

PROGRAM

08:00 - 09:00	Registration, Light Refreshments, Vendors Exhibition & Posters Mounting	
OPENING SESSION		Hall A
Session Chair:	Amit Kohn, ISM Chairperson	
09:00 - 09:20	<ul style="list-style-type: none"> • Opening Remarks: Doron Ginsberg, Dean, Faculty of Life Sciences, Bar-Ilan University • Presentation of the Lev Margulis Prize to Roy Shiloh, Tel Aviv University 	
PLENARY SESSION		Hall A
Session Chair:	Ruth Sperling , The Hebrew University of Jerusalem	
09:20 - 09:30	<i>IN MEMORY OF SIR AARON KLUG</i>	
09:30 - 10:15	Plenary Lecture 1: Grant Jensen , Broad Center for the Biological Sciences, California Institute of Technology, USA <i>ELECTRON CRYOTOMOGRAPHY: PRESENT CAPABILITIES AND FUTURE</i>	
10:15 - 10:45	<i>Coffee Break & Vendors Exhibition</i>	
Session Chair:	Wayne D. Kaplan , Technion – Israel Institute of Technology	
10:45 - 11:30	Plenary Lecture 2: Dierk Raabe , Max-Planck-Institut für Eisenforschung, Germany <i>ATOMIC-SCALE ANALYSIS OF CHEMISTRY AT LATTICE DEFECTS</i>	
SPECIAL SESSION ON OPTICAL TWEEZERS – 2018 NOBEL PRIZE FOR PHYSICS		Hall A
Session Chair:	Leah Gheber , Ben-Gurion University of the Negev	
11:30 - 11:50	Ariel Kaplan , Technion – Israel Institute of Technology <i>LIFE UNDER TENSION: OPTICAL TWEEZERS AND THEIR APPLICATIONS IN THE LIFE SCIENCES</i>	
SOUND BITE SESSION		Hall A
Session Chair:	Naama Koifman , Technion - Israel Institute of Technology	
11:50 - 12:15	Posters Sound Bites	
LUNCH SESSION		
12:15 - 13:15	Life Sciences Posters P-1 – P-30 Materials Science Posters P-31 – P-62 Micrograph Competition M-1 – M-19 Vendors Exhibition	ISM General Assembly Hall A
13:00 - 14:15	<i>Lunch & Vendors Exhibition</i>	
PARALLEL SESSIONS I		
14:15 - 15:50	Life Sciences Hall A	Materials Science Hall B
15:50 - 16:20	<i>Coffee Break & Vendors Exhibition</i>	
PARALLEL SESSIONS II		
16:20 – 18:05	Life Sciences Hall A	Materials Science Hall B
18:10 - 18:30	<i>Closing Remarks, Best Poster and Best Micrograph Nominations</i> Hall A	

