

# IW2M 2017

1<sup>st</sup> INTERNATIONAL WORKSHOP ON  
MULTIFUNCTIONAL MATERIALS

October 10<sup>th</sup>– 12<sup>th</sup> 2017

Mostaganem (Algeria)

[sites.google.com/view/iw2m-2017](https://sites.google.com/view/iw2m-2017)

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## HONORARY COMMITTEE

Pr. Hafid AOURAG (Tlemcen, Algeria)  
Pr. Mustapha BELHAKEM (Mostaganem, Algeria)  
Pr. Mohamed DJENNAD (Mostaganem, Algeria)

## INTERNATIONAL SCIENTIFIC COMMITTEE

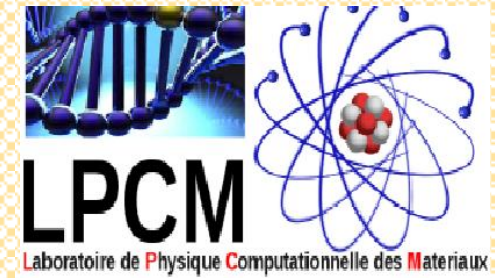
Pr. Abdelkader BOUKORTT (Mostaganem, Algeria)  
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Pr. Victor Kuncser (Bucharest, Romania)  
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Pr. Filippo De Angelis (Perugia, Italy)  
Dr. Ahmed BOURAHLA (Mostaganem, Algeria)  
Pr. Ahmet Yavuz ORAL (Gebze, Turkey)

## ORGANIZING COMMITTEE

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Ali ZAOUÏ (Co-Chairman)  
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Aïcha BAHNES  
Abbes LABDELLI  
Mustafa MERAH  
Said MESKINE  
Djamel AIMOUCHE  
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Hamza ABBASSA  
Mansour BENYAMINA  
Houaria BAHLOULI  
Youcef BENAÏSSA CHERIF  
Mostefa DJERMOUNI  
Boualem MERABET  
Abbes HALLOUCHE  
Mohamed AZZOUZ  
Ameur DAHANI  
Ahmed BOUASRIA  
Hamza BENACER

# SPONSORSHIP



## SCIENTIFIC PROGRAMME

### ORAL SESSION I

TUESDAY, OCTOBER 10<sup>th</sup>

|   |  |  |
|---|--|--|
| 08:00   | Registration<br><i>Reception</i>                           |  |
| 08:30   | Opening Ceremony   |  |
| 09:00   | Plenary. I : Data mining<br>Pr. H. AOURAG (DGRST, Algeria) |  |
| 10:00   | Coffee Break<br>Poster session. I                          |  |
| Topics: Data mining, Semiconductor materials.<br>Chair: Pr. R. HAYN |  |  |
| 10:30   | (O-34) : SETTOUTI Nadéra (Tlemcen, Algeria)                | Structural and mechanical properties of alkali hydrides investigated by the first-principles calculations and data mining techniques   |
| 10:45   | (O-07) : BOUABÇA Asmaa (Bel-Abbes, Algeria)                | The Half metallic completely compensated Ferrimagnets in Cr doped BaP  |
| 11:00   | (O-08) : BENSADOK Raouia (Algiers, Algeria)                | Effect of tilt octahedral on electronic properties of CsSnI <sub>3</sub> nanocrystal   |
| 11:15   | (O-11) : DAHMANI Mohammed (Saida, Algeria)                 | Towards a deeper understanding of physical and chemical properties of Ag <sub>2</sub> HgI <sub>4</sub> and Cu <sub>2</sub> HgI <sub>4</sub> defective crystals, from first principles calculations |
| 11:30   | (O-14) : FEROUANI Abdel Karim (Tlemcen, Algeria)           | Atom and molecule approach, another look at the local dynamical properties of the CdTe polymorph   |
| 11:45   | (O-04) : BEKKI Belmorsli (Saida, Algeria)                  | Ab-initio study of the structural, electronic, elastic and optical properties of the CuZn <sub>2</sub> AlS <sub>4</sub> and CuMg <sub>2</sub> AlS <sub>4</sub> compounds                           |
| 12:00   | Free Lunch time  |  |

