



**5<sup>th</sup> International Conference on Smart Materials and Spectroscopy  
(SMS'2022)  
June 24 - 26, 2022 – Monastir, Tunisia**

**Scientific Program**

<b>Thursday 23 June 2022</b>	
<b>15h-19h</b>	<b>Reception and Registration</b>
<b>Friday 24 June 2022</b>	
<b>8h30-9h</b>	<b>Opening:</b> <b>Chairs: Samir GUERMAZI/ Mohamed GARGOURI/ Essebti DHAHRI</b>
<b>9h-9h45</b>	<b>Plenary Conferences (Hall 1)</b> <b>Multifunctional intermetallic materials</b> <b>Lotfi BESSAIS</b> <i>Paris-East Creteil University, France</i>
<b>9h45-10h30</b>	<b>Plenary Conferences (Hall 1)</b> <b>Improving ductility in metallic glasses: A long-standing challenge</b> <b>Fathollah VARNIK</b> <i>Interdisciplinary Centre for Advanced Materials Simulation (CAMS) Ruhr-University Bochum, Universitätsstraße 150, 44801 Bochum, Germany</i>

10h30-11h	Coffee break			
Oral Presentations				
Topics	Optical Materials and Laser Technology	Dielectric Materials and Nanocomposites	Magnetic and Multiferroic Materials	Energy and mechanic storage Semiconductors and nanotechnology
	Hall 1: Chairman <b>Hajer TOUNSI GERMAZI</b>	Hall 2: Chairman <b>Essebti DHAHRI</b>	Hall 3: Chairman <b>Mohamed ELLOUZE</b>	Hall 4: Chairman <b>Mohamed GARGOURI</b>
11h-11h10	<b>Khouloud ABIEDH</b> CsPbBr <sub>3</sub> microcrystals grown on Functionals substrates for photodetection application	<b>Ghada RADDAOUI</b> Study of structural, electrical, dielectric and optical proprieties of half-doped perovskite DyTi <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>3</sub>	<b>Ahlem BOUAIZIZI</b> Structural, magnetic, magnetocaloric, and critical behaviour of La <sub>0.67</sub> Ba <sub>0.22</sub> Sr <sub>0.11</sub> Mn <sub>0.95</sub> Ti <sub>0.05</sub> O <sub>3</sub> nano powder	<b>Jalel MASSOUDI</b> Structural and dielectric properties of size-controlled Li-ferrite nanoparticles
11h10-11h20	<b>Ali BEN AHMED</b> A Theoretical Perspective on Strategies for Modeling High Performance Nonlinear Optical Materials	<b>Issa ELHADA</b> Study of structural, optical and electrical properties of nanoparticules spinel Co <sub>0.5</sub> Fe <sub>2.5</sub> O <sub>4</sub>	<b>Sihem MRABET</b> Structural, optical and magnetic properties of vanadium doped ZnO nanopowder prepared by a modified sol-gel method	<b>Balkis ABDELAZIZ</b> Intra-molecular charge transfer effect on linear and nonlinear optical properties in sulfide group para-substitued nitrobenzofurazan moiety: A DFT computational investigation
11h20-11h30	<b>Ferid BEN NASR</b> Iron doping effect on structural and optical properties of Cu <sub>3</sub> (OH) <sub>4</sub> SO <sub>4</sub> compound	<b>Darine HARRABI</b> Effects of sintering temperature on structural and dielectric studies of Mg <sub>0.6</sub> Co <sub>0.2</sub> Cu <sub>0.2</sub> FeCrO <sub>4</sub> spinel ferrite	<b>Abir ARFA</b> Study of the effect of annealing on the physical properties of the vacancy compound in site A La <sub>0.8</sub> □ <sub>0.2</sub> MnO <sub>3</sub>	<b>Boutheina ABDELLAOUI</b> Elaboration and characterization of new compounds La <sub>0.8</sub> Pb <sub>0.1</sub> Ca <sub>0.1</sub> Fe <sub>1-x</sub> CoxO <sub>3</sub> for gas detection of NO <sub>2</sub>
11h30-1140h	<b>Hayet JELLELI</b> Doping effect on the structural and optical properties of organic inorganic hybrid perovskites (DMA Cd <sub>1-x</sub> MxCl <sub>3</sub> with DMA= (CH <sub>3</sub> ) <sub>2</sub> NH <sub>2</sub> and M = Cu)	<b>AMIRA SAIDI</b> Effect of Ca <sup>2+</sup> / Y <sup>3+</sup> co-doping on electrical and dielectric properties of BaTiO <sub>3</sub> ceramic	<b>Rim LASSOUED</b> Magnetic and magnetocaloric properties of neodymium manganites with monovalent elements doping at A-site	<b>Kawthar TRABELSI</b> Enhancing the microstructure and electrochemical mechanism in Na <sub>2</sub> Co <sub>1-x</sub> Fe <sub>x</sub> SiO <sub>4</sub> cathode material for sodium ion batteries