PARALLEL SESSIONS I

Life Sciences		Materials Science	
** Session dedicated to the memory of Talmon Arad **			
Hall name	Hall A	Hall B	
Session chair	Yaron Shav-Tal, Bar-Ilan University	Louisa Meshi, Ben-Gurion University of the Negev	
14:15 - 14:40	<p style="text-align: center;">Invited</p> <p style="text-align: center;">David Sprinzak, Tel Aviv University</p> <p style="text-align: center;">LIVE IMAGING OF INNER EAR EXPLANTS REVEALS CELLULAR REORGANIZATION UNDERLYING PRECISE PATTERNING IN THE ORGAN OF CORTI</p>	<p style="text-align: center;">Invited</p> <p style="text-align: center;">Mauro Gemmi, Istituto Italiano di Tecnologia, Pisa, Italy</p> <p style="text-align: center;">3D ELECTRON DIFFRACTION ON NANOCRYSTALLINE MATERIALS: FROM HIGH PRESSURE SYNTHESIS TO MACROMOLECULES</p>	
14:40 – 14:55	<p style="text-align: center;">Liat Stoler-Barak, Weizmann Institute of Science</p> <p style="text-align: center;">B CELL DISSEMINATION PATTERNS DURING THE GERMINAL CENTER REACTION REVEALED BY WHOLE-ORGAN IMAGING</p>	<p style="text-align: center;">Avi Auslender, Tel-Aviv University</p> <p style="text-align: center;">MEASURING THE MEAN INNER POTENTIAL OF AL₂O₃ SAPPHIRE USING OFF-AXIS ELECTRON HOLOGRAPHY</p>	
14:55 - 15:10	<p style="text-align: center;">Amos Zamir, Ben-Gurion University of the Negev</p> <p style="text-align: center;">EMERGENCE OF MULTICELLULAR SYNCHRONIZATION BY INFORMATION-TRANSFER BETWEEN INDIVIDUAL CELLS</p>	<p style="text-align: center;">Inbal Weisbord, Technion – Israel Institute of Technology</p> <p style="text-align: center;">NANO SPRAY-DRIED BLOCK COPOLYMER NANOPARTICLES AND THEIR TRANSFORMATION INTO HYBRID AND INORGANIC NANOPARTICLES</p>	
15:10 - 15:25	<p style="text-align: center;">Alina Goldstein-Levitin, Ben-Gurion University of the Negev</p> <p style="text-align: center;">SINGLE MOLECULE MOTILITY AND LIVE IMAGING MICROSCOPY ANALYSIS REVEALS COMPLEX PHOSPHO-REGULATION PATHWAYS OF A MITOTIC MOTOR PROTEIN</p>	<p style="text-align: center;">Carlos Sabater, University of Alicante, Spain</p> <p style="text-align: center;">GOLD ELECTRODES IN A LOW-TEMPERATURE SCANNING TUNNELING MICROSCOPE TO HOLD DOUBLE-STRANDED ATOMIC CHAINS</p>	
15:25 - 15:50	<p style="text-align: center;">Invited</p> <p style="text-align: center;">Lior Appelbaum, Bar-Ilan University</p> <p style="text-align: center;">LIVE IMAGING OF THE CELLULAR MECHANISMS OF SLEEP</p>	<p style="text-align: center;">Invited</p> <p style="text-align: center;">Oren Regev, Ben-Gurion University of the Negev</p> <p style="text-align: center;">TEXTILE-REINFORCED CONCRETE COMPOSITES</p>	

PARALLEL SESSIONS II

Life Sciences		Materials Science	
Hall name	Hall A	Hall B	
Session chair	Shai Berlin , Technion – Israel Institute of Technology	Tamar Segal-Peretz , Technion – Israel Institute of Technology	
16:20 - 16:45	Invited Roland Kröger, University of York, UK STUDYING THE STRUCTURE AND FORMATION OF BONE AND BONE-LIKE MATERIALS USING ADVANCED MICROSCOPY AND SPECTROSCOPY	Invited Ori Cheshnovsky, Tel Aviv University LABEL-FREE FAR-FIELD SUPER RESOLUTION MICROSCOPY USING NONLINEAR PHOTO-MODULATED REFLECTIVITY	
16:45 – 17:00	Boaz Mayzel, Weizmann Institute of Science BIOLOGICAL SILICA FORMATION IN DIATOMS - MINERALIZATION OUTSIDE THE BOX?	Raphael Dahan, Technion – Israel Institute of Technology COMBINING LIGHT OPTICS WITH ELECTRON MICROSCOPY: LASER-STIMULATED ELECTRON ENERGY LOSS SPECTROSCOPY	
17:00 - 17:25	Invited Gabriel Frank, Ben-Gurion University of the Negev DIRECT CORRELATION BETWEEN STRUCTURE AND FUNCTION	Margulis Roy Shiloah, Tel Aviv University NANOSTRUCTURING OF ELECTRON BEAMS	
17:25 - 17:40	Sari Natan, Tel Aviv University REAL TIME IMAGING OF CELL MECHANICAL COUPLING IN 3D FIBROUS GELS	Maya Bar Sada, Ben-Gurion University of the Negev CORRELATING THE STRUCTURE OF 2D MATERIALS WITH THEIR CATALYTIC ACTIVITY	
17:40 - 18:05	Invited Shai Berlin, Technion – Israel Institute of Technology HOLOGRAPHIC TWO-PHOTON ACTIVATION FOR SYNTHETIC OPTOGENETICS	Invited Yaron Amouyal, Technion – Israel Institute of Technology TRACKING MICROSTRUCTURE EVOLUTION OF Ag-ALLOYED PbTe FOR THERMOELECTRIC ENERGY CONVERSION APPLYING ATOM PROBE TOMOGRAPHY	

