coupling over Earth Abundant Catalysts", **Hilal Ezgi Toraman**, Konstantinos Alexopoulos and Dionisios G. Vlachos (30)	"Application of Microwaves to Chemical Reactions for Process Intensification", **Mark W. Smith**, Dushyant Shekhawat, David Berry, Christina Wildfire, Victor Abdelsayed and Michael Spencer (116)	"Tuning C3/C2 Ratio in Dual Catalyst Synthesis Gas-To-Olefins Processes: Role of Hydrogenation on Selectivity", **Joseph DeWilde**, Alexey Kirilin, Vera Santos, Adam Chojecki, Kinga Scieranka and Andrzej Malek (72)
11:20 - 11:45 AM	**Refreshment Break**			
11:45 AM - 12:10 PM	"Oxidative Coupling of Methane in a Gas-Solid Vortex Reactor", Laurien Vandewalle, **Kevin Van Geem** and Guy B. Marin (5)	"Ignition and Extinction Analysis of Methane Oxidative Coupling with La2O3/Cao Catalyst", **Zhe Sun**, David West and Vemuri Balakotaiah (89)	"A Multiscale Study of Microwave Assisted Heterogeneous Reactions", **Himanshu Goyal** and Dionisios Vlachos (37)	**Keynote**: "Ethylene Carbonylation Revisited: New Paradigms", **Beata Kilos** (161)
12:10 - 12:35 PM	"Towards Intelligent Multiphase Laboratory Reactors with *In Situ* Characterizations", **Ryan Hartman**, Weiqi Chen and Benjamin Rizkin (43)	"Multiscale Simulations for Combustion Pyrolysis of Natural Gas", **Byeongjin Baek**, Lei Chen, Sreekanth Pannala, Balamurali Nair, Istvan Lengyel, Retheesh VM and David West (69)	"Kinetic Modeling of a Liquid-Liquid Reaction: Epoxidation of Oleic Acid under Conventional Heating and Microwave Irradiation", **Adriana Freites**, Pasi Tolvanen, Johan Wärnå, Sebastien Leveneur, Timothy Marchant and Tapio Salmi (4)	
12:35 - 1:00 PM	Bubble Column Reactor Scale-Up: Impact of Hydrodynamic Stability, **Bryan Patel** (111)	**Keynote**: "Process Intensification and Innovation in Olefin Production by Multiscale Analysis and Design", **Kevin Van Geem** (68)	"Microwave-Assisted Catalytic Upgrading of Heavy Oil", **Mohamed Adam,** Abarasi Hart, Joseph Wood, John P. Robinson and Sean P. Rigby (12)	"Hydrogenolysis of Carbon-Chlorine Bonds in Aromatic Molecules", Jalal Tavana, Mohammed Al-Gharrawi, M. Clayton Wheeler and **Thomas Schwartz** (46)
1:00 - 1:25 PM	"Hydrodynamics of Gas-Liquid Countercurrent Flow in Random and Structured Packed Column on Floating Platforms for Offshore Marine Applications", Jian Zhang, Amir Motamed Dashliborun, Seyed Mohammad Taghavi and **Faïçal Larachi** (51)		"Scale Up of Molten Carbonate Fuel Cells for Carbon Capture", Tim Barckholtz, Rodrigo Blanco Gutierrez, Keith Davis, Frank Dobek, Lu Han, Timothy Healy, Yesim Igci, **Brandon O'Neill**, Jonathan Rosen, Carl Willman and Wei Yang (119)	"The Effect of Radiation in Particle-Resolved CFD Simulations of Fixed-Bed Reactors", **Gregor D. Wehinger** (44)
1:25 - 2:30 PM	**Lunch on Own**			

Monday	Galleria I & II	Galleria III	Post Oak	Tanglewood, Bellaire
	Novel Reactor Designs and Process Intensification	**Reaction Engineering through Computational Catalysis**	**Reaction Engineering of Macromolecules**	**Heterogeneous and Homogeneous Catalytic Reaction Engineering II**
	Session Chairs Bihter Padak *(University of California, Irvine)*, Sanjeev Rao *(SABIC)*	**Session Chairs** Dion Vlachos *(University of Delaware)*, Alan Stottlemyer *(Corteva Agriscience, DowDupont)*	**Session Chairs** Kishori Deshpande *(The Dow Chemical Company)*, Pavlo Kostetskyy *(Northwestern University)*	**Session Chairs** Andreas Heyden *(University of South Carolina)*, Thomas Schwartz *(University of Maine)*
2:30 - 2:55 PM	**Keynote**: "Ultrasound-Assisted Multiphase Processing" **Tom Van Gerven** (71)	"Computational Framework for the Identification of Bioprivileged Molecules", **Xiaowei Zhou**, Zachary Brentzel, George Kraus, Peter Keeling, James Dumesic, Brent Shanks and Linda Broadbelt (10)	"Model-Based Design for Inhibition of Thermal Runaway", **Guanyang Liu** and Benjamin Wilhite (109)	"Analysis of Particle and Reactor-Scale Transport-Kinetic Interactions for CO_2 Methanation", Prateek Reddy C. R., **Arvind Nanduri** and Patrick L Mills (64)
2:55 - 3:20 PM		"Tuning Catalytic Performance of Gallium Oxide for Propane Dehydrogenation by Introducing Single Platinium Atoms", **Qing-Yu Chang**, Yi-An Zhu, Xing-Gui Zhou and Wei-Kang Yuan (78)	"Detailed Modeling of LDPE Autoclave Reactors", **Alejandro Cano**, Shashank Maindarkar, In-Seon Kim and Thomas Lafitte (103)	"Evaluating the Role of Metal Loadings on Low Temperature Biogas Valorization", **Yetunde Sokefun**, Babu Joseph and John Kuhn (118)
3:20 - 3:45 PM	"Cellular Substrates for the Intensification of Environmental Catalytic Processes", Matteo Ambrosetti, Mauro Bracconi, Matteo Maestri, Gianpiero Groppi and **Enrico Tronconi** (38)	"First-Principles Kinetic Monte Carlo Study of Biomass Conversion over Supported Metal Oxide Catalyst", **Xiao Li** and Lars Grabow (107)	"Topology Control of Bottlebrush Polymers", Dylan Walsh and **Damien Guironnet** (8)	"Alkylation Kinetics of Isobutane with Mixed C4 Olefins using Sulfuric Acid as Catalyst", Piao Cao, Weizhong Zheng, **Weizhen Sun** and Ling Zhao (70)
3:45 - 4:10 PM	**Refreshment Break**			
4:10 - 4:35 PM	"Experimenal Study of Methanol Synthesis in a High-Pressure Membrane Reactor", **Fatemeh Zebarjad**, Zhongtang Li, Sheng Hu and Theodore Tsotsis (32)	"A Topological Model for the Adsorption of Polycyclic Aromatic Hydrocarbons on Late-Transition Metal Surfaces", Zhao-Bin Ding, Matteo Tommasini and **Matteo Maestri** (133)	"Molten Polymers as Pathway Inhibitors for Selective Biomass Fast Pyrolysis", Melisa Nallar and **Hsi-Wu Wong** (60)	**Keynote**: "Engineering Continuous Zeolite Crystallization", **Andrew Teixeira** (158)
4:35 - 5:00 PM	"Oxidative Dehydrogenation of Ethane to Ethylene in an Oxygen Ion Transport Membrane Reactor - A Model for Process Intensification", **Robert Schucker**, Katarzyna Derrickson, Karina Kopec, Faisal Alahmadi, J. R. Johnson, George Dimitrakopoulos and Ahmed Ghoniem (20)	"*Ab Initio* Reaction Kinetics Simulations of Catalytic Methanol Synthesis Through CO2 Hydrogenation", **Blaž Likozar**, Drejc Kopač and Matej Huš (13)	"New Insights into Cellulose Fast Pyrolysis Kinetics using Advanced Analytical Techniques", **Gorugantu SriBala**, Kevin M. Van Geem and Guy B. Marin (23)	
5:00 - 5:25 PM	"Spatially Resolved Operando-Raman Annular Reactor: An Application To The Methane Dry Reforming On Rhodium", Gianluca Moroni, Alessandro Donazzi and **Matteo Maestri** (131)	"A Quantitative Understanding of the Water Effect on the Amine Catalyzed Aldol Reaction", **Anton De Vylder**, Jeroen Lauwaert, Maarten K. Sabbe, Jeriffa De Clercq, Pascal Van Der Voort and Joris W. Thybaut (85)	"Activation of Cellulose via Cooperative Hydroxyl-Catalyzed Transglycosylation of Glycosidic Bonds", **Vineet Maliekkal**, Saurabh Maduskar, Derek Saxon, Mohammadreza Nasiri, Theresa Reineke, Matthew Neurock and Paul Dauenhauer (155)	"In Situ Activation for Enhanced Methane Conversion in Emission Control", **Kyle Karinshak**, Patrick Lott, Michael Harold and Olaf Deutschmann (86)
5:30 - 6:30 PM	**Poster Session (with Refreshments)**			**(Woodway II -**
	4th Level)			

Schedule of Presentations
Wednesday, March 13
Galleria I & II

	Galleria I & II	Galleria III	Post Oak	Tanglewood, Bellaire
8:15 - 9:15 AM	**Plenary**: "Progress and Challenges in the Autothermal Oxidative Coupling of Methane", **David West** (*SABIC*) (101) Sponsored by **SABIC**, Introduction by **Pankaj Gautam**			
9:15 - 9:30 AM	**Break**			
	Multiphase Reactor Modeling in Reaction Engineering	**Reaction Engineering and Data Science**	**Industrial Case Studies and Applications**	**Novel Catalysts, Sorbents, and Materials to Advance Reaction Engineering**
	Session Chairs Faïçal Larachi (*Université Laval*), Holly Butcher (*Honeywell UOP*)	**Session Chair** Pavlo Kostetskyy (*Northwestern University*), Andrew Teixeira (*Worcester Polytechnic Institute*)	**Session Chairs** Concetta La Marca (*Chemours*), Rob Broekhuis (*SABIC*)	**Session Chairs** Damien Guironnet (*University of Illinois*), Beata Kilos (*The Dow Chemical Company*)
9:30 - 9:55 AM	"Methane CPO on Rh: *In Situ* Profile Measurements Meet Resolved-Particle CFD Models", Behnam Partopour, Raimund Horn and **Anthony Dixon** (3)	"Towards Revolutionizing Process- and Reaction Engineering with Artificial Intelligence-Based Models", **Pieter P. Plehiers**, Steffen H. Symoens, Ismaël Amghizar, Guy B. Marin, Christian V. Stevens and Kevin M. Van Geem (34)	**Keynote**: "The Role of Chemical Reaction Engineering and Process Design in Industrial Technology Innovation", **Elizabeth Carter (**75)	"Molten Salt Hydrates in the Synthesis of Metal Oxide Catalysts", Trang Tran and **George Tsilomelekis** (147)
9:55 - 10:20 AM	"Multi-Scale Reduced Order Models for Coupled Homogeneous-Catalytic Reactions in Multilayered Monoliths", **Ram Ratnakar** and Vemuri Balakotaiah (65)	"Attainability Estimates in Chemical Reactor Networks using Artificial Neural Networks", **Michelle Low** and David Ming (77)		"NOx Reduction by Fast Lean-Rich Cycling on Platinum Containing Monolith Catalysts: Impact of Storage Components", **Zhiyu Zhou**, Michael Harold and Dan Luss (93)
10:20 - 10:45 AM	**Refreshment Break**			
10:45 - 11:10 AM	"Experiments and Particle-Resolved CFD Modeling of Catalytic Partial Oxidation in a Lab Scale Packed Bed Reactor", Hoang Nguyen, **Lei Chen**, Sreekanth Pannala, Pankaj Gautam and David West (66)	"Estimating Kinetic Parameters from Batch Data: Breaking Correlations using Mixed-Effects Models", **Daniel W. Trahan** and Daniel A. Hickman (123)	"Investgating Coarse-Graining Effects on CFD-DEM Simulations of Fluidized and Spouted Bed Reactors", **Thomas Eppinger**, Nico Jurtz, Felix Klippel, Leonard Becker, Oleh Baran, Ravindra Aglave and Matthias Kraume (54)	"Enhancing the Efficiency of Gas-Liquid-Solid Reactions using a Monolithic Microhoneycomb Catalyst", **Shin Mukai**, Hiroyuki Mega, Takuya Aihara, Shinichiroh Iwamura and Isao Ogino (31)
11:10 - 11:35 AM	"Variable Area Bubble Column for the Chlorination of Glycerol with HCl: A Reaction Engineering and Modeling Approach", Javier Ibanez Abad, Debanga Mondal, **Pasi Tolvanen**, Arto Laari and Tapio Salmi (25)	"Identifying Active Sites of the Water-Gas Shift Reaction over Supported Platinum Catalysts under Uncertainty", **Andreas Heyden** (2)	"From Laboratory to Industrial Operation: Model-Based Digital Design and Optimization of Fixed Bed Catalytic Reactor", **Alejandro Cano** and Stepan Spatenka (110)	"VOx/CaO-ΓAl2O3 for Oxidative Dehydrogenation of Ethane to Ethylene under Gas Phase Oxygen Free Conditions", **Mohammad Mozahar Hossain** (96)
11:35 - 12:00 PM	"Modelling of Chromatographic Reactors", Vincenzo Russo, **Tapio Salmi**, Riccardo Tesser and Martino Di Serio (18)	"A Multi-Scale Approach to the Simulation of Fluidized Systems: from Particle Tracking to Microkinetic Analysis", **Riccardo Uglietti**, Mauro Bracconi and Matteo Maestri (53)	"Novel Jet-Loop Reactor for Gas-Solid Catalyzed Kinetic Studies using Commercial Size Particles", Anuradha Nagaraj, Mikhail Vasilev and **Patrick Mills** (56)	"Open Cellular Structures for Exhaust Aftertreatment Intensification", Tommaso Selleri, Matteo Ambrosetti, **Mauro Bracconi**, Gianpiero Groppi, Isabella Nova and Enrico Tronconi (136)
12:00 - 12:25 PM	"Reduced Order Models With Local Property Dependent Transfer Coefficients For Real Time Simulation Of Monolith Reactors", **Mingjie Tu**, Vemuri Balakotaiah and Ram Ratnakar (7)	"Elucidating Additive Effects on Early Stage Solid-Electrolyte Interphase Growth Mechanisms using Molecular Dynamics", **Luke Gibson** and Jim Pfaendtner (112)	"Research on Hydrocracking Catalysts Grading Technology and Kinetic Model", **Chong Peng**, Xiangchen Fang and Ronghui Zeng (33)	"Molten Salt Synthesis (MSS) of MgO(111): Critical Factors Governing the Crystallization Process", **Mariano D. Susman**, Hien N. Pham, Abhaya K. Datye, Sivadinarayana Chinta and Jeffrey D. Rimer (126)
12:30 - 1:00 PM	**Closing Remarks**			