

Energy Storage

Renewable Energy Harvesting

Novel Materials

Sunday, Nov. 1, 2015

14:00-20:00 Registration at the RYAD MOGADOR MENARA Hotel.

Monday, Nov. 2, 2015

08:00-09:00 Registration

09:00-09:30 Opening ceremony - Room MAZAGAN

09:30-10:30 Coffee Break / Poster session

Chair : Dr. Abdelilah Slaoui

10:30-11:15 Keynote : Prof. Khalil Amine
[Advanced next generation chemistry for high energy lithium ion batteries](#)

11:15-12:00 Keynote : Prof. Thomas Greber
[Novel Materials: Lets go 2D](#)

12:00-14:00 LUNCH

Room MAZAGAN

Room BAHIA

Chairs: Prof. Khalil Amine and Prof. Zempachi Ogumi

Chair: Dr. Fausto Sirotti

14:00-14:24 Invited: Prof. Emilio Bunel
[Energy Storage Initiative at Argonne National Laboratory](#)

Invited: Prof. Michael Altman
[Defects and Polymorphism in Graphene on Metals](#)

14:24-14:48 Invited: Prof. Shirley Meng
[Strategies to Enable High Voltage Cathode Materials in Lithium Ion Batteries for Electric Vehicles](#)

Invited: Dr. Alistair Rowe
[Geometric and chemical origin of giant piezoresistance in Silicon nanowires](#)

14:48-15:12 Invited: Prof. Falko Schappacher
[Aging and Safety of 18650-type Lithium-Ion Batteries](#)

Invited: Prof. Nasr-eddine Hamdadou
[Preparation and characterization of cooper iron chalcogenides thin films](#)

15:12-15:24 Prof. Shinichi Komaba
[New Binders to Realize Highly Reversible Lithiation for Rechargeable Battery](#)

Prof. Bouguerra Bouzabata
[Structural and hyperfine study of the Fe₂O₃/Mg nanocomposite](#)

15:24-15:36	Dr. Mouad Dahbi Hard-carbon made from argan shells for sodium-ion batteries	Khadija El Maalam Materials and nanomaterials for magnetic refrigeration application
15:36-15:48	Virginie Jorda New insights in the determination of a specific area related to oxygen reduction on porous electrodes built from nanomaterials.	Invited: Prof. Mohammed Benaissa DFT versus VEELS applied to buried optoelectronic nanostructures
15:48-16:00	Dr. Said Yagoubi Lithium distribution in Ta-doped Li7La3Zr2O12 garnet-related type structure: Neutron powder diffraction and nuclear reaction analysis	
16:00-16:36	Coffee break / Poster session	
	Chairs: Prof. Emilio Bunel and Prof. Tetsuya Osaka	Chair Prof. Jun Onoe
16:36-17:00	Invited: Prof. Feng Pan Optimized solid-liquid interface enabling ultra-high charging and discharging rate for advanced lithium-ion batteries	Invited: Dr. Fausto Sirotti Time resolved experiments in surface science
17:00-17:24	Invited: Prof. James Greenberger The Twenty-First Century Battery Revolution	Invited: Prof. Abdou Lachgar Visible Light Active Semiconductor Composites for Enhanced Photocatalytic Activity
17:24-17:36	Yotaro Shirao. Carbon composite Li2MoO3 as positive electrode materials for Li-ion batteries	Dr. Camelia Florica Electrical properties of n-type and p-type single semiconductor nanowires
17:36-17:48	Ghizlan El Hallani The effect of sol aging time on structural and optical properties of sol gel ZnO doped Al thin films	Prof. Urszula Narkiewicz New Solid Sorbents for CO2 Capture

Tuesday, Nov. 3, 2015

Room MAZAGAN

	Chair: Prof. Mohammed Benaissa
08:30-09:15	Keynote: Dr. Daniel Lincot Renewable energies at the heart of the energy transition, state of the art and perspectives with a focus on photovoltaics
09:15-10:00	Keynote: Dr. Ari Seitsonen On recent progress in density functional theory and (other) ab initio electronic structure methods in simulations in condensed phase
10:00-10:36	Coffee Break / Poster session

