



Joint Meeting of the German and Italian Sections of the Combustion Institute

Teatro Tasso in Sorrento – Italy
23-26 May 2018

TENTATIVE PROGRAM

Wednesday, 23 May 2018

16:00-18:00	Registration
19:00-21:00	Welcome Cocktail at Bar Syrenuse

Thursday, 24 May 2018

8:00-8:45	Registration	
8:45-9:00	Opening	
9:00-10:00	PLENARY LECTURE HYDROTHERMAL LIQUEFACTION AS UNIFYING PLATFORM FOR PROCESSING OF DIVERSE ORGANIC MATERIALS INTO LIQUID FUELS Prof. Lasse Rosendahl <i>Chair: TBA</i>	
10:00-11:00	PARALLEL SESSIONS (ORAL PRESENTATIONS)	
	SALA TEATRO SESSION I: Turbulent flames - 1 <i>Chair: TBA</i>	SALA DANZA SESSION II: Solid fuels: pyrolysis <i>Chair: TBA</i>
10:00	A PARTIALLY STIRRED REACTOR MODEL FOR TURBULENT COMBUSTION CLOSURE USING DETAILED CHEMICAL TIME SCALES <i>E. Quadarella, A. Stagni, A. Cuoci, A. Parente, T. Faravelli, H.G. Im</i>	MEASUREMENT OF BEECH WOOD PYROLYSIS KINETICS IN A FLUIDIZED BED REACTOR <i>S. Pielsticker, K. Schlögel, T. Kreitzberg, O. Hatzfeld, R. Kneer</i>
10:20	THE TRANSITION FROM AUTOIGNITION TO PROPAGATION AT ELEVATED TEMPERATURES OBTAINED FROM 1-D FLAME SIMULATIONS <i>O. Schulz, N. Noiray</i>	AT HIGH TEMPERATURE AND HEATING RATE IN A HSR <i>O. Senneca, B. Apicella, C. Russo, F. Cerciello, L. Cortese, F. Stanzione, P. Salatino, A. Wütscher, M. Muhler, V. Scherer</i>
10:40	DIRECT NUMERICAL SIMULATION OF A LEAN, PREMIXED, STAGED COMBUSTOR WITH A FOCUS ON CO EMISSION <i>K. Kleinheinz, L. Berger, A. Attili, H. Pitsch</i>	SLOW PYROLYSIS OF POTASSIUM DOPED XYLAN: A COMPARISON BETWEEN TWO DOPING APPROACHES <i>P. Giudicianni, V. Gargiulo, M. Alfè, R. Ragucci</i>
11:00-11:20	Coffee Break	

Conference location (Registration, Oral and Poster presentations): **TEATRO TASSO** in Sorrento
 Oral presentation: 20 min including discussion.

