



The 25th Sde Boker Symposium on Solar Electricity Production

February 17-19, 2026

George Evens Family Auditorium
Jacob Blaustein Institutes for Desert Research

PROGRAM

Tuesday, February 17, 2026

Symposium chairs:

Eugene A. Katz and **Iris Visoly-Fisher**,
The Ben-Gurion National Solar
Energy Center

9:00-9:45

Arrival and registration, coffee

9:45-10:15

Opening greetings

Prof. Raz Jelinek, Vice President and
Dean for Research & Development of
Ben-Gurion University

Prof. Moshe Herzberg, The Nitzan
Moshe Center for Energy and
Sustainability of Ben-Gurion University

10:15-12:15

Session 1.1: Solar fuels

Chair: **Daniel Sharon**, HUJI

Uri Banin, HUJI (invited)

*Photocatalysis with semiconductor
quantum dots towards solar energy
harvesting*

Daniel Grave, BGU (invited)

*Fundamental optoelectronic
properties and device applications of
semiconducting metal-oxides*

Muhammad Bashouti, BGU (invited)

*Optoelectronic characterization of
Molecule-Terminated Photoelectrodes*

Ronen Gottesman, HUJI (invited)

*Reshaping Synthesis Strategies for Metal
Oxide Semiconductors: From Binary
to High-Entropy Systems for Solar Fuel
Applications*

12:15-14:00

Lunch and Poster session I

14:00-16:00

Session 1.2: Energy technologies

Chair: **Daniel Grave**, BGU

Daniel Sharon, HUJI (invited)

*Advances and Challenges in
Rechargeable Aqueous-Based Batteries*

Lior Elbaz, BIU (invited)

*Design and Application of Aerogel-based
Catalysts for the Oxygen Reduction
Reaction in Fuel Cells*

Menny Shalom, BGU (invited)

*Photocatalytic panels development
for catalytic oxidation and reduction
reaction*

Amnon Schur, ICL Dead Sea

*The Effect of Row Spacing and Albedo on
the Power Production of a Bifacial Solar
Panel Array*

Mor Fiegenbaum-Raz, TAU

*Mapping the Spatial Contribution to
Photoluminescence and Photovoltage in
Perovskite Solar Cells*

16:00-16:30

Coffee break

16:30-18:30

Session 1.3: Novel concepts in renewable energy harvesting

Chair: **Pavel Troshin**, FRC PCP MC

Tal Schwartz, TAU (invited)

*Liberating Molecular Excitons by
Confined Photon*

Gideon Friedman, Netzero (invited)

*How can solar energy emerge from its
own success trap*

Yaniv Gelbstein, BGU (invited)

*Solar to hydrogen generation using
thermoelectric energy conversion*

Carmel Rothschild, Technion (invited)

*Converting solar and wind energy to
a fully dispatchable source, "Electricity
island"*

18:30-19:30

Free time

19:30-21:30

Festive Dinner, Sherman's hotel



אוניברסיטת בן-גוריון בנגב
Ben-Gurion University of the Negev



BIDR
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Wednesday, February 18, 2026

Symposium chairs:

Eugene A. Katz and **Iris Visoly-Fisher**,
The Ben-Gurion National Solar
Energy Center

9:45-10:00

Greetings

Prof. Brian Rosen, Chief Scientist of
the Israel Ministry of Energy
and Infrastructure

10:00-12:00

Session 2.1: Inter- disciplinary aspects

chair: **Iris Visoly-Fisher**, BGU

Ofir Rubin, BGU (invited)
*Toward Sustainable Practices in
Photovoltaic and Agricultural
Greenhouse Systems: An Ecosystem
Services Framework*

Roni Blustein-Livnon, BGU
*Detecting and Typifying PV Adoption
Dynamics Using Deep Learning
SPYSAM Pipeline*

Amos Lesker, Energycom
Chevron Studio

Gideon Segev, TAU (invited)
*Tuning electrochemical reactions with
ratchet based ion pumps*

Esther Magadley, Al-Qasemi

Academic College
*Sensorless Optimization of Crop-Aware
Photovoltaic Tracking for Greenhouse
Agrivoltaics*

Gur Mittelman, Afeka

*Experimental investigation of agrivoltaic
collector array with spectral beam
splitting*

12:00-14:00

Lunch and poster session II

14:00-16:00

Session 2.2: Advanced photovoltaic materials

chair: **David Cahen**, WIS

Dan Oron, WIS (invited)
*The role of the A-site cation in
determining electronic properties of lead
halide perovskites*

Efrat Lifshitz, Technion (invited)
*The influence of magnetism on the opto-
electronic properties of halide perovskites*

Leeor Kronik, WIS (invited)
*Accurate solid-state band gaps and
optical absorption spectra from density
functional theory*

Kirill Sobolev, BGU

*Gaining control over MXene – Halide
Perovskite integration chemistry for
designing composite films with a
target functionality*

Anat Itzhak, DTU

*Can we crystallize BaZrS₃ at device-
compatible temperatures from sulfide
precursor films?*

16:00-16:30

Coffee break

16:30-17:30

Session 2.3: Keynote I

Chair: **Yaniv Gelbstein**, BGU

Prof. Mercouri G. Kanatzidis,
Northwestern University
*How Halide Perovskites Expanded the
Frontiers of Photovoltaic Solar Energy*

17:30-19:00

Free time

19:00-21:00

Dinner and Evening activity,
Ben-Gurion's Desert Home



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Symposium chairs:

