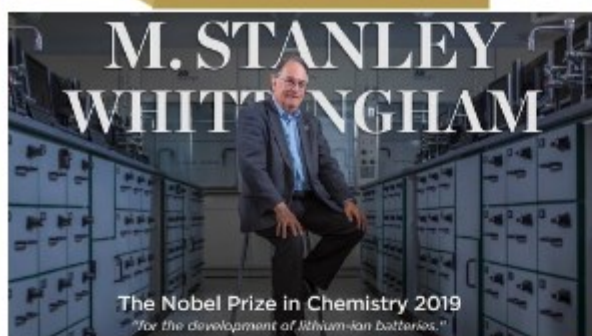


THE SPEAKERS



M. STANLEY WHITTINGHAM
The Nobel Prize in Chemistry 2019
"for the development of lithium-ion batteries."



DORON AURBACH
BAR-ILAN UNIVERSITY
ISRAEL



EMANUEL PELED
TEL AVIV UNIVERSITY
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JEFF DAHN
DALHOUSIE UNIVERSITY
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LINDA NAZAR
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ROSA PALACIN
ICMAB
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SAGAR MITRA
IIT BOMBAY
INDIA



SHIRLEY MENG
UNIVERSITY OF CALIFORNIA
SAN DIEGO, USA



TEJS VEGGE
TECHNICAL UNIVERSITY
OF DENMARK



YAIR EIN-ELI
TECHNION, ISRAEL

AND MORE.....



ANNUAL CONFERENCE 2020

15-16, SEPTEMBER, 2020

9 AM - 6 PM (ISRAEL TIME)

Organizer: Dr. Rosy Sharma
Media Manger: Sarah Taragin

HIGHLIGHTS



TALK BY 2019 NOBEL LAUREATE



4 SESSIONS LOADED WITH TOP
NOTCH BATTERY SCIENTIST



10 STUDENT PRESENTATIONS
WITH 3 PRIZES.

Zoom Link:

zoom.us/INREP2020

Passcode:

INREP2020

Day 1, 15 September 2020

Time (IDT)

9:00- 9:45 am	Opening Remarks Prof. Doron Aurbach (Bar-Ilan University, Israel) Rechargeable Li Batteries for Electro-Mobility.
10:00-10:40 am	Prof. J.M. Tarascon (Collège de France, France) Adding Sensing and Self-Sealing Functionalities to Batteries
10:40-11:20 am	Prof. Jürgen Janek (Justus-Liebig-University of Giessen, Germany) Will Solid Electrolytes Enable Better Lithium Batteries?
11:20-12:00 pm	Prof. Martin Winter (University of Münster, Germany) Rechargeable Lithium – and Zinc-Based Batteries – in the Balance
12:00-12:40 pm	Prof. Rosa Palacin (ICMAB, Spain) The Long and Winding Road Towards Ca Batteries
12:40 - 1:20 pm	Prof. Emanuel Peled (Tel Aviv University, Israel) Lithium Metal Batteries - Lithium Deposition Dissolution Processes

1:20-2:30 pm **Break**

STUDENT PRESENTATIONS

2:30-2:45 pm	Arup Chakraborty (Bar-Ilan University, Israel) Computational Study of the effect of minor doping in Ni-rich NCM cathode materials for Li-ion batteries.
2:45-3:00 pm	Shira Haber (Weizmann Institute of Science, Israel) Insights into the Functionality of an Alkylated $\text{Li}_x\text{Si}_y\text{O}_z$ Interphase for High Voltage Cathodes from DNP-ssNMR Spectroscopy
3:00-3:15 pm	Kristina Borzutzki (Forschungszentrum Jülich GmbH, Germany) Can Single-ion Conductors Prevent Cell Failure of Lithium Metal Batteries?
3:15-3:30 pm	Verena Perner (MEET Battery Research Center, Germany) Investigation on Heteroatomic Redox Polymers as Cathode-Active Materials for Rechargeable Li/Organic Batteries.
3:30-3:45 pm	Jiaxun Zhang (University of Maryland, USA) Water-in-Salt [™] Polymer Electrolyte for Li-ion Batteries