11:20-13:00	PARALLEL SESSIONS (ORAL PRESENTATIONS)			
	SALA TEATRO SESSION I: Turbulent flames - 2 <i>Chair: TBA</i>		SALA DANZA SESSION II: Solid fuels: combustion <i>Chair: TBA</i>	
11:20		A DIRECT NUMERICAL SIMULATION STUDY OF POST DISCHARGE PLASMA IGNITION OF JET FUEL IN ISOTROPIC TURBULENCE <i>G. Borghesi, A. Krisman, T. Lu, J.W. Park, J.H. Chen</i>		INVESTIGATION ON IGNITION BEHAVIORS OF PULVERIZED COAL PARTICLES IN A TUBULAR SWIRL BURNER <i>Y. Xu, S. Li</i>
11:40		EFFECT OF RADIANT TRANSFER OF ENERGY IN HIGH-PRESSURE OXY-COMBUSTION <i>E. Giacomazzi, D. Cecere, F.R. Picchia, N.M. Arcidiacono</i>		A NOVEL METHOD TO COUPLE DEM AND CFD TO SIMULATE TRANSPORT PHENOMENA IN SOLID BIOMASS FUEL BEDS <i>F. Buß, S. Wirtz, V. Scherer</i>
12:00		FLOW AND 'ADDED' SMALL-SCALE TOPOLOGIES IN A TURBULENT PREMIXED FLAME <i>L. Cifuentes, A. Kempf, C. Dopazo</i>		THERMOANALYTICAL AND XPS SURFACE CHARACTERIZATION OF OXIDIZED CHARs <i>F. Cerciello, O. Senneca, A. Coppola, P. Salatino</i>
12:20		NUMERICAL AND EXPERIMENTAL INVESTIGATION OF THE NOISE GENERATION OF A TURBULENT FLAME <i>K. Pausch, S. Herff, H. Nawroth, C.O. Paschereit, W. Schröder</i>		EXPERIMENTAL AND NUMERICAL STUDY OF WOODCHIPS COMBUSTION IN AN UNDERFEED STOKER BOILER <i>G. Caposciutti, S. Patronelli, F. Barontini, M. Antonelli, U. Desideri, L. Tognotti, C. Galletti</i>
12:40		SPECTRAL RESPONSE OF DIFFERENT COMBUSTION MODELS IN LES OF DIRECT COMBUSTION NOISE <i>F. Zhang, T. Zirwes, H. Nawroth, N. Li, P. Habisreuther, H. Bockhorn, D. Trimis, C.O. Paschereit</i>		FLUIDIZED BED COMBUSTION OF PELLETIZED SEWAGE SLUDGE IN A PILOT SCALE REACTOR <i>A. Cammarota, F. Cammarota, R. Chirone, R. Solimene, G. Ruoppolo, M. Urciuolo</i>
13:00-14:30	Lunch Break at Ristorante Circolo dei Forestieri			
14:30-16:10	PARALLEL SESSIONS (ORAL PRESENTATIONS)			
	SALA TEATRO SESSION I: Turbulent flames - 3 <i>Chair: TBA</i>		SALA DANZA SESSION II: Fuel and biofuel processing and upgrading <i>Chair: TBA</i>	
14:30		REACTION ZONE IDENTIFICATION AND CHARACTERIZATION BASED ON RIDGE ANALYSIS <i>V. Bykov, R. Schießl</i>		ON TORREFACTION OF AGRO-INDUSTRIAL RESIDUES: FROM LOW-VALUE WASTES TO HIGH-QUALITY ENERGY CARRIERS <i>P. Brachi, R. Chirone, F. Miccio, M. Miccio, G. Ruoppolo</i>
14:50		LARGE EDDY SIMULATION OF TURBULENT FLOW IN A FAN-STIRRED COMBUSTION VESSEL <i>F. Zhang, T. Zirwes, P. Habisreuther, N. Zarzalis, D. Trimis, H. Bockhorn</i>		TORREFACTION OF A LIGNIN-RICH RESIDUE IN A SOLAR FLUIDIZED BED REACTOR <i>C. Tregambi, F. Montagnaro, P. Salatino, R. Solimene</i>
15:10		MIXING FIELD EFFECTS IN PARTIALLY PREMIXED TURBULENT FLAMES <i>S. Luca, A. Attili, F. Bisetti</i>		IMPROVING THE CATALYTIC PERFORMANCE OF Ni(Ru)/MgO IN THE CONVERSION OF ETHANOL TO BUTANOL BY DISPERSION ON γ -Al ₂ O ₃ PELLETS <i>J. Apuzzo, S. Cimino, L. Lisi</i>
15:30		QUASI-PROBABILITY APPROACH FOR MODELLING LOCAL EXTINCTION AND COUNTER-GRADIENT IN TURBULENT PREMIXED COMBUSTION <i>G. Pagnini, A. Trucchia</i>		INTEGRATION OF ENZYMATIC PROCESSES FOR DELIGNIFICATION AND HYDROLYSIS OF AGRO-FOOD WASTES <i>S. Niglio, A. Procentese, M.E. Russo, F. Raganati, A. Marzocchella</i>

