

Wednesday, 4th December		
Start	Room S111	Room S112
9:30	ACS registration	
10:20	ACS Welcome and Morning Tea – Room S326	
11:00	Session chair: Assaad Masri	
	<i>Bilger Lecture: Recent developments in turbulent combustion modelling and laser-based experiments and their relevance to practical systems – Room S112</i>	
	Epaminondas Mastorakos	ACS-050
12:00	Session chair: Bassam Dally	ACLD parallel session
	<i>Invited: The Dynamics of Supersonic Turbulent Combustion</i>	
	Vincent Wheatley	ACS-018
12:40	Lunch – Room S326	
14:00	Session chair: Bogdan Dlugogorski	Session chair: Mohsen Talei
	<i>A Parametric Study on Fluidisation Characteristics and Product Yields in Bubbling Fluidised Bed Reactor</i>	<i>Soot particle structure variation associated with in-cylinder gas pressure/temperature in a small-bore diesel engine</i>
	Joshua Clissold	Lingzhe Rao
	ACS-016	ACS-001
14:20	<i>An Experimental Study of Laminar Flame Speed of Partially Dissociated NH₃ and Air Mixtures</i>	<i>In-cylinder and exhaust soot morphology in an optical spark ignition direct injection (SID) petrol engine</i>
	Harry Lesmana	Dongchan Kim
	ACS-056	ACS-002
14:40	<i>Fast Pyrolysis of Lignin at Low Temperatures: An In-depth Understanding of the Char Structural Changes</i>	<i>Fuel reactivity effects on premixed combustion in a diesel engine</i>
	Yee Wen Chua	Yilong Zhang
	ACS-030	ACS-004
15:00	Afternoon tea – Room S326	
15:40	Session chair: Zhao Tian	Session chair: Richard Brown
	<i>Preliminary Observations of Turbulent Flames in a Confined and Pressurised Jet in Hot and Vitiated Coflow Burner</i>	<i>Invited: Combustion strategies for multi-fuel capable compression ignition engines</i>
	Michael Evans	
	ACS-035	
16:00	<i>Numerical Investigation of Tandem Cavity Configurations with Supersonic Ethylene Combustion</i>	
	Sarah Mecklem	Sanghoon Kook
	ACS-017	ACS-007
16:20	<i>Experimental and numerical study of ammonia oxidation and pyrolysis in a Jet Stirred Flow Reactor. Evaluation of wall surface reactions effects</i>	<i>Flame image velocimetry for in-flame flow field analysis in an optically accessible diesel engine</i>
	Pino Sabia	Jinxin Yang
	ACS-044	ACS-008
16:40	<i>Hybrid solar-combustion processes of renewable fuels</i>	<i>Image selection method for combustion analysis in an optical diesel engine</i>
	Alfonso Chinnici	Siyuan Meng
	ACS-054	ACS-009
17:00	<i>One-Step Chemical Kinetic Scheme for Propane in High Temperature Applications</i>	<i>Comparison of real-time NO_x emission measurements from two heavy-duty diesel engines</i>
	Raoul Mazumdar	G M Hasan Shahariar
	ACS-005	ACS-015
17:30	ANZ-CI Biennial General Meeting – Room S112	

Note: Only first-named author is shown. Any of the authors are eligible to present.