POSTERS

12:15-13:15 POSTER SESSION

Posters Area

P-1 - P-30 Life Sciences

P-31 - P-62 Materials Science

M-1 - M-19 Micrographs Competition

Life Sciences

- P-1 ELUCIDATING THE ROLE OF AAA-ATPASE VPS4 IN CYTOKINETIC ABSCISSION
Yarin Altaras, Inna Goliand, Dikla Nachmias, Natalie Elia
Ben-Gurion University of the Negev, Beer-Sheva, Israel
- P-2 USING 3D TEM TOMOGRAPHY TO ELUCIDATE DIATOM MINERALIZATION
Lior Aram, Eyal Shimoni, Sharon Grayer Wolf, Assaf Gal
Weizmann Institute of Science, Rehovot, Israel
- P-3 PROBING NUCLEAR ORGANIZATION IN LIVING CELLS WITH GENETICALLY ENCODED SUPRAMOLECULAR PROTEIN ASSEMBLIES
Arina Dalaloyan¹, Shuji Fujii², Yael Roichman³, Michael Elbaum¹
¹*Weizmann Institute of Science, Rehovot, Israel*
²*Hokkaido University, Sapporo, Japan*
³*Tel Aviv University, Tel Aviv, Israel*
- P-4 CRYO-TEM DIRECT-IMAGING OF α -HEMOLYSIN INTERACTION WITH PHOSPHOLIPID MEMBRANES
Irina Davidovich, Idan Biran, Maria Poley, Lucy Liberman, Nitzan Krinsky, Avi Schroeder, Yeshayahu Talmon
Technion – Israel Institute of Technology, Haifa, Israel
- P-5 UNIQUE TUBULIN ASSEMBLIES IN THE PRESENCE OF SPERMINE
Raviv Dharan, Asaf Shemesh, Yael Levi-Kalisman, Israel Ringel, Uri Raviv
The Hebrew University of Jerusalem, Jerusalem, Israel
- P-6 EDWARD BURTYNSKY'S PHOTOGRAPH OF COLORADO RIVER DELTA IS SIMILAR IN FRACTAL DIMENSION TO MICROSCOPIC IMAGES OF BIOLOGICAL FORMS
Tamira Elul¹, Amanda Balmages¹, Lucille Shiffman¹, Kavya Narendra-Babu², Elijah Lustig¹
¹*Touro University California, Vallejo, CA, USA*
²*University of California Berkeley, Berkeley, CA, USA*

- P-7 A HUMAN DERIVED ANTIMICROBIAL PEPTIDE REVEALED A NOVEL TYPE OF PROTEIN FIBRIL FORMING A SUB-NANO CHANNEL
Yizhaq Engelberg, Meytal Landau
Technion – Israel Institute of Technology, Haifa, Israel
- P-8 STRUCTURAL BASIS FOR LINEZOLID BINDING SITE REARRANGEMENT IN THE STAPHYLOCOCCUS AUREUS RIBOSOME
Zohar Eyal¹, Matthew J. Belousoff², Mazdak Radjainia³, Tofayel Ahmed⁴, Rebecca S. Bamert², Donna Matzov¹, Anat Bashan¹, Ella Zimmerman¹, Satabdi Mishra⁴, David Cameron², Hans Elmlund³, Anton Y. Peleg^{2,5}, Shashi Bhushan⁴, Trevor Lithgow², Ada Yonath¹
¹*Weizmann Institute of Science, Rehovot, Israel*
²*Monash University, Clayton, Australia*
³*Monash University, Melbourne, Australia*
⁴*Nanyang Technological University, Singapore, Singapore*
⁵*Alfred Hospital, Prahran, Australia*
- P-9 LABEL-FREE REFRACTOMETRY AND PATHOGEN DETECTION BY BACK FOCAL PLANE IMAGING
Boris Ferdman, Lucien Weiss, Onit Alalouf, Yonathan Haimovich, Yoav Shechtman
Technion – Israel Institute of Technology, Haifa, Israel
- P-10 REVEALING THE SPATIAL ORGANIZATION OF SOFT MATTER SYSTEMS BY CRYO-ELECTRON-TOMOGRAPHY
Inbar Freilich, Mingming Zhang, Dganit Danino
Technion – Israel Institute of Technology, Haifa, Israel
- P-11 RESOLVING ESCRT-III SPIRALS AT THE INTERCELLULAR BRIDGE OF DIVIDING CELLS USING 3D STORM
Inna Goliand¹, Shai Adar¹, Inbar Segal¹, Dikla Nachmias¹, Tali Dadosh², Michael M. Kozlov³, Natalie Elia¹
¹*Ben-Gurion University of the Negev, Beer-Sheva, Israel*
²*Weizmann Institute of Science, Rehovot, Israel*
³*Tel Aviv University, Tel Aviv, Israel*
- P-12 LOOKING THROUGH THE 'WINDOWS' OF THE BRAIN VASCULATURE: MECHANISMS UNDERLYING THE PERMEABILITY OF FENESTRATED ENDOTHELIA IN THE ZEBRAFISH NEUROHYPOPHYSIS
Ludmila (Lusi) Gordon¹, Savani Anbalagan¹, Janna Blechman¹, Eyal Shimoni¹, Dvir Gur¹, Bela Anand-Apte², Gil Levkowitz¹
¹*Weizmann Institute of Science, Rehovot, Israel*
²*Cole Eye Institute, Cleveland Clinic Foundation, Cleveland, OH, USA*

