

Poster Session 1
Tuesday - July 22nd
15:00-16:00 - Afternoon Coffee Break

Poster ID	Poster Title
86	Experimental investigation on sugarcane bagasse chemical looping combustion in a fluidized bed reactor
57	Development of perovskites La _{1-x} Sr _x CoO ₃ (x = 0,0; 0,2; 0,4) combustion catalysts for monolithic deposition envisaging self-cleaning ovens
36	Optimising the energy transition: comparative fuel analysis and emission reduction strategies
45	Combustion analysis of methanol: addressing ignition delay and reactivity in well mixed reactors
107	Influence of biomethane composition on performance parameters and emissions, a numerical analysis using GT-SUITE
109	A review on the impact of using diesel biodiesel blends in the combustion characteristics of reciprocating engine power generation
22	Analysis of the methane bi-reforming process in a plate reactor
39	Development of an experimental bench for testing self-heated microreactors
75	Fugacity effects on the evaporation of multicomponent sprays
41	Non-intrusive spectral analysis of laminar diffusion flames using an multispectral camera and HITRAN-assisted emission detection
113	Thermodiffusive instabilities and turbulent stretching in hydrogen flames: 2D vs 3D DNS analysis
135	Towards a comprehensive droplet/particle HMT models for spray combustion: evaporation and single droplet combustion
59	Combustion modeling of non-condensable gases produced from corn straw pyrolysis
53	Spatiotemporal coherent anti-stokes RAMAN spectroscopy for multi-field measurements in turbulent H ₂ flames
34	Determination of the ideal air flow for sand fluidization at room temperature to optimize the operation of a circulating fluidized bed gasifier
46	Alternative fuels for sugarcane bagasse boilers for electricity production during off-season periods
105	Hydrogen-enriched natural gas safety: assessing flame arresters via numerical and experimental data
129	Development of a phenomenological mathematical model for performance analysis of reaction engines using SAF
29	Combustion control in hydrogen engines via water injection and EGR: effects on knock suppression and NO _x emissions
66	Numerical study of n-heptane diffusion flames with pressure variation
77	Experimental investigation of non-reactive and reactive CO ₂ -diluted oxy-fuel flame: a turbulent flow assessment using large-eddy PIV
132	Analysis of pyrolysis products from the woody species Baccharis Dracunculifolia DC: biochar and volatile compounds
96	Numerical study on the influence of blockage and equivalence ratios on turbulent flame front propagation in premixed hydrogen-air mixture
68	Modeling the combustion of non-condensable gases (NCG) from the pyrolysis of sugarcane bagasse pellets
58	Development of a combustion chamber and subsonic ejector for a vacuum simulation system
23	Propagation and development of grassland fires in Chilean patagonia
30	Numerical investigation of reactant injection strategies and their influence on rotating detonation engine stability and performance
149	Experimental study of biomass residues combustion in a drop tube furnace