Thursday, 5th December		
Start	Room S111	Room S112
08:40	Session chair: Assaad Masri	
	<i>Plenary: Stability of MILD Combustion in temperature tailored reactors - A perspective on thermal conversion of energy carriers – Room S112</i>	
	Mara de Joannon	ACS-051
09:40	Session chair: Matthew Cleary	Session chair: Sanghoon Kook
	<i>Invited: A Physical Understanding of how Multiple Mapping Conditioning Works</i>	<i>Invited: Industrial Gas Turbine Combustor Design: Exhaust CO Emissions</i>
	Andrew Wandel	Robert Gordon
	ACS-036	ACS-046
10:20	Morning Tea – Room S326	
11:00	Session chair: Evatt Hawkes	Session chair: Anand Veeraragavan
	<i>Invited: Sound sources in premixed flames</i>	<i>Invited: Recent Progress in the Control and Understanding of Turbulent Spray Formation</i>
	Mohsen Talei	Agisilaos Kourmatzis
	ACS-047	ACS-003
11:40	<i>High-order accurate hybrid LES/PDF simulations of an experimental H₂/N₂ lifted jet flame</i>	<i>Comparative study of spray characteristics of high alcohol-diesel blends</i>
	Harshad Ranadive	Sattar Algayyim
	ACS-040	ACS-006
12:00	<i>Algebraic Flame Surface Density Model Development using Gene-Expression Programming</i>	<i>Initial Characterisation of a hybrid air-blast and electrostatic atomizer for spray combustion</i>
	Man-Ching Ma	Tushar Ahmed
	ACS-027	ACS-011
12:20	<i>Investigation of flammability factor in CNG jets using LES</i>	<i>Measurement of wave speeds at the liquid-air interface of an air-blast atomized biodiesel spray</i>
	Mohammad Reza Yosri	Aaron Gutteridge
	ACS-031	ACS-013
12:40	Lunch – Room S326	
14:00	Session chair: Matthew Dunn	Session chair: Armin Wehrfritz
	<i>Numerical Analysis of Point Source Fire on Fire-Wind Enhancement</i>	<i>Some Recent Results on Hydrogen Oxidation in a Flow Reactor</i>
	Esmaeel Eftekharian	Zhewen Lu
	ACS-021	ACS-028
14:20	<i>Ignition Waves in Compartment Fire Flashover</i>	<i>An Update on the Rate Constant of H + O₂ (+M) → HO₂ (+M), M = N₂ using H₂/O₂/NO_x Reaction in a Flow Reactor</i>
	Vasily Novozhilov	Zhewen Lu
	ACS-023	ACS-029
14:40	<i>Numerical study of the flame structure and swirling motion of small-scale fire whirls</i>	<i>Chemistry reduction of hydrogen-methane mixtures with a focus on the laminar flame speed</i>
	Xiang Fang	Jen Zen Ho
	ACS-037	ACS-032
15:00	Afternoon tea – Room S326	
15:40	Session chair: Agisilaos Kourmatzis	Session chair: Robert Gordon
	<i>Joint OH-CH PLIF imaging in highly-sheared turbulent premixed propane flames</i>	<i>Classification of MILD and autoignitive ethylene flames diluted with N₂, O₂ and CO₂</i>
	Mohammed Kanj	Jordan Kildare
	ACS-022	ACS-048
16:00	<i>PLIF Imaging of a Low Emission Reverse-Cross Flow Combustor</i>	<i>Numerical Modelling of Mild Combustion at Elevated Pressures</i>
	Shreshtha Kumar Gupta	Douglas Proud
	ACS-042	ACS-049
16:20	<i>Experimental Investigation of Soot Evolution in Turbulent Non-premixed Bluff-body Ethylene/Nitrogen Flames</i>	<i>Influence of steam dilution on flame structure and soot formation of hot, diluted ethylene flames</i>
	Amir Rowhani	Alfonso Chinnici
	ACS-055	ACS-053
16:40	<i>Effects of Inlet Oxygen Concentration on Direct Sulfation for Oxy-Fuel Circulating Fluidized Bed Combustion</i>	<i>Experimental research on NO emission of a coaxial jet triple channel nozzle with coal preheating combustion technology</i>
	Wei Li	Ziqu Ouyang
	ACS-014	ACS-012
18:15	Dinner – Tram will depart University stop at 6:30pm sharp. Please arrive by 6:15pm.	

Friday, 6th December		
Start	Room S111	Room S112
08:40	Session chair: Assaad Masri	
	<i>Plenary: Flammability of Hydrogen Sulfide (H₂S) and Carbon Disulfide (CS₂) – Review of Present Insights into Reaction Mechanisms – Room S112</i>	
	Bogdan Dlugogorski	ACS-045
09:40	Session chair: Vincent Wheatley	Session chair: Vasily Novozhilov
	<i>Invited: Supersonic Ethylene Combustion – Revamping the Cavity</i>	<i>Invited: What is important for accurate soot predictions?</i>
	Anand Veeraragavan	Heinz Pitsch
	ACS-019	ACS-052
10:20	Morning Tea – Room S326	
11:00	Session chair: Aleš Srna	Session chair: Andrew Wandel
	<i>Effect of intake air e-boosting on external EGR-diluted diesel combustion</i>	<i>LES/PDF Modelling of Turbulent Premixed Flames in the Flamelet Regime Using an MMC – Shadow Position Mixing Model</i>
	Xinyu Liu	Yashar Shoraka
	ACS-010	ACS-020
11:20	<i>Multiple injections of iso-octane and n-heptane: Part-I</i>	<i>Grid Sensitivity Study for Air Blast Atomisation Using an LES-PDF form of ELSA Model</i>
	Sensen Xing	Fakhar Abbas
	ACS-038	ACS-025
11:40	<i>Multiple injections of iso-octane and n-heptane: Part-II</i>	<i>Particle-intense MMC-LES simulations of mixed-mode turbulent piloted jet flame</i>
	Haijun Mo	Saeed Aldawsari
	ACS-039	ACS-026
12:00	<i>A-priori evaluation of low-dimensional manifold combustion models under diesel engine conditions</i>	<i>Sound generation by turbulent premixed flames with reduced chemistry</i>
	Deepak Dalakoti	Davy Brouzet
	ACS-041	ACS-033
12:20	<i>Effect of inlet manifold water injection on diesel engine performance and emissions</i>	<i>CFD modelling of DC arc plasma system for application in cleaner chemical production</i>
	Sujit Kafle	Jyothikrishna Perambadur
	ACS-043	ACS-034
12:40	<i>The Effect of the Reticulated Polyurethane Foam on the Suppression of Flame Propagation of the CH₄-air mixtures</i>	<i>Computational Fluid Dynamics Modelling of Rotating Detonation Engines</i>
	Chenghu Zhang	Ian Shaw
	ACS-024	ACS-057
13:00	Lunch – Room S326	