Chair: Dr. Daniel Lincot	
10:36-11:00	Invited: Dr. Abdelilah Slaoui Silicon Nanostructures for Photovoltaics
11:00-11:24	Invited: Dr. Guido Fratesi Theoretical core-level spectroscopy from adsorbed organic molecules
11:24-11:36	Dr. Andrew Mayne Electronic Interactions between Metal-Phthalocyanines and Graphene
11:36-11:48	Anass Bakour A study of the steady and time transient photoluminescence of the P3HT/MWNT nanocomposites
11:48-12:00	Omar Bajjou Electron transfer and photoluminescence quenching investigation of Reduced graphene oxide- Meso-tetrakis(4-phenylsulfonica-acid)porphyrin composite
12:00-14:00	LUNCH
	Room MAZAGAN
	Chairs: Prof. Feng Pan
	Room BAHIA
	Chair: Prof. Mike Altman
14:00-14:24	Invited: Prof. Zempachi Ogumi Performances of Li/CuCl₂ Batteries Employing Methyl Difluoroacetate Electrolytes
14:24-14:48	Invited: Prof. Tetsuya Osaka Trend on LIB Using New Electrode Materials
14:48-15:12	Invited: Prof. Teofilo Rojo Advanced cathode materials for low cost Na-ion batteries.
15:12-15:24	Yoshiyuki Tahara P2-type Na₂/3MnO₂ polymorphs as positive electrode materials for Na ion batteries
15:24-15:36	Andreea Costas Transport properties of templateless electrodeposited ZnO nanowires on metallic interdigitated electrodes
15:36-15:48	ANAS SIBARI Phosphorene as promising anode materials for different rechargeable batteries: a first-principles study
15:48-16:00	Ghassane Tiouitchi Density Functional study of hydrogen storage properties in thin-layers MgH₂
16:00-16:36	Invited: Prof. Andras Kis 2D dichalcogenide electronic materials and devices
	Invited: Prof. Mikael Syväjärvi New approaches of cubic silicon carbide for solar driven energy applications
	Invited: Dr. Haik Jamgotchian Strain-relaxation of silicene deposited on Ag(111)
	Dr. Mohamed Rachid Tchalala Physicochemical study of nano-hybrid materials based on Ionic liquids and amorphous porous silicon
	Mourad Boutahir Vibrational properties of noncovalently oligothiophene-functionalized graphene material
	Dr. Noemi Severino Guidelines for optimization of the performances of CIGS thin film solar cells
16:00-16:36	Coffee break / Poster session

	Chair: Prof. Shirley Meng	Chair: Prof. Andras Kis
16:36-17:00	Invited: Dr. Abdelfattah Mahmoud Rechargeable Li/Na-ion batteries studied by in-situ Mössbauer techniques	Invited: Prof. Wlodzimierz Strupinski 2D materials growth, exfoliation and application
17:00-17:12	Alexandru Evanghelidis Electroless deposition of ZnO nanostructures on natural and synthetic fibers	Prof. Jun ONOE One-dimensional metallic peanut-shaped C60 polymer: an interdisciplinary between modern geometry and materials science
17:12-17:24	Jehad EL Demellawi Silicon Nanoparticles as Catalysts for Dehydrogenation of Secondary Alcohols	

Wednesday, Nov. 4, 2015	
Room MAZAGAN	
Chair: Dr. Ari Seitsonen	
08:12-08:36	Invited: Prof. Dario Narducci Thermoelectric Generation: Inventing Materials to Unleash Technology
08:36-09:00	Invited: Prof. Sahraoui Chaieb New Tricks from an Old Material: Few Applications of Nanosilicon in Energy Harvesting
09:00-09:24	Invited: Dr. Mohamed Balli Magnetocaloric refrigeration technology: from materials to functional devices
09:24-09:36	Dr. George Raseev Plasmon resonances in flat thin metallic films
09:36-09:48	Brahim Abraime First-principles study of electronic, electrical and optical properties of HoMn2O5
09:48-10:00	Prof. Ramzi Maalej High efficient antireflective and down conversion in ZnO: Nd,Yb nanocones thin films for enhance c-Si solar cells efficiency
10:00-10:36	Coffee Break / Poster session
	Chair: Dr. Abdelilah Slaoui
10:36-11:00	Invited: Prof. Laurene Tetard Structural and chemical nanoscale investigation of lignocellulosic biomass composition
11:00-11:12	Ghizlane Hatel Graphene coated with nanostructured Fe3O4 : Structural and optical properties
11:12-11:24	Ghizlane Hatel Graphene coated with nanostructured Fe3O4 : Structural and optical properties

11:24-11:36	Prof. Hidehiro Yasuda Silicides formation in Pt/SiOx bilayer film by electronic-orbital-selective photo-excitation
11:36-11:48	Mourad Boujnah Theoretical calculation of Optical and electrical properties of V doped ZnO used in Solar cells Applications
12:00-14:00	LUNCH
	Free afternoon
18 :00 23:00	BANQUET

Thursday, Nov. 5, 2015	
Room MAZAGAN	
Chair: Prof. Thomas Greber	
08:36-09:00	Invited: Prof. Mohamed Eddaoudi Metal-Organic Frameworks from Design Strategies to Applications
09:00-09:12	Dr. Mohamed Zbiri Structure and Dynamics of a Model Discotic Organic Conducting Material
09:12-09:24	Yassine Moubarik First-principles study of the electronic structure and the magnetic stability of HoMn2O5
09:24-09:36	Keltoum Khallouk Enhancement of irreversibility line and correlation between Tc, psh and unit cell volume in argon preheated Y1-xLnxBaCu3O6+z systems