11h40-11h50	<b>Najet KHLIFI</b> Structural and optical proprieties of Co-doped ZnO thin films based on nanoparticles	<b>Sourour BEN YAHYA</b> Characterization of the structure and electrical properties of dipotassium zinc orthogermanate	<b>Rawen CHAABOUNI</b> Improvement of magnetocaloric properties in the composite system $(1-x) \text{La}_{0.67}\text{Ba}_{0.22}\text{Sr}_{0.11}\text{MnO}_3 / x \text{La}_{0.67}\text{Ba}_{0.22}\text{Sr}_{0.11}\text{Mn}_{0.95}\text{Ni}_{0.05}\text{O}_3$	<b>Alassane DIAW</b> Optimization of Antireflective Layers of Silicon Solar Cells: Comparative Studies of the Efficiency between Single and Double Layer at the Reference Wavelength
11h50-12h00	<b>Sana HASNAOUI</b> Optical study of $90 \text{P}_2\text{O}_5 + x\text{V}_2\text{O}_5(10-x) \text{BaO}(0 \leq x \leq 3\%)$ glasses	<b>Aymen MBARKI</b> Structural and dielectric characterization on ZnO	<b>Hajer ISSAOUI</b> Effect of the annealing temperature on the structural and magnetic properties of double-doping (Bi/La, Ca) $(\text{La}_{0.8}\text{Ca}_{0.2})_{1-x}\text{Bi}_x\text{FeO}_3$ ( $x=0.20$ ) Compound	<b>Papa Touty TRAORE</b> Determination of thermal conductivity of tow plaster and kapok plaster materials by numerical method: influence of the heat exchange coefficient in transitional regime
12h-12h10	<b>Olfa MEDHIOUB</b> Energy transfer mechanism from a semiconductor quantum well to optically active organic molecule	<b>Hamida GOUADRIA</b> Frequency and temperature dependent dielectric properties of BaTiO <sub>3</sub> co-doped Bi and Fe	<b>Wajdi CHERIF</b> Structure and magnetic critical behavior in $\text{La}_{0.77}\text{Mg}_{0.23-x}\square_x\text{MnO}_3$	<b>Imen CHÉRIF</b> Analysis of the intra-molecular charge transfer in para-substitued nitrobenzofurazan (NBD): A combined experimental and DFT computation study
12h10-12h20	<b>Wahida LTAIEF</b> Structure and optical properties of New Fluorophosphates $\text{LiGd}_4(\text{PO}_4)_3\text{F}_4$ doped with rare Earth ions for LED application	<b>Raouia JEMAI</b> Synthesis, structures and electrical properties of two congruent isotypic diphosphates: $\text{Li}_2\text{Na}_2\text{P}_2\text{O}_7$ and $\text{Li}_3\text{NaP}_2\text{O}_7$	<b>Nabiha MISSAOUI</b> Synthesis, Thermal, microstructural, optical, and magnetic properties of $\text{La}_{0.57}\text{Pr}_{0.1}\text{Sr}_{0.33}\text{Mn}_{1-x}\text{Ti}_x\text{O}_3$ ( $0 \leq x \leq 0.2$ ) manganites	<b>Imen SAÏDI</b> Enhanced the emission efficiency by thermal annealing of type-II InAs/GaAsSb quantum dots
12h20-12h30	<b>Karim SOUIFI</b> Detailed investigation of structural, morphology, magnetic, Electrical, dielectric and optical properties of the half-doped perovskite $\text{Nd}_{0.5}\text{Ba}_{0.5}\text{FeO}_3$	<b>Imane LAYAIDA</b> Investigation of structural and dielectric properties of Li-Cr ferrite	<b>Tarek BEN SLIMEN</b> Cobaltite compound $\text{La}_{0.57}\text{Nd}_{0.1}\text{Sr}_{0.18}\text{Ag}_{0.15}\text{CoO}_3$ synthesis and structural and magnetic properties study	<b>Sarra MAHJOUBI</b> Study of the I-V characteristics of FTO/ ZnS/ CZTS/ (Au, Ag and Pt) solar cell.
12h30-15h	<b>Lunch break</b>			

15h-15h45	<b>Plenary Conferences (Hall 1)</b> <b>Pedro GRACA</b> <b>Preparation and characterization of multifunctional 45S5 glasses</b> <i>University of Aveiro-Portugal</i>			
15h45-16h30	<b>Plenary Conferences (Hall 1)</b> <b>Abdallah M. ALKELSH</b> <b>3 zeros project, to solve water, energy and environment problems for a typical village in Libya</b> <i>Physics department Faculty of Science, Tripoli University, Libya</i>			
<b>Oral Presentation</b>				
Topics	<b>Organics/Inorganics materials</b>	<b>Energy and mechanic storage Semiconductors and nanotechnology</b>	<b>Materials modeling</b>	<b>Dielectric Materials and Nanocomposites</b>
	<b>Hall 1: Chairman Samir GUERMAZI</b>	<b>Hall 2: Chairman Pedro GRACA</b>	<b>Hall 3: Chairman Rachid MASROUR</b>	<b>Hall 4: Chairman Hichem SMAOUI</b>
16h:30-16h:40	<b>Emna BEN MESSAOUD</b> A novel zero-dimensional semiconductor RGeF <sub>6</sub> : Crystal structure, and optical proprieties	<b>Marwa SLAMA</b> Structural proprieties of (Fe <sub>2</sub> O <sub>3</sub> ) <sub>n</sub> nonoparticulates	<b>Soulef JELLALI</b> Theoretical study of the excited states of the Fr <sub>2</sub> molecule	<b>Narimen CHAKCHOUK</b> Study on the ionic conductivity and optical properties of LiNaSrP <sub>2</sub> O <sub>7</sub> compound
16h:40-16h:50	<b>Amna FANDOULI</b> Synthesis, crystal structure, Hirshfeld surface analysis of a new hybrid compound Bis (3-Dimethylammoniumpropyl chloride)tetrachlorocadmte(II)	<b>Farah CHAFAI</b> TEM and APT study of nanocrystalline Pr <sub>5</sub> Co <sub>19</sub> compounds	<b>Sirine HÉRTILLI</b> Numerical modeling of energy levels and nonlinear optical properties in CdTe/ZnTe spheroidal core/shell quantum dots: Effect of size and eccentricity	<b>Mohsen HAJLAOUI</b> High resistance and modulus study of ZnFe <sub>2</sub> O <sub>4</sub> spinel ferrite asa function of frequency and temperature
16h50-17h00	<b>Soulayma MTAR</b> Crystal structure and thermal behavior of new supramolecular hybrid perchlorate salt	<b>AFEF Moulahi</b> Structural characterization, phase transition and dielectric proprieties of FeF <sub>2</sub> (C <sub>5</sub> H <sub>7</sub> N <sub>4</sub> O <sub>2</sub> ) <sub>2</sub>	<b>Sonia BLEL</b> Theoretical Study of the Atomistic Mechanism Effects on vicinal surfaces using kinetic-Monte-Carlo simulations	<b>Fawzi ELMISSAWI</b> Structural, electric and dielectric characterization of Na <sub>2/3</sub> Fe <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>2</sub> compound

