

5th Israeli Fuel Cells Consortium Workshop

November 14-15, 2022

Bar Ilan University, Ramat-Gan
Auditorium of the Bar-Ilan Center for Advanced Materials and
Nanotechnology (Ground floor, Building # 206)

9:00 – 9:10	Brian ROSEN Lior ELBAZ	Tel-Aviv University Bar-Ilan University	Welcoming Remarks
9:10-9:30	Lior Elbaz	Bar-Ilan University	Summary of IFCC Activities, fuel Cells and Hydrogen activities in Israel
9:30 – 10:15	Bart BIEBUYCK	Director of the EU Clean Hydrogen Joint Undertaking	Clean Hydrogen Partnership: bringing innovation to the point of market readiness
10:15-10:30	Sunita Satyapal	Director of the Hydrogen and Fuel Cells Technologies Office, US-DOE HFTO	HFTO Overview
10:30 – 10:45			Coffee Break
10:45-11:15	Vojislav STAMENKOVIC	University of California - Irvine	Progress in Fuel Cell Catalyst Design
11:15 - 11:45	David CULLEN	Oak Ridge National Lab	New Insights into fuel cell catalysts through automated analytical electron microscopy
11:45 – 12:15	Vito DI NOTO	University of Padova	Interplay between properties and performance of ionomers and electrocatalysts for ion-exchange membrane fuel cells
12:15 - 13:30			Lunch
13:30 – 14:15			FLASH POSTER SESSION #1 (3 min each = 10 participants)
14:15 – 14:45	Mark KOPER	Leiden University	Electrolyte Effects in Electrocatalysis
14:45 – 15:15	Slava FREGER	Technion	The ion conductance and fuel crossover in FC membranes: a unified view and new insights
15:15 -15:30			Coffee Break
15:30-16:00	Jose ZAGAL	University of Santiago	Biomimetic 3D Modulation of the Electrocatalytic Activity of MN ₄ Molecular Catalysts via Axial ligation to Carbon Nanotubes using Reactivity Descriptors for the O ₂ reduction reaction
16:00-16:30	John T.S. IRVINE	University of St Andrews	Interfacial Engineering in Solid Oxide Cells
16:30-17:00	Prabhakar SINGH	University of Connecticut	Trace contaminants, electrode poisoning and degradation mitigation using getters in high (low) temperature electrochemical systems
17:00	Brian ROSEN	Tel-Aviv University	Closing Remarks

Tuesday November 15th, 2022

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9:00 – 9:30	Plamen ATANASSOV	University of California - Irvine	Atomically Dispersed Transition Metal-Nitrogen-Carbon Catalysts Beyond the ORR Function
9:30 – 10:00	Piotr ZELENAY	Los Alamos National Lab	PGM-free Electrocatalysts for Hydrogen Production in Low-Temperature Water Electrolyzers
10:00 – 10:30	David EISENBERG	Technion	Hydrazine Oxidation Electrocatalysis: From Fresh Insights to New Materials
10:30-10:45			Coffee Break
10:45-11:15	Gang WU	State University of New York at Buffalo	Durable and High-Power Iron-Based Cathodes for Proton-Exchange Membrane Fuel Cells
11:15-11:45	Frederic JAOUEN	CNRS	Deactivation mechanisms of single-atom-sites from Fe-N-C catalysts in operating conditions
11:45-12:15	Ulrike KRAMM	Technical University of Darmstadt	Impact of purification treatments of FeNC stability in PEMFC
12:15 – 12:45	Ilya GRINBERG	Bar-Ilan University	Computational studies of ORR activity and degradation of PGM-free molecular catalysts
12:45 – 14:00			Lunch
14:00 – 14:45			FLASH POSTER SESSION #2 (3 min each = 15 participants)
14:45-15:15	Carlo SANTORO	University of Milano-Bicocca	Designing platinum group metal-free electrocatalysts for fuel cells and electrolyzers derived from wastes
15:15-15:45	Stefania SPECCHIA	Politecnico di Torino	The use of waste biomass to produce PGM-free electrocatalysts for the oxygen reduction reaction.
15:45-16:00			Coffee Break
16:00-16:30	Marc SECANELL	University of Alberta	Transient, multi-scale, multi-phase analysis of polymer electrolyte fuel cells and electrolyzers
16:30-17:00	Brian ROSEN	Tel-Aviv University	Electrochemical performance of MXene-based catalysts at positive potentials
17:00-17:30	Pawel KULESZA	University of Warsaw	Development of Electrocatalytic and photoelectrochemical systems for selective reduction of CO ₂
17:30-18:00	Shimshon GOTTESFELD	University of Delaware	Some Remaining PEFC Science and Technology Challenges on the way to Mass Market Entry
18:00	Brian ROSEN Lior ELBAZ	Tel-Aviv University Bar-Ilan University	Closing Remarks