## SCIENTIFIC PROGRAMME

TUESDAY, OCTOBER 10<sup>th</sup>

|  |   |   |
|--|---|---|
| Topics : Semiconductor materials, Superconductors materials, compounds and alloys. |   |   |
| Chair: Pr. Yaovi GAGOU   |   |   |
| 14:00  | (O-16) : HALLOUCHE Abbas (Bel-Abbes, Algeria) | Magnetic ordering in RPtBi topological insulators from DFT+U calculations   |
| 14:15  | (O-28) : MEZIANE Souheyr (Tlemcen, Algeria)   | Investigation of transport properties of MX <sub>2</sub> (X = S, Se, Te) dichalcogenides: A promising materials for thermoelectric applications |
| 14:30  | (O-17) : HAMRI Aida (Bel-Abbes, Algeria)      | Effect of the vacuum sites on the electronic structure of the perovskite SrHfO <sub>3</sub> : ab-initio study                                   |
| 14:45  | (O-01) : AYACHE Hayat (Tizi – Ouzou, Algeria) | DFT study of chelating agent capable to coordinate with metal ions like zinc and cadmium  |
| 15:00  | (O-24) : LAKOUI Fouaz (Algiers, Algeria)      | Annealing temperature effect on structural, optical, electrical and mechanical properties of ZnO-Ag thin films                                  |
| 15:15  | (O-30) : RABAHI Lyacine (Algiers, Algeria)    | Magnetic Properties of NbFe <sub>2</sub> Laves phase in presence of punctual defects: A DFT study   |
| 15:30  | (O-29) : OUAHRANI Tarik (Tlemcen, Algeria)    | 3C-SiC understrains: a non covalent interactions analysis   |
| 15:45  | (O-27) : MERABET Boualem (Bel-Abbes, Algeria) | (All inorganic/Organo)-Lead halide perovskites Challenges vs Opportunities  |
| 16:00  | Coffee Break<br>Poster session. I             |   |
| 16:30  | Workshop                                      |   |

## SCIENTIFIC PROGRAMME

### ORAL SESSION 2

WEDNESDAY, OCTOBER 11<sup>th</sup>

|  |  |   |
|--|--|---|
| 08:00  | Registration<br><i>Reception</i>   |   |
| 08:00  | Plenary. 2 : <b>Competing structures in III-VI layered semiconductors: first-principals simulations</b><br>Pr. A. POSTNIKOV (Lorraine, France)                   |   |
| 09:00  | Plenary. 3 : <b>TIG Torch Surfacing of Nano-particulate Hybrid Composite Layer – Development and characterization</b><br>Pr. Md ABDUL MALEQUE (Malaya, Malaysia) |   |
| 10:00  | Coffee Break<br>Poster session. 2  |   |
| Topic :Optoelectronics, Semiconductor materials, Magnetism and magnetic materials<br>Chair: Pr. A. KADRI |  |   |
| 10:30  | (O-06) : BENNACER Hamza (M'sila, Algeria)  | Ab-initio investigation of optoelectronic properties of CuXTe <sub>2</sub> (X=Al, Ga, In)-based solar cells application |
| 10:45  | (O-35) : TERKHI Sabria (Mostaganem, Algeria)   | Structural parameters and their effects on Laser wavelengths emitted by quasiperiodicInAs / Inx Ga1-xAs superlattices   |
| 11:00  | (O-23) : LEKHAL Abdelkader (Bel-Abbes, Algeria)  | Optoelectronic properties of intermetallic YAuz (Z= Ge, Si, Pb and Sn) and topological quantum phenomena in cubic phase |
| 11:15  | (O-03) : BAHNES Aicha (Mostaganem, Algeria)  | Electronic, structure, elastic and magnetic properties of new quaternary Heusler Alloys FeMnScAl                        |
| 11:30  | (O-36) : ZIANE Mohamed Issam (Bel-Abbes, Algeria)  | Optical properties of quaternary chalcogenides materials: FP-LAPW study   |
| 11:45  | (O-09) : CHERAIR Imene (Algiers, Algeria)  | Magnetic and electronic properties of (001) surface of BaFeO <sub>3</sub> perovskite oxide by first principles          |
| 12:00  | Free Lunch time  |   |



