

International Conference on Measurements of Energy (ICME 2025)

Book of Abstracts

Orleans, France
23-25 June 2025

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International Conference on Measurements of Energy
23–25 June 2025 Orléans

	Monday 23/6		Tuesday 24/6		Wednesday 25/6	
		08:30	Registration			
		09:00	Pascale Desgroux The challenge of measuring NO in hydrogen and ammonia flames to better understand the NO formation pathways	09:00	Caiying Sun Measurement of CO ₂ gas-liquid two-phase gas volume fraction using capacitive sensors	26
		09:25	Guillaume Dayma An experimental theoretical and modeling study of the pyrolysis and oxidation of neo-pentanol using CO time-history measurements behind reflected shock waves	09:25	Lijuan Wang Vibration Frequency Measurement of Wind Turbine Blades through Moiré Pattern Analysis	25
		09:50	Olav Werhahn Nitrous oxide emissions - monitoring a critical aspect of the energy source diversification	09:50	Jeerasak Pitakarnnop Development of a National Facility for Traceable Aerodynamic Testing in Thailand: Advancing National Metrology, Energy and Aerospace Applications through 15 kPa Differential Pressure Standard	27
		10:15	Christophe SARRAF Development of Primary Standards for High-Frequency Dynamic Pressure Calibration	10:15	Bo Shu Simultaneous dynamic NO, H ₂ O, and temperature measurement using an intrapulse laser with MHz time resolution in a shock tube	28
		10:40	Coffee Break (posters)	10:40	Coffee Break (posters)	
		11:00	Philippe Dagaut On the characterization of highly oxidized products from cool flames in a continuously-stirred tank reactor	11:00	Maedeh Askarzadehardestani Impact of Different Charge and Discharge Profiles on the Aging Behavior of Second-Life Lithium-Ion Batteries: An EIS-Based Approach	29
		11:25	Kai Moshhammer Molecular-Beam Mass Spectrometry under the Lens: Uncertainties in Measuring Species Concentrations	11:25	Torben Jennert Assessing the safety of lithium-ion batteries using electrochemical impedance spectroscopy: indicators, challenges and measurement techniques	30
		12:00	Zhandong Wang (online) Ozone-assisted low-temperature oxidation of C1-C4 alcohols	11:50	Freyja Galina Daragan Pressure measurement during thermal runaway of lithium-ion batteries: Comparison of piezoelectric and piezoresistive pressure sensors	31
		12:25	Scott Goldsborough Towards quantitative model comparisons against measurements from RCMs and JSRs	12:15	Nattapong Chuewangkam Development of a National Shock Tube Facility for Combustion Energy Calibration: Enabling Thailand Advancements in Aerospace Applications and Metrological Infrastructure	32
12:00	Registration	12:50	Lunch (on site)	12:40	End of conference remarks	
13:00	Welcome address					
13:15	Noud Maes Experimental study of hydrogen injections in an Argon Power Cycle	14:10	Scott Goldsborough RCM Workshop 3rd Characterization Initiative: Resolving complications of multi-stage ignition	18		
13:40	Liguang Li A Novel Hydrogen Energy Storage System: On-site Hydrogen and Oxygen Production from Excess Renewable Power followed by Power Regeneration Employing an Argon Power Cycle	14:35	Leopold Seifert Preliminary results from the 3rd RCM characterization initiative: Dimethylether investigations at PTB RCM facility	19		
14:05	Robert Dibble The Long-Awaited Hydrogen-Fueled Argon Engine with Greater Efficiency Than Fuel Cells, >65% with a path to >70%, May Debut at the End of the World	15:00	Rana Shebly Dimethyl Ether Auto-ignition Delay Measurements in a Rapid Compression Machine	20		
14:30	Nicolas Villenave Infrared-Based Determination of Bunsen-Burner Wall Temperature for Hydrogen/Air Laminar Flames	15:25	Florian Hurault Uncertainties on Initial conditions and IDT measurements in a Rapid Compression Machine	21		
14:55	Coffee Break (posters)	15:50	Coffee Break (posters)			
15:15	Nils Hansen (online) Understanding Chemical Transformations in a Closed Carbon Cycle	16:10	Seong-Young Lee Resolving Mixture Stratification in Hydrogen SCC Using Calibrated LIBS and Acetone PLIF Measurements	22		
15:40	Yanan Huo Experimental and numerical kinetic study of OME ₂ and OME ₃ combustion in low-pressure laminar flames	16:35	Vivek Chougale Impact of Radiation and Water Vapor on Fundamental Properties of Lean Laminar Hydrogen/Air Flames	23		
16:05	Perla Trad Cool flame propagation velocities of DEE: determination in an ozone-seeded stagnation plate burner configuration	17:00	Fabien Halter Metals as Future Carbon-Free Energy Carriers	24		
16:30	Jens Brunzendorf Remote Sensing of Hydrogen Flames Under Daylight Conditions	17:40	WIMER Session Women in Metrology and Energy Research Panelists: Christine Rousselle, Lijuan Wang, Véronique Dias, Caiying Sun, Madlen Chao			
16:55	Seif Zitouni / Joachim Beeckman On the accuracy of laminar flame speeds and Markstein lengths measured from spherically expanding ammonia/air flames	9				
18:00	Welcome cocktail (Hôtel Grosloot)	18:40	Dinner (Jardin de l'Evêché)			

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