17h:00-17:30h	Coffee break			
17h:30-17h:40	<p><b>Donia ZAMMEL</b> Assembly of Organic–Inorganic Hybrid Supramolecular Materials based on Octamolybdate: Synthesis, Physicochemical Properties and Hirshfeld Surface Analyses</p>	<p><b>Faiza YAHIA</b> Growth of a-plane GaN epi-layers on r-plane sapphire substrates with optimization of high growth temperature</p>	<p><b>Ayoub CHERNI</b> Numerical modeling of the optical properties in CdS/ZnSe quantum dot-matrix system: Effect of dot-size and optical intensity</p>	<p><b>Kawther BEN BACHA</b> Study of the effect of Cu doping on sprayed thin films of Bi<sub>2</sub>O<sub>3</sub></p>
17h:40-17h:50	<p><b>Idia MSAADI</b> A new hybrid Lindqvist type mixed metal cluster anion: (Gua)<sub>5</sub>[V<sub>3</sub>W<sub>3</sub>O<sub>19</sub>]: Synthesis, crystal structure, thermal analysis and luminescence properties</p>	<p><b>Zoubaida LANDOLSI</b> Electrodeposition growth of MnO<sub>2</sub>/Fe<sub>2</sub>O<sub>3</sub> thin film on TiO<sub>2</sub> as anode for high energy density hybrid supercapacitor</p>	<p><b>Mohamed CHEBIL</b> CFD modelling of 2D Multi-air-jet flow impinging an inclined target plate: angle of inclination effect on flow physics and heat transfer phenomenon</p>	<p><b>Mongi HORCHANI</b> Structural and dielectric behaviors for Ni<sub>0.1</sub>Co<sub>0.5</sub>Cu<sub>0.4</sub>Fe<sub>2</sub>O<sub>4</sub> ferrite prepared using sol-gel route.</p>
17h:50-18h:00	<p><b>Ahmed ZAKARYA</b> Sulfonated poly (ether ether ketone) blend with cellulose/dialdehyde cellulose as a potential stable PEM”</p>	<p><b>Asma ALIMI</b> Experimental investigation of the electrochemical behavior metal oxides electrodes/electrolyte interface using electrochemical impedance spectroscopy (EIS) for supercapacitor applications</p>	<p><b>Maroua MHAMDI</b> Properties of Electronic Transition of Asymmetric Droplet Epitaxy GaAs/AlGaAs Quantum Dots</p>	<p><b>Mouna AJILI</b> Characterization of the structure and electrical properties of dipotassium zinc diphosphate</p>
18h:00-18h:10	<p><b>Hajer SOUISSI</b> Experimental and optical studies of the new organic inorganic bromide: [(C<sub>3</sub>H<sub>7</sub>)<sub>4</sub>N]<sub>2</sub>CoBr<sub>4</sub></p>	<p><b>Imen ROMDHANE</b> Elaboration and characterization of the hybrid organic-inorganic perovskite compound based on metal halide of formula CH<sub>3</sub>NH<sub>3</sub>CuCl<sub>3</sub></p>	<p><b>Hedi GARBOUJ</b> Stability of magnetic spin spirals and skyrmions in vanadiumbased 2D monolayer: Monte Carlo study</p>	<p><b>Ismail KHLIFI</b> The investigation of the novel ammonium phosphate ionic-protonic conductor material.</p>
18h:10-18h:20	<p><b>Hichem BEN AMEUR</b> Solvothermal synthesis and photocatalytic activity of manganese cobalt ferrite nanoparticles</p>	<p><b>Marwa BEN CHAMEKH</b> Development of pyroelectric detector based on barium titanate substituted with strontium</p>	<p><b>Houssem MEKNI</b> Theoretical study of excitons in GaAs quantum dot molecules obtained by nanoholes filling</p>	<p><b>Sarra HAJLAOUI</b> Structural, electrical conductivity study and dielectric modulus formalism of Cu<sub>0.6</sub>Cd<sub>0.4</sub>Cr<sub>2</sub>O<sub>4</sub> spinel oxide synthesized via sol-gel auto-combustion process</p>

18h:20-18h:30	<b>Hajer KHACHROUM</b> Synthesis, X-ray Diffraction studies and thermal behavior of the new Hybrid material: 4-Dimethylaminopyridine Indium chloride	<b>Thinhinane AOUDJIT</b> Near-field photochemical imaging of chiral nanostructures	<b>Adel BOUAZRA</b> Physical properties of isolated and auto-assembled quantum wires	<b>Touka DABBEBI</b> Sol-gel synthesis for Mg <sub>0.5</sub> Co <sub>0.5</sub> Fe <sub>2</sub> O <sub>4</sub> spinel ferrite and study for its structural and dielectric properties
18h:30-18:40h	<b>Khawla FRADI</b> Stability improvement of Cesium lead mixed halide perovskites bromide-doped thin films	<b>Saber NASRI</b> Investigation of structural, morphology, dielectric relaxation and conduction mechanism of Sodium diphosphate $\epsilon$ Na <sub>4</sub> P <sub>2</sub> O <sub>7</sub> compound	<b>Mohamed FARJALLAH</b> Prédiction théorique de la formation des molécules froides et ultra froides	<b>Aydi SAMIA</b> Lead-free ferroelectric Na <sub>1-x</sub> Sr <sub>x</sub> (Sn <sub>0.25</sub> Ti <sub>0.75</sub> ) <sub>x</sub> Nb <sub>1-x</sub> O <sub>3</sub> system (0.1 ≤ x ≤ 0.4) XRD, dielectric, and Raman properties
18h:40-18h:50	<b>Oumaima MASTOURI</b> Synthesis, structural study, characterization and Hirshfeld surface analysis of a new organic-inorganic hybrid material: [C <sub>5</sub> H <sub>6</sub> N <sub>2</sub> ][C <sub>5</sub> H <sub>7</sub> N <sub>2</sub> ][ClO <sub>4</sub> ]	<b>Yousra CHAKROUN</b> Elaboration and physicochemical properties of manganite oxides prepared by ceramic method	<b>Mohamed CHELLEGUI</b> Molecular Modeling of the Reactivity of Chemical Reactions: A DFT Study of the Diels-Alder Reaction Between 2,5-Dimethylfuran and Ethylene	<b>Kalthoum RAGHDA</b> Dielectric investigation of new hybrid perovskites CH <sub>3</sub> NH <sub>3</sub> CdCl <sub>3</sub> and (CH <sub>3</sub> ) <sub>2</sub> NH <sub>2</sub> CdCl <sub>3</sub> with large dielectric constants for field-effect transistors
18h:50-19h:00	<b>Chadha HENCHIRI</b> Theoretical study of the magnetic properties and the magnetocaloric effect in lanthanum manganite lacunar compounds	<b>Dhouha BOUOKKEZ</b> Effect of annealing temperature on the structural, optical and dielectric behavior of spinel material Li <sub>0.5</sub> ZnF <sub>1.5</sub> O <sub>4</sub>	<b>Othmen KHALDI</b> Ab initio study of the high frequency dielectric response of metal oxide materials by coupled Hartree-Fock/Kohn-Sham and finite field perturbation methods	<b>Seif Eddine MNASSRI</b> The microstructure, Mössbauer, thermal, and high dielectric characteristics of ZnFeCoO <sub>4</sub> spinel ferrite produced by the sol-gel technique were studied.
<b>Saturday 25 June 2022</b>				
9h-9h45	<b>Plenary Conferences (Hall 1)</b> <b>Optical characterization of mineral matter</b> <b>Mounir MADHIOUB</b> <i>Department of Earth Sciences, Faculty of Sciences of Sfax (FSS), University of Sfax</i>			
9h:45-10:30h	<b>Plenary Conferences (Hall 1)</b> <b>Investigation on photovoltaic properties of the organic-inorganic halide perovskite using the density functional theory</b> <b>El-Kebir HLIL</b> <i>Univ. Grenoble Alpes, CNRS, Grenoble INP, Institut Néel, 38000 Grenoble, France</i>			

