IVS-IPSTA 2023

40th Annual Conference

March 2nd • Nanocenter, Bar-Ilan University

POSTERS & LUNCH 13:00-14:50

 # 1-31 FLOOR 2 | NANO BUILDING

#	Name	Abstract Title	Affiliation	Sess.
1	**Michael Gerasimov**	Radiation Propagation Analysis of an Advanced Israeli FEL	Ariel U.	PS
2	**Amnon Fruchtman**	Mass-separation by Standing Waves Near the Cyclotron Frequency	HIT	PS
3	**Miri Chachashvili**	Adhesion improvement of boron carbide coating on aluminum substrates	NRC	PS
4	**Oleg Belozerov**	Investigation of High-Power Microwave Radiation from an Axial Output Compact S-Band A6 Segmented Magnetron Powered by a Linear Induction Accelerator	Technion	PS
5	**Ron Grikshtas**	Electrical properties of different materials at extreme conditions	Technion	PS
6	**Or Rahumi**	Engineering of solid oxide fuel cell's electrode containing a heterogeneous catalyst for simultaneous ammonia synthesis and energy conversion	Ariel U.	ES
7	**Jonathan Prilusky**	Superior photocatalytic activity of cesium lead bromide/tungsten disulfide hybrid nanocomposite	Ariel U.	ES
8	**Achiad Goldreich**	Nanoparticles of WS2 towards Stabilization of Halide Perovskite Solar Cells	Ariel U.	ES
9	**Yair Ayalon**	Control System for a Novel Hydrogen Generator	Ariel U.	ES
10	**Asmita Dutta**	Innovative N-doped carbon coated WS2 nanotubes for efficient hydrogen evolution reaction	Ariel U.	ES
11	**Ritesh Kant Gupta**	Dual-Passivation Strategy for Improved Ambient Stability of Perovskite Solar Cells	BGU	ES
12	**Said Kassou**	Efficient and stable perovskite solar cells enabled by amino acids additives	BGU	ES
13	**D. Kishore Kumar**	Stability of Perovskite Solar Cells with Copper Thiocyanate as Hole-Transport Material	BGU	ES
14	**Adi Kama**	Combinatorial Vacuum-Deposition of Wide Bandgap Perovskite Films and Solar Cells	BIU	ES
15	**Michal Mizrahi**	Developments of Transition multi-Metal Oxide catalysts for Alkaline Electrolyzers	BIU	ES
16	**Rifael Zvi Snitkoff-Sol**	Quantifying the electrochemical active site density of precious metal-free catalysts in situ in fuel	BIU	ES
17	**Or Rimon**	Investigating The Effect Of PGM-Free Catalysts' Loading On The ORR Activity In PEFC	BIU	ES
18	**Manoj Shanmugasundaram**	Dual atom electrocatalysts for hydrogen oxidation and oxygen reduction reaction	BIU	ES
19	**Yeela Persky**	Synergistic Effect of Copper Corrole and Iron Porphyrin in Porphyrrole Aerogel for the Electrocatalysis of Oxygen Reduction Reaction	BIU	ES
20	**Hadar Sclar**	Stabilizing High-Voltage Lithium-Ion Battery Cathodes Using Functional Coatings of 2D Tungsten Diselenide	BIU	ES
21	**Gayathri Peta**	Solid electrolyte membrane preparation using casting in different solvents	BIU	ES
22	**Akanksha Joshi**	High entropy: an emerging prospect for design of Na-ion battery cathode	BIU	ES
23	**Yakir Kabalo**	The effect of the amount of residual sodium in the active material NMC 532 after an innovative recycling process	BIU	ES
24	**Ananya Maddegalla**	AZ31 Magnesium Alloy Foils as Thin Anodes for Rechargeable Magnesium Batteries	BIU	ES
25	**Anagha Usha Vijayakumar**	A combinatorial approach to the exploration of multi-metallic gradient libraries for the oxygen evolution reaction	BIU	ES
26	**Nevo Cohen**	A Study Towards Preventing The Shuttle Effect of Polysulfides in Sulfur Aqueous Batteries: The Detection of Polysulfides *via* Scanning Electrochemical Microscopy (SECM)	HUJI	ES
27	**Bikash Jana**	Carbon nanodots for all-in-one photo(electro)catalytic performance	Technion	ES
28	**Michal Lahav**	Unusual Surface Texture: Multidomain Single Crystal and Chirality	WIS	ES
29	**Guy Reuveni**	Static and Dynamic Disorder in Formamidinium Lead Bromide Single Crystals	WIS	ES
30	**Adi Cohen**	Diverging expressions of anharmonicity in halide perovskites	WIS	ES
31	**Naveen Malik**	Electrochromic Metallo-Organic Films: Spray-Coating, On-Surface Self Assembly, and Laminated Devices	WIS	ES