## SCIENTIFIC PROGRAMME

WEDNESDAY, OCTOBER 11th

| Topics: Materials for energy conversion, Magnetism and magnetic materials, Materials for biology and medical physics.<br>Chair: Pr. Md ABDUL MALEQUE |   |  |
|--|---|--|
| 14:00  | (O-13) : DJOUMI Sihem (Oran, Algeria)             | Hydrogen diffusion and light induced degradation in silicon base semi-conductors   |
| 14:15  | (O-20) : KHELIFATI Nabil (Algiers, Algeria)       | Contribution to the elaboration and the characterization of bifacial p-PERT solar cells  |
| 14:30  | (O-21) : KHELIFI Seyfallah (Adrar, Algeria)       | Simulation Analysis of Intermediate Band ZnTeO Based Thin Film Solar Cell  |
| 14:45  | (O-10) : DAHANI Ameer (Bel-Abbes, Algeria)        | Ab initio prediction of structural, electronic, magnetic, thermodynamic and elastic properties of the Pt4N allotropes                      |
| 15:00  | (O-02) : ATMANI Djamila (Algiers, Algeria)        | Modification de la surface de Ti6A4V par oxydation anodique pour application biomédical  |
| 15:15  | (O-05) : BENAROUS Samiha (Blida, Algeria)         | Elaboration and Characterization of Colloidal Gold Nanoparticles   |
| 15:30  | (O-26) : LARBI DAHO BACHIR Nadjat (Oran, Algeria) | The Radiative efficiency study of the dielectric barrier discharges in rare gas for VUV-UV excilamp performance to bio-medical application |
| 15:45  | (O-33) : SAOULA Nadia (Algiers, Algeria)          | TiOxNy coatings deposited by Radio frequency magnetron sputtering technique  |
| 16:00  | Coffee Break<br>Poster session. 2                 |  |
| 16:30  | Workshop  |  |



## SCIENTIFIC PROGRAMME

ORAL SESSION 3

THURSDAY, OCTOBER 12<sup>th</sup>

|   |   |   |
|---|---|---|
| 08:00   | Registration<br><i>Reception</i>  |   |
| 08:00   | Plenary. 3 : The next generation of photovoltaic solar cells based on new perovskite and ferroelectric combination of materials<br>Pr. A. KADRI (Oran, Algeria) |   |
| 09:00   | Plenary. 4 : Electrocaloric effect in lead-free perovskite based on BCT compound, for cooling devices<br>Dr. Yaovi GAGOU  |   |
| 10:00   | Coffee Break<br>Poster session. 3   |   |
| Topics :Ferroelectric and piezoelectric materials, Multiferroic materials, Hybrides organic and inorganic materials, Semiconductor materials<br>Chair: Pr. A. POSTNIKOV |   |   |
| 10:30   | (0-12) : DJERMOUNI Mostefa (Bel-Abbes, Algeria)   | Possible multiferroicity in intrinsic ferromagnetic semiconductors                                      |
| 10:45   | (0-25) : LAIDOUZI Farouk (Setif, Algeria)   | Characterization of acoustic waves in piezoelectric ZnO thin films for microfluidic applications        |
| 11:00   | (0-19) : ILES Nadia (Oran, Algeria)   | Probing multiferroicity in BaTiO <sub>3</sub> /BaFeO <sub>3</sub> superlattices : An ab initio study    |
| 11:15   | (0-22) : LAFANE Slimane (Algiers, Algeria)  | Substrate effect on the metal-insulator phase transition in VO <sub>2</sub> thin films deposited by PLD |
| 11:30   | Free Lunch time   |   |
| 13:30   | Workshop  |   |
| 15:30   | Closing Ceremony  |   |