Poster Session 2
Wednesday - July 23rd
9:30-10:30 - Morning Coffee Break

Poster ID	Poster Title
85	Investigation of the effectiveness of using a pre-combustion chamber for ammonia as a fuel in otto cycle engines
21	Real-time prediction of NO _x emissions in hydrogen-fueled engines using a shap-optimized neural network model
64	Spectral analysis of flames with C ₂ H ₄ and CH ₄ under different oxygenation indices
118	Effects of obstacles and Bray-Moss-Libby model parameters on the propagation of premixed turbulent flames
61	Thermochemical characterization and heating value estimation of agroforestry biomass residues
35	Investigation of ozone addition on the lean operation of a flex-fuel engine
99	Technological characterization of calcinated ilmenite as oxygen carrier for chemical looping combustion
60	Effect of operating parameters and water content in bioethanol on synthesis gas production in a porous medium
50	Numerical analysis of adiabatic laminar flame speed and apparent global activation energy of ethanol and iso-octane under high reactant temperatures
26	Decarbonizing combustion with hydrogen blended fuels: an exploratory study of impact of hydrogen on hydrocarbon autoignition
91	Computational investigation of the influence of the injector positioning on the performance of a bi-fuel turbocharged ice engine
63	Evaluation of ash deposition of coconut shell biochar
48	Water injection for emission control and stability of reactive hydrogen flows
79	Computational simulation of laminar diffusion flames under subatmospheric pressures: a comparative study of wall boundary conditions
89	CFD study of rice husk combustion in steam generator
131	Predicting the radiant ignition of porous wildland fuels: numerical solution of the heat equation
122	Characterization of transport processes in packed fuel beds for wildfire applications
47	Cogeneration Python model to evaluate the impact of biomass composition and moisture content on boiler efficiency and electricity generation
40	Comparative study of syngas combustion across varying compositions and hydrogen concentrations
42	Simulation of flame propagation in duct utilizing high-resolution schemes and simplified kinetic model
130	Study of the influence of heat transfer and combustion models on the performance parameters of a turbocharged bi-fuel spark-ignition engine using biomethane, biogas, and ethanol using Ferguson's phenomenological model
54	Data-driven analysis of coupled soot and flow dynamics in a pulsed ethylene flame using DMD
102	Thermo-diffusive effects on scalar dissipation transport on lean hydrogen flames
12	Pyrolysis of waste mining tires: experimental and kinetic analysis
20	Experimental analysis of catalytic combustion for off-gas treatment in solid oxide fuel cells
67	Characterization of refractive index in thermal plumes of hydrocarbon flames by background oriented schlieren
15	Frequency domain characterization of Richtmyer-Meshkov instabilities in non-reacting and reacting supersonic confined flows
33	Study of the interaction's between a shock wave and the injection jets in a rotating detonation engine considering a non-reactive non-premixed configuration of hydrogen and oxygen
72	Ball-milling assisted synthesis of La ₂ NiO ₄ spinels from different precursors for application in dry reforming of methane (DRM)

Poster Session 3 Wednesday - July 23rd 15:00-16:00 - Afternoon Coffee Break	
Poster ID	Poster Title
133	Spectral characterization of ammonia (NH ₃) at high temperatures for thermal radiation modeling in combustion
114	Effects of nitrogen and water dilution on the combustion of hydrogen-natural gas blending in gas turbines
148	Study of crossflow effects on thermal radiation emission in turbulent nonpremixed jet flames
88	Study of combustion in porous media applied to fire
8	Characterization of flame acceleration and the impact of perforated plates on the suppression of hydrogen-enriched fuels
116	The optimization and modeling of virtual chemical mechanisms: pollutant formation with reduced cost
83	Advanced optical diagnostics for the fundamental study of turbulent H ₂ /NH ₃ flames and their application as marine fuels
49	Predicting CO ₂ emissions in downsized flex-fuel engines using machine learning and real-world driving data
51	Impact of torrefaction on the reactivity and combustion characteristics of eucalyptus sawdust for energy purpose
78	Improvements in a pyrolysis reactor using Computational Fluid Dynamics as an investigation method
65	Numerical study of primary and secondary air distribution in biomass pellet combustion
24	Effects of high-pressure ethanol direct injection in internal combustion engines
95	Comparison of kinetic mechanisms in soot formation modeling for ethylene and acetylene flames
138	Numerical analysis of heat transfer and thermal oxidation of Jet A-1 fuel through hirets tester
90	Influence of hydrogen addition on detonation in turbocharged engines running on biomethane: a numerical analysis
110	Analysis of the influence of the swirl number on the aerothermodynamic characteristics of an atmospheric flare burner
106	Laminar burning velocity of diesel with addition of ethanol
55	Pyrolysis of sewage sludge for the production of eco-friendly and sustainable fuels
37	Combustion stability and energy potential of torrefied sugarcane bagasse briquettes
70	Experimental investigation of the influence of ultra high pressures on the structure of ethanol sprays
117	Verification and validation of turbulent premixed combustion models (EDM/EDC) in MFSim
101	Experimental investigation of combustion in chemical cycle with fixed bed reactor
126	Numerical analysis of the reactive flow behavior of the methane-air mixture via CFD using OpenFOAM
19	An experimental comparative investigation on the sugarcane and corn based hydrous ethanol physical-chemical properties
94	Predictive analysis of a SI turbocharged bi-fuel engine emissions under rich to very-lean combustion and different percentages of hydrogen enrichment in CNG
31	Evaluation of the use of pyrolysis in obtaining chemical products from biomass