15:50	STATISTICAL ANALYSIS OF PULSATING METHANE FLAMES ISSUED INTO HOT CO-FLOW BY LES WITH FGM <i>E. Inanc, I. Wlokas, A.M. Kempf</i>	SOLAR THERMOCHEMICAL CO ₂ SPLITTING OVER La _{0.6} Sr _{0.4} MnO ₃ PEROVSKITES <i>G. Luciani, C. Imparato, G. Landi, A. Aronne, A. Di Benedetto</i>
16:10-16:30	Coffee Break	
16:30-18:00	POSTER SESSION	
17:00-18:00	Members' meeting of the Italian Section of the Combustion Institute	

Friday, 25 May 2018

8:00-9:00	Registration	
9:00-10:00	PLENARY LECTURE HETERO-/HOMOGENEOUS COMBUSTION FOR FUEL PROCESSING AND POWER GENERATION APPLICATIONS Dr. John Mantzaras <i>Chair: TBA</i>	
10:00-11:00	PARALLEL SESSIONS (ORAL PRESENTATIONS)	
	SALA TEATRO SESSION I: Turbulent flames - 4 <i>Chair: TBA</i>	SALA DANZA SESSION II: Soot, nanoparticles and PAH - 1 <i>Chair: TBA</i>
10:00	DISSIPATION ELEMENT ANALYSIS OF PREMIXED JET FLAMES <i>D. Denker, A. Attili, S. Luca, F. Bisetti, H. Pitsch</i>	OXIDATION BEHAVIOR AND RAMAN SPECTROSCOPIC ANALYSIS OF DIESEL SOOT AND PROPANE SOOT <i>C. Zöllner, D. Brüggemann</i>
10:20	MORPHOLOGY AND PROPAGATION OF LARGE SCALE PREMIXED FLAMES: COMPARISON OF 2D, 3D DNS AND EXPERIMENTS <i>R. Lamioni, P.E. Lapenna, G. Troiani, F. Creta</i>	EXPERIMENTAL INVESTIGATION OF SOOT OXIDATION under WELL-CONTROLLED CONDITIONS IN A HIGH-TEMPERATURE FLOW-REACTOR <i>T. Bierkandt, P. Oßwald, M. Köhler</i>
10:40	ON ENERGY AND DISSIPATION SPECTRA IN TURBULENT NON-PREMIXED JETS WITH LOCAL EXTINCTION <i>A. Shamooni, A. Cuoci, A. Sadiki, T. Faravelli</i>	SECONDARY TAR REACTIONS AND SOOT FORMATION IN PYROLYSIS OF COAL <i>C. Russo, O. Senneca, F. Cerciello, F. Stanzione, L. Cortese, A. Ciajolo, S. Heuer, V. Scherer, B. Apicella</i>
11:00-11:20	Coffee Break	
11:20-13:00	PARALLEL SESSIONS (ORAL PRESENTATIONS)	
	SALA TEATRO SESSION I: Internal combustion engines <i>Chair: TBA</i>	SALA DANZA SESSION II: Soot, nanoparticles and PAH – 2 <i>Chair: TBA</i>
11:20	EXPERIMENTAL INVESTIGATION OF DIFFERENT COMBUSTION MODES IN A SINGLE-CYLINDER DUAL-FUEL CI ENGINE <i>M. Korkmaz, B. Jochim, J. Beeckmann, H. Pitsch</i>	DECONVOLUTION OF SOOT PARTICLE SIZE DISTRIBUTIONS <i>H. Mätzing, P. Vlavakis, M. Sentko, A. Loukou, B. Stelzner, D. Trimis, D. Stapf</i>
11:40	STUDY OF LIQUID and VAPOUR PHASES OF A GDI SPRAY <i>A. Montanaro, L. Allocca</i>	HOW TO VALIDATE NUMERICAL RESULTS ON PRIMARY PARTICLE DIAMETER TO EXPERIMENTAL DATA FROM LAMINAR SOOTING FLAMES <i>A. Bodor, A. Cuoci, B. Franzelli</i>