POSTER SESSION I

TUESDAY, OCTOBER 10<sup>th</sup>

|       |                     |  |          |
|-------|---------------------|--|----------|
| P-001 | SAIDI Fatiha        | Structural and mechanical properties of Laves phases $YM_2$ (M: Mn, Fe, Co): First principles calculation analyzed with Data mining approach                               | Tlemcen  |
| P-002 | BEDIA Fatima Zohra  | Al-doped ZnO Transparent Conductive Oxide Thin Films for a-Si:H/ $\mu$ c-Si:H solar cell applications  | Tlemcen  |
| P-003 | AMEUR Nawal         | Green route to produce adipic acid on supported gold nanoparticles   | Tlemcen  |
| P-004 | LAIDOUDI Farouk     | Characterization of acoustic waves in piezoelectric ZnO thin films for microfluidic applications   | Sétif    |
| P-005 | SARI Aouatef        | Structural, electronic and optical properties of the complex $K_2PtCl_6$ -structure hydrides, $A_2IrH_6$ (A = Ca, Sr): first principles study                              | Tlemcen  |
| P-006 | BOULBAZINE Mouhssin | Electronic and magnetic properties of small NiCu (n= 2–9) nanoparticles: A DFT study   | Guelma   |
| P-007 | KARFAF Saliha       | $Ba_xSr_{1-x}LiH_3$ a perovskite-type hydride as advanced hydrogen storage systems: electronic vibrational and thermodynamic features                                      | Guelma   |
| P-008 | CHERIET Mouna       | A DFT study of inclusion complexes of the antituberculosis drugs pyrazinamide and isoniazid with cucurbituril  | Guelma   |
| P-009 | BORDJIBA Zeyneb     | First principles study of structural, electronic and magnetic properties of $Zn_{0.75}TM_{0.25}Te$ (TM = Fe, Co and Ni) diluted magnetic semiconductor system.             | Guelma   |
| P-010 | KARFAF Saliha       | Investigation of structural, mechanical, electronic, optical, and dynamical properties of cubic perovskite alkaline tantalite $K_{x-1}Na_xTaO_3$ (x=0, 0.25, 0.5, 0.75, 1) | Guelma   |
| P-011 | RABEHI Abdelaziz    | Splitting Global Solar Radiation into Diffuse and Direct Normal Fractions Using Artificial Neural Networks   | Ghardaïa |
| P-012 | BENSADOK Raouia     | Effect of tilt octahedral on electronic properties of $CsSnI_3$ nanocrystal  | Alger    |
| P-013 | KHEDIDJI Mohamed    | First-principles study of hyper-ferroelectric $LiVO_3$   | Alger    |
| P-014 | BOUROUINA Assia     | DFT/TD-DFT Studies of Technetium and Rhenium-Tricarbonyl as radiopharmaceutical compounds  | Alger    |
| P-015 | REKHIS Mâammar      | A theoretical study of a series of organic sensitizers for dye sensitized solar cells  | Alger    |
| P-016 | MECHRI Hanane       | Etude des propriétés structurale et magnétique de l'alliage $Cu_xFe_{1-x}$ nanostructuré obtenu par une méthode hors équilibre   | Alger    |
| P-017 | TABETI Abdelkader   | DFT investigation of physical properties of ternary semiconductors $AgBiX_2$ (X = S, Se) for thermoelectric application  | Mascara  |
| P-018 | DJIED Abdelhamid    | Structural phase transition and optoelectronic properties of the tetragonal $NaZnSb$ : ab initio study   | Mascara  |

