

SCHEDULE 2023

Tuesday, August 1st

08:00	Registration + Light breakfast
09:00	Opening remarks
09:15	Opening lecture – Dr. Valeri Frumkin (MIT) Applications of interfacial phenomena: from space telescopes to quantum simulations

Session I: Environmental

Chair: Prof. Ofer Manor

10:00	Emily Hanhauser (MIT) Creating Monitoring Paradigms and Sensors for Decentralized Settings: From Water Quality Monitoring to Clinical Diagnostics
10:30	Yifan Li (Technion) Phase Separation of Oil-in-Water Emulsion with Surface Acoustic Wave
10:45	Yuejun Yu (Technion) Developing and study of an automatic on-line micro-biototoxicity sensing and control unit for wastewater treatment, based on a cell viability monitoring assay

11:00 Coffee break

11:30 Flash talk – session I

Session II: Polymers

Chair: Dr. Shady Farah

12:00	Cornelia Meissner (University of Massachusetts Amherst) Mesoscale Polymer Ribbons as Hierarchically Ordered Building Blocks
12:30	Michal Levin (Technion) Measuring swelling induced stress of gels under constraints using 3D printing
12:45	Or Peleg Evron (Technion) Crosslinking konjac-glucomannan with kappa-carrageenan nanogels: A step toward the design of sacrificial materials

13:00 Lunch

13:30 Poster viewing - session I

Session III: Electrochemistry

Chair: Prof. Dario Dekel

14:30	Melissa Bodine (Argonne National Laboratory) Development and Characterization of Electrodes with Atomic Layer Deposition for Two-Dimensional Infrared Spectroelectrochemistry
15:00	Rinat Attias (Technion) Evaluation of Electro-catalysts Reaction Kinetics for OER by Relaxation Phenomena Analysis
15:15	Noam Zyser (Technion) Linking Rational Activity and Stability Design in Catalytic Electrooxidation over Nickel

15:30 Coffee break

Session IV: Nano-materials

Chair: Prof. Yachin Cohen

16:00	Yael Hershkovitz Pollak (Technion) Volatile Markers as Intercellular Communication Agents of Apoptosis
16:15	David Attia (BGU) Chiral Interactions and Assembly of Cellulose Nanocrystals Mesophases
16:30	Yaniv Dror (BGU) Close-spaced sublimation of (Bi_xSb_{1-x})₂Se₃ thin films for short-wavelength infrared photovoltaics

17:00 End

Wednesday, August 2nd

08:00 Registration + Light breakfast

Session V: Modeling

Chair: Dr. Alon Grinberg Dana

09:00	Matthew S. Johnson (Sandia National Laboratories) Pynta: A software for automatic calculation of microkinetic rate coefficients on metallic surfaces
09:30	Kfir Kaplan (Technion) Automated rate calculator (ARC): A tool for automated ab-initio kinetics computations
09:45	Roy Almog (BGU) The effect of accelerated flow on the resuspension of small particles

Session VI: Sustainable energy

Chair: Prof. Gideon Grader

10:00	Neetu Rani (DTU) Microscale mapping of thermal diffusivity in thermoelectric materials using a micro four-point probe
10:30	Sapir Willdorf Cohen (Technion) Ionomer Stability Studies for Anion-Exchange Membrane Fuel Cells
10:45	Yaniv Farkash (Technion) Nanofiber Electrodes for Efficient Decoupled Hydrogen Generation by the E-TAC process

11:00 Coffee break

11:30 Flash talk – session II

Session VII: Biomed

Chair: Prof. Havazelet Bianco-Peled

12:00	Timothy Little (North Carolina at Chapel Hill) Simultaneous dual epitope blocking CCR2 antibody to induce synergistic macrophage polarization
12:30	Gal Chen (Technion) Developing Artificial Cell Micro-Factories as Next-Generation Therapeutic Platforms
12:45	Chen Benafsha (BGU) Enhancing HNSCC therapeutic efficiency by overcoming cetuximab resistance using modified Q-Starch/siRNA particles decorated with cetuximab as a targeting agent

13:00 Lunch

13:30 Poster viewing - session II

Session VIII: Catalysis

Chair: Prof. Oz Gazit

14:30	Alexia Simon (Harvard) Laboratory Investigation on Entrapment of Hyper-Volatiles in Interstellar and Cometary H₂O and CO₂ Ice Analogs: Importance on parameters dependence
15:00	Leo Giloni (Technion) Assessing acid-base cooperativity of layered oxides for biomass conversion
15:15	Jonathan Prilusky (Ariel) Enhanced photocatalytic activity of Cs₄PbBr₆/WS₂ hybrid nanocomposite

15:30 Coffee break

16:00 Prizes + closing remarks

17:00 End

Organizing committee:

Si Naftaly-Kiros
Shoval Gilboa
Nitai Arbell
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Sponsors:



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