Poster Session 4
Thursday - July 24th
9:30-10:30 - Morning Coffee Break

Poster ID	Poster Title
103	Impact of calcitic limestone granulometry on the efficiency of calcium looping in CO ₂ capture
74	Performance of diesel generator using electrolysis gas as secondary fuel
92	Correlation between ignition delay time and cetane number of diesel fuel using a shock tube
62	Quantitative comparison of Schlieren image velocimetry with particle image velocimetry and phase doppler anemometry techniques
108	Application of multiobjective optimization in sugarcane bagasse gasification for syngas composition improvement
125	Review of kinetic models of ethanol combustion
112	Development of a fast-pyrolysis simulation of different biomass sources aimed at bio-oil production
127	Exploring ultra-high fuel injection pressures on a multi-cylinder engine fueled with ethanol
97	Evaluation of the influence of Knock models for hydrogen-enriched natural gas: a predictive analysis
52	Energy improvement of non-condensable gases from pyrolysis of STP sludge using perovskites
140	On the implementation of chemical kinetics: modeling hydrogen mechanisms using Cantera
136	Effect of granulometry on biochar yield from laboratory-scale slow pyrolysis of olive stones
17	Experimental study of flame propagation in pipelines
73	A study on hydrogen addition in ammonia flames using chemiluminescence
115	Experimental study on improving the efficiency of hydrogen production by partial oxidation of ethanol
43	Pyrolysis of green coconut shell: a technical and environmental analysis of pyrolytic routes
147	Study of crossflow effects on combustion efficiency in turbulent nonpremixed jet flames
134	Large eddy simulation of a lifted turbulent spray flame
32	Use of layered double hydroxide in catalytic biomass pyrolysis
84	Optimal equivalence ratio for combustion in scramjet engines: a computational analysis

Poster Session 5
Friday - July 25th
9:30-10:30 - Morning Coffee Break

Poster ID	Poster Title
93	Numerical simulation of the methyl crotonate combustion and evaluation of the formation of gaseous pollutants
120	Global kinetic mechanism for high-pressure hydrogen flames
121	Numerical evaluation of reduced chemical kinetic mechanisms in laminar methane-air flame propagation in a divergent duct using OpenFOAM
137	Performance evaluation of a diesel engine operating with diesel and soybean oil biodiesel blends obtained by microwave-assisted transesterification
128	Numerical simulation of turbulent flame stabilized by a flame holder
82	Application of alternative fuels in Otto, Diesel and Brayton engines: a review
38	Experimental investigation of ultra-high pressure direct injection in an optically accessible engine using commercial fuels
150	Multiscale modeling of NO _x dispersion in an urban canopy using WRF-HERMES-RANS coupling
104	Adaptation of RANS modeling for hydrogen combustion phenomenon using a BML-model
25	Energy optimization in gas turbines powered by using synthesis gas: a machine learning approach
18	Two-stage gasification model for syngas production from refuse-derived fuel (RDF): an equilibrium simulation approach using Aspen Plus
123	Numerical study of laminar flames of dimethyl ether and its mixtures with carbon-free fuels
100	Experimental characterization of sprays generated by commercial fuels
124	Laminar flames of dimethyl ether and its mixtures with biogas-based fuels
119	Coupled fluid flow and radiative heat transfer with participating media in an adaptive mesh CFD algorithm
139	Analysis of flame stability and combustion efficiency of eucalyptus pyrolysis gases through computational simulations
80	Evaluation of the carbonation efficiency of Brazilian limestones at high temperatures applied to carbon capture technologies by calcium looping
111	Automated development of virtual chemical kinetics mechanisms for different fuels