

Hydrogen Research Forum Finland

Wednesday 2nd October | Dipoli, Aalto University

0815	Registration, coffee available	
0845	Opening ceremony Kristiina Mäkelä, Provost, Aalto University Mika Järvinen, Director of Aalto Hydrogen Innovation Center, Professor, Aalto University Pertti Kauranen, Chair, Hydrogen Research Forum Finland, Professor, LUT University	
0900	Keynote: Marco Alverà, CEO & Co-Founder of TES	
0930	Session 1: Proton exchange membrane electrolysis	
	Can demand response improve the economic viability of PEM electrolysis dynamic operation?	Hassan Sayed Ahmed, Aalto University
	Operando Characterisation of the Interactions between Hydrogen and Palladium Electrocatalysts	Lilian Moumaneix, Aalto University
1030	Coffee break, 30 minutes	
1100	Session 2: Alkaline electrolysis	
	Stray currents and energy efficiency of atmospheric and pressurized alkaline water electrolyzers	Vesa Ruuskanen, LUT University
	Computational fluid dynamics (CFD) modeling of alkaline electrolyzers in OpenFOAM	Marko Korhonen, VTT Technical Research Centre of Finland
	Linearization of alkaline electrolyzer current-voltage behavior under dynamic operation	Lauri Järvinen, LUT University
1200	Lunch break, 60 minutes	
1300	Session 3: Poster session, coffee available	
1400	Session 4: Industry session: An exchange between project developers and electrolyzer manufacturers	
1400	Heidi Bergman, Head of Investment Concepts, Renewable Hydrogen & PtX, Neste	
1420	Rainer Küngas, CTO, Stargate Hydrogen	
1440	Benjamin Stumpf, Market Analyst, Hydrogen, PtX & CCUS, Helen	
1500	Satu Sipola, VP, P2X and Project Execution, Fortum Power and Heat Oy	
+	Filippo Comelli, Head of Origination & Upstream Development MENA, TES	
1520	Panel discussion	
1620	Programme ends	
1830-2230 Gala dinner in Dipoli		

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Thursday 3rd October | Dipoli, Aalto University

0815	Coffee available	
0845	Keynote: Tanja Kallio, Professor, Aalto University High aspect ratio platinum electrocatalyst for more sustainable hydrogen conversion in PEMELs	
0915	Session 5: Novel electrolysis technologies	
	Efficient industrial grade hydrogen production with SO ₂ depolarized electrolyser	Pragya Narayana Prasad, Aalto University
	Additive manufacturing of reversible ceramic fuel cells for electricity generation and hydrogen production	Muhammad Imran Asghar, Tampere University
	Integrating biomass valorization with hydrogen production: electrocatalytic challenges and opportunities	Daniel Martin-Yerga, University of Jyväskylä
	Study on the effect of Mo on the performance and durability of PGM-free anode catalysts for AEMWE	Sepanta Dokhani, RISE Research Institutes of Sweden / KTH Royal Institute of Technology
1035	Coffee break, 30 minutes	
1105	Session 6: System-level analysis	
	Utilizing large-scale hydrogen storages for Nordic industry	Simo Pekkinen, Aalto University
	Electricity Market Optimization of Electrolysis-Based Hydrogen Production	Onni Tikkanen, Fimpec Consulting Oy
	Baseload hydrogen supply from an Off-Grid Solar PV-Wind Power-Battery-Water electrolyzer plants	Alejandro Ibanez Rioja, LUT University
	Integration of High Capacity Hydrogen and Power-to-X production in the Finnish Energy System	Yrjö Majanne, Tampere University
1225	Closing remarks: Outi Ervasti, Advisor Innovation Business Platforms, Neste Oyj	
1240	Event ends	



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List of posters

	Title	Presenter
1	Advancements in reversible ceramic fuel cells for hydrogen production	Buse Bilbey Tampere University
2	Fluorine-doped CuMn ₂ O ₄ as PGM-free electrocatalyst for oxygen evolution reaction in acidic media: reaction mechanism and deactivation pathways	Lilian Moumaneix (Moritz Karl Rosenthal) Aalto University
3	COMSOL Multiphysics modelling of alkaline water electrolyzer (AWE) short stack	Muhammad Asim Sarwar LUT University
4	Effect of voltage elevation on energy efficiency of power electronics in the industrial alkaline water electrolyzer	Galdi Hysa LUT University
5	Hydrophilic treatment of porous PTFE filter membranes as a separator for intermediate temperature alkaline water electrolysis	Rubab Zahra LUT University
6	Advancements in Photocatalytic Solar Hydrogen Reactor Development	Veera Juntunen University of Oulu
7	High-performance oxygen electrodes for reversible fuel cells prepared by Ce _{0.8} Gd _{0.2} O _{2-δ} backbone infiltration	Murat Murutoğlu Tampere University
8	Cloud-based environment for Simulation-aided testing of hydrogen production automation system	Udayanto Dwi Atmojo Aalto University
9	Large-amplitude, low-frequency dynamic parametrization method for water electrolyzer cells	Pietari Puranen LUT University
10	Low Pt content supported in urchin like W ₁₈ O ₄₉ for plasmon enhanced hydrogen evolution reaction	MD MOFAKKHARULHASHAN University of Helsinki
11	Ultralow Catalytic Loading for Optimized Electrocatalytic Performance of AuPt Nanoparticles to Produce Hydrogen and Ammonia	Hugo Santos University of Helsinki
12	CFD Simulations of an Alkaline Electrolyser Cell Based on Nickel Foam Electrodes	Priit Priimägi Stargate Hydrogen Solutions
13	Strategic Research Agenda of Hydrogen Research Forum Finland	Teemu Tuomisalo LUT University Hydrogen Research Forum Finland
14	Study of the influence of the synthesis methodology on catalytic properties of flower-like ZnIn ₂ S ₄ as a promising semiconductor for H ₂ generation	Yousra El Jemli University of Oulu