10h:30-11h	Coffee break			
Oral Presentations				
Topics	Magnetic and Multiferroic Materials	Dielectric Materials and Nanocomposites	Optical Materials and Laser Technology	Clay materials/ Polymer materials
	Hall 1: Chairman <b>Lotfi BESSAIS</b>	Hall 2: Chairman <b>Abdallah Ben Rhaïem</b>	Hall 3: Chairman <b>Moncef Said</b>	Hall 4: Chairman <b>Mounir MADHIOUB</b>
11h-11h10	<b>Ammar GHODBANI</b> Electrical properties investigation for doped lanthanum manganite	<b>Hadhemi BEN ATTIA</b> Phase transitions, electrical study and dielectric behavior of a new organic inorganic chloride: (C <sub>7</sub> H <sub>11</sub> N <sub>2</sub> ) <sub>2</sub> CoCl <sub>4</sub>	<b>Basma BEN SALEM</b> Enhanced photocatalytic performance of ZnO/NiO nanocomposite in the degradation of MB dye under solar irradiation	<b>Sana DARDOURI</b> Optimum case of Phase change materials layer integrated in building wall and roof under saharan (Tozeur) weather conditions
11h10-11h20	<b>Ikbel MALLEK-ZOUARI</b> Mössbauer Spectrometry Studies Of Magnetic-Dependent Cycloidal Ordering In Bifeo 3 Nanoparticles	<b>Arafet GHOUDI</b> Structural, optical, electrical and dielectric characteristics of the new organic-inorganic complex: C <sub>6</sub> H <sub>9</sub> N <sub>2</sub> FeCl <sub>4</sub>	<b>Ikhlas KACHOU</b> High-sensitive optical temperature sensing based on emission of Eu <sup>3+</sup> doped Na <sub>3</sub> Y(VO <sub>4</sub> ) <sub>2</sub> Phosphor	<b>Yousra AISSAOUI</b> Adsorption of Erythromycin from aqueous solution using Tunisian clay materials- Effect of operating parameters
11h20-11h30	<b>Hajer TLILI</b> Synthesis and characterization of magnetite nanoparticles or water treatment using a magnetic process	<b>Samia BELGASMI</b> Effects of silver doping in praseodymium manganite system: electrical properties	<b>Kawthar ELJADI</b> Synthesis and physical characterization of α-MnO <sub>2</sub> /Mn <sub>3</sub> O <sub>4</sub> composite powders for photocatalytic activity under sunlight irradiation	<b>Mohamed Yassine HABIBI</b> Synthesis and characterization of the cement clinker based on dam sediments
11h:30-11h:40	<b>Manel OTHMAN</b> Effect of transition metal doping on the multiferroic bismuth ferrite properties.	<b>Takwa JADLI</b> Study of electrical properties in manganites and annealing temperature effects	<b>Naim BEL HAJ MOHAMED</b> A novel approach given by the statistical analysis interpretation in the processes of adsorption and photocatalysis for organic pollutant removal by acid capped CIS/ZnS core/shell nanocrystals	<b>Mabrouk ELOUSSAIEF</b> Smart clay using for the quality improvement of building materials



11h:30-11h:40	<b>Mounawer NASRI</b> Magnetocaloric effect study by means of theoretical models in CoFeCuO <sub>4</sub> spinel ferrite	<b>Walid MANSOURI</b> Investigation of structural, optical and electrical of Ni <sub>0.5</sub> Fe <sub>0.5</sub> Co <sub>2</sub> O <sub>4</sub> spinel cobaltite	<b>Nadia KHILIFI</b> Non-doped and transition metal-doped CuO Nanoparticles as Modern Antibiofilm Materials for Biomedical Applications	<b>Amina AMMOUS</b> Stratigraphic Distribution, Geochemical and Mineralogical Characterization of the Middle Jurassic in Châabet El Attaris, North-South Axis, Tunisia
11h:40-11h:50	<b>Anwar TOZRI</b> Magnetocaloric Effect and Scaling Analysis in the Pr doped on La-Ba-Mn-O <sub>3</sub> Manganites	<b>Ibtihel SOUDANI</b> Investigation of structural, and conduction mechanism of multifunctional spinel ferrite LiMn <sub>0.5</sub> Fe <sub>2</sub> O <sub>4</sub>	<b>Dhiss TESNIM</b> Green synthesis of bentonite-supported iron nanoparticles as a heterogeneous Fenton-like catalyst: Kinetics of decolorization of mono-azo dye Crocein Orange G	<b>Imen FELLAH</b> Citric Acid Modified natural clay for Rhodamine B Adsorption
11h:50-12h:00	<b>Fatma ISSAOU</b> Study of structural, magnetic and magnetocaloric properties at room temperature of manganite La <sub>0.57</sub> Nd <sub>0.1</sub> Sr <sub>0.33-x</sub> Ag <sub>x</sub> MnO <sub>3</sub> (0.00 - 0.15)	<b>Omayma AMORRI</b> Effects of doping by copper on structural, optical and dielectric of LiFe <sub>2</sub> O <sub>4</sub> based spinel	<b>Marwa EL BEJI</b> Highly sensitive and selective ethanol gas sensor based on Ga-doped ZnO nanoparticles	<b>Fathi ALLOUCHE</b> Occurrences of Uranium-bearing celestine and barite in the Paleocene of the Siouf-Cherahil sector: Stratigraphic Distribution, Geochemical and mineralogical characterization
12h-12h:10	<b>Khawla BEN BRAHIM</b> Novel phase transition sequences in tetraethylammonium Tetrachloroferrate plastic crystal by X-ray diffraction and spectroscopic measurements	<b>Ichrak BEN SLIMA</b> Effects of Mn doping on structural properties and conduction mechanism of NaCu <sub>0.2</sub> Fe <sub>0.8-x</sub> Mn <sub>x</sub> O <sub>2</sub> (x= 0.4; 0.5; 0.6; 0.7) materials	<b>Ghofrane OUERTANI</b> Luminescence thermometry sensors based on Dy <sup>3+</sup> and Sm <sup>3+</sup> co-doped GdPO <sub>4</sub> phosphor powders	<b>Sabrina BEN KACEM</b> Electrochemical Degradation of Mordant Orange 1 Using Solid Polymer Electrolyte
12h:10-12h:20	<b>Dorsaf BOUAZZI</b> Efficiently removal of Methylene Blue on hybrid HAP materials: Surface properties, kinetic studies and isotherms modelization	<b>Kaouther GUTHI</b> Synthesis, structural, electrical and dielectric properties of LiNbO <sub>3</sub> perovskite compound for technological applications.	<b>Kamel SAIDI</b> Upconversion Thermometry Using Yb <sup>3+</sup> /Er <sup>3+</sup> Co-Doped Na <sub>3</sub> GdV <sub>2</sub> O <sub>8</sub> phosphors	<b>Rabiah ELKAROUS</b> Effect of growth parameters on the quality of graphene grown by chemical vapor deposition
12h:20-12h:30	<b>Houria MEKKI</b> Theoretical prediction of the electronic structure and thermodynamics in half-Heusler compounds KCrZ (Z=S, Se, Te)	<b>Rami GHORBALI</b> Improved conductivity, and dielectric relaxations of Cu-doped ZnO nanoparticles	<b>Ahmed BOURI</b> Effect of thermal treatment on structural and luminescence properties of Al <sub>2</sub> O <sub>3</sub> nanoparticles embedded in silica glass host matrix	<b>Nesrine ABDERRAHIM</b> Preparation of activated carbon from palm petiole based on micro-wave heating for wet-phosphoric acid purification: Optimization, characterization and adsorption study



12h:30-12h:40	<b>Mané SECK</b> Dielectric investigation and material properties of almond gum thin films deposited by spray pyrolysis	<b>Leila MILADI</b> Hopping conduction mechanism process of the olivine compound $\text{LiMgPO}_4$	<b>Bessadok MOHAMED NAFTI</b> Effect of the doping element on the luminescence properties of a glass-ceramic matrix enriched by zinc silicate for a contactless thermometry application	<b>Monia AMMAR</b> A quantitative and qualitative investigations of organic matter contents in ancient sedimentary rocks during real-time heating using coupled of TG/DTG and FTIR
12h:40-12h:50	<b>Foudil SAHNOUNE</b> Crystallization kinetics and characterization of cordierite ceramics ( $2\text{MgO}_2 \text{ Al}_2 \text{ O}_3 \text{ 5SiO}_2$ ) Synthesized from Nano-powder oxides	<b>Amira KHLIFI</b> Structural and electrical properties of Ba-deficient manganites $(\text{La/Eu/Ba})\text{MnO}_3$	<b>Mariem LTAYEF</b> Designing of new composites (MEHPPV-P3HT: PCBM) for the photovoltaic application	<b>Nabila BITRI</b> Characterization of graphene oxide and chemically reduced graphene oxide thin films deposited via spray pyrolysis
12h:50-13h:00	<b>Djihad MOKHTARI</b> The structural, electronic, magnetic and mechanical properties of $\text{CoVTiAs}$ and $\text{CoVTiSi}$ quaternary Heusler alloys	<b>Bassem MEDDEB</b> Phase diagram, dielectric and electro optic properties of binary liquid crystals mixtures	<b>Ines HAJJEJ MEJRI</b> Effect of calcium doping on structural and electrical properties of zinc oxide ( $\text{ZnO}$ ) synthesized by sol-gel method	<b>Abdelwaheb TRIGUI</b> Experimental techniques for phase change materials (PCM) characterization: Thermophysical properties
13h:00-15h	<b>Lunch break</b>			

15h-15:45h	<b>Plenary Conferences (Hall 1)</b> <b>High insulating behavior induced by doping effect in spinel and perovskite ceramics</b> <b>L.H. OMARI</b> <i>LPMAT, Faculty of Sciences Ain-Chock, University of Hassan II, Casablanca, Morocco</i>			
15h:45-16:30h	<b>Plenary Conferences (Hall 1)</b> <b>Exploration des propriétés des solides par spectroscopie d'impédance</b> <b>Kamel KHIROUNI</b> <i>Laboratoire de Physique des Matériaux et des Nanomatériaux appliquée à l'Environnement, Faculté des Sciences de Gabès, Université de Gabès</i>			
16h:30-17h:00	<b>Coffee break</b>			

Sunday, 26 juin 2022

9h – 9h :45	<p><b>Plenary Conferences (Hall 1)</b>  <b>Rachid MASROUR</b></p> <p><b>First-principles prediction and Monte Carlo study of the Structural, electronic, magnetic and thermoelectric properties of the series of Heusler alloys</b></p> <p><i>Laboratory of Solid Physics, Sidi Mohamed Ben Abdallah University, Faculty of Sciences, BP 1796, Fez, Morocco</i></p>
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9h:45 – 10h:30	<p><b>Plenary Conferences (Hall 1)</b>  <b>Rajshree B. JOTANIA</b></p> <p><b>Study of structural, magnetic and dielectric properties of SrFe<sub>12</sub>O<sub>19</sub>/NiFe<sub>2</sub>O<sub>4</sub> ferrite nanocomposites synthesized in presence of Calotropis gigantea (crown) flower extract as green reducing agent</b></p> <p><i>Department of Physics, Electronics and Space science, University school of sciences, Gujarat University, Ahmedabad 380 009, Gujarat, India</i></p>
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10h:30-11h	Coffee break
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**Oral Presentations**

Topics	Magnetic and Multiferroic Materials	Optical Materials and Laser Technology	Electronic materials	Organics/Inorganics materials
	<b>Hall 1: Chairman</b> <b>Rajshree B. JOTANIA</b>	<b>Hall 2: Chairman</b> <b>Abdalla M. ALKELSH</b>	<b>Hall 3: Chairman</b> <b>Fathollah Varnik</b>	<b>Hall 4: Chairman</b> <b>Makram Megdiche</b>
11h-11h:10	<p><b>Issa BRIKI</b> NaI(Tl) scintillators for the measurement of the momentum dependence of the atmospheric muons vertical intensity</p>	<p><b>Faical MSELMI</b> Temperature dependence of luminescence properties of V<sup>3+</sup> doped <math>\alpha</math>-ZnAl<sub>2</sub>S<sub>4</sub> single crystals</p>	<p><b>Noureddine MHADHBI</b> Design, theoretical study and correlation of the structural, vibrational, electronic and optical properties of (3AMP)<sub>2</sub>[CdBr<sub>6</sub>]•2H<sub>2</sub>O.</p>	<p><b>Ines MBAREK</b> Synthesis, characterization and temperature-triggered phase transition of organic inorganic hybrid compound: [(CH<sub>3</sub>)<sub>4</sub>N]<sub>3</sub>Sb<sub>2</sub>Cl<sub>9</sub></p>
11h:10-11h:20	<p><b>Souad CHKOUNDALI</b> Structure and dielectric study of relaxor Behavior in (Ba<sub>0.7</sub>Sr<sub>0.3</sub>)<sub>0.4</sub>Na<sub>0.6</sub>(Ti<sub>0.9</sub>Sn<sub>0.1</sub>)<sub>0.4</sub>Nb<sub>0.6</sub>O<sub>3</sub> ceramic</p>	<p><b>Lamia SAIDI</b> Organic Sensitizer-Free Based Up Conversion Emission Under Near-Infrared Excitations</p>	<p><b>Thamer ALOUI</b> Impact of p-MoSe<sub>2</sub> Interfacial Layer on the efficiency Cu(In,Ga)Se<sub>2</sub> (CIGS) solar cells : experimental and numerical optimization</p>	<p><b>Amal GHRIBI</b> Excitn Fine Structure in Lead Halide Perovskite Nanostructure CsPbX<sub>3</sub> (X=Cl, Br, I)</p>

11h:20 - 11h:30	<b>Hayet SALHI</b> Electrical properties of $\text{La}_{0.4}\text{Bi}_{0.3}\text{Sr}_{0.2}\text{Ba}_{0.1}\text{MnO}_3$ ceramic synthesized by sol-gel method	<b>Amira BOUGOFFA</b> Electrical Modelization of new solar cell based on ideal cubic $\text{NaNbO}_3$ thin films deposited by spray pyrolysis	<b>Makrem YAHYAOU</b> Elaboration of novel nano-materials based on Ge-Mn for third generation solar cells	<b>Hanan REKIK</b> Structural and magnetic changes due to the martensitic transformation in rapidly solidified $\text{Ni}_{50}\text{Mn}_{37}\text{Sn}_{6.5}\text{In}_{6.5}$ Ribbons
11h:30 - 11h:40	<b>Aymen ELGHOUL</b> Room temperature magnetocaloric effect in polycrystalline $\text{La}_{0.75}\text{Bi}_{0.05}\text{Sr}_{0.2}\text{MnO}_3$	<b>Fadwa AYACHI</b> Temperature-dependence of efficient up-conversion luminescence in $\text{YP}_{0.5}\text{V}_{0.5}\text{O}_4$ phosphor doped $\text{Er}^{3+}$ and codoped $\text{Er}^{3+}/\text{Yb}^{3+}$ for temperature sensor	<b>Abdelkarim MESSAOUDI</b> Synthesis, Vibrational analysis, Optical and Electrical conduction mechanism of $\text{Co}_{0.6}\text{Zn}_{0.4}\text{Fe}_2\text{O}_4$ prepared using sol-gel route	<b>Khaled CHARRADI</b> Incorporating of sulfoethyl cellulose to improve the performance of SPEEK membrane for proton exchange membrane fuel cells
11h:40-11h:50	<b>Marwa JEDDI</b> Impact of synthesis route on magnetic and magnetocaloric properties of $\text{Nd}_{0.6}\text{Sr}_{0.4}\text{MnO}_3$ manganite	<b>Salma MSAOURA</b> Crystal structure, Hirshfeld surface analyses and optical properties of organic-inorganic hybrid compound $(\text{C}_8\text{H}_{10}\text{NO})_4[\text{Bi}_2\text{Cl}_{10}]$	<b>Mohamed ZIED MEJRI</b> Structural study of a complex formed by a protein and a polymer	<b>Mariam KHALFA</b> Second order structural phase transition revealed in $[(\text{CH}_3)_4\text{P}]_3\text{M}_2\text{Cl}_9$ (M=Bi and Sb) hybrid compounds by temperature-controlled Raman spectroscopy and X-ray diffraction
11h:50-12h:00	<b>Sameh IFA</b> Influence of A-site substitution on the electrical and dielectric properties of $\text{La}_{0.6}\text{Ca}_{0.4}\text{MnO}_3$ manganite	<b>Tarek LARBI</b> Efficient photocatalytic decomposition of leather industry wastewater	<b>Ameni BEN NASR</b> Synthesis of novel mixed halide $\text{Co}(\text{II})$ -2-methylpiperazine based with interesting structure, optical and luminescence properties	<b>Aida BENCHAAABANE</b> Photoluminescence study of hybrid colloidal solution based on $\text{P}_3\text{OT}$ polymer and CdSe nanoparticles
12h:00-12h:10	<b>Jihed HORCHENI</b> Magnetocaloric properties of new iron-Rich intermetallic compound around room temperature	<b>Mourad CHEMEK</b> Synthesis, experimental and theoretical investigation of new small molecule based on carbazole and thiophene rings	<b>Aida BENCHAAABANE</b> Photoluminescence study of hybrid colloidal solution based on $\text{P}_3\text{OT}$ polymer and CdSe nanoparticles	<b>Chaima ZOUARI</b> Synthesis, X-Ray crystal structure and Vibrational behavior of a new organic-inorganic hybrid material $[\text{C}_5\text{H}_8\text{N}_3]\text{NO}_3$
12h:10-13h	<b>Closing</b>			
13h	<b>Lunch break</b>			