09:36-09:48	Lamiae Jadoual Bombardment-induced light emission from clean and oxygenated Ti, Cr and Ni targets
10:00-10:36	Coffee Break and Poster session
	Chair: Dr. Ari Seitsonen
10:36-11:00	Invited: Prof. Talat Rahman Tailoring properties of single layer MoS₂: looking beyond graphene
11:00-11:12	Prof. Bouhafis Benamar Performance Analysis of Doped- Porous Silicon Nanostructure Based Surface Plasmon Resonance Bio-sensing System
11:12-11:24	Dr. Huanyao Cun 2 nm voids formation in 2D membranes of boron nitride and graphene: Nanotents and “can-opener” effect
11:48-12:00	Mohamed Khuili First principle study of structural, electronic, optical and electrical properties of Ga doped ZnO with GGA and mBJ approximations
12:00-14:00	LUNCH
	Chair: Prof. Thomas Greber
14:00-14:24	Invited: Dr. Didier Dentel Growth and characterization of Germanene on Al(111)
14:24-14:36	Caspar Walhout Germanene: The germanium analogue of graphene
14:36-15:00	Invited: Prof. Boutheïna Kerkeni Adsorption and reactivity of h atoms towards the catalytic H₂ formation and dissociation on magnesium silicate nanoclusters
15:00-15:12	Dr. Larbi Filali Effect of hydrogenation of amorphous silicon surfaces on protein adsorption
15:12-15:24	Prof. Noureddine Merakeb Synthesizing of stainless steel nanofilms by thermal evaporation
15:36-15:48	Dr. Yamina Brahmi Post-deposition Hydrogen treatment effect on surface roughness and hydrophobicity of amorphous silicon films
15:48-16:00	Dr. Houria Rezala Selective oxidation of alkylaromatics over photoirradiated fe/ti-pillared clays
16:00-16:36	Coffee break / Poster session

Friday, Nov. 6, 2015	
	Chair: Dr. A. Seitsonen
08:36	<p>students</p> <p>Workshop on computational methods for students</p>
12:00	
12:00-14:00	LUNCH
14:00	
18:00	

VISIT TO DOWNTOWN MARRAKECH (on your own)

Poster Contributions

Dr. Bruno PREVIDELLO	Oscillatory alcohol oxidation on bulk and nanostructured Pt and Pt alloys
Dr. Anastasia VYALIKH	Investigation of ionic mobility in NASICON-type solid electrolytes
Dr. Mouad DAHBI	Phosphorus-based negative electrodes with polyacrylate binder for high-capacity sodium-ion batteries.
Dr. Hiroki NARA	Electrodeposited Si-O-C Composite Anode with High Durability for Coming Lithium Secondary Batteries
Dr. Marcin PALEWICZ	Optoelectrical properties of inverted organic solar cells based on air-stable polyazomethine and P3HT with ZnO electron transporting buffer layer doped by aluminum
Dr. Ismahane KEBBACHE	Martensitic transformation in copper based Cu-Al shape memory alloy elaborated by high frequency induction process.
Dr. Djoudi LAKHDAR	Ab initio study of structural, electronic and optical properties of (GaN) _n /(AlN) _n superlattices
Dr. Merabet MOSTEFA	Elastic and electronic properties calculations of the filled skutterudite CeOs ₄ P ₁₂
Dr. Sahari ALI	Nucleation and growth of copper onto polypyrrole: Electrochemical and Morphological Study
Dr. Abd_essalam BADOUD	Design and Implementation process of a bond graph controller for a of two-axis Solar Tracking System
Dr. Fatima-zohra BENTAYEB	STUDY OF HYDROGEN STORAGE IN PURE Fe AND Ti
Dr. Farid MERAHI	A New Control Algorithm for an Optimal Power Point Operation (Application to the Wind Turbine)
Dr. Saida MOUSSAOUI	EFFECT OF TEMPERATURE ON THE CORROSION BEHAVIOUR OF Zn AND Zn-0.8Al ALLOY IN 3% NaCl
Dr. Salah_eddine BENALIA	Computational investigation of phase stability, electronic structure and magnetic properties of the new hypothetical half-metallic ferromagnetic full Heusler alloys CoNiMnSi.
Dr. Nasreddine DERRADJI	First principles study of structural, electronic properties of Silicene nanoribbons Cl- terminated
Dr. Abedghars MOHAMMED_TAYEB	Characterization of red iron pigment and scale to synthesize an anticorrosive paint.
Dr. Bellarbi SAMIR	Fuzzy Robust Control of DFIG with parameter uncertainties
Dr. Belhamri SOUMIA	Concentration influence on structural properties of SnO ₂ thin films synthesized by the spin coating technique.
Dr. Hamaidi BRAHIM	Minimization of industrial systems monitoring defects in the hot rolling mill LAC (Arcelor Mittal)
Dr. Hamdaoui RAOUF	Design and Construction of a solar tracking system for optimizing the energy efficiency of a photovoltaic panel.
Dr. Mohamed_abdellatif BENSEGUENI	Syntheses and topology of two magnesium–tetrazole compounds in salt and polymeric forms