- P-13 DEVELOPMENT OF SMART DRUG DELIVERY SYSTEMS FOR TREATING FABRY DISEASE
Ellina Kesselman¹, **Inbal Ionita**¹, Ming Ming Zhang¹, Irina Portnaya¹, Raouf Nsier¹, Solène Passemard², Elisabet Gonzalez², Judit Tomsen², Ramon González², José Luis Corchero², Edgar Cristobal², Daniel Pulido², Miriam Royo², Nora Ventosa², Dganit Danino¹
¹*Technion – Israel Institute of Technology, Haifa, Israel*
²*CSIC-CIBER-BBN, Barcelona, Spain*
- P-14 *IN SITU* IMAGING OF MINERAL FORMATION BY CALCIFYING MICROALGAE
Yuval Kadan¹, Julia Mahamid², Assaf Gal¹
¹*Weizmann Institute of Science, Rehovot, Israel*
²*European Molecular Biology Laboratory, Heidelberg, Germany*
- P-15 THE ROLE OF POLYSACCHARIDE SPECIFICITY IN A TWO-STEP CRYSTALLIZATION PROCESS
Leilah Krounbi, Assaf Gal
Weizmann Institute of Science, Rehovot, Israel
- P-16 INTRACELLULAR SILICON-POOL IN THE MODEL DIATOM *THALASSIOSIRA PSEUDONANA*
Santosh Kumar, Katya Rechav, Ifat Kaplan-Ashiri, Assaf Gal
Weizmann Institute of Science, Rehovot, Israel
- P-17 CONTRAST IN LOW-VOLTAGE SEM AND CRYO-SEM
Lucy Liberman, Olga Kleinerman, Irina Davidovich, Yeshayahu Talmon
Technion-Israel Institute of Technology, Haifa, Israel
- P-18 EXAMINING THE CRYSTAL BOUNDARY OF HEMOZOIN BY DIFFRACTION CONTRAST IN CSTET
Debakshi Mullick¹, Michael Elbaum¹, Ron Dzikowski², Neta Regev-Rudzki¹, Leslie Leiserowitz¹
¹*Weizmann Institute of Science, Rehovot, Israel*
²*The Hebrew University of Jerusalem, Jerusalem, Israel*
- P-19 REGULATION OF BIDIRECTIONAL MOTILITY OF Kinesin-5 Cin8 BY Loop8, REVEALED BY SINGLE MOLECULE MOTILITY ASSAY AND LIVE CELL IMAGING
Himanshu Pandey, Sudhir K Singh, Alina Goldstein, Noa Yeshaya, Leah Gheber
Ben-Gurion University of the Negev, Beer-Sheva, Israel

