



ISRAEL- ITALY SCIENTIFIC WORKSHOP IN

NANO-MATERIALS & NANO TECHNOLOGIES

IN CLEAN-TECH APPLICATIONS

THURSDAY, MARCH 15TH, 2018

CROWNE PLAZA TEL AVIV HOTEL
145 HAYARKON STREET, TEL-AVIV

09:00 – 09:30 Gathering and Registration

09:30 – 10:00 Opening and Greetings

Mr. Perez Vazan, Director General, Ministry of Science and
Technology

H.E. Gianluigi Benedetti, Ambassador of Italy in Israel

Ms. Ilana Lowi, Director, Division of International Relations,
Israel's Ministry of Science and Technology

Prof. Stefano Boccaletti, Scientific Attaché, Embassy of Italy
in Israel

First Session:

Water treatment technologies based on Nano-materials

- 10:00 – 10:25** **"Recent progresses in the use of nanomaterials to reclaim contaminated aquifers and in membrane-based water treatment"**
Prof. Alberto Tiraferri, Department of Environment, Land and Infrastructure Engineering (DIATI), Politecnico di Torino, Italy
- 10:25 – 10:50** **"Efficient Removal of Pharmaceuticlas from Treated Wastewater by Tailored Polycation-Clay Sorbents "**
Prof. Yael Mishael, Department of Soil and Water Sciences, The Robert H. Smith Faculty Agri. Food and Environment , the Hebrew University of Jerusalem, Israel
- 10:50 – 11:15** **"Nanomaterials in polymeric composites for water treatment technology"**
Prof. Giuliana Impellizzeri, National Research Council (CNR) – Institute for Microelectronics and Microsystems (IMM), Italy
- 11:15 – 11:30** Break
- 11:30 – 11:55** **"Laser-Induced Graphene on porous membranes for Wastewater Treatment"**
Dr. Christopher J. Arnusch, Department of Desalination and Water Treatment, Zuckerberg Institute for Water Research, The Jacob Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev, Sede-Boqer Campus, Israel

Second session:

Air pollutants treatment technologies based on Nano-materials

- 11:55 – 12:20 "A new approach for photocatalytic building materials: larger TiO₂ doped with ultrafine metal nanoparticles for indoor air purification"**
Prof. Claudia L. Bianchi, Dept. of Chemistry, University di Milano, Italy
- 12:20 – 12:45 "Air Purification and Disinfection using Bismuth Based Visible Light Activated Photocatalysts"**
Prof. Yoel Sasson, Institute of Chemistry, the Hebrew University of Jerusalem, Israel
- 12:45– 13:45 Official Lunches**

Third session:

Environmental monitoring technologies based on Nano-materials

- 13:45 – 14:10 "Metal oxides nanowires: technologies for chemical sensors preparation"**
Prof Elisabetta Comini, Department of Information Engineering, University of Brescia, Italy
- 14:10 – 14:35 "Monitoring water contamination and volatile organic compounds (VOCs) using colorimetric polymers"**
Prof. Raz Jelinek, Ilse Katz Institute for Nanotechnology, Ben Gurion University, Israel
- 14:35 – 15:00 "Smart Analytical Bio-Nano-Systems for Environmental Monitoring Applications"**
Dr. Hadar Ben-Yoav, Department of Biomedical Engineering, Ben-Gurion University of the Negev, Israel

Fourth session:

Solar cells technologies based on Nano-materials

15:00 – 15:25 "Graphene and other bidimensional nanomaterials for perovskite photovoltaics"

Prof. Aldo Di Carlo, CHOSE – Centre for Hybrid and Organic Solar Energy, University of Rome Tor Vergata, Italy

15:25 – 15:40 Break

15:40 – 16:05 "The evolution of perovskite based solar cells"

Prof. Lioz Etgar, The Hebrew University of Jerusalem, The Institute of Chemistry, Casali Center for Applied Chemistry, Jerusalem, Israel

Fifth session:

Fuel cells technologies based on Nano-materials

16:05 – 16:30 "Advanced High-Performing Nanostructured Materials for Polymer Electrolyte Membrane Fuel Cells"

Prof. Vito Di Noto, Section of Chemistry for Technologies, Department of Industrial Engineering, University of Padova, Interdepartmental Centre Giorgio Levi Cases for Energy Economics and Technology, Italy

16:30 – 16:55 "Corrosion-Resistant Ceramic Catalyst-Support for Polymer Electrolyte Membrane Fuel Cells"

Dr. Lior Elbaz, Israeli Fuel Cells Consortium, Bar-Ilan Institute for Nanotechnology and Advanced Materials, Department of Chemistry, Bar-Ilan University, Israel