Poster Presentations (Friday 24 June 2022 : 10:30h-11h)

	<b>Title</b>
<b>Sana HASNAOUI</b>	Optical study of $90 \text{ P}_2\text{O}_5 + x \text{ V}_2\text{O}_5(10-x) \text{ BaO}$ ( $0 \leq x \leq 3\%$ ) glasses
<b>Omar Kammoun</b>	Optoelectronic properties of a new hybrid supramolecular salt
<b>Olfa Rahal</b>	Synthesis and characterization of Ti-doped manganite in $\text{Pr}_{0.9}\text{Sr}_{0.1}\text{MnO}_3$
<b>Aida BEN JAZIA KHARRAT</b>	Synthesis, crystal structure and optical properties of $\text{SmCrO}_3$ perovskite compound
<b>Ilhem SOYAH</b>	Photothermal titrations for the analysis and detection of micropollutants in water
<b>Abbassia LAZREG</b>	A DFT Study on Complexation of Metal Ion $\text{Zn}^{2+}$ with Amino Acids; L-Serine, L-Cysteine and L-Aspartic Acid
<b>Rania LATAOUI</b>	Morphological effect on electrical properties of $\text{La}_{0.7}\text{Sr}_{0.3}\text{FeO}_3$ ceramic by impedance spectroscopy at high temperatures
<b>Safa ELHAMDI</b>	Influence of Dy doping on structural, morphological and optical properties of ZnO
<b>Sondes GUESMI</b>	A novel electrochemical sensor for detection of L-tryptophan based on Copper metal-organic -frame works/ pectin modified glassy carbon
<b>Bestaoui-BERREKHCHI-BERRAHMA NOREYA</b>	Quantum Study of Structural, Electronics and Reactivity Of 6-Aminobenzimidazole In Solvents.
<b>Ferjaoui ZIED</b>	Novel Drug Delivery Systems as a Potential Therapeutic Agent for the Charcot-Marie-Tooth Disease Type 1A
<b>Khaled ALURRFI</b>	Solitons of Magneto-Optic Waveguides in Mathematical Physics
<b>Ghada BRUINA</b>	The effect of hydrothermal activity on Aouequat greenstone belt host rocks of gold mineralization (Tasiast, Mauritania)
<b>Houria ELLOUMI</b>	Effect of hydrothermal fluids on the Triassic materials of the Oued Belif structure (Nefza, northern Tunisia)
<b>Abdelfatteh BOUZIDI</b>	Effect of Sodium Molybdate Dihydrate powders on the structural, optical, and impedance parameters of NA-MOAT-04-C.2HYD/PolVA polymeric composite
<b>Hajer JEIDI</b>	Structural and electrical characterization of carbon/vanadium oxide nanocomposite elaborated by sol-gel method
<b>Karim KAROUI</b>	$[(\text{CH}_3)_3\text{N}(\text{CH}_2)_2\text{Br}]_2[\text{CoBr}_4]$ halogenometallate complex: crystal structure, high-temperature reversible phase transition, electrical and optical properties
<b>Fatma BENTAHAR</b>	Crystal structure, Thermal behavior, vibrational and optical studies of novel benzimidazolium-tellurate hybrid compound.
<b>Rim REKIK ELLOUZE</b>	Characterization of clays from different countries and formulation of white paste intended for the manufacture of ceramic tiles and study of their behavior during firing
<b>Mounir MEDHIOUB</b>	The Valorization Of Barremian Sands From The Sidi Aich Formation In The Synthesis Of Ceramic Pigments
<b>Benatmane ABDELMOUNAIM</b>	CuNi alloy coatings deposited on indium tin oxide (ITO) substrate for energy and environmental applications.
<b>Imen BENZAAD</b>	Zero-dimensional Tin based (IV) of new hybrids complex semiconductors with model conceptual: Synthesis, crystal structure and optical analysis.