- P-20 ADVANCED FEG SEM-EDS ANALYSIS USING AN ANNULAR FOUR-CHANNEL SILICON DRIFT DETECTOR
Max Patzschke¹, Tanja Mohr-Westheide², Tobias Salge³
¹*Bruker Nano, Berlin, Germany*
²*Museum für Naturkunde Berlin, Berlin, Germany*
³*Natural History Museum, London, UK*
- P-21 UNRAVELING THE ULTRASTRUCTURE OF THE FUSOGENIC SYNAPSE WITH CLEM
Nadav Scher, Suman Khan, Kamalesh Kumari, Ori Avinoam
Weizmann Institute of Science, Rehovot, Israel
- P-22 SINGLE-MOLECULE SYSTEMS TO DECODE EPIGENETIC INTERACTIONS
Shema Efrat
Weizmann Institute of Science, Rehovot, Israel
- P-23 UNRAVELLING THE FINE STRUCTURE OF THE NEWLY IDENTIFIED TUFT THYMIC EPITHELIAL CELLS USING CORRELATIVE LIGHT-ELECTRON MICROSCOPY
Carmel Sochen, Eyal Shimoni, Tali Dadosh, Shir Nevo, Jakub Abramson
Weizmann Institute of Science, Rehovot, Israel
- P-24 DISTINGUISHING DNA AND PROTEIN IN BACTERIOPHAGE BY CRYO-SCANNING TRANSMISSION ELECTRON TOMOGRAPHY
Maria Verbova, Michael Elbaum
Weizmann Institute of Science, Rehovot, Israel
- P-25 CHARACTERIZATION OF THE INTERACTIONS BETWEEN BAR DOMAIN PROTEINS AND MODEL LIPID MEMBRANES
Kalanit Vishnia¹, Ran Zalk², Gabriel A Frank², Dganit Danino¹
¹*Technion – Israel Institute of Technology, Haifa, Israel*
²*Ben-Gurion University of the Negev, Beer-Sheva, Israel*
- P-26 POLARIZATION-MODULATED LOCK-IN IMAGING OF NON-SPHERICAL GOLD NANOPARTICLE DYNAMICS IN LIVE AND APOPTOTIC CELLS
Omer Wagner, Moty Schultz, Eitan Edri, Rinat Meir, Eran Barnoy, Amihai Meiri¹, Hagay Shpaisman³, Eli Sloutskin², Zeev Zalevsky¹
¹*Bar-Ilan University, Ramat-Gan, Israel*
²*Bar-Ilan University, Ramat-Gan, Israel*
³*Bar-Ilan University, Ramat-Gan, Israel*
- P-27 3D IMAGING FLOW CYTOMETRY BY POINT-SPREAD-FUNCTION ENGINEERING
Lucien Weiss, Sarah Goldberg, Yael Shalev-Ezra, Yoav Shechtman
Technion – Israel Institute of Technology, Haifa, Israel

- P-28 MULTI-SEASONAL VS INTRA-SEASONAL STRUCTURAL CHANGES IN GRAPEVINE: A COMPLEX STRESS RESPONSE
Shunamit Wolberg^{1,2}, Sarel Munitz¹, Tovit Rosenzweig², Yishai Netzer¹, Ilana Shtein¹
¹*Eastern R&D Center, Ariel, Israel*
²*Ariel University, Ariel, Israel*
- P-29 TESCANA CRYO FIB-SEM AS A FLEXIBLE TOOL FOR ADVANCED SAMPLE ANALYSIS
Samuel Zachej¹, Kristyna Rosikova², Rostislav Vana¹, Jakub Javurek², Tomas Novacek¹, Jana Havrankova²
¹*TESCAN, Brno, Czech Republic*
²*TESCAN ORSAY HOLDING, Brno, Czech Republic*
- P-30 A PUTATIVE INHIBITORY DIVALENT CATION BINDING SITE ON TYPE 1 RYANODINE RECEPTOR
Baisali Bhattacharya¹, Raz Zarivach, **Ran Zalk**
Ben-Gurion University of the Negev, Beer-Sheva, Israel

Materials Science

- P-31 THREE-DIMENSIONAL AND SPATIALLY-CONTROLLED GROWTH OF METAL OXIDES IN BLOCK COPOLYMER TEMPLATES
Rotem Azoulay, Neta Shomrat, Tamar Segal-Peretz
Technion – Israel Institute of Technology, Haifa, Israel
- P-32 KANGAROO-TYPE Ni-Cr₂O₃ NANOPARTICLES OBTAINED BY SOLID STATE DEWETTING OF Ni-Cr MULTILAYERS
Hagit Barda, Leonid Klinger, Eugen Rabkin
Technion – Israel Institute of Technology, Haifa, Israel
- P-33 CHARACTERIZATION OF SHORT RANGE ORDER (SRO) IN BEAM SENSITIVE AMORPHOUS LOW-k MATERIALS USING ELECTRON SCATTERING
Adham Basha, Amit Kohn, George Levi
Tel Aviv University, Tel Aviv, Israel
- P-34 THE INFLUENCE OF THE PROCESSING STRATEGY ON THE DYNAMIC RESPONSE OF SLM-AISi10Mg ALLOY
Amir Ben, Shmuel Samuha, Oren Sadot
Ben-Gurion University of the Negev, Beer-Sheva, Israel

