

POSTER SESSION

- P-01 Electrochemical reduction of CO₂ in ionic liquids using catalytic graphene-metalloporphyrin systems,**
A. Nissim^[1], E. Korin^[2], I. Zilbermann^[1], A. Bettelheim^[2]
[1] Nuclear Center NEGEV, POB 9003 Beer Sheva, Israel
[2] Department of Chemical Engineering, Ben – Gurion University of the Negev, Beer – Sheva, Israel
- P-02 A One-Pot Anodic Thiocyanation of Alkenes**
A. Levi, J.Y. Becker
Department of Chemistry, Ben-Gurion University of the Negev, Beer Sheva 841050
- P-03 Structure-property relationship in integrated cathode materials for lithium rechargeable batteries**
C. Ghanty^a, S.B. Majumder^b, B. Markovsky^a, D. Aurbach^a
^a*Department of Chemistry, Bar-Ilan University, Ramat Gan, Israel-52900*
^b*Materials Science Centre, IIT Kharagpur, India-721302*
- P-04 The role of surface chemistry in carbon electrodes for Li-Oxygen systems**
D. Sharon, D. Hirshberg*, M. Efri, A. Frimer and D. Aurbach,
Department of Chemistry Bar Ilan university, Ramat Gan 52900
- P-05 Imaging of Ink-Jet Printed Multi-Enzyme Micro-Arrays on Glass by Scanning Electrochemical Microscopy**
E. Gdor, S. Shemesh, S. Magdassi and D. Mandler
Department of Chemistry, The Hebrew University of Jerusalem, Jerusalem, Israel, 91904
- P-06 Electrodeposition of graphene oxide on electrodes and their application in electrochemical energy devices**
H. Avraham^{1,2}, E. Korin², A. Bettelheim²
¹*Nuclear Research Center NEGEV, POB 9003 Beer-Sheva, 058-6419044*
²*Ben Gurion University – NEGEV, Chemical Engineering Department*
- P-07 Ru-Co-Se Novel Pt-free Catalysts for Oxygen Reduction in Fuel Cells and Metal Air Batteries**
H. Teller, S. Rosenfeld, and A. Schechter, *Department of Biological Chemistry, Ariel University Ariel, 40700, Israel*
- P-08 Advanced Multiphase Silicon-Based Anodes for High-Energy-Density Li-Ion and Li-air Batteries**

K. Goldshtein¹, K. Freedman¹, Dan Schneier¹, D. Golodnitsky^{1,2}, and E. Peled¹

*1 – School of Chemistry; 2 - Wolfson Applied Materials Research Center,
Tel Aviv University, Tel Aviv, 69978*

P-09 Ohmic to Overlimiting Ion-Current Rectification Inversion in Funnel-Shaped Nanochannels

L. Rosentsvit and G. Yossifon, *Faculty of Mechanical Engineering, Micro- and Nano-Fluidics Laboratory, Technion – Israel Institute of Technology, Technion City 3200000, Israel*

P-10 Electrochemical Reduction of Indium Tin Oxide (ITO): Prevent and Use

L. Liu^{1,2}, S. Yellinek¹, I. Valdinger¹, D. Mandler^{1,*}

¹Institute of Chemistry, The Hebrew University of Jerusalem, Jerusalem 91904, Israel

²School of Materials Science and Engineering, Nanyang Technological University, Singapore 639798, Singapore

P-11 $\text{Ni}_x\text{Co}_y\text{O}_z$ Catalst for ORR and OER for Sodium Air Battery

E. Faktorovich Simon¹, M. Goor, R. Hadar, Diana Golodnitsky, Emanuel Peled, *School of Chemistry, Tel Aviv University*

Tel Aviv University, Orenshtein building 206

P-12 Electrodeposition of an Asymmetric Film Using Langmuir and Langmuir-Blodgett Techniques

M. Hitrik, D. Mandler and O. Lev, *Institute of Chemistry, the Hebrew University of Jerusalem, Jerusalem 91904, Israel*

**P-13 Solid State Oxidation of Copper Nanoparticles.
A Plasmonic Perspective.**

M.D. Susman, A. Vaskevich, I. Rubinstein, *Department of Materials and Interfaces, Weizmann Institute of Science. 234 Herzl St., Rehovot 76100, Israel*