Dr. Ammar HADDAD	Ionosorption of oxygen on layers of ZnO and CdSe
Dr. Benlatreche MOHAMED_SALAH	An Experimental Investigation The Formation of The Titanium Silicides in Metal/Silicon Structures by SEM and SIMS characterization techniques
Dr. Habib RACHED	Theoretical investigation for the new quaternary heusler alloys suitable for the spintronic application
Prof. Jun ONOE	Structural and electronic properties of Prussian blue nanoparticles used as an adsorbent for disposal of high-level radioactive nuclear liquid wastes
Prof. Urszula NARKIEWICZ	Removal of anionic dye Acid Red 88 from water using ZnO doped MnO nanoparticles prepared by hydrothermal method
Prof. Azzedine AYADI	Elaboration and characterization of a new insulating material and absorbing electromagnetic waves from waste glass and used tires
Prof. Houa HAMMACHE-MAKHLOUFI	Influence of growth parameters on texture of NiO thin films by using electrochemical deposition
Prof. Laid MAKHLOUFI	Green synthesis of silver nanoparticles using rosmarinus officinalis plant extract: application to hydrazine detection
Prof. Boucerredj NOUREDDINE	Comparative study of energy of particles ejected from coulomb explosion of rare gas and metallic clusters irradiated by intense femtosecond laser field
Prof. Saidi YASSMINA	Effect of temperature on (iv) satatics characteristics of GaAs mesfet
Prof. Ali HADDOUCHE	Analysis of the Influence of Insulation Monitoring Device Parameters on Insulation Electrical Network
Prof. Soumia GHANEMI	Disordered phase of 1,3-dibromo-5-chloro-2,4,6-trimethyl-benzene at 293 K
Khaled ZIANE	Environmental effects on fatigue strength of composite materials of wind turbine blades
Wafa BOUKHEMIS	Synthesis, structural characterization and hydrogen bonds of the new hybrid compound based on adenine Hydronium diadeninium sulfate hydrate, $2C_5H_{10}N_5^+ \cdot H_3O^+ \cdot SO_4^{2-} \cdot H_2O$
Merzougui MOUFIDA	New unsymmetrical tetradentate N_2O_2 oxovanadium(iv) complex - electrochemical investigation-
Abdelhadi SOFIANE	Systematic theoretical study of $Zn_{1-x}Mg_xSe$
Houria MEKKAOUI	Synthesis of new macromonomer by renewable catalyst (exchanged Montmorillonite)
Dali NACER	Removal of a textile dye by pillared clay
Abdelhadi ELHACHMI	Synthesis, crystal structure and temperature induced phase transition in new material $Sr_{2.75}Ca_{0.25}Fe_2TeO_9$ perovskite double.
Zineb Karrami	The hydrogen ab/desorption kinetic properties of doped magnesium hydride systems by first principles calculations and kinetic Monte Carlo simulation
Mesbah ELYAAGOUBI	Preparation and Characterization of Bi_2Te_3 Thin Films Deposited on ITO Substrates by Using Electrochemical Deposition
Sanae JANATI_EDRISSI	Form effects on the Diamagnetic Susceptibility of a magneto-donor in GaAs/Ga _{1-x} Al _x As homogenius Quantum Dot
Abdellah BENZAOUAK	$Li_{1-x}Ta_{1-x}W_xO_3$ as new catalyst in Microbial Fuel Cells for wastewater treatment

Zari NADIA	Simulation Tool for Predicting the Cyclic Dynamic behaviors of Air-Rock bed Storage System Used in Air-based CSP Plants
Abdelhay TOUARES	Thermal effect on structural and magnetic properties of FeBSi amorphous alloy ribbons
Ilhem ZEGHIB	Efficiency of Low Temperature Radiators for Solar Heating
Fayçal OUMELAZ	Ab-initio calculation of structural, electronic and optical properties of AIPxSb1-xternary alloys in the zincblende structure under hydrostatic pressure
Azizi ASSIA	Structural evolution during isothermally and anisothermally aged in 8090 alloy
Nahman BOUKHEIT	Dynamic Model of Heat and Mass Transfer in Rectangular Adsorber of a Solar adsorption Machine
Slaoui Abdelilah	Synthesis of Thin Silicon Film on Aluminium Substrates for Photovoltaic Applications