

8th International Conference on Smart Materials and Spectroscopy
July 02-05, 2025, Monastir, TUNISIA

CERTIFICATE OF PARTICIPATION

PROUDLY PRESENTED TO

SAMIR HAMRIT

For Participating with an **Oral** Communication Entitled:

**Nanostructured flexible transparent conductive oxide
ZnO:Al/PEN prepared by rf- magnetron sputtering and
supercritical solvothermal methods**

PROF. MOHAMED GARGOURI

CHAIRMAN

MONASTIR, TUNISIA

July, 02-05-2025





8th International Conference on Smart Materials and Spectroscopy
(SMS'2025)
July 03 - 05, 2025 – Monastir, Tunisia



SCIENTIFIC PROGRAM

	Wednesday 2 July 2025
15h-19h	Reception and Registration
	Thursday 3 July 2025
09h00-09h30	OPENING CEREMONY: Chairs: MOHAMED GARGOURI /ESSEBTI DHAHRI /SAMIR GUERMAZI
09h30-10h10	Plenary Conferences (Hall 1), Chairman MOHAMED GARGOURI TIMUR NIKITIN University of Coimbra, Coimbra Chemistry Center From Phase Transitions to Transparent Conductors: Raman Spectroscopy as a Tool for Advanced Device Materials
10h10-10h50	Plenary Conferences (Hall 1), Chairman ESSEBTI DHAHRI KAMEL BOUKHEDDADEN Université Paris-Saclay, France Imaging and modeling the Spatio-Temporal Dynamics of First-Order Phase Transitions in Charge Transfer and Spin-Crossover Molecular Single Crystals
10h50-11h10	Coffee break

Oral presentations				
Topics	Dielectric Materials and Nanocomposites	Magnetic and Multiferroic Materials	Organics/Inorganics materials	Optical Materials and Laser Technology
	Hall 1: Chairwoman HAJER GUERAMZI	Hall 2: Chairman ABDALLAH BEN RHAIEM	Hall 3: Chairman BASSEM LOUATI	Hall 4: Chairwoman SOUHA KAMMOUN
11h10-11h20	MANSOUR BOUKTHIR Dielectric and electrical conduction mechanisms of the ceramic KMnO ₂ as cathode active materials for Potassium-ion batteries	ZOUHAYRA AYDI Exploring the Environmental Potential of LