NASCRE-3 PRESENTATION TIMES

TOPIC CODES	
CH	Chemical
EGF	Energy 1
EGBR	Energy 2
EV	Environmental
FR	Fundamentals 1
FK	Fundamentals 2
FC	Fundamentals 3
Gen	General

ID	*TOPIC*	*PRES TYPE*	*DAY*	*START*	*END*	*TITLE AND AUTHORS*
1	FR	Oral	Mon	3:10 PM	3:35 PM	SUCCESSFUL SCALE-UP OF AN INDUSTRIAL TRICKLE BED HYDROGENATION USING LABORATORY REACTOR DATA, Daniel Hickman, Michael Holbrook, Samuel Mistretta and Steve Rozeveld
2	MK2	Keynote	Mon	10:45 AM	11:35 AM	REACTION ENGINEERING CHALLENGES IN FUTURE ENERGY AND CHEMICALS, Joseph Powell
3	EGBR	Oral	Tue	10:45 AM	11:10 AM	DEVELOPMENT AND TESTING OF A PILOT REACTOR FOR LOW-TEMPERATURE PYROLYSIS (TORREFACTION) OF STRAW PELLETS, Rafail Isemin, Oleg Milovanov, Sergey Kuzmin, Valentin Konyakhin and Nikos Nikolopoulos
4	CH	Oral	Tue	9:30 AM	9:55 AM	RENEWABLE CATALYTIC PROCESS FOR THE PRODUCTION OF P-XYLENE FROM GLUCOSE, Paul Dauenhauer
5	TK7	Keynote	Tue	11:35 AM	12:25 PM	KINETICS AND MECHANISMS OF OXIDATION AND REDUCTION REACTIONS OF BIOMASS-DERIVED MOLECULES IN LIQUID WATER, Robert Davis
6	FR	Oral	Mon	9:55 AM	10:20 AM	SORPTION-ENHANCED STEAM REFORMING OF METHANE IN A GAS–SOLID COUNTERCURRENT FLOW REACTOR WITH CALCIUM OXIDE AS CO2 ACCEPTOR, Ana Obradović, Blaž Likozar and Janez Levec
7	Gen	Oral	Wed	11:35 AM	12:00 PM	HYDROGENATION OF CO2 AND CO UNDER HIGH TEMPERATURE GRADIENT BETWEEN CATALYST SURFACE AND OPPOSITE COOLING PLATE, David Perko and Janez Levec
8	FR	Oral	Mon	3:35 PM	4:00 PM	A NEW APPROACH TO FIXED BED RADIAL HEAT TRANSFER USING VELOCITY FIELDS FROM CFD SIMULATIONS, Mohsen
9	EV	Poster	Mon	4:00 PM	6:00 PM	AXIAL ACTIVE SITE DISTRIBUTIONS ALONG A MONOLITH-SUPPORTED OXIDATION CATALYST – IMPROVED
10	Gen	Poster	Mon	4:00 PM	6:00 PM	GASEOUS PRODUCT FROM MICROWAVE-HEATED PYROLYSIS OF WASTE AUTOMOTIVE ENGINE OIL, Su Shiung Lam, Nyuk
11	EGF	Oral	Mon	9:30 AM	9:55 AM	DOWN-HOLE CATALYTIC UPGRADING OF HEAVY OIL AND BITUMEN TO MEET TOMORROW'S ENERGY NEEDS: THE THAI-CAPRI PROCESS, Abarasi Hart, Gary Leeke, Malcolm Greaves and Joseph Wood
12	FK	Poster	Tue	4:00 PM	6:00 PM	DENSITY FUNCTIONAL THEORY AND REACTIVE MOLECULAR DYNAMICS STUDY OF GAS PHASE POWDER FORMATION
13	FR	Oral	Mon	10:45 AM	11:10 AM	EFFECT OF STIRRER DESIGN ON THE PERFORMANCE OF ROTATING FOAM STIRRED REACTORS, Maria A. Leon, John van der Schaaf, Jaap C. Schouten and T. Alexander Nijhuis
14	CH	Oral	Tue	9:55 AM	10:20 AM	SUGAR DEHYDRATION TO HMF USING SOLID FOAM SUPPORTED ACID CATALYSTS WITH SIMULTANEOUS PRODUCT EXTRACTION, Vitaly V. Ordomsky, John van der Schaaf, Jaap C. Schouten and T. Alexander Nijhuis
16	FC	Poster	Tue	4:00 PM	6:00 PM	ANALYSIS OF THE GROWTH BEHAVIOR OF CARBON NANOFIBERS SYNTHESIZED USING THE LIQUID PULSE INJECTION
17	FC	Oral	Tue	1:30 PM	1:55 PM	DYNAMIC MODELING TO STUDY REVERSIBLE POISONING OF A CATALYTIC BED, Sweta Somasi, Paul Witt, Edward Calverley, Dana Livingston and Eldad Herceg
18	Gen	Poster	Mon	4:00 PM	6:00 PM	NOVEL CATALYTIC MATERIAL WITH ENHANCED CONTACTING EFFICIENCY FOR VOC DECOMPOSITION AT ULTRA-SHORT CONTACT TIME, Sabrina Wahid and Bruce Tatarchuk
19	FR	Poster	Mon	4:00 PM	6:00 PM	A METHOD TO PREDICT PHOSGENATION REACTION PERFORMANCE OF TOLUENE DIISOCYANATE IN JET REACTOR, Rongshan Bi, Xinshun Tan and Shiqing Zheng
20	FR	Poster	Mon	4:00 PM	6:00 PM	EXPERIMENT AND SIMULATION ON A NEW SWIRL-JET-TYPED SINGLET OXYGEN GENERATOR, Rongshan Bi, Xia Yang, Xinshun Tan and Shiqing Zheng
21	FC	Poster	Tue	4:00 PM	6:00 PM	SYNTHESIS OF SULFONIC ACID FUNCTIONALIZED SILICA MICROHONEYCOMBS, Yoshitaka Satoh, Yuya Yokoyama, Isao Ogino and Shin Mukai
22	FC	Oral	Tue	1:55 PM	2:20 PM	SYNTHESIS OF A MONOLITHIC CARBON ACID CATALYST WITH A HONEYCOMB STRUCTURE FOR LIQUID-PHASE ESTERIFICATION IN FLOW REACTION SYSTEMS, Isao Ogino, Kazuhiro Murakami, Yoshitaka Satoh and Shin Mukai
23	Gen	Poster	Mon	4:00 PM	6:00 PM	LIMITS OF OPTIMIZATION IN REACTION ENGINEERING, Michael Nilles
24	FK	Poster	Tue	4:00 PM	6:00 PM	DENSITY FUNCTIONAL THEORY STUDY OF SELECTIVE DEACYLATION OF AROMATIC ACETATE IN THE PRESENCE OF

25	CH	Poster	Tue	4:00 PM	6:00 PM	MODEL-AIDED SCALE UP OF A Pt/SiO2 CATALYST FOR POLYMER HYDROGENATION, Edward Calverley, Michael Olken and Anaya Denise
26	FR	Oral	Mon	4:00 PM	4:25 PM	OPTIMAL ACTIVE CATALYST AND INERT DISTRIBUTION IN CATALYTIC FIXED BED REACTORS: ORTHO-XYLENE OXIDATION, Yisu Nie, Paul Witt, Anshul Agarwal and Lorenz Biegler
27	FK	Poster	Tue	4:00 PM	6:00 PM	TRANSIENT ISOTOPE TRACING OF DIMETHYL ETHER ON AN ALUMINA SUPPORTED PALLADIUM CATALYST, Ronald M. Supkowski and Masood Otarod
28	Gen	Poster	Mon	4:00 PM	6:00 PM	MODELING OF CATALYTIC MEMBRANE REACTORS FOR PROPANE DEHYDROGENATION, Seung-Won Choi, Christopher Jones, David Sholl, Sankar Nair, Sagar Sarsani, Yujun Liu, Ravindra Dixit and John Pendergast
29	FK	Poster	Tue	4:00 PM	6:00 PM	KINETICS 2.0: NEW PATTERNS OF KINETIC BEHAVIOR ('RECIPROCAL' TIME INVARIANCES, INTERSECTIONS AND COINCIDENCES), Gregory Yablonsky, Denis Constales and Guy Marin
30	TK5	Keynote	Tue	9:30 AM	10:20 AM	DESIGN OF FLUIDIZED BED REACTORS AND TRICKLE BED REACTORS FOR CONVERSION OF BIOMASS INTO FUELS AND CHEMICALS, George Huber, Yong Tae Kim, Pranav Karanjkar and Robert Coolman
32	FR	Oral	Mon	11:10 AM	11:35 AM	THE EFFECT OF PARTICLE SIZE DISTRIBUTION ON TRICKLE-BED REACTOR HYDRODYNAMICS, Gregory Honda, Philip Gase, Arvind Varma and Daniel Hickman
33	Gen	Oral	Mon	3:35 PM	4:00 PM	COUNTERCURRENT LIQUID-LIQUID FLOW IN A HIGH-SHEAR HIGH-GRAVITY EXTRACTOR, Frans Visscher, Shima Saffarionpour, Mart De Croon, John Van der Schaaf and Jaap Schouten
34	FK	Poster	Tue	4:00 PM	6:00 PM	REACTION NETWORK GENERATION TO PREDICT AND DIRECT EXPERIMENTATION FOR MECHANISM IDENTIFICATION, Abraham Schuitman, Srinivas Rangarajan, Aditya Bhan and Dan Hickman
35	FK	Oral	Tue	9:55 AM	10:20 AM	GENERALIZED MODEL OF HYDROCARBONS PYROLYSIS USING AUTOMATED REACTIONS NETWORK GENERATION, Adam Karaba, Petr Zamostny and Jaromir Lederer
36	EGF	Oral	Mon	9:55 AM	10:20 AM	MOVING BED REDUCER MODELING FOR GASEOUS FUEL CHEMICAL LOOPING SYSTEM, Liang Zeng, Qiang Zhou, Omar McGiveron and Liang-Shih Fan
37	EGF	Oral	Mon	11:35 AM	12:00 PM	IRON-BASED CHEMICAL LOOPING PROCESS DEVELOPMENT AT THE OHIO STATE UNIVERSITY, Liang Zeng, Andrew Tong, Mandar Kathe, Samuel Bayham, Elena Chung and Liang-Shih Fan
38	Gen	Poster	Mon	4:00 PM	6:00 PM	PHOTOCATALYTIC DEGRADATION OF GLYCEROL IN VISIBLE LIGHT WITH COBALT-DOPED TITANIUM DIOXIDE, Tin Cao Trung, Frank Lucien and Adesoji Adesina
39	EGBR	Poster	Tue	4:00 PM	6:00 PM	A NOVEL EXTRACTIVE REACTOR FOR BIODIESEL PRODUCTION: A PARAMETRIC STUDY, Dean Chesterfield, Frank Lucien, Peter Rogers and Adesoji Adesina
40	EGF	Poster	Mon	4:00 PM	6:00 PM	KINETIC STUDY OF PROPANE CO2 REFORMING OVER BIMETALLIC Mo-Ni/Al2O3 CATALYST, Arman Siahvashi and Adesoji Adesina
41	FK	Oral	Tue	10:45 AM	11:10 AM	DENSITY FUNCTIONAL THEORY STUDY ON THE THERMODYNAMICS AND MECHANISM OF CARBON DIOXIDE CAPTURE BY CAO AND CAO REGENERATION, Jia Wang, Ze Sun, Guimin Lu, Xingfu Song and jianguo Yu
43	FK	Poster	Tue	4:00 PM	6:00 PM	ALKYLATION KINETICS OF ISOBUTANE BY BUTENE USING SULFURIC ACID AS CATALYST, Weizhen Sun, Yi Shi, Jie Chen and Ling Zhao
45	FK	Oral	Tue	11:10 AM	11:35 AM	GAS PHASE RADICAL CHEMISTRY AND ITS IMPACT ON LIGNIN MODEL COMPOUND REACTIVITY, Samuele Sommariva and Anthony Marion Dean
46	CH	Oral	Tue	11:35 AM	12:00 PM	REACTIVE ADSORPTION FOR THE SELECTIVE DEHYDRATION OF SUGARS TO FURANS: MODELING AND EXPERIMENTS, TD Swift, C Bagia, P Dornath, V Nikolakis, W Fan and D Vlachos
47	Gen	Poster	Mon	4:00 PM	6:00 PM	SYNTHESIS AND ADSORPTION PROPERTIES OF LI1.6MN1.6O4 SPINEL, Jia-Li Xiao and Shu-Ying Sun
48	FR	Oral	Mon	1:30 PM	1:55 PM	CLOSURE MODEL FOR MULTIPHASE ENTHALPY TRANSFER ASSOCIATED WITH MASS TRANSFER, Jordan Musser, Madhava Syamlal, Mehrdad Shahnam, Janine Carney and David Huckaby
49	EV	Poster	Mon	4:00 PM	6:00 PM	TRANSIENT STUDIES OF NOX REDUCTION BY CO AND NH3 FORMATION ON LEAN NOX TRAPS, Prasanna Dasari and Michael Harold
50	Gen	Poster	Mon	4:00 PM	6:00 PM	MODELING OF REACTIVE CONDENSATION SYSTEMS, P.A. Ramachandran and Ramaswamy Ramaswamy
51	FK	Oral	Tue	1:30 PM	1:55 PM	FIRST-PRINCIPLES KINETIC MONTE CARLO SIMULATIONS OF WATER-GAS SHIFT REACTION KINETICS ON COPPER SURFACES, Donghai Mei
52	FR	Poster	Mon	4:00 PM	6:00 PM	COMPARISON OF REACTIVE DISTILLATION AND REACTIVE CHROMATOGRAPHY FOR ESTERIFICATION OF ALCOHOLS WITH ACETIC ACID, Bhoja Reddy, Prafull Patidar, Rahul Bhat, Amit Agarwal, Ankit Jain and Sanjay Mahajani
53	FC	Poster	Tue	4:00 PM	6:00 PM	Pd CATALYZED OXIDATION OF GLYCEROL: EFFECT OF DIFFERENT SUPPORTS, ASHUTOSH NAMDEO, SANJAY MAHAJANI and A. K. SURESH
54	FC	Oral	Tue	2:20 PM	2:45 PM	SODIUM PROMOTION OF Pt/Al2O3 FOR THE WATER-GAS SHIFT REACTION BY OPERANDO IR AND ISOTOPIC TRANSIENT EXPERIMENTS, Jorge Pazmiño, Jun Wang, Viktor Cybulskis, W. Nicholas Delgass and Fabio Ribeiro
55	FR	Poster	Mon	4:00 PM	6:00 PM	PRODUCING RANDOMLY PACKED DOMAINS OF ARBITRARILY SHAPED PARTICLES APPROXIMATED AS POLYHDERAL OBJECTS, Daniel Combest
56	EGF	Oral	Mon	12:00 PM	12:25 PM	BIMETALLIC FE-NI OXYGEN CARRIERS FOR CHEMICAL LOOPING COMBUSTION, Saurabh Bhavsar and Götz Veser

57	FC	Oral	Tue	3:10 PM	3:35 PM	DESIGN OF BIMETALLIC CATALYSTS FOR PROPANE TOTAL OXIDATION, Nageswara Rao Peela, Ivan C. Lee and Dionisios G. Vlachos
58	EV	Oral	Mon	10:45 AM	11:10 AM	SHORT CONTACT TIME CATALYTIC PLATE DIESEL REFORMER: DETAILED MULTI-PHYSICS MATHEMATICAL MODEL, Mayur Mundhwa, Rajesh Parmar, Brant Peppley and Christopher Thurgood
59	FR	Poster	Mon	4:00 PM	6:00 PM	EXPERIMENTIAL STUDY OF THE FLOW FIELD IN THE HYDROCYCLONE WITH THE OUTLET SEALED, Xingfu Song, Yanxia Xu, Bo Tang, Ze Sun, Ping Li and Jianguo Yu
60	FK	Oral	Tue	1:55 PM	2:20 PM	A KINETIC ANALYSIS METHODOLOGY TO ELUCIDATE SOLVENT EFFECTS IN CATALYTIC LIQUID-PHASE REACTIONS, Sam K. Wilkinson, Nazita Sedaie Bonab, Mark J.H. Simmons, Chris Hardacre, Helen Daly, Ian McManus, Jillian M. Thompson and E. Hugh Stitt
61	FK	Oral	Tue	2:20 PM	2:45 PM	PREDICTIVE CHEMICAL KINETICS: A MOLECULAR APPROACH TO 21ST CENTURY ENERGY SOLUTIONS, Amrit Jalan, Joshua W. Allen, Shamel S. Merchant, Nick M. Vandewiele, Rajesh D. Parmar, Connie W. Gao, Michael R. Harper, Gregory R. Magoon, Brant A. Peppley, Kevin Van Geem, Guy B. Marin and William H. Green
62	Gen	Poster	Mon	4:00 PM	6:00 PM	ANALYSIS OF PHASE TRANSFORMATION PROCESS OF HYDROMAGNESITE SYNTHESIS VIA NESQUEHONITE PYROGENATION, Chen Yang, Xingfu Song, Ze Sun, Shuying Sun and Jianguo Yu
63	FC	Oral	Wed	9:30 AM	9:55 AM	MOMENTARY EQUILIBRIUM IN TRANSIENT KINETICS AND ITS APPLICATION FOR ESTIMATING THE NUMBER OF CATALYTIC SITES, Evgeniy A. Redekop, Gregory S. Yablonsky, Denis Constales, Rebecca Fushimi, John T. Gleaves and Guy B. Marin
64	EGF	Oral	Mon	1:30 PM	1:55 PM	SYNTHESIS GAS TO SYNTHETIC FUELS: A STUDY OF FISCHER-TROPSCH SYNTHESIS CATALYSED BY COBALT DOPED SILICA USING SLURRY PHASE REACTOR, Unalome Wetwatana, Nattakan Choosri and Thanes Utistham
65	FR	Poster	Mon	4:00 PM	6:00 PM	A COMPARISON OF TRICKLE BED PRESSURE DROP CORRELATIONS WITH PLANT DATA, Daniel Hickman, Cory Thomas and Georgios Bellos
66	CH	Oral	Tue	12:00 PM	12:25 PM	KINETIC MODELING AND OPTIMIZATION OF POLYMERIZATION REACTIONS, Subash Balakrishna
67	EV	Oral	Mon	11:10 AM	11:35 AM	ANALYSIS OF DIESEL PARTICULATE FILTER REGENERATION MODES, Mengting Yu, Dan Luss and Vemuri Balakotaiah
68	EGBR	Oral	Tue	11:10 AM	11:35 AM	IDENTIFICATION AND ANALYSIS OF BIOMASS CONVERSION ROUTES THROUGH NETWORK GENERATION AND SEMI-EMPIRICAL PROPERTY ESTIMATION, Srinivas Rangarajan, Aditya Bhan and Prodromos Daoutidis
69	EGBR	Oral	Tue	11:35 AM	12:00 PM	IMPROVING CARBON RETENTION IN BIOMASS CONVERSION BY ALKYLATION OF PHENOLICS WITH SMALL OXYGENATES, Lei Nie and Daniel Resasco
70	CH	Oral	Wed	9:30 AM	9:55 AM	DIRECT SINTYESIS OF HYDROGEN PEROXIDE USING A GLASS FABRICATED MICROREACTOR – ITS PERFORMANCE AND KINETICS STUDIES, Tomoya Inoue, Kenichiro Ohtaki, Ming Lu, Jiro Adachi, Sunao Murakami, Xu Sun, Sohei Matsumoto and Dong F. (Scott) Wang
73	TK6	Keynote	Tue	10:45 AM	11:35 AM	REACTION ENGINEERING CONTRIBUTIONS TO THE INVENTION AND DEVELOPMENT OF CHAIN SHUTTLING POLYMERIZATION, Daniel Arriola
74	Gen	Poster	Mon	4:00 PM	6:00 PM	THERMO KINETIC INVESTIGATION OF DIFFERENT COLOR EMITTING AERIAL STAR PYROTECHNICS MIXTURE USING ACCELERATING RATE CALORIMETER, Sridhar Vethathiri Pakkirisamy, Sivapirakasam SP, Surianarayanan M and Mandal AB
75	Gen	Oral	Mon	2:20 PM	2:45 PM	APPLICATION OF ATTAINABLE REGION THEORY TO BATCH REACTORS, David Ming, Diane Hildebrandt and David Glasser
76	FK	Oral	Tue	3:10 PM	3:35 PM	KINETIC EVIDENCE FOR DIMER INHIBITION OF ETHANOL DEHYDRATION ON GAMMA-ALUMINA, Joseph DeWilde, Hsu Chiang, Dan Hickman and Aditya Bhan
77	EGBR	Poster	Tue	4:00 PM	6:00 PM	FABRICATION AND OPERATION OF FLAT TUBULAR SEGMENTED-IN-SERIES(SIS) SOLID OXIDE FUEL CELLS (SOFC), Tak-Hyoung Lim, Dae-Wi Kim, Jong-Won Lee, Seung-Bok Lee, Seok-Joo Park, Rak-Hyun Song and Dong-Ryul Shin
78	EGBR	Poster	Tue	4:00 PM	6:00 PM	FABRICATION AND PERFORMANCE OF TUBULAR DIRECT CARBON FUEL CELL BASED ON THE GENERAL ANODE SUPPORT SOLID OXIDE FUEL, Tak-Hyoung Lim, Ui-Jin Yun, Jong-Won Lee, Seung-Bok Lee, Seok Joo Park, Rak-Hyun Song and Dong-Ryul Shin
79	FC	Oral	Wed	9:55 AM	10:20 AM	MECHANISTIC STUDY OF SELECTIVE CATALYTIC REDUCTION OF NOX OVER CU CHABAZITE MONOLITHIC CATALYST WITH C3H6 AND NH3, Richa Raj, Michael P Harold and Vemuri Balakotaiah
80	FK	Oral	Tue	3:35 PM	4:00 PM	WATER-GAS SHIFT CATALYSIS OVER SUPPORTED GOLD AND PLATINUM NANOPARTICLES, Mayank Shekhar, Jun Wang, Wen-Sheng Lee, M. Cem Akatay, W. Nicholas Delgass, Fabio H. Ribeiro, Junling Lu, Jeffrey Elam and Jeffrey T. Miller
81	Gen	Oral	Mon	3:10 PM	3:35 PM	MODELING AND SIMULATION OF LAYERED LEAN NOX TRAP AND SELECTIVE CATALYTIC REDUCTION MONOLITHIC CATALYSTS, Bijesh Shakya, Michael Harold and Vemuri Balakotaiah
82	EGF	Oral	Mon	1:55 PM	2:20 PM	OIL PRODUCTION BY IN-SITU COMBUSTION: AN INTERESTING EXAMPLE OF A LARGE-SCALE, MULTI-PHASE, MULTIFUNCTIONAL HETEROGENEOUS REACTOR, Zhenshuo B. Liu, Kristian Jessen and Theodore Tsotsis
83	EGBR	Oral	Tue	12:00 PM	12:25 PM	CATALYTIC HYDRODEOXYGENATION OF GUAIACOL, Danni Gao, Hyun Tae Hwang and Arvind Varma
85	FC	Poster	Tue	4:00 PM	6:00 PM	ISOBUTYLENE SYNTHESIS FROM WATER-CONTAINIG ACETONE OVER POTASIUM-EXCHANGED BEA ZEOLITE, Teruoki Tago, Hiroki Konno, Seiji Yamazaki, Wataru Ninomiya, Toshiya Yasukawa, Yuta Nakasaka and Takao Masuda
86	CH	Oral	Wed	9:55 AM	10:20 AM	UPGRADING OF CRUDE GLYCEROL OVER ZIRCONIA-IRON OXIDE CATALYST FOR PRODUCTION OF USEFUL CHEMICALS, Aya Konaka, Teruoki Tago, Takuya Yoshikawa, Ayaka Nakamura, Yuta Nakasaka and Takao Masuda

87	Gen	Poster	Mon	4:00 PM	6:00 PM	PERFORMANCE OF ONE-DIMENSIONAL APPROXIMATIONS TO PREDICT EFFECTIVENESS FACTOR FOR PELLETS WITH ARBITRARY SHAPE AND ABNORMAL KINETICS, Nestor Mariani, Maria Taulamet, Sergio Keegan, Osvaldo Martínez and Guillermo Barreto
88	EGF	Poster	Mon	4:00 PM	6:00 PM	DEVELOPMENT OF NON-NOBLE METAL CATALYSTS FOR GAS CONVERSION TO ETHNOL, Rongang Ding, Geoff Wang, Jorge Beltramini, Victor Rudolph and Max Lu
89	Gen	Poster	Mon	4:00 PM	6:00 PM	HETEROGNENEOUS CATALYTIC REACTOR FOR HYDROSILYLATION, Paul Dinh and John Gohndrone
90	EGBR	Poster	Tue	4:00 PM	6:00 PM	SIMULATION ANALYSIS OF BIODIESEL PRODUCTION FROM ALGAE OIL USING CONTINUOUS REACTOR WITH SUPERCRITICAL METHOD, Aline Santana, José Maçaira, Sergio Santos, M. Angeles Larrayoz and Rubens Maciel Filho
91	FR	Poster	Mon	4:00 PM	6:00 PM	THE RELATIONSHIP BETWEEN THE GEOMETRY OF THE REACTION VECTOR FIELD AND THE COMPLEXITY OF THE OPTIMAL REACTOR STRUCTURE., Mathew Goncalves, David Ming, Diane Hildebrandt and David Glasser
92	EV	Poster	Mon	4:00 PM	6:00 PM	FAST LEAN-RICH CYCLING FOR ENHANCED LEAN NOX CONVERSION, Charles Perng and Michael Harold
93	EGBR	Oral	Tue	4:00 PM	4:25 PM	FATE OF SILOXANE IMPURITIES DURING THE COMBUSTION OF RENEWABLE NATURAL GAS AND THEIR IMPACT ON THE OPERATION OF NATURAL GAS EQUIPMENT, A. Jalali, N. Nair, M. M. Y. Motamedhashemi, J. Gutierrez, J. Chen, F. N. Egolfopoulos and T. T. Tsotsis
94	Gen	Poster	Mon	4:00 PM	6:00 PM	RESPONSE OF PLANKTONIC AND BENTHIC MICROBIAL COMMUNITY TO URBAN POLLUTION FROM SEWAGE DISCHARGE IN JILIN REACH OF THE SECOND SONGHUA RIVER, CHINA, Shanshan LIN, Ying WANG and Jifang LIN
95	FC	Oral	Wed	10:45 AM	11:10 AM	CHARACTERISTICS OF MAGNESIUM-PROMOTED PT/ZSM-23 CATALYST FOR THE HYDROISOMERIZATION OF N-HEXADECANE, Seung-Woo Lee and Son-Ki Ihm
96	Gen	Oral	Mon	4:00 PM	4:25 PM	OPTIMAL EXPERIMENT DESIGN FOR MODEL DISCRIMINATION IN INCREMENTAL MODEL IDENTIFICATION, Nimet Kerimoglu, Adel Mhamdi and Wolfgang Marquardt
97	EGF	Oral	Mon	2:20 PM	2:45 PM	MODELING AND SIMULATION OF COAL GASIFICATION PROCESS IN A BUBBLING FLUIDISED BED, Ankit Jain, Anurag Mehra and Vivek Ranade
98	CH	Poster	Tue	4:00 PM	6:00 PM	PROCESS DEVELOPMENT FOR SYNGAS SYNTHESIS THROUGH GLYCEROL PYROLYSIS, Ana Paula Peres, Nivea da Silva, Betania Lunelli, Maria Regina Maciel and Rubens Maciel Filho
99	FC	Poster	Tue	4:00 PM	6:00 PM	ACTIVE METAL SURFACE AREA: PULSE CHEMISORPTION, TEMERATURE PROGRAME TECHNIQUE AND CYCLIC VOLTAMMETRY, Ashutosh Namdeo, Manisaran D, S.M. Mahajani, A.K. Suresh and Arindam Sarkar
100	FR	Poster	Mon	4:00 PM	6:00 PM	NON-ADIABATIC MULTI-TUBULAR FIXED BED CATALYTIC REACTOR COUPLED WITH SHELL-SIDE CFD MODELING, Eric Hukkanen, Michael Rangitsch and Paul Witt
102	CH	Poster	Tue	4:00 PM	6:00 PM	ALUMINA AND TUNGSTOPHOSPHORIC ACID LOADED MESOPOROUS CATALYSTS FOR THE POLYETHYLENE DEGRADATION REACTION, Naime Sezgi and Buğçe Aydemir
103	MK1	Keynote	Mon	9:30 AM	10:20 AM	LIFECYCLE OF CATALYSTS IN DIESEL EMISSION CONTROL SYSTEMS, Aleksey Yezerets, Neal Currier, Krishna Kamasamudram, Junhui Li and Ashok Kumar
104	CH	Poster	Tue	4:00 PM	6:00 PM	A THERMODYNAMIC ANALYSIS: SYNGAS PRODUCTION FROM PALMITIC ACID VIA OXIDATIVE REFORMING USING HYDROGEN PEROXIDE (H2O2) AND OXYGEN (O2), Thanarak Srisurat, Tawiwan Kangsadan and Unalome Wetwatana
105	CH	Oral	Wed	10:45 AM	11:10 AM	MAPPING OF THE HIGH-IMPACT POLYPROPYLENE MORPHOLOGY ALONG THE VARIOUS STAGES OF ITS PRODUCTION, Klara Smolna, Tomas Gregor and Juraj Kosek
106	FK	Poster	Tue	4:00 PM	6:00 PM	GRAPH-THEORETICAL ANALYSIS OF MECHANISM AND KINETICS OF COMPLEX REACTION NETWORKS, Ravindra Datta, Patrick D. O"Malley, Saurabh A. Vilekar, Ilie Fishtik, Gabor Sarkozy and George T. Heineman
107	FR	Oral	Mon	1:55 PM	2:20 PM	COMPUTATIONAL ANALYSIS OF THE REACTING FLOW IN THE CATALYST COATING OF A MICRO-STRUCTURED REFORMER USING A MULTI-SCALE MODELING APPROACH, Alireza Tanhatan Naseri, Brant Peppley and Jon Pharoah
108	EGF	Oral	Mon	3:10 PM	3:35 PM	A COMPARATIVE STUDY ON STEAM AND OXIDATIVE STEAM REFORMING OF METHANE WITH NOBLE METAL CATALYSTS, Um-E-Salma Amjad, Camilla Galletti, Antonio Vita, Lidia Pino and Stefania Specchia
109	EGF	Oral	Mon	3:35 PM	4:00 PM	THREE-PHASE FISCHER-TROPSCH WAX HYDROCRACKING MODELING TAKING INTO ACCOUNT THE DIFFERENT PHYSISORPTION FROM LIQUID AND VAPOR PHASES, Simone Gamba and Laura Pellegrini
110	Gen	Poster	Mon	4:00 PM	6:00 PM	FINE NANOPARTICLES LAYERS PREPARED BY ELECTROSPRAYING AND THEIR APPLICATIONS IN MNXOY SUPERCAPACITORS, DSSC AND LITHIUM TITANATE BATTERIES, Jiri Marsalek, Karel Zucek, Romana Fojtikova and Juraj Kosek
111	EGBR	Poster	Tue	4:00 PM	6:00 PM	SYNTHESIS AND CHARACTERIZATION OF GUANIDINE BASE-FUNCTIONALIZED MG/AL LAYERED DOUBLE HYDROXIDES, Mohammad Islam and Tracy Benson
112	EGBR	Oral	Tue	2:20 PM	2:45 PM	KINETIC MODELING OF STEAM GASIFICATION OF CELLULOSE USING A CREC RISER SIMULATOR, A S M Jahirul I Mazumder and Hugo de Lasa
113	FR	Poster	Mon	4:00 PM	6:00 PM	MODELING ANALYSIS AND EXPERIMENTAL DEMONSTRATION OF ENHANCED HYDROGEN PERMEATION IN PALLADIUM VIA A COMPOSITE CATALYTIC-PERMSELECTIVE (CCP) MEMBRANE, Daejin Kim, Kevin Barnett, Elva Lugo Romero and Benjamin A. Wilhite
114	EV	Poster	Mon	4:00 PM	6:00 PM	SPATIOTEMPORAL BEHAVIOR OF MULTIFUNCTIONAL PT/PD/ZEOLITE-BETA DIESEL OXIDATION CATALYSTS FOR LOW-TEMPERATURE OXIDATION OF CARBON MONOXIDE AND HYDROCARBONS, Gregory Bugosh and Michael Harold

115	FC	Oral	Wed	11:10 AM	11:35 AM	Rh-CATALYZED HYDROFORMYLATION WITH COMMERCIAL POLYSILOXANE LIGANDS IN A CONTINUOUS NANOFILTRATION MEMBRANE REACTOR, Zhuanzhuan Xie, Bibhas Sarkar, Raghunath V Chaudhari and Bala Subramaniam
116	Gen	Oral	Wed	9:30 AM	9:55 AM	A RADIAL MICROCHANNEL REACTOR (RMR) PROVIDES BREAKTHROUGHS IN EFFICIENT HYDROGEN PRODUCTION FROM NATURAL GAS, Peter Bossard, Jacob Mettes, Luis Breziner and Benjamin Wilhite
117	Gen	Oral	Wed	9:55 AM	10:20 AM	SYNTHESIS OF IRON-DOPED BARIUM ZIRCONATE PEROVSKITE AND ITS ELECTROCHEMICAL AND MATERIALS PROPERTIES, Haomiao Zhang and Benjamin Wilhite
118	EGBR	Poster	Tue	4:00 PM	6:00 PM	THEORETICAL INVESTIGATION OF COMPOSITE CATALYTIC MEMBRANES FOR EXTRACTION OF HYDROGEN FROM BIO-ETHANOL, Bhanu Vardhan Reddy Kuncharam and Benjamin Wilhite
119	FK	Poster	Tue	4:00 PM	6:00 PM	A UNIFIED KINETIC MODEL FOR PHENOL PHOTODEGRADATION BY NONLINEAR REGRESSION AND GENETIC ALGORITHM, Jesus Moreira, Benito Serrano and Hugo de Lasa
120	FK	Poster	Tue	4:00 PM	6:00 PM	KINETIC MODELING AND REACTIVITY TEST OF ETHANE OXIDATIVE DEHYDROGENATION OVER VOX/Γ-AL2O3 CATALYST IN A FLUIDIZED-BED RISER SIMULATOR, Sameer Al-Ghamdi, Mohammad Hossain, Maria Volpe and Hugo de Lasa
121	EGBR	Poster	Tue	4:00 PM	6:00 PM	CHARACTERIZATION OF BLENDS PROPERTIES OF CASTOR BIODIESEL AND BIOETHANOL, Nivea De Lima Da Silva, Carlos M. García Santander, Sandra M. Gómez Rueda, M. Regina Wolf Maciel and R. Maciel Filho
122	EGF	Poster	Mon	4:00 PM	6:00 PM	EXTENSION OF THE TRUE BOILLING POINT CURVE OF A HEAVY CRUDE OIL THROUGH DISTILLATION MOLECULAR AND CHARACTERIZATION OF THE PRODUCTS OBTAINED, Melina Lopes
123	EGF	Poster	Mon	4:00 PM	6:00 PM	REACTIVITY AND KINETICS FOR BENZOTHIOPHENE CONVERSION OVER A H-ZSM5 BASED CATALYST, Saad Al-Bogami and Hugo de Lasa
124	CH	Poster	Tue	4:00 PM	6:00 PM	SYNTHESIS AND CHARACTERIZATION OF POLY (LACTIC ACID) FOR BIOMEDICAL APPLICATIONS, Milena Savioli Lopes, Melina Lopes, André Jardini and Rubens Maciel Filho
125	WK11	Keynote	Wed	11:35 AM	12:25 PM	MULTIPHASE CATALYTIC PROCESSES FOR RENEWABLE FEEDSTOCKS TO CHEMICAL INTERMEDIATES: KINETICS, MECHANISM AND REACTION ENGINEERING, Raghunath V. Chaudhari, Arely Torres, Xin Jin and Bala Subramaniam
126	EGBR	Poster	Tue	4:00 PM	6:00 PM	ORGANOMETALIC CATALYTS FOR CO2 REDUCTION TO CO, Michael Thorson, Claire Tornow, Sichao Ma, Andrew Gewirth and Paul Kenis
127	FC	Oral	Wed	11:35 AM	12:00 PM	KINETIC MODELLING OF HYDROGENOLYSIS OF SUGAR BASED POLYOLS USING A BIMETALLIC RU-RE/C CATALYST IN A SLURRY REACTOR, Xin Jin, Bala Subramaniam and Raghunath Chaudhari
128	EGBR	Poster	Tue	4:00 PM	6:00 PM	EXPERIMENTAL STUDY AND MONTE CARLO SIMULATIONS ON THE EFFECT OF DIFFERENT SCATTERING MODES ON THE RADIATION FIELD IN THE PHOTO-CREC WATER-II REACTOR., Patricio Javier Valades, Jesus Moreira, Hugo Ignacio De Lasa and Benito Serrano
129	CH	Oral	Wed	11:10 AM	11:35 AM	HIGHLY SELECTIVE ETHYLENE EPOXIDATION WITH HYDROGEN PEROXIDE ON CERIUM INCORPORATED THREE-DIMENSIONAL AMORPHOUS MESOPOROUS SILICATE, Ce-TUD-1, Wenjuan Yan, Anand Ramanathan and Bala Subramaniam
130	FK	Oral	Tue	4:00 PM	4:25 PM	INTRINSIC KINETICS OF ISOPROPANOL DEHYDRATION TO PROPENE ON ACIDIC MESOPOROUS Zr-KIT-6 CATALYST, Qing Pan, Anand Ramanathan and Bala Subramaniam
131	FK	Poster	Tue	4:00 PM	6:00 PM	EFFECTS OF ACID SITE LOCATION ON THE RATE, SELECTIVITY, AND MECHANISM OF ALCOHOL DEHYDRATION AND N-HEXANE HYDROISOMERIZATION, HSU CHIANG and Aditya Bhan
132	EGBR	Poster	Tue	4:00 PM	6:00 PM	HYDROGEN EVOLUTION USING A MODIFIED PT-TIO2 PHOTOCATALYST IN A PHOTO-CREC REACTOR FOR QUANTUM YIELD ANALYSIS, Salvador Escobedo, Benito Serrano and Hugo de Lasa
133	Gen	Poster	Mon	4:00 PM	6:00 PM	DIFFUSION COEFFICIENTS AND RETENTION FACTORS OF TAR DERIVED SPECIES IN CAPILLARY COLUMNS USING PEAK GAUSSIAN-LIKE APPROXIMATION SOLUTION, Gabriela Navarro-Tovar, Jesús Moreira and Hugo de Lasa
134	EGBR	Oral	Tue	3:10 PM	3:35 PM	A KINETIC STUDY ON HOT-WATER EXTRACTION OF PAULOWNIA ELONGATA WOODCHIPS, Jipeng Yang, Nirmal Joshee and Shijie Liu
135	FR	Poster	Mon	4:00 PM	6:00 PM	STEADY STATE SIMULATION OF A NOVEL ANNULAR MULTI-TUBULAR REACTOR FOR ENHENCED METHANOL PRODUCTION, Abdulaziz Alarifi
137	EGF	Poster	Mon	4:00 PM	6:00 PM	FRACTIONATION AND CHARACTERIZATION OF A PETROLEUM RESIDUE BY MOLECULAR DISTILLATION PROCESS, Erica Roberta Rocha, Maria Regina Wolf Maciel, Rubens Maciel Filho and Lilian Carmen Medina
138	FR	Oral	Mon	2:20 PM	2:45 PM	PREDICTION OF MASS TRANSFER COEFFICIENTS IN A SLURRY BUBBLE COLUMN BASED ON THE GEOMETRICAL CHARACTERISTICS OF BUBBLES, Stoyan Nedeltchev and Adrian Schumpe
139	FR	Oral	Mon	9:30 AM	9:55 AM	NON-ISOTHERMAL MODELING STUDIES OF THE COUPLED LNT-SCR CATALYST, Arun Kota, Dan Luss and Vemuri Balakotaiah
140	FK	Oral	Tue	9:30 AM	9:55 AM	DETERMINING KINETIC PARAMETERS FOR NICKEL OXIDE REDUCTION IN CHEMICAL LOOPING COMBUSTION, Mohammad Quddus, Mohammad Hossain and Hugo de Lasa
141	Gen	Poster	Mon	4:00 PM	6:00 PM	NEW METHOD FOR TEMPERATURE MEASUREMENTS IN HONEYCOMB REACTORS, Hoang Nguyen, Harold Michael and Dan Luss
143	FC	Oral	Wed	12:00 PM	12:25 PM	STEADY STATE AMMONIA OXIDATION ON A DUAL AND MIXED PGM/SCR CATALYSTS, Sachi Shrestha, Michael Harold, Krishna Kamasamudram and Aleksey Yezerets

144	EV	Oral	Mon	12:00 PM	12:25 PM	LEAN NOX REDUCTION WITH H2 AND CO OVER DUAL-LAYER LNT-SCR MONOLITHIC CATALYSTS, Yi Liu, Yang Zheng, Michael Harold and Dan Luss
145	EGBR	Oral	Tue	3:35 PM	4:00 PM	ENZYMATIC HYDROLYSIS OF PECTIN-RICH BIOMASS WITH SIMULTANEOUS ADSORPTION OF GALACTURONIC ACID ONTO WEAKLY BASIC ANION EXCHANGE RESINS, Raul Cesar Rivas and Patrick Mills
146	Gen	Poster	Mon	4:00 PM	6:00 PM	OPTIMUM PHOTOREACTOR DESIGN FOR THE TREATMENT OF WASTEWATER, Chih Ming Ma, Ben Hong Lia and Yung Shuen Shen
147	Gen	Poster	Mon	4:00 PM	6:00 PM	PERFORMANCE ENHANCEMENT OF STYRENE RADIAL FLOW REACTORS BY USING MULTIOBJECTIVE GENETIC ALGORITHM, abdulaziz alarifi
148	EGBR	Poster	Tue	4:00 PM	6:00 PM	FIBER REACTOR FOR ULTRA-HIGH EFFICIENCY BIODIESEL MANUFACTURING, Patrick Mills and Raul Villareal Rivas
149	Gen	Oral	Wed	12:00 PM	12:25 PM	A NANOSCALE MODEL FOR CHARACTERIZING THE PORE STRUCTURE OF SOLID REACTANTS WITH ORDERED AND RANDOM PORES, Kyriacos Zygourakis, Hao Sun and Pauline Markenscoff
150	CH	Poster	Tue	4:00 PM	6:00 PM	ANALYSIS OF CATALYST SHAPE ON CATALYST PERFORMANCE USING COMSOL MULTIPHSYICS, Patrick Mills and Anuradha Nagaraj
151	TP2	Plenary	Tue	8:15 AM	9:15 AM	TRANSITIONS: FROM MOLECULE TO CHEMICAL PLANT AND FROM FOSSIL TO RENEWABLE FEEDSTOCK, Guy Marin
152	EGF	Oral	Mon	4:00 PM	4:25 PM	MODELING OF VACUUM RESIDUE HYDROCRACKING VIA MOLECULAR FEED RECONSTRUCTION AND MOLECULE-BASED MONTE CARLO KINETICS, Jan Verstraete, Luis Pereira de Oliveira and Max Kolb
153	EGBR	Poster	Tue	4:00 PM	6:00 PM	ALGAE BIOFUELS BIOREACTOR: DEVELOPMENT OF SCALE-UP TOOLS, Rustom M. Billimoria, Justin A. Federici, William S. Holloway, David A. Masciola, Robert Nielsen, Paul Podsiadlo, Ronald Suryo and Joseph Weissman
154	TK8	Keynote	Tue	1:30 PM	2:20 PM	ELECTRODES FOR SOLID OXIDE FUEL CELLS AND ELECTROLYZERS, Raymond Gorte
156	MK3	Keynote	Mon	11:35 AM	12:25 PM	CHEMICAL REACTION ENGINEERING CHALLENGES IN THE REFINING INDUSTRY – THE DECADE AHEAD, Thomas Degnan
157	EV	Oral	Mon	11:35 AM	12:00 PM	HIGHLY DURABLE CATALYSTS FOR THE LOW-TEMPERATURE SELECTIVE CATALYTIC REDUCTION OF NITROGEN OXIDES, Thirupathi Boningari, Padmanabha Reddy Ettireddy, Arpad Somogyvari and Panagiotis Smirniotis
158	MK4	Keynote	Mon	1:30 PM	2:20 PM	ROLE OF NITRITE AND NITRATE SPECIES IN LEAN NOX CONTROL CATALYSIS, Pio Forzatti
159	TK9	Keynote	Tue	3:35 PM	4:25 PM	PROCESS AND CATALYST INTENSIFICATION FOR BIOMASS PROCESSING, Dionisios Vlachos
160	WP3	Plenary	Wed	8:15 AM	9:15 AM	CFD MODELING OF FLOW, MIXING AND REACTION IN POLYDISPERSE MULTIPHASE SYSTEMS, Rodney O. Fox
161	FC	Poster	Tue	4:00 PM	6:00 PM	SULFUR DEACTIVATION EFFECTS ON CATALYTIC STEAM REFORMING OF PRODUCER GAS ,FROM BIOMASS GASIFICATION, Parham Sadooghi
162	MP1	Plenary	Mon	8:15 AM	9:15 AM	DIVERSIFICATION OF THE WORLD'S ENERGY SOURCES AND ITS CHALLENGES FOR THE CHEMICAL REACTION ENGINEERING PROFESSION, Kurt VandenBussche
163	WK10	Keynote	Wed	10:45 AM	11:35 AM	SUSTAINABLE REACTION ENGINEERING SOLUTIONS: AN UPDATE, Jan J. Lerou