3:45-4:00 pm **Break**

4:00-4:30 pm	Prof. Sagar Mitra (IIT Bombay, India) Challenges in Low Temperature Na-S Battery Research and Understanding the Reactive Mechanism Pathways
4:30-5:00 pm	Prof. Neil P Dasgupta (University of Michigan, USA) Electro-Chemo-Mechanical Evolution of Li metal-Solid Electrolyte Interfaces
5:00-5:30 pm	Prof. Capraz Omer Ozgur (Oklahoma State University, USA) Electrochemical Stress and Strains in Cathode Electrodes for Alkali-ion Batteries
5:30-6:00 pm	Prof. Shirley Meng (University of California San Diego, USA) Advanced Diagnostic Tools for Characterizing Lithium Metal Batteries and Solid- State Batteries

Day 2, 16 September 2020

Time (IDT)	
9:00-9:30 am	Prof. Yair Ein Eli (Technion, Israel) Higher, Better & Stronger- Metal Fluorides ALD Coatings for High Potential Li-ion Cathode Materials
9:30-10:00 am	Dr. Michal Leskes (Weizmann Institute of Science, Israel) Equipping Solid State NMR with Sensitivity: Methodology and Application to Challenging Electrode-Electrolyte Interphases
10:00-10:30 am	Prof. David Zetoun (Bar-Ilan University, Israel) Electrocatalysts for Redox Flow Batteries, Fuel Cells and Electrolyzers
10:30-11:00 am	Prof. Paul Shearing (University College of London, England) The Role of Xray Imaging in Understanding Performance, Degradation and Safety of Li Batteries
11:00-11:30 am	Prof. Pieremanuele Canepa (NUS, Singapore) Peeking at the Electrode Electrolyte Interface in Multivalent Batteries with First-Principles Computation
11:30-11:45 am	Break
STUDENT PRESENTATIONS	
11:45-12:00 pm	Monisha Monisha (Shiv Nadar University, India) Flame Resistant High Performance Li-S Battery Based on Phosphazene Based Cathode Materials.
12:00-12:15 pm	Sourav Ghosh (IIT Hyderabad, India) Upcycling Waste Polyethylene Terephthalate into Energy Storing Materials: Trash to Treasure.
12:15-12:30 pm	Álvaro Miguel (ICTP-CSIC, Spain) New Polymer Gel Electrolytes for Aluminium Batteries: Solvent-Free and Scalable
12:30-12:45 pm	Martin Kolek (MEET Battery Research Center, Germany) Electrolytes in S Mg Batteries – Insights into Polysulfide Stabilization
12:45- 1:00 pm	Ayan Mukherjee (Bar-Ilan University, Israel) Rationally Designed Spherical Vanadium Oxide as Cathode Material for High Capacity Mg-ion Battery
1:00 – 2:40 pm	Break
2:40-3:20 pm	Prof. Jeff Dahn (Dalhousie University, Canada) An Unavoidable Challenge for Ni-rich Positive Electrode Materials for Lithium-ion Batteries.
3:20-4:00 pm	Prof. M. Stanley Whittingham (Binghamton University, USA) Nobel Laureate Lecture
4:00-4:40 pm	Prof. Tejs Vegge (DTU, Denmark) Computational Battery Discovery and BIG-MAP (Battery Interface Genome – Materials Acceleration Platform)
4:40-5:20 pm	Prof. Peter Bruce (University of Oxford, England) The Lithium Anode in Solid Sate Batteries
5:20-6:00 pm	Prof. Linda Nazar (University of Waterloo, Canada) Solid State Electrolytes and Solid State Batteries
6:00-6:30 pm	Closing Remarks + Prizes