- P-35 NEW METHOD FOR HEAVY MINERAL ASSEMBLAGE ANALYSIS IN THE GEOLOGICAL SURVEY OF ISRAEL USING SCANNING ELECTRON MICROSCOPE - ENERGY DISPERSIVE SPECTROSCOPY PHASE MAPPING
Raanan Bodzin¹, Navot Morag¹, Yoav Ben-Dor²
¹*Geological Survey of Israel, Jerusalem, Israel*
²*The Hebrew University of Jerusalem, Jerusalem, Israel*
- P-36 EFFECTS OF HEAT TREATMENT ON MECHANICAL PROPERTIES AND MICROSTRUCTURE OF A NEW LOW CARBON STEEL 'FERRIUM C64'
Dvir Fadel^{1,3}, Gilad Mordechai Guttmann², Valodia Ezersky³, Roni Shneck³, Shmuel Samuha²
¹*IAEC, Tel Aviv, Israel*
²*NRCN, Beer-Sheva, Israel*
³*Ben-Gurion University of the Negev, Beer-Sheva, Israel*
- P-37 COMPOSITIONAL ANALYSIS OF ULTRA-THIN, ELECTRON-BEAM SENSITIVE FILMS USED IN SEMICONDUCTOR DEVICES BY ENERGY DISPERSIVE X-RAY SPECTROSCOPY IN SCANNING TRANSMISSION ELECTRON MICROSCOPY
Daniel Fishman¹, Amit Kohn², Adham Basha²
¹*Intel, Qiryat-Gat, Israel*
²*Tel Aviv University, Tel Aviv, Israel*
- P-38 POLYTYPIISM IN Cd CHALCOGENIDES THIN FILMS
Ofir Friedman, Vladimir Ezersky, Yuval Golan
Ben-Gurion University of the Negev, Beer-Sheva, Israel
- P-39 LIGHT INDUCED NOISE AS EFFECTIVE TEMPERATURE
Galor Geva, Tamir Admon, Guri Achi-dror, Asaf Cohen, Yael Roichman
Tel Aviv University, Tel Aviv, Israel
- P-40 IN-SITU TEM OBSERVATIONS OF SILICON CARBIDE FORMATION AND CHARACTERIZATION OF THE SILICON-CARBON INTERFACE
Priyadarshini Ghosh, Rachel Marder, Hadas Sternlicht, Wayne D. Kaplan
Technion – Israel Institute of Technology, Haifa, Israel
- P-41 DEWETTING OF THIN POLYMER FILMS IN NON-SOLVENT - SOLVENT ENVIRONMENT
Ziv Golany, Inbal Weisbord, Neta Shomrat, Tamar Segal Peretz
Technion – Israel Institute of Technology, Haifa, Israel
- P-42 PHASE-INVERTED POLYMERIC MEMBRANES MODIFICATION THROUGH ATOMIC LAYER DEPOSITION
Tamar Itzhak, Tamar Segal-Peretz
Technion – Israel Institute of Technology, Haifa, Israel

- P-43 THE EXOSKELETON OF SCORPIONS PINCERS: STRUCTURE AND MICRO-MECHANICAL PROPERTIES
Israel Kellersztein¹, Sidney Cohen¹, Benny Bar-On², H. Daniel Wagner¹
¹Weizmann Institute of Science, Rehovot, Israel
²Ben Gurion University of the Negev, Beer Sheba, Israel
- P-44 A COMBINED ELECTRON MICROSCOPY AND LASER FLASH ANALYSIS STUDY OF THE EFFECTS OF HEAT TREATMENTS ON THE PHYSICAL PROPERTIES OF A NiTi-20Hf SHAPE MEMORY ALLOY
Michal Keret-Klainer², Roy Padan¹, Yuri Khoptiar¹, Yaron Amouyal²
¹Rafael, Haifa, Israel
²Technion – Israel Institute of Technology, Haifa, Israel
- P-45 DIRECT IMAGING OF NANOSTRUCTURE DEVELOPMENT IN BICONTINUOUS INTERFACIALLY JAMMED EMULSION
Olga Kleinerman^{1,2}, Steven Bryant¹, Milana Trifkovic¹, Tamar Peretz-Segal²
¹University of Calgary, Calgary, Alberta, Canada
²Technion – Israel Institute of Technology, Haifa, Israel
- P-46 Pt-RICH PtNi HEXAPOD FROM Ni-RICH PtNi OCTAHEDRA FOR OXYGEN REDUCTION REACTION
Melina Zysler¹, **Tal Klingbell**¹, Charles D. Amos², Paulo J. Ferreira^{2,3,4}, David Zitoun¹
¹Bar-Ilan University, Ramat-Gan, Israel
²International Iberian Nanotechnology Laboratory (INL), Braga, Portugal
³The University of Texas at Austin, Austin, Texas, USA
⁴Instituto Superior Técnico, University of Lisbon, Lisbon, Portugal
- P-47 ELECTRON BEAM INDUCED CURRENT AS A TOOL TO INVESTIGATE WORKING MECHANISMS IN HALIDE PEROVSKITE SOLAR CELLS
Michael Kulbak¹, Nir Kedem¹, Byung-wook Park², Gary Hodes¹, David Cahen¹, Sang Il Seok²
¹Weizmann Institute of Science, Rehovot, Israel
²UNIST, Ulsan, South Korea
- P-48 BRINGING SYNCHROTRON BEAMLINE X-RAY MICROANALYSIS (μ XRF, XAS AND NANO-XRM) TECHNIQUES TO THE LABORATORY
S.H. Lau, Ben Stripe, Jeff Gelb, Srivatsan Seshadri, David Want, Xiaolin Yang, Ruimin Qiao, Sylvia Lewis, Wenbing Yun
SIGRAY INC, Concord, California, USA