12:00		STUDY OF THE EFFECT OF THE SAMPLING CONDITION AND FUELS ON THE EMISSIONS OF PARTICLES SMALLER THAN 23 NM FOR PFI AND DI SI ENGINES <i>F. Catapano, S. Di Iorio, P. Sementa, B.M. Vaglieco</i>		SOOT MODELING OF ETHYLENE COUNTERFLOW DIFFUSION FLAMES <i>W. Pejpichestakul, A. Frassoldati, A. Parente, T. Faravelli</i>
12:20		MODELING VIRTUAL FUELS FOR HC-CI-LIKE INTERNAL COMBUSTION ENGINES DEVELOPMENT <i>P. Miceli, D. Fino, M. Chiodi</i>		FLAME AEROSOL SYNTHESIS OF TiO ₂ NANOPARTICLE COATINGS WITH ADVANCED ANTIBACTERIAL AND HYDROPHILIC PROPERTIES <i>G. De Falco, R. Ciardiello, M. Commodo, P. Del Gaudio, P. Minutolo, A. Porta, A. D'Anna</i>
12:40		EXPERIMENTAL STUDY ON GLOBAL AND LOCAL TURBULENT PREMIXED FLAME CHARACTERISTICS OF ALCOHOLS <i>J. Trabold, S. Walther, S. Hartl, A. Dreizler, D. Geyer</i>		THE IMPACT OF TEMPERATURE AND FLAME CHEMISTRY ON THE DEGRADATION OF METAL OXIDE NANOPARTICLES <i>N. Teuscher, W. Baumann, M. Hauser, J. Mahl, H.R. Paur, D. Stapf</i>
13:00-14:30	Lunch Break at Ristorante Circolo dei Forestieri			
14:30-16:10	PARALLEL SESSIONS (ORAL PRESENTATIONS)			
	SALA TEATRO SESSION I: Reaction kinetics - 1 <i>Chair: TBA</i>		SALA DANZA SESSION II: Formation and control of pollutants and greenhouse gases <i>Chair: TBA</i>	
14:30		A COMPREHENSIVE DETAILED KINETIC MECHANISM FOR THE SIMULATION OF GASOLINE FUELS <i>M. Mehl, K. Zhang, S.W. Wagnon, G. Kukkadapu, C.K. Westbrook, W.J. Pitz, Y. Zhang, H.J. Curran, M.J. Al Rashidi, N. Atef, S.M. Sarathy</i>		CALCIUM LOOPING WITH AIR POLLUTION CONTROL RESIDUES FROM MUNICIPAL SOLID WASTE INCINERATORS: A PRELIMINARY SCREENING <i>A. Dal Pozzo, A. Armutlulu, M. Rekhina, C.R. Müller, V. Cozzani</i>
14:50		DRG AND GQL REDUCTION METHODS FOR A H ₂ /AIR AUTO-IGNITION PROBLEM <i>C. Yu, F. Minuzzi, V. Bykov, U. Maas</i>		EMBEDDING GRAPHENE-LIKE LAYERS IN HYBRID METAL ORGANIC FRAMEWORKS: THE EFFECT ON CO ₂ CAPTURE <i>M. Alfè, R. Rea, V. Gargiulo, M. Minelli, L. Lisi, M. G. De Angelis</i>
15:10		DEVELOPMENT OF A MECHANISM FOR DUAL FUEL COMBUSTION <i>S. Schuh, J. Frühhaber, F. Winter</i>		THERMODYNAMIC AND KINETIC STUDY OF CO ₂ ADSORPTION ON A FINE ACTIVATED CARBON IN A SOUND ASSISTED FLUIDIZED BED <i>F. Raganati, R. Chirone, P. Ammendola</i>
15:30		INSIGHTS INTO OXIDATION BEHAVIOR OF POTENTIAL GASOLINE ADDITIVES: 2-METHYLFURAN AND 2-METHYLTETRAHYDROFURAN <i>R. Tripathi, U. Burke, A.K. Ramalingam, C. Lee, R.X. Fernandes, K.A. Heufer, S.M. Sarathy, H. Pitsch</i>		PRELIMINARY CHARACTERIZATION OF THE EMISSIONS FROM SCENTED TEA-LIGHT CANDLES <i>E. Oddo, M. Derudi</i>
15:50		DEVELOPMENT OF A KINETIC MECHANISM FOR NO _x FUEL INTERACTION <i>K. P. Shrestha, L. Seidel, F. Mauß, T. Zeuch</i>		COMPARISON BEHAVIOUR OF COMMERCIAL ACTIVATED CARBON AND COAL-DERIVED CHAR IN HOT SYNGAS CLEANING <i>F. Parrillo, G. Ruoppolo, U. Arena</i>
16:10-16:40	Coffee Break			

