



14.1.2018

17:00 - Registration is open and Get Together

15.1.2018

09:30 – 10:00 – Morning Coffee

10:00 – Opening Session

10:00 – 10:10 Greeting – Michael Gozin + Brian Rosen

10:10 – 10:20 VP R&D

10:20 – 12:00 - BATTERIES PART 1

10:20 – 10:40 - Doron Aurbach, Bar Ilan University, *The Frontier of Advanced Rechargeable Batteries: Reality VS Illusions*

10:40 – 11:00 - Atsuo Yamada, University of Tokyo, *Recent Progress of Electrode and Electrolyte Research for Battery Applications*

11:00 – 11:20 - Yair Ein-Eli, Technion, *Advanced Materials for Li-ion Batteries*

11:20 – 11:40 - Sagar Mitra, Indian Institute of Technology Bombay, *Developing Sodium-ion Battery to Address the Future Energy Storage Applications*

11:40 – 12:00 – Kisuk Kang, Seoul National University, *New Electrode Chemistry Via Nanocomposites for Advanced Rechargeable Batteries*



12:00 – 13:30 – Lunch Break

13:30-15:10 - BATTERIES PART 2

13:30 – 13:50 - Emanuel Peled, Tel Aviv University, *High Capacity Silicon Nano Structure Anode for Electric Mobility*

13:50 – 14:10 - Jang Wook Choi, Seoul National University, *Supramolecular Chemistries for Advanced Rechargeable Batteries*

14:10 – 14:30 - Yang-Kook Sun, Hanyang University, *High-Energy Cathode Material for Next-Generation Li-ion Batteries*

14:30 – 14:50 - TBC

14:50 – 15:10 - Diana Golodnitsky, Tel Aviv University, *Towards Smart 3D Printable Batteries*

INTERNATIONAL WINTER SCHOOL 2019 on:

NanoMaterials for Energy Storage and Conversion

14-17 January, 2019, Tel Aviv University



15:10 – 15:30 – Coffee Break

15:30-17:10 - FUEL CELLS

15:30 – 15:50 - Scott A. Barnett, Northwestern University, *The Effect of Catalyst Exsolution on the Electrochemical Properties of Solid Oxide Fuel Cell Anodes*

15:50 – 16:10 - Lior Elbaz, Bar-Ilan University, *Methodological Approach for the Study of Catalyst Durability in Alkaline Fuel Cells*

16:10 – 16:30 - John Irvine, University St. Andrews, *Emergent Materials, a New Dimension in Energy Materials*

16:30 – 16:50 - Fikile Brushett, MIT, *Towards Deterministic Electrode Design: Elucidating the Role of Surface Chemistry and Microstructure on Flow Battery Performance*

16:50 – 17:10 Dario Dekel, Technion, *Anion-Exchange Membrane Fuel Cells – a Promising Alternative Energy Conversion Technology*



17:10 – 17:30 – Coffee Break

17:30 – 19:30 – Tour at the Steinhardt Museum of Natural History



16.1.2018



09:30 – 10:00 – Morning Coffee

10:00 – 10:10 Greeting –Yael Hanein

10:10 – 10:20 Greeting - Yossi Rosenwaks

10:20 – 12:00 SYNTHETIC FUELS

10:20 – 10:40 - Matthew Kanan, Stanford, *Nanoscience for Carbon Dioxide Utilization*

10:40 – 11:00 - Paul Kenis, University of Illinois at Urbana-Champaign, *Electrochemical Conversion of Carbon Dioxide to Value Added Intermediates*

11:00 – 11:20 - Kimberly A. Gray, Northwestern University, *The Role of Photo- and Thermal Catalytic Materials in the Conversion of CO₂ to Useful Products*

11:20 – 11:40 - Rajiv Dusane, Indian Institute of Technology Bombay (IITB), *Silicon Nanowires for Energy Generation and Storage*

11:40 – 12:00 – Yujing Li, Beijing Institute of Technology (BIT), *Rational Design of High-Performance Electrocatalysts for Proton Exchange Membrane Fuel Cells*



12:00 – 13:30 – Lunch Break

13:30 – 14:50 THEORETICAL AND COMPUTATIONAL METHODS

13:30 – 13:50 – James Rondinelli, Northwestern University, TBC

13:50-14:10 - Ilya Grinberg, Bar Ilan University, TBC

14:10 – 14:30 - Chris Wolverton, Northwestern University, *Materials Design of High-Energy Cation/Anion Redox in Li-rich Cathode Materials: Li₅FeO₄, Li₄Mn₂O₅, and Li₂MO₃*

14:30-14:50 - Amir Natan, Tel Aviv University, *Quantum and Classical Simulations for Metal-Air Batteries*



14:50 – 15:10 – Coffee Break

15:10 – 16:10 JOINT RESEARCH AND INDUSTRY

15:10 – 15:30 - Lea Pais, Research Authority, TBC



15:30 – 15:50 - Gideon Friedman, Chief Scientist of Ministry of Water, Energy and Infrastructures, **TBC**

15:50 – 16:10 - Irvin Gutelmacher PO CELLTech, **TBC**

16:10 – 17:00 - Poster Flash – Up to 2 min. for each poster presentation

17:00 - Poster Session

17.1.2018

Day Tour to Jerusalem