|       |                               |  |           |
|-------|-------------------------------|--|-----------|
| P-019 | BATOUCHE Mohamed              | Electronic, magnetic and optical properties of spinel CdRe <sub>2</sub> S <sub>4</sub> (Re = Tm, Yb) compounds via DFT+U method  | Mascara   |
| P-020 | BENHALIMA Zoulikha            | Structural, electronic and thermoelectric properties of pure ternary Skutterudites CoGe <sub>1.5</sub> Se <sub>1.5</sub>   | Mascara   |
| P-021 | BEKHTI-SIADAmaria             | Electronic properties of Fe <sup>2+</sup> doped ZnO  | Mascara   |
| P-022 | BEDROUNI Mahmoud              | Electron Distribution of ZnO and ZnSe by mBJ-GGA Approximation associated to Experimental Analysis XPS and UPS   | Oran      |
| P-023 | KARA Ilham                    | Induced strain ferroelectricity in BaZrO <sub>3</sub> /BaTiO <sub>3</sub> superlattices  | Oran      |
| P-024 | HEIRECHE Mohamed Abdel Moumen | Effect of Antimony (Sb) Addition on Crystallization Kinetics and Thermal Stability of SeM (M=In, Zn) chalcogenide glasses  | Oran      |
| P-025 | GUENOUNA Tahar                | Structural, electronic and optical properties study of bulk In <sub>0.53</sub> Ga <sub>0.47</sub> As and In <sub>0.47</sub> Ga <sub>0.53</sub> As from Full-potential calculations                 | Oran      |
| P-026 | MALKI Radia                   | A study of physical properties, effective atomic number and electron density of HgSe, ZnSe and HgZnSe  | Oran      |
| P-027 | KADDAR Karima                 | Etude ab-initio des propriétés électroniques et magnétiques de l'alliage Heusler VTiCoAl   | Oran      |
| P-028 | KARA Ilham                    | Ferroelectric and piezoelectric materials  | Oran      |
| P-029 | BOUBCHIR Mohammed Abdeldjalil | Ab-initio investigation of structural, electronic, and optical properties of cubic hydride perovskites CaLiH <sub>3</sub> , SrLiH <sub>3</sub> , and BaLiH <sub>3</sub> .                          | Bel-Abbes |
| P-030 | BENAYAD Nawel                 | Interplay between multiferroism and spin state transition: DFT study   | Bel-Abbes |
| P-031 | BOUBLENZ A Djamel             | Electronic structure and magnetism in the intrinsic ferromagnetic semiconductor GdN  | Bel-Abbes |
| P-032 | HAMRI Karim                   | La structure électronique et les propriétés diélectriques du composé BaTiO <sub>3</sub> : Etude DFT  | Bel-Abbes |
| P-033 | BENHALIMA Chaima              | Etude ab-initio de l'effet de la distribution des cations dans les ferrites spinelles magnétiques à base de Cr   | Bel-Abbes |
| P-034 | BECHLAGHEM Sara               | Effect of the buffer layer on the performance of solar cells based on Cu (In, Ga)Se <sub>2</sub>   | Bel-Abbes |
| P-035 | DAHMANI Mohammed              | Towards a deeper understanding of physical and chemical properties of Ag <sub>2</sub> Hg <sub>14</sub> and Cu <sub>2</sub> Hg <sub>14</sub> defective crystals, from first principles calculations | Saida     |
| P-036 | SAADAOU Fatiha                | Structural, elastic, electronic, and thermodynamic properties of anti-perovskites AIIICNi <sub>3</sub> (AIII = Al, Ga, In) and AIIICNi <sub>3</sub> (AII = Zn, Cd)                                 | Saida     |

POSTER SESSION 2

WEDNESDAY, OCTOBER 11th

|       |                        |  |            |
|-------|------------------------|--|------------|
| P-037 | CHIBANI Said           | Structural, electronic, elastic and thermoelectric properties of Half-Heusler compounds HfIrX (X= As and Sb): An Ab initio study   | Saida      |
| P-038 | BELABBAS Mawloud       | Predicting structural, electronic and elastic properties of HfXPb (X: Ni, Pd) from computational study   | Saida      |
| P-039 | DJARA Razik            | Effect of Hydrochloric acid concentration on structural and conductivity of polyaniline  | Sétif      |
| P-040 | SOUADIA Zohra          | First-principle investigation of structural, dynamical and thermodynamic properties of Li <sub>2</sub> Te and Na <sub>2</sub> Te   | M'sila     |
| P-041 | BOUNEKTA Ouafa         | The intercalation of alcohol and acid molecules into kaolinite   | Sétif      |
| P-042 | SI ABDALLAH Fatma      | Structural, magnetic and elastic properties of LiO-Co <sub>0.5</sub> X <sub>0.5</sub> Pt [X=Fe,Ni,Cr,Cu, Mn]   | Sétif      |
| P-043 | MALLEM<br>OumKeltoum   | Amélioration des propriétés des nanocomposites (PP/Al <sub>2</sub> O <sub>3</sub> , PEBD/Al <sub>2</sub> O <sub>3</sub> ) : Etude comparative  | Sétif      |
| P-044 | HADJI Souad            | First-principle investigation of structural, electronic and optic properties of Cu <sub>2</sub> ZnSnS <sub>4</sub>   | Sétif      |
| P-045 | BELKHARROUBI<br>Fadila | Structural, magnetic, electronic and mechanical properties of full- Heusler alloys Co <sub>2</sub> YAl (Y= Cr, Mn): First principles calculations with different exchange-correlation potentials | Relizane   |
| P-046 | SAFER Malika           | Modeling and optimization of the composite plates laminated by genetic algorithm   | Relizane   |
| P-047 | DEHBI Lynda            | Simulation of optical properties in photonic structures by the pseudo-spectral temporal domain method (PSTD)   | TiziOuzou  |
| P-048 | HAMMAR Katia           | Magnetic moment of LiO FePt thin film with Fe vacancy defect   | TiziOuzou  |
| P-049 | MITICHE Ilyes          | Study of Thermal Conductivity of Nano fluids Using Molecular Dynamics Method   | TiziOuzou  |
| P-050 | AGGOUNE Ilhem          | Ab-initio study of the defined compounds in the Ba-Cd system   | Batna      |
| P-051 | SAID AMER Ahmed        | Linking ab initio-Calphad for the assessment of the aluminium-lutetium system  | Batna      |
| P-052 | BENNACEUR Houria       | Spectroscopic Properties of the Homoleptic Complexes Ln(AIme <sub>4</sub> ) <sub>3</sub> : TDDFT study   | Batna      |
| P-053 | BENMECHRI Achraf       | Thermodynamic assessment (suggestions) of the gold-rubidium system   | Batna      |
| P-054 | FODIL CHERIF Nawal     | Titanium based Layered Double Hydroxides as Inorganic Hybrid Materials : Preliminary Investigation for Photocatalytic Applications   | Tipaza     |
| P-055 | BOUDIA Keltouma        | Investigations of structural, elastic, electronic and thermodynamic properties of lutetium filled skutterudite LuFe <sub>4</sub> P <sub>12</sub> under pressure effect: FP-LMTO method           | Tissemsilt |
| P-056 | ZAMI Fatima            | A computational ab initio study of CdS and CdTe semiconductors and their ternary alloy Cd <sub>x</sub> S <sub>1-x</sub> Te   | Tissemsilt |
| P-057 | CHEDDADI Samir         | First-principles investigation of structural, electronic and optical properties of Ge-doped MgSiAs <sub>2</sub>  | Annaba     |
| P-058 | LABIDI Salima          | The effect of Zinc concentration upon structural, electronic and thermodynamic properties of Pb1-xZnxS   | Annaba     |