<b>Wissal JILANI</b>	Structural, optical, and dielectric properties of methylene blue organic dye-doped DGEBA epoxy polymer composite panels (MB: DGEBA-EPCPs): tendencies and applications in optoelectronic materials.
<b>Feten RHOUMA</b>	Effect of Pr doping on the structural and optical properties of ZnO nanoparticles
<b>Bileid S ADALEEM</b>	On Solving the Eigenvalues Problem for the Periodic Layered Thin Films Using Fourier Extension
<b>Maher JDIR</b>	Effect of indium-doped ZnO nanoparticles incorporation on the properties of organic field-effect transistors (OFETs)
<b>Ameni BEN NASR</b>	Chemical preparation, thermal behavior, optical and electrical properties of a new semiconductor cobalt-based organometallic complex
<b>Najet AOULED DLALA</b>	Investigation of Structural, Electronic Properties and Molecular Docking of A New Chromene Derivative
<b>Amel AZAZI</b>	Synthesis, characterization, DFT and TDDFT investigation of novel Composite for organic solar cells
<b>Helmi ABDELKEFI</b>	X-ray diffraction, dielectric and Raman spectroscopy studies of Ba <sub>1-x</sub> Bi <sub>2x/3x/3</sub> (Fe <sub>0.5</sub> Nb <sub>0.5</sub> ) <sub>0.025</sub> Ti <sub>0.975</sub> O <sub>3</sub> ceramics
<b>Khouloud KOURCHID</b>	Study of surface stability and electronic structure of Bi-terminated InAs (001) $\xi$ (4 $\times$ 2) surface based on ab initio calculations
<b>Naoufel KHEMIRI</b>	Effect of thickness and band gap energy on the performance of earth abundant and non-toxic CZTS solar cells :Numerical simulation by SCAPS-1D
<b>Sabrina BEN KACEM</b>	Application of Doehlert design to the electro- Fenton treatment of Erythrosine B
<b>Manel KADDES</b>	First principal study of electronic and thermoelectric properties of ZnO/Graphene heterostructures
<b>Poster Presentations (Saturday 25 June 2022 : 10h:30-11h)</b>	
<b>Amal HICHRI</b>	Synthesis and characterization of a new Organic-inorganic hybrid materials based on molybdenum and copper
<b>Karim OMRI</b>	Enhanced photocatalytic performance and impact of annealing temperature on TiO <sub>2</sub> /Gd <sub>2</sub> O <sub>3</sub> :Fe composite
<b>Redouane CHADLI</b>	Synthèse et études structure activité des dérivés de N,N-diméthyl-4- {-(4-nitro-phenyl)-imino}-méthyl} comme des nouveaux composés optiquement non linéaire.
<b>Iliès TAIBI</b>	Reduction of organic materials band gap by using thiophen and fullerene derivatives.
<b>Sondes HAJLAOUI</b>	Synthesis, electrical transport properties and modulus behavior in an organic-inorganic hybrid compound: [(C <sub>3</sub> H <sub>7</sub> ) <sub>4</sub> N] <sub>2</sub> SnBr <sub>6</sub>
<b>Abddaim JEIDD</b>	Investigation of the structural, morphological, optical, electrical, and dielectric properties of spinel ferrite LiMg <sub>2</sub> Fe <sub>3</sub> O <sub>7</sub> .
<b>Mohamed AMGHAR</b>	Structural, morphological, and electrical properties of silver-substituted ZnAl <sub>2</sub> O <sub>4</sub> nanoparticles
<b>Sihem ZAIDI</b>	Prediction of critical conditions for thermal explosion of calcium propionate by thermal analysis
<b>Serra ELASKRI</b>	Synthesis and magnetic feature of the dopped 10% Ti in the Pr <sub>0.9</sub> Sr <sub>0.1</sub> MnO <sub>3</sub> sample
<b>Safa MNEFGUI</b>	Impact of B-site substitution on structural and magnetocaloric properties of La <sub>0.55</sub> Pr <sub>0.1</sub> Sr <sub>0.35</sub> Mn <sub>1-x</sub> Ti <sub>x</sub> O <sub>3</sub> samples
<b>Lotfi CHOUIREF</b>	Structural, optical, and electrical properties of ZnO:Al nanoparticles

<b>Yassine ALAYA</b>	Influence of annealing temperature on the properties of TiO <sub>2</sub> films deposited by spray pyrolysis
<b>Imed GHILOUFI</b>	Synthesis and characterization of low-cost solar cell based on nanoparticles
<b>Ismail KHLIFI</b>	The effect of chemical preparation methods on thermal behavior and structural properties of the new ionic-protonic conductor based on arsenic and telluric acids”
<b>Hajer KHACHROUM</b>	Synthesis, crystal structure, morphological study of a new hybrid material: 4-Dimethylaminopyridine Indium chloride
<b>Anouar KHALFAOUI</b>	Study of Optical Properties of AlN Thin Films Deposited by Reactive Magnetron Sputtering
<b>Yamen BEN AMMAR</b>	Characterization of the microstructure and mechanical properties of titanium honeycomb sandwich panels under thermal exposure
<b>Wrida AHMED</b>	Synthesis and electrical characterizations of carbon matrix enriched by ZrO <sub>2</sub> nanoparticles.
<b>Abdelwaheb Trigui</b>	Suitable measurement methods to determine thermophysical properties of phase change materials (PCM)
<b>Soumaya JABALLAH</b>	Electrical study of screen-printed electrode based on aluminum and magnesium co-doped zinc oxide nanoparticles
<b>Yossr Yousfi</b>	Effect of the Active Layer Thickness of Pentacene Thin Film Transistor and illumination on TFTs performance.
<b>Donia Zammel</b>	Synthesis, Crystal structure and properties of a supramolecular compound based on octamolybdate”
<b>Mansoura Bourwina</b>	Structural feature, thermal behavior, vibrational, optic and magnetic properties of new hybrid (C <sub>5</sub> H <sub>14</sub> N <sub>2</sub> )[CuBr <sub>4</sub> ]
<b>Mohamed Ben Bechir</b>	Study of Charge Transfer Mechanism and Dielectric Relaxation of All-Inorganic Perovskite CsSnCl <sub>3</sub>
<b>Imen Sayer</b>	Crystal structure, DFT studies and thermal characterization of new luminescent stannate (IV) based inorganic-organic hybrid compound
<b>Nissaf Mzabi</b>	Synthesis and characterization of nano-sized ZnO particles
<b>Ibtissem Ben Assaker</b>	Electrochemical growth of nanostructured semiconductors for Renewable Energy applications.
<b>Sihem Rmili</b>	Geochemical and mineral characterization of clay formations in central-northern Tunisia
<b>Safa Hamdi</b>	Influence of Dy doping on structural, morphological and optical properties of ZnO nanopowders
<b>Soumaya Sidaoui</b>	Study of new hybrid materials based on metals, amines and halogens: synthesis, structures and properties.
<b>Ben Gzaïel Malika</b>	Temperature induced phase transitions in semiconducting [(CH <sub>3</sub> ) <sub>4</sub> P] FeCl <sub>4</sub> : a Raman scattering and dielectric permittivity
<b>Salim RAJEH</b>	Effect of Ni doping on physical properties and ethanol response of sprayed ZnO films
<b>Amal ELGHOUL</b>	Structures, transitions de phase, propriétés électriques et optiques d'un nouveau matériau pérovskite [C <sub>1</sub> -(CH <sub>2</sub> ) <sub>2</sub> -NH <sub>3</sub> ] <sub>2</sub> CuCl <sub>4</sub>