SESSIONS

PS: Plasma Science
ES: Energy and Sustainability: Materials, Methods, and Breakthroughs
NS: Nanoscience for future quantum technologies: novel materials, devices, and characterizations
BI: Bio Applied Surfaces and materials
NM: Nanomaterials
NP: Frontiers in nanophotonics
SS: Surface science
SM: Smart and multifunctional materials and devices: transducers, sensors and actuators
CM: Computational modeling and data science for new materials

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 # 32-81 FLOOR 5 | NANO BUILDING

#	Name	Abstract Title	Affiliation	Sess.
32	**Brhane Amha**	Laser-induced graphene-Titanium (IV) oxide composite for adsorption enhanced photodegradation of	BGU	NM
33	**Sivan Tzadka**	Self-Assembly Based Fabrication of Optical Sub-Wavelength Structures	BGU	NM
34	**Haeyoung Park**	Laser-induced 3D Patterned Graphene Composites on Curved Surfaces for Fog Harvesting	BGU	NM
35	**Melina Zysler**	Hollow Palladium Nanosheets: a Synthetic Study	BIU	NM
36	**Barak Shapira**	Combined nanofiltration and advanced oxidation processes with bifunctional carbon nanomembranesI.	BIU	NM
37	**Sapir White**	Fabrication of Fluorescent Thin films Using Nanobead Emitters	BIU	NM
38	**Nicole Edelstein-Pardo**	Anisotropic Microparticles through Periodic Autofragmentation of Amphiphilic Triblock Copolymer	TAU	NM
39	**Yuexing Chen**	Tunable Copper Nanocrystals Deposited on Seeded Nanorods	Technion	NM
40	**Inbal Weisbord**	On the Development and Atomic Structure of ZnO Crystals Grown in Polymers from Vapor Phase	Technion	NM
41	**Tuoke Cai**	Block Copolymer Templated HfOx Nanostructures – from Fundamental Understanding to Rational	Technion	NM
42	**Hila Shalom**	FDTD simulations of exciton-polariton resonances in WS_2 nanotubes	Ariel U.	NP
43	**Neena Prasad**	Synthesis and formation mechanism of different phases and morphologies of polar ZnS nanostructures: morphology identification using Raman spectroscopy	Ariel U.	NP
44	**Sivan Tzadka**	Highly effective anti-reflective structures for polymer optics	BGU	NP
45	**Alon Krause**	Nanoscopy of Aluminum Plasmonic Cavities by Cathodoluminescence and Second Harmonic Generation	BIU	NP
46	**Hodaya Klimovsky**	Characterization of nanometric thin films with far-field light	BIU	NP
47	**Anna Yuchnovsky**	Switching of photocurrent polarity in electrochemical cells with light via an excited state proton	Technion	NP
48	**Nathali Gower**	Investigating the effect of doping concentration on the performance of Terahertz Quantum Cascade	BIU	NS
49	**Shiran Levy**	Novel split-well resonant-phonon terahertz quantum cascade laser structure	BIU	NS
50	**Meghna Khadka**	Elastin Like Peptides-Modified Electrodes for Per-and Polyfluoroalkyl substances (PFAS) Detection	BGU	SM
51	**Dayananda Desagani**	Lactate Analysis using Flexible non-Enzymatic Electrochemical Sensor	BGU	SM
52	**Mohamed Hamode**	Plasmonic based Sensor for Quantification of Chemical Pollutants in Water and its Improvement By	BIU	SM
53	**Nivedita Lalitha Raveendran**	Optimization of highly magnetostrictive layer for efficient magnetoelectric heterostructures	Technion	SM
54	**Aya Mrar**	Fabrication and characterization of Ni/Si Schottky diodes	Technion	SM
55	**Nitai Arbell**	Enantioselective Photocatalysis: A Novel Method for Enantiomeric Enrichment Via Chiral Imprinting	Technion	SM