- P-49 ATOMIC LAYER DEPOSITION OF ULTRATHIN CRYSTALLINE FILMS OF MoS₂ and V₂O₅
Sreedhara M B¹, C. N. R. Rao²
¹Weizmann Institute of Science, Rehovot, Israel
²Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India
- P-50 COLLOIDAL ICOSAHEDRA AND OTHER POLYHEDRA: FROM SYNTHESIS TO CROSS-SECTIONAL ELECTRON MICROSCOPY IMAGING
Orlando Marin, David Zitoun, Moshe Deutsch, Eli Sloutskin
Bar-Ilan University, Ramat-Gan, Israel
- P-51 THE EFFECT OF CARBON NANOTUBES DOPE CONCENTRATION ON THE WET-SPUN FIBER MACROSCOPIC PROPERTIES
Asia Matatyaho¹, Lucy Liberman¹, Oliver Dewey², Lauren Taylor², Matteo Pasquali², Yeshayahu Talmon¹
¹Technion – Israel Institute of Technology, Haifa, Israel
²Rice University, Houston, Texas, USA
- P-52 SUB-SURFACE OBJECT CHARACTERIZATION USING BACKSCATTERED ELECTRONS
Ismail Nassar, Wayne Kaplan
Technion – Israel Institute of Technology, Haifa, Israel
- P-53 MICROSTRUCTURAL CHARACTERIZATION OF NOVEL AlCrFeNiNb_{0.3} HIGH ENTROPY ALLOY
Lior Natovitz¹, Abraham Munitz², Itzhak Edry², Louisa Meshi¹
¹Ben-Gurion University of the Negev, Beer-Sheva, Israel
²Nuclear Research Center, Beer Sheva, Israel
- P-54 DEVELOPMENTS IN MULTIPLE ION SPECIES PLASMA FIB TECHNOLOGY
Daniel Phifer
Thermo Fisher Scientific, Eindhoven, Noord Brabant, Netherlands
- P-55 ANISOTROPIC INTERMIXING IN Au-Fe BIMETALLIC NANOWHISKERS
Yuanshen Qi¹, Gunther Richter², Leonid Klinger¹, Eugen Rabkin¹
¹Technion – Israel Institute of Technology, Haifa, Israel
²Max Planck Institute for Intelligent Systems, Stuttgart, Baden-Württemberg, Germany
- P-56 CHARACTERIZATION OF DEFORMED NANOCRYSTALLINE OXIDE CERAMICS
Barak Ratzker, Louisa Meshi, Avital Wagner, Sergey Kalabukhov, Nachum Frage
Ben-Gurion University of the Negev, Beer-Sheva, Israel