16:40-18:00	PARALLEL SESSIONS (ORAL PRESENTATIONS)			
	SALA TEATRO SESSION I: Reaction kinetics - 2 <i>Chair: TBA</i>		SALA DANZA SESSION II: Solid fuels: gasification <i>Chair: TBA</i>	
16:40		COMPARISON OF DIFFERENT DIAGNOSTIC TECHNIQUES FOR THE ASSESSMENT OF COAL PYROLYSIS RATE <i>S. Krusch, V. Scherer, R. Solimene, G. Ruoppolo, F. Cerciello, S. Pielsticker, R. Kneer, K. Schlögel, O. Senneca</i>		ENTRAINED FLOW GASIFICATION: EXPERIMENTS AND MATHEMATICAL MODELLING BASED ON RANS <i>M. Dammann, M. Mancini, S. Fleck, R. Weber, T. Kolb</i>
17:00		PLUG-FLOW REACTOR STUDY OF THE PARTIAL OXIDATION OF METHANE AND NATURAL GAS AT ULTRA-RICH CONDITIONS <i>D. Kaczmarek, T. Kasper, B. Atakan</i>		FOOD WASTE GASIFICATION THROUGH HYDROTHERMAL CARBONIZATION PRE-TREATMENT <i>A.N. Izaharuddin, M.C. Paul, S. Theppitak, X. Dai, K. Yoshikawa</i>
17:20		ADVANCEMENT ON HEAT TRANSFER MODELLING OF OXIDATION PROCESSES IN JET STIRRED FLOW REACTORS <i>L. Acampora, M. Lubrano Lavadera, P. Sabia, R. Ragucci, M. de Joannon, F.S. Marra</i>		PARTICLE-WALL IMPACT EXPERIMENTS FOR ENTRAINED-FLOW BIOMASS GASIFIERS <i>M. Troiano, F. Montagnaro, R. Solimene, P. Salatino</i>
17:40		A COMPARISON OF NUMERICAL FRAMEWORKS FOR MODELLING HOMOGENOUS REACTORS AND LAMINAR FLAMES <i>R. Langer, A. Cuoci, L. Cai, U. Burke, C. Olm, H. Curran, T. Turányi, H. Pitsch</i>		DETAILED DEM SIMULATION OF PARTICLE-WALL INTERACTIONS UNDER COAL GASIFIER CONDITIONS <i>D.M. Balice, F. S. Marra, F. Montagnaro, P. Salatino</i>
20:00	Social dinner at Grand Hotel Europa Palace in Sorrento			