|       |                    |   |           |
|-------|--------------------|---|-----------|
| P-059 | MOUSSOUNI Rebiha   | Ab initio modeling of magnetic properties and spin polarization in transition metal compounds: nitrides and carbides  | Bejaia    |
| P-060 | BOUCHOUCHA Lydia   | Quantum key distribution, between single-photon and continuous-variable protocols   | Bejaia    |
| P-061 | ACHOUR Lyakout     | Structural and optical properties of binary material used in the design of a VCSEL  | Bejaia    |
| P-062 | OUAREZ Lydia       | Etude de l'effet du dopage Au sur les propriétés structurale, morphologique et optique des couches minces de ZnO préparées par sol-gel  |           |
| P-063 | BOUKHARI Ammar     | Thickness effect on structural, electrical, and optical properties of ZnO films deposited by sol-gel spin coating method  | M'sila    |
| P-065 | TOUMI Khalid       | Analytical modeling of field effect mobility of polysilicon thin film transistors under illumination  | Naâma     |
| P-066 | BOUAFIA Hamza      | Structural and optoelectronic behavior of CdSiP <sub>2</sub> -Chalcopyrite: Semilocal and Hybrid functional investigation   | Tiaret    |
| P-067 | SAHLI Belgacem     | FP-LAPW investigation of structural stability and optoelectronic properties of BiAlO <sub>3</sub> and KAlO <sub>3</sub>   | Tiaret    |
| P-068 | REKAB-DJABRI Hamza | Etude atomistique des propriétés optoélectroniques de CuI semi-conducteur   | Bouira    |
| P-069 | KHELFANE AMAR      | Structural and optical properties of CZTS compounds   | Bouira    |
| P-070 | GUECHI Nacir       | Elastic, electronic and optical properties of the AGa <sub>2</sub> P <sub>2</sub> (A= Ca, Sr) Zintl phases  | Médéa     |
| P-071 | TAGREROUT Abdallah | DFT calculations of structural stabilities, mechanical, electronic and optical properties for Cu <sub>2</sub> Zn <sub>1-x</sub> Cd <sub>x</sub> Sn(Se,S) <sub>4</sub> quaternary alloys | Ain defla |
| P-072 | HEDDAR Hamida      | Ferromagnetisme and superlattice based MnN and GaN compounds.   | Chlef     |
| P-073 | FODIL Meriem       | Structural and elastic properties of TiN and AlN compounds: First principles study  | Chlef     |