56	**Noga Levinson**	Diverting Electron Flow in Electrochromic Metal-Organic Assemblies	WIS	SM
57	**Yuliy Yuferov**	Synthesis of aluminum oxide surface using plasma electrolytic oxidation in ternary eutectic molten salt	Ariel U.	SS
58	**Maurício N. Kleinberg**	Elucidating the mechanisms involved in Cr(VI) removal by activated carbon cloth	BGU	SS
59	**Avi Huri**	Complexation of Platinum on the Surface of Shape-defined Plasmonic Nanoparticles	BIU	SS
60	**Hadar Shema**	Nanospectroscopy mapping of supported molecular catalyst for CO_2 electroreduction to methanol	HUJI	SS
61	**Ahmad Nawaz**	Electron induced chemistry of nitrous oxide-water co-adsorbed film ($N_2O@H_2O$) as a model study of	HUJI	SS
62	**Mazal Kostan**	Structure and poisoning effects on hydrogen sorption affinity in single Pd nanoparticles	HUJI	SS
63	**Lihi Rikanati**	Identifying reactivity variations on different facets in single Au nanocrystals.	HUJI	SS
64	**Kamira Cohen-Weinfeld**	X-Ray Photoelectron Spectroscopy for Surface Characterization: Interesting new results	Technion	SS
65	**Gilad Sasson**	Enhancement of Polymer Thin Film Solvent Resistance Using Sequential Infiltration Synthesis	Technion	SS
66	**Dawod Muhamed**	Determination of the Diffusion Coefficients of Silver in Thermoelectric Lead Telluride Compounds	Technion	SS
67	**Brian Welch**	Polymer Thin Films: What is Happening During Molecular Layer Deposition?	Technion	SS
68	**Miguel A. Andrés**	X-ray photoelectron spectroscopy of solid-liquid interfaces under electrochemical control	WIS	SS
69	**Roey Ben David**	CO_2 Activation on Ni(111): A Competitive Adsorption between Carbon Monoxide and Atomic Oxygen	WIS	SS
70	**Leah Fuhrman Javitt**	Electro-freezing of water as induced by hydrated Al and Mg ions without supercooling	WIS	SS
71	**Chetan Prakash Sharma**	Photo and electrically activated antibacterial and antiviral laser-induced graphene surfaces and	BGU	BI
72	**Carlos Ureña Martín**	Mechanism of stiffness induced contact guidance	BGU	BI
73	**Brit Maman**	Lithographic platform for reference-free traction force microscopy	BGU	BI
74	**Shagufta Naaz**	Nanofabricated patterns for the control of T cell receptor clustering	BGU	BI
75	**Oriya Belous Maruani**	Electrochemical Exploration of Biofilm Using Micro Electrodes Array	BGU	BI
76	**Esti Toledo**	Molecular Scale Spatio-Chemical Control of the Activating-Inhibitory Signal Integration in NK Cells	BGU	BI
77	**Vijay Bhooshan Kumar**	Experimental and computational design of hybrid peptide self-assembled universal nanocarriers for	TAU	BI
78	**Nir Kampf**	Lubrication by PClated Polymers, Assemblies and Gels	WIS	BI
79	**Or Shafir**	Physics-aware Deep Learning Networks for High Accuracy Electronic Properties and Forces Prediction	BIU	CM
80	**Ofir Rudich**	Band Gap Engineering of Lead Titanate Perovskite Oxide	BIU	CM
81	**Margarita Shepelenko**	Polymorphism, Structure, and Nucleation of Cholesterol·H_2O at Aqueous Interfaces and in Pathological Media: Revisited from a Computational Perspective	WIS	CM
82	**Guy Ohad**	Accurate band gaps and optical spectra of halides and oxides from a non-empirical, localization based optimal tuning of a screened range-separated hybrid functiona	WIS	CM