Saturday, 26 May 2018

8:00-9:00	Registration			
9:00-10:00	PLENARY LECTURE BEYOND COMBUSTION DICHOTOMY: TOWARD FUEL FLEXIBLE TECHNOLOGIES Dr. Mara de Joannon <i>Chair: TBA</i>			
10:00-11:00	PARALLEL SESSIONS (ORAL PRESENTATIONS)			
	SALA TEATRO SESSION I: Soot, nanoparticles and PAH - 3 <i>Chair: TBA</i>		SALA DANZA SESSION II: Detonations, Explosions and Supersonic Combustion - Spray and Droplets <i>Chair: TBA</i>	
10:00		EELS AND HRTEM OF ETHYLENE SOOT <i>B. Apicella, A. Tregrossi, A. Ciajolo, J. Abrahamson, R.L. Vander Wal, C. Russo</i>		SHOCKLESS FLAME ACCELERATION AND DDT IN OPEN CHANNELS DRIVEN BY HYDRAULIC RESISTANCE <i>M. Kuznetsov, J. Yanez, V. Bykov</i>
10:20		SOOT PREDICTION IN A MODEL AERO ENGINE COMBUSTOR WITH MULTIPHYSICS APPROACH <i>S. Paccati, D. Bertini, S. Puggelli, L. Mazzei, A. Andreini</i>		CHANGE IN FLAME GEOMETRY OF AN ETHANOL SPRAY FLAME BY VARYING THE INJECTION FREQUENCY <i>F.C.C. Galeazzo, N.K. Fukumasu, J.A. Denev, G.C. Krieger Filho</i>

10:40		<p>MODELLING OF SOLAR RADIATION ON SOOT FORMATION IN DIFFUSION FLAME</p> <p><i>M. Sirignano, A. D'Anna</i></p>		<p>AN EXPERIMENTAL INVESTIGATION OF EMULSIFICATION EFFECT ON HEAVY FUEL OIL DROPLET COMBUSTION</p> <p><i>P. Guida, W.L. Roberts</i></p>
11:00-11:20	Coffee Break			
11:20-13:00	PARALLEL SESSIONS (ORAL PRESENTATIONS)			
	SALA TEATRO SESSION I: Laminar flames <i>Chair: TBA</i>		SALA DANZA SESSION II: Novel concepts, technologies and systems <i>Chair: TBA</i>	
11:20		<p>EXPERIMENTAL INVESTIGATION OF FUEL-SPECIFIC SPECIES FORMATION IN BLENDED PREMIXED FLAMES</p> <p><i>J. Wullenkord, M. Zeng, M. Salamanca, I. Graf, S. Schmitt, L. Ruwe, K. Kohse-Höinghaus</i></p>		<p>ON THE INFLUENCE OF THE EFFECTIVE FOCAL LENGTH ON LASER IGNITION WITH A PASSIVELY Q-SWITCHED LASER</p> <p><i>M. Bärwinkel, D. Brüggemann</i></p>
11:40		<p>A NUMERICAL STUDY ON THE EFFECT OF TEMPERATURE AND COMPOSITION ON THE FLAMMABILITY OF SOUR GAS</p> <p><i>G. Pio, V. Palma, E. Salzano</i></p>		<p>A LOW POWER LIQUID FUELED BURNER USING A NOVEL ATOMIZATION CONCEPT</p> <p><i>T. Müller, A. Goßmann, J. Kühn, M. Etzold, B. Stelzner, N. Zarzalis, F. Durst, D. Trimis</i></p>
12:00		<p>NON-LINEAR EVOLUTION OF THERMODIFFUSIVELY UNSTABLE LEAN PREMIXED HYDROGEN FLAMES</p> <p><i>L. Berger, K. Kleinheinz, A. Attili, H. Pitsch</i></p>		<p>ASSESSMENT OF COMBUSTION PARADIGMS FOR MODELING A CYCLONIC BURNER UNDER MILD COMBUSTION CONDITIONS</p> <p><i>M. Ferrarotti, S. Patronelli, G. Ceriello, G. Sorrentino, C. Galletti, A. Parente</i></p>
12:20		<p>FLAME FOLDING AND WRINKLING FACTOR FOR 2D AND 3D HYDROGEN-AIR FLAMES</p> <p><i>M. Kuznetsov, N. Chaumeix, J. Yanez, S. Tengah</i></p>		<p>EVALUATION OF FUEL FLEXIBILITY IN A CYCLONIC BURNER</p> <p><i>P. Sabia, G. Sorrentino, P. Bozza, R. Ragucci, M. de Joannon</i></p>
12:40		<p>THE EFFECT OF EQUIVALENCE RATIO VARIATION ON THE FLAME STRUCTURES OF LAMINAR LOW-PRESSURE TETRAMETHYLSILANE/HYDROGEN FLAMES</p> <p><i>Y. Karakaya, T. Kasper</i></p>		<p>CATALYTIC COMBUSTION OF METHANOL OVER NANO-STRUCTURED CeO₂-Pt/FECCALLOY FOAM CATALYSTS</p> <p><i>S. Cimino, L. Lisi, M. Musiania, E. Verlato</i></p>
13:00-13:30	FINAL REMARKS AND BEST PRESENTATION AWARDS			