P-14 *Ab initio* study of cathode materials for lithium ion batteries

M. Dixit, H. Engel, M. Kosa and D.T. Major, *Department of Chemistry and the Lise Meitner-Minerva Center of Computational Quantum Chemistry, Bar-Ilan University, Ramat-Gan, Israel*

P-15 Solar Absorptive Coating for High Temperature Receivers of Modern Solar Power Systems and Stirling Engines

N. Sezin, D. Starosvetrsky and Y. Ein-Eli, *Department of Materials Science & Engineering, Technion-Israel Institute of Technology, Corrosion and Applied Electrochemistry laboratory*

P-16 Electrochemical Deposition of Self-Assembled Monolayers and Hydroxyapatite on Orthopedic and Dental Implants Made of Titanium and

its Alloys

N. Metoki¹, N. Eliaz^{1*}, and D. Mandler^{2*}

¹Department of Materials Science and Engineering, Tel-Aviv University, Israel.

²Institute of Chemistry, The Hebrew University of Jerusalem, Jerusalem 91904, Israel.

P-17 Monitoring Low Concentrations of Hg(II) in Water Using Gold Nanoparticles

N. Ratner and D. Mandler, Institute of Chemistry, The Hebrew University of Jerusalem, 91904 Jerusalem, Israel

P-18 Ionic interaction in citrate electrolyte for deposition of Re-Ni alloys and the mechanism of deposition process

O. Berkh^a, A. Khatchatourians^b, N. Eliaz^c and E. Gileadi^d

^a Department of Physical Electronics, Faculty of Engineering

^b The Center for Nanoscience and Nanotechnology

^c Department of Materials Science and Engineering, Faculty of Engineering

^d School of Chemistry, Faculty of Exact Sciences

Tel Aviv University, Ramat Aviv 6997801, Israel

P-19 TiH₂ BM as a Substrate Material for Platinum Nano-Catalyst in PEM Fuel Cells

Y. Moshe, O. Krichevski, A. Schechter, Department of Biological Chemistry, Ariel University Ariel, 40700, Israel

P-20 Nitrogen doped vertically aligned carbon nanotube carpets: An effective oxygen reduction catalyst in alkaline medium

A. Cohen¹, P. Subramanian¹, A. Schechter^{*1}, D. Nessim², E. Teblum²

1. Department of Biological Chemistry, Ariel University, Ariel-40700, Israel

2. The Department of Chemistry and Institute of Nanotechnology, Bar-Ilan University, Ramat Gan-52900, Israel

P-21 Electroless Local Deposition of Anisotropic Metal Nanoparticles Using Scanning Electrochemical Microscopy (SECM)

R. Fedorov, D. Mandler, Institute of Chemistry, The Hebrew University of Jerusalem, Jerusalem 91904, Israel

P-22 Novel 3D Electrochemical Touch-Sensor for Cell and Tissue Diagnostics

Heftsi Ragon¹, David Schreiber¹, Alexandra Inberg¹, Olga Berkh¹, Amihay Freeman², Yosi Shacham-Diamand¹

¹ Department of Physical Electronics, Tel-Aviv University,

² Department of Molecular Microbiology and Biotechnology, Tel-Aviv University

P-23 Anodic Oxidation of N-Acylazacycloalkanes in Methanol

T. Golub and J.Y. Becker, Department of Chemistry, Ben-Gurion University of the Negev, Beer Sheva,

8410501, Israel

P-24 Study of spin-orbit coupling and its impact on magnetism in olivine-type $\text{LiCo}_{1-x}\text{Fe}_x\text{PO}_4$ cathode materials: Insight from first principles

V. Singh, M. Kosa, Y. Gershinsky, D. Zitoun, D.T. Major*

Department of Chemistry and the Lise Meitner-Minerva Center of Computational Quantum Chemistry and the Institute for Nanotechnology and Advanced Materials, Bar-Ilan University, Ramat-Gan 52900, Israel

P-25 Electrical and Electrochemical Microsensors using Molecularly Imprinted Polymers (MIP)

Tehila Shahar, Daniel Mandler, *Institute of Chemistry, The Hebrew University of Jerusalem, Jerusalem 91904, Israel*

P-26 Electrochemical Determination of Low Levels of Uranyl by a Vibrating Gold Microelectrode

Yael Peled^{1,2}, Haim Tobias² and Daniel Mandler¹

¹The Institute of Chemistry, the Hebrew University of Jerusalem, Jerusalem 91904, Israel

²Chemistry Department, Nuclear Research Centre-Negev, Beer Sheva 84190, Israel