- P-57 CONTROLLING THE THREE-DIMENSIONAL STRUCTURE OF METAL OXIDE ULTRAFILTRATION MEMBRANES THROUGH BLOCK COPOLYMER SELF-ASSEMBLY
Assaf Simon, Inbal Weisbord, Neta Shomrat, Noam Lerner, Tamar Segal-Peretz
Technion – Israel Institute of Technology, Haifa, Israel
- P-58 CHARACTERIZATION OF NANOSIZED PARTICLES IN 14%Cr OXIDE DISPERSION STRENGTHENED (ODS) STEEL USING CLASSICAL AND FRONTIER MICROSCOPY METHODS
Yael Templeman¹, Sergey Rogozhkin^{2,3}, Artem Khomich², Aleksander Nikitin^{2,3}, Malki Pinkas⁴, Louisa Meshi¹
¹*Ben Gurion University of the Negev, Beer-Sheva, Israel*
²*Kurchatov Institute, Moscow, Russia*
³*MEPhI, Moscow, Russia*
⁴*Nuclear Research Center-Negev, Beer Sheva, Israel*
- P-59 WATER PURIFICATION AND CNT HYBRIDS THROUGH SELF-ASSEMBLY OF PERYLENE DIIMIDES
Haim Weissman
Weizmann Institute of Science, Rehovot, Israel
- P-60 TRACING THE MATURATION OF BIOGENIC OPAL TO OPAL-CT AND MICROQUARTZ CHERT IN MARINE SEDIMENTS WITH SEM AND SEM/EDS
Anastasia Yanchilina, Anastasia Yanchilina, Ruth Yam, Aldo Shemesh
Weizmann Institute of Science, Rehovot, Israel
- P-61 CHARACTERIZATION OF STRUCTURES CRYSTALLIZING IN THE Cu_{2-x}S SAMPLES GROWN BY CHEMICAL VAPOR DEPOSITION
Gili Yaniv¹, Eti Teblum², Gilbert Daniel Nessim², Louisa Meshi¹
¹*Ben-Gurion University of the Negev, Beer-Sheva, Israel*
²*Bar-Ilan University, Ramat-Gan, Israel*
- P-62 OCTAHEDRAL PtCu NANOCRYSTALS FOR OXYGEN REDUCTION REACTION: ON THE STRUCTURE-PERFORMANCE-DURABILITY RELATIONSHIP BY ELECTRON MICROSCOPY
Melina Zysler¹, Shlomi Polani¹, Charles D. Amos², Paulo J. Ferreira^{2,3,4}, David Zitoun¹
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MICROGRAPHS COMPETITION

Micrographs M-1 – M-19 will be displayed on the poster boards, following the last poster.

To vote, please insert your voting slip into the "Micrographs Voting" box until 14:15, the end of the lunch break.

- M-1 WATERFALL OF LOVE
Ludmila (Lusi) Gordon
Weizmann Institute of Science, Rehovot, Israel
- M-2 RIPPLE EFFECT
Ludmila (Lusi) Gordon
Weizmann Institute of Science, Rehovot, Israel
- M-3 GRUMPY FROG
Ludmila (Lusi) Gordon
Weizmann Institute of Science, Rehovot, Israel
- M-4 AN INNER LIFE: HORMONE-SECRETORY CELL
Ludmila (Lusi) Gordon
Weizmann Institute of Science, Rehovot, Israel
- M-5 LEADING THE WAY
Ludmila (Lusi) Gordon
Weizmann Institute of Science, Rehovot, Israel
- M-6 PAINTING WITH MICROGRAPHS, CONTEMPORARY ART
Inbal Ionita
Technion – Israel Institute of Technology, Haifa, Israel
- M-7 **UNDERGROUND GARDEN**
Israel Kellersztein, H. Daniel Wagner
Weizmann Institute of Science, Rehovot, Israel
- M-8 RAPUNZEL
Olga Kleinerman
Technion - Israel Institute of Technology, Haifa, Israel
- M-9 **WHERE DO I KNOW YOU FROM?**
Natali Litvak
Ariel University, Ariel, Israel, Israel
- M-10 FACETED COLLOIDAL ICOSAHEDRA
Orlando Marin
Bar-Ilan University, Ramat Gan, Israel

- M-11 FACETED COLLOIDAL RASPBERRY
Orlando Marin
Bar-Ilan University, Ramat Gan, Israel
- M-12 UNDER THE SEA
Lior Natovitz
Ben-Gurion University of the Negev, Beer-Sheva, Israel
- M-13 THE SCRIPT OF STEEL
Yuanshen Qi
Technion – Israel Institute of Technology, Haifa, Israel
- M-14 GOTCHA!!!
Ilana Shtein¹, Maya Bar²
¹*Eastern Region Research and Development Center, Ariel, Israel*
²*The Volcani Center, Rishon LeZion, Israel*
- M-15 YIN AND YANG
Assaf Simon
Technion – Israel Institute of Technology, Haifa, Israel
- M-16 STAR OF DAVID
Kangpeng Wang, Michael Shentcis, Rafael Dahan, Ido Kaminer
Technion – Israel Institute of Technology, Haifa, Israel
- M-17 CORALS
Inbal Weisbord
Technion - Israel Institute of Technology, Haifa, Israel
- M-18 **TWO LITTLE MONKEYS, OR ARUNDO DONAX VASCULAR BUNDLES**
Shunamit Wolberg, Paz Baruchim
Eastern R&D Center, Ariel, Israel
- M-19 **A SMALL STEP FOR PLANTS, A GIANT LEAP FOR BERESHEET**
Einat Zelinger, Yulia Pollak, Daniel Waiger
The Hebrew University, Rehovot, Israel