POSTER SESSION (16:30-18:00, Thursday, 24 May 2018)

(maximum poster size 841x1189mm portrait)

UNSTEADY THREE-DIMENSIONAL SIMULATION OF A FLUIDIZED BED FOR BIOMASS GASIFICATION <i>M. Ali Uzair, S. Camporeale, F. Fornarelli, P. Oresta</i>	P1
REACTIVITY OF BIOCHAR GASIFICATION IN ATMOSPHERES OF STEAM, CARBON DIOXIDE AND THEIR MIXTURES <i>T. Kreitzberg, S. Pielsticker, O. Hatzfeld, R. Kneer</i>	P2
PROCESS MODELLING OF AN INNOVATIVE POWER TO LNG DEMONSTRATION PLANT <i>E.A. Morosanu, S. Bensaid, R. Pirone</i>	P3
TORREFACTION OF HEAVY METALS CONTAMINATED BIOMASSES <i>C.M. Grattola, P. Giudicianni, F. Stanzione, J.B. Michel, R. Ragucci</i>	P4
AN ASSESSMENT OF CARBON OXIDATION MECHANISM BY DYNAMIC OXIDATION/DESORPTION IN A LOOPING REACTOR <i>A. Coppola, O. Senneca, F. Cerciello, P. Salatino</i>	P5
PROGRESS AND CHALLENGES IN FLOW FIELD STUDIES OF 40 - 60 kW _{th} PULVERIZED COAL FLAMES <i>D. Zabrodiec, J. Hees, A. Massmayer, O. Hatzfeld, R. Kneer</i>	P6
A PRELIMINARY STUDY OF FLUIDIZED BED SORPTION-ENHANCED METHANATION BY CaO <i>A. Coppola, F. Massa, P. Salatino, F. Scala</i>	P7
INSIGHTS INTO THE MECHANISM OF H ₂ S REACTIVE ADSORPTION OVER ZnO–CuO DISPERSED ONTO ACTIVATED CARBON <i>G. de Falco, F. Montagnaro, M. Balsamo, A. Erto, F.A. Deorsola, L. Lisi, S. Cimino</i>	P8
THE INFLUENCE OF H ₂ O AND SO ₂ ON CO ₂ UPTAKE IN FLUIDIZED BED CALCIUM LOOPING <i>A. Coppola, F. Montagnaro, A. Esposito, F. Scala, P. Salatino</i>	P9
CO ₂ ADSORPTION DATA ON DIFFERENT SORBENTS UNDER DYNAMIC CONDITIONS: AN OVERVIEW <i>V. Gargiulo, M. Alfè, F. Raganati, P. Ammendola, R. Chirone</i>	P10
A DESCRIPTIVE MODEL FOR A PILOT-SCALE WET ELECTROSTATIC SCRUBBER <i>M. Esposito, C. Carotenuto, A. Lancia, M. Giavazzi, A. Di Benedetto, F. Di Natale</i>	P11
USE OF SOLAR ENERGY TO SUSTAIN LIMESTONE CALCINATION FOR ORDINARY PORTLAND CEMENT PRODUCTION <i>C. Tregambi, R. Solimene, F. Montagnaro, P. Salatino, M. Marroccoli, N. Ibris, A. Telesca</i>	P12
STUDY OF SOOT PARTICLES NANOSTRUCTURE EVOLUTION IN A LAMINAR PREMIXED FLAME BY RAMAN AND EPR SPECTROSCOPY <i>F. Picca, M. Di Serio, G. De Falco, M. Commodo, G. Vitiello, G. D'Errico, P. Minutolo, A. D'Anna</i>	P13
NUMERICAL AND EXPERIMENTAL STUDIES OF LAMINAR COUNTER-FLOW DIFFUSION FLAMES USING BIOMASS-BASED GASEOUS FUELS <i>M.T. Scharl, D. Greenhalgh, A. Diéguez Alonso, F. Behrendt</i>	P14
CH ₄ /AIR-FLAME IMPINGEMENT HEAT TRANSFER TO A CYLINDRICAL SURFACE <i>P.O. Oketch, U. Bergmann, B. Atakan</i>	P15
HEAT RELEASE RATE MARKERS FOR TURBULENT MILD COMBUSTION FED BY CH ₄ -H ₂ MIXTURE <i>D. Bascherini, M. Ferrarotti, C. Galletti, G. Bagheri, A. Parente</i>	P16
STABILIZATION OF A HIGH PRESSURE JET FLAME WITH HEAT LOSSES BY LES <i>P. Gruhlke, H. Janbazi, I. Wlokas, C. Beck, A.M. Kempf</i>	P17
CONSISTENT FLAMELET-BASED TURBULENT COMBUSTION MODELING FOR LIQUID ROCKET ENGINES <i>P.E. Lapenna, G. Indelicato, R. Amaduzzi, D. Durigon, R. Lamioni, F. Creta</i>	P18
FUEL PERFORMANCE DETECTION IN MICRO GAS TURBINE USING A NEW APPROACH BASED ON CHAOS DETECTION FROM COMBUSTION VIBRATIONS <i>C. Allouis, A. Amoresano, R. Pagliara, G. Langella, V. Niola, G. Quaremba</i>	P19
ANALYSIS OF ENGINE CONTROL PARAMETERS EFFECT TO MINIMIZE GHG EMISSIONS IN A DUAL FUEL NG/DIESEL LIGHT DUTY ENGINE <i>C. Beatrice, V. Fraioli, C. Guido, P. Napolitano</i>	P20
EXERGO-ECONOMIC ANALYSIS OF AN HCCI-ENGINE POLYGENERATION SYSTEM <i>D. Schröder, A. Güngör, R. Hegner, B. Atakan</i>	P21
A COMPUTATIONALLY EFFICIENT COMBUSTION PROGRESS VARIABLE (CPV) APPROACH FOR ENGINE APPLICATIONS <i>A. Werner, C. Netzer, H. Lehtiniemi, A. Borg, A. Matrisciano, L. Seidel, F. Mauss</i>	P22
A CFD FRAMEWORK FOR EVAPORATING FUEL DROPLETS IN A GRAVITY FIELD <i>A.E. Saufi, A. Cuoci, A. Frassoldati, T. Faravelli</i>	P23
INVESTIGATION OF S ₂ + AIR COMBUSTION <i>N. Sebbar, T. Zirwes, P. Habisreuther, H. Bockhorn, D. Trimis</i>	P24
EXPERIMENTAL AND NUMERICAL EVALUATIONS ON THE CHARACTERISTICS OF VENTED METHANE EXPLOSION <i>Z.M. Luo, B. Su, T. Wang, F.M. Cheng, J.Y. Zhao</i>	P25
FLASH POINT OF BINARY MIXTURES <i>V. Di Sarli, R. Sanchirico, A. Di Benedetto</i>	P26
EXPERIMENTAL STUDY ON THE EFFECTS OF CRUDE OIL ON SPONTANEOUS COMBUSTION: A CASE STUDY <i>J. Deng, S.X. Fan, K. Wang, Y.N. Zhang, C.P. Wang, J.Y. Zhao</i>	P27