|       |                          |  |            |
|-------|--------------------------|--|------------|
| P-074 | ASNAM Amira              | The implementation of a new generation of biosorbents in the form of gelled and porous composite beads based on gelling constituents (CP cactus powder, Sodium Alginate SA)  | Blida      |
| P-075 | HASSEIN-BEY A. L. Sabeha | FEM simulation of metal–insulator transition in VO <sub>2</sub> /Au thin film  | Blida      |
| P-076 | MOSTEFAOUI Mohammed      | Simulation and optimization of new buffer layers for CIGS solar cells using SCAPS Software   | Adrar      |
| P-077 | ZIANE Abderrezzaq        | Modélisation et simulation numérique du Caractéristique photoélectrique d'un panneau PV avec validation expérimentale  | Adrar      |
| P-078 | BENRABAA Rafik           | Layered double hydroxide materials for Hydrogen production via dry reforming of methane  | Skikda     |
| P-079 | ZERFAOUI Hana            | Numerical simulation of pn junction solar cell based 3c-sic  | Tebessa    |
| P-080 | MENACEUR Moussa          | Effet de la pression sur les propriétés structurales, électroniques du CdO   | Tebessa    |
| P-H   | ENDAISHA El-abbas        | Computational investigations of spin-orbit coupling on electronic properties for specific heusler compounds  | Libya      |
| P-081 | DOUINAT Oukacha          | Transformation d'un déchet vert en charbon actif en vue de traitement des eaux usées   | Mostaganem |
| P-082 | DLALI Djamel             | Nonlinear optical effects in photonic crystal based on III-V semiconductors  | Mostaganem |
| P-083 | ZAOUI Fatima Zohra       | Analyse de la flexion des nano-poutres en matériaux composites (FGM)   | Mostaganem |
| P-084 | MOUSSA Nawel             | Etude spectroscopique (spectroscopie ft-ir) de l'influence du type de traitement sur la structure fonctionnelle du charbon actif issu de la transformation des algues brunes | Mostaganem |
| P-085 | CHENINE Djohar           | Structural, mechanical, magneto-electronic and thermodynamic properties of sodium based fluoro perovskites NaVF <sub>3</sub> for spintronic devices                          | Mostaganem |
| P-086 | ABBES Charef             | Ab-initio study of a new quaternary Heusler alloy CoNiTiAl   | Mostaganem |
| P-087 | BENABDELAZIZ Dalila      | Study of structural and electronic properties for Indium-V binary compounds used in solar cells application  | Mostaganem |
| P-088 | MERAD DIB Hanaa          | Propylene and propane adsorption onto nax zeolites: experimental and theoretical investigation   | Mostaganem |
| P-089 | HAID Slimane             | The effect of transition metal on optoelectronic properties of double perovskite materials   | Mostaganem |
| P-090 | CHERID Samira            | Electronic, structural and optical properties of full-heusler alloys Cs <sub>2</sub> CrGe  | Mostaganem |
| P-091 | SEFIR Yamina             | Etude du transport électronique dans les super réseaux quasiperiodiques de fibonacci de type GaAs/Al <sub>x</sub> Ga <sub>1-x</sub> As                                       | Mostaganem |

|       |                            |   |            |
|-------|----------------------------|---|------------|
| P-092 | TERKHI Sabria              | Structural parameters and their effects on Laser wavelengths emitted by quasi periodic InAs / In <sub>x</sub> Ga <sub>1-x</sub> As superlattices                  | Mostaganem |
| P-093 | NOURI Rachida              | Influence of temperature and pressure on the elastic and mechanical properties of ZnS semiconductor   | Mostaganem |
| P-094 | BOURAHLA<br>Nassima        | The Study of the short channel effect in n-MOSFET transistor  | Mostaganem |
| P-095 | LANTRI Messaouda           | Structural and electronic properties of Ga <sub>1-x</sub> Fe <sub>x</sub> N using LSDA approach   | Mostaganem |
| P-096 | LABDELLI Abbes             | The electronic, structural and magnetic properties of perovskite ruthenate CaRuO <sub>3</sub> : Good candidate for the fabrication of superconducting multilayers | Mostaganem |
| P-097 | REZAIGUIA<br>Mansouria     | GGA+U Study of Electronic and Magnetic Properties of Pr (Fe/Cr)O <sub>3</sub> Cubic Perovskites   | Mostaganem |
| P-098 | DJELTI Benbella            | Etude ab-initio de la double perovskite Ba <sub>2</sub> MnO <sub>5</sub> O <sub>6</sub>   | Mostaganem |
| P-099 | BENYAGOUR Amel             | Ab-initio study of fundamental properties of ternary Cd <sub>1-x</sub> Zn <sub>x</sub> O alloys.  | Mostaganem |
| P-100 | LABDELLI Abbes             | The spin effect and physical properties on the cubic and hexagonal perovskite manganese oxide BaMnO <sub>3</sub> using GGA+U calculation                          | Mostaganem |
| P-101 | HEDJAR Hakima              | First-principles study on electronic and optical properties of Er-doped ZnS   | Mostaganem |
| P-102 | BOUCHOUCHA<br>Lydia        | Optimization of the pumping power of an EDFA by a QPDSF configuration   | Bejaia     |
| P-103 | BENAISSA CHERIF<br>Youssef | Electronic structure and magnetic properties of BaDyO <sub>3</sub> : A first-principles calculations  | Chlef      |
| P-104 | METHOUGUI Nabila           | The structural and electronic properties of ruthenium oxide material ab-initio study  | Bel-Abbes  |



## WORKSHOP SESSION

|      |                     |           |
|------|---------------------|-----------|
| W-1  | BOULBAZINE Mouhssin | Guelma    |
| W-2  | CHERIET Mouna       | Guelma    |
| W-3  | BORDJIBA Zeyneb     | Guelma    |
| W-4  | KARFAF Saliha       | Guelma    |
| W-5  | RABEHI Abdelaziz    | Ghardaïa  |
| W-6  | BENSADOK Raouia     | Alger     |
| W-7  | KHEDIDJI Mohamed    | Alger     |
| W-8  | BOUROUINA Assia     | Alger     |
| W-19 | REKHIS Mâammar      | Alger     |
| W-10 | MECHRI Hanane       | Alger     |
| W-11 | BOUNEKTA Ouafa      | Sétif     |
| W-12 | SI ABDALLAH Fatma   | Sétif     |
| W-13 | MALLEM OumKeltoum   | Sétif     |
| W-14 | HADJI Souad         | Sétif     |
| W-15 | DEHBI Lynda         | TiziOuzou |
| W-16 | HAMMAR Katia        | TiziOuzou |
| W-17 | MITICHE Ilyes       | TiziOuzou |
| W-18 | AGGOUNE Ilhem       | Batna     |
| W-19 | SAID AMER Ahmed     | Batna     |
| W-20 | BENNACEUR Houria    | Batna     |

|      |                     |            |
|------|---------------------|------------|
| W-21 | BENMECHRI Achraf    | Batna      |
| W-22 | FODIL CHERIF Nawal  | Tipaza     |
| W-23 | BOUDIA Keltouma     | Tissemsilt |
| W-24 | ZAMI Fatima         | Tissemsilt |
| W-25 | CHEDDADI Samir      | Annaba     |
| W-26 | BOUCHOUCHA Lydia    | Bejaia     |
| W-27 | ACHOUR Lyakout      | Bejaia     |
| W-28 | OUAREZ Lydia        | Bejaia     |
| W-29 | BOUKHARI Ammar      | M'sila     |
| W-30 | BENNACER Hamza      | M'sila     |
| W-31 | TOUMI Khalid        | Naâma      |
| W-32 | REKAB-DJABRI Hamza  | Bouira     |
| W-33 | KHELFANE Amar       | Bouira     |
| W-34 | GUECHI Nacir        | Médéa      |
| W-35 | TAGREROUT Abdallah  | Ain defla  |
| W-36 | MOSTEFAOUI Mohammed | Adrar      |
| W-37 | ZIANE Abderrezzaq   | Adrar      |
| W-38 | BENRABAA Rafik      | Skikda     |
| W-39 | ZERFAOUI Hana       | Tebessa    |
| W-40 | MENACEUR Moussa     | Tebessa    |

## GENERAL INFORMATION

The 1<sup>st</sup> INTERNATIONAL WORKSHOP ON MULTIFUNCTIONAL MATERIALS will be held exclusively at the ALMASOUR PALACE HOTEL.

Sablette

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