Eugene A. Katz and **Iris Visoly-Fisher**,
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10:00-12:30

Session 3.1: Frontiers in photovoltaic devices

Chair: **Oded Millo** (HUJI)

Lioz Etgar, HUJI (invited)

Flexible Piezoelectric Pressure Sensors Utilizing Low-Dimensional and Fully printable perovskite solar cells

David Cahen, WIS (invited)

How miraculous are Halide Perovskites for PV? A tale of Fables & Facts

Hanna Noa Barad, BIU (invited)

Using bond characteristics to predict self-healing properties in materials for sustainable energy conversion

Pavel Troshin, FRC PCP MC (invited)

Opportunities and challenges for organic and perovskite photovoltaics in space

Eugene Katz, BGU

Photoluminescence in operated photovoltaics: Cases of GaAs and perovskite solar cells

Poster award ceremony

12:30-13:30

Lunch

13:30-14:30

Session 3.2: Keynote II

Chair: **Lioz Etgar** (HUJI)

Prof. Yana Vaynzof, Technical University of Dresden

Towards more sustainable processing of metal halide perovskites

14:30-17:30

Visit to Yerucham vineyard

AgroPV installation and wine tasting
(ending in Be'er Sheva)



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Abstracts for the Poster Sessions

Poster Session I

Amit Kumar, BGU

Outdoor Evaluation of Bias-Dependent Performance Dynamics in Perovskite Solar Cells

Ritesh Kant Gupta, BGU

Aquavoltaics: Synergy of aquatic photosynthetic bioreactors and perovskite solar cells

Taranga Dehury, HUJI

Influence of Carrier Solvents and SAM based Hole Transport Layers on the Performance of Double Cation Perovskite Solar Cells

Hadush Yohanes Tesfancheal, BGU

Multi-physics Device Simulations of Optimized Semi-Transparent Perovskite Solar Cells: Influence of Material Types and Layer Thicknesses on Transmittance and Electrical Performance

Lakshmi Priya, BGU

Effect of hole transport layer on stability and recovery of perovskite solar cells

Aregay Teklay Kiday, BGU

Long-term outdoor study of perovskite mini-modules in the Negev desert: preliminary results and open questions

Kenza El Idrissi, BGU

Architecture-Driven Outdoor Stability Dynamics in Perovskite Solar Cells

Izhar Shalev, HUJI

All Inorganic CsPbI₃ Solar Cells

Shahar Gadot, HUJI

Fully Printable Inorganic Perovskite Light Emitting Diodes in the Visible Region

Flavia Pazhayattil, BGU

Outdoor stability of Spin-coated vs Slot-die coated organic photovoltaic devices

Daniel Sherman, BGU

A perovskite- hematite photovoltaic photoelectrochemical tandem integrated system for outdoor testing

Kidanu Atsbeha, Addis Abba Uni.

PV in Tigray

Areen Shawahni, BIU

Effect of Sn_xNy passivation layer on SnO₂ electron transport layers in halide perovskite solar cell

Victoria V. Ozerova, FRC PCP MC RAS

Suppressing Radiation-Induced Degradation in Lead Halide Perovskites via Material Engineering

Nagaprasad Reddy Samala, BIU

Investigation of Terminated Mxenes for Interface Engineering in Perovskite Solar Cells: A DFT Study

Poster Session II

Aideen Shlebe, BGU

Broadband Lossy Waves at Ultrathin Metals Interface for Solar Photothermal Conversion and Water Desalination

Maayan Persky Poss, WIS

Quantum Cutting Pathways in Halide Perovskites: Mechanistic Insights for Next-Generation High-Efficiency Solar Cells

Yoav Avram, HUJI

2D perovskites

Biswajit Hudait, WIS

Understanding the Halide Perovskite Composition Effect on Self-healing

Sidharth Reghunathana, BIU

2D-3D perovskite heterojunctions using vapor phase dual cation exchange

Arindam Mondal, BGU

The Polybromide Melt (PBM): the key for making and stabilizing Cu, Au, Pb and Sn Halide-Perovskites

Itai Zaretsky, BGU

Enhancing Crystallinity of Halide Perovskite Thin Films via Controlled Mxene Incorporation

Shachar Gold, WIS

Computational electronic structure analysis of Ru-based vacancy ordered halide perovskites

Ido Zemer, HUJI

Transient Surface Photovoltage and Photoluminescence Spectroscopy of Semiconductor Materials

Xiaoyuan Wang, HUJI

Growing Titanium Oxynitride Electron-Transport Layers by Plasma-Enhanced Pulsed Laser Deposition

Shahar Artzi, HUJI

Accessing Metastable Bi₂O₃ Phases Via Far-From-Equilibrium Processing

Shira Gigi, HUJI

Photocatalytic Semiconductor-Metal Hybrid Nanoparticles: From Single-Atom Catalyst to Metal Tips

Joanna Dehnel, HUJI

Time-Resolved Surface Photovoltage Under Circularly Polarized Light: Unveiling Giant Chiral Photoresponse in 2D Perovskites

Tom Naor, HUJI

NC meets CN: Porous photoanodes with polymeric carbon nitride/ZnSe nanocrystals heterojunctions for photoelectrochemical applications

Alexandra Freidzon, WIS

Automated Procedure for Ab Initio Calculation of Electron and Hole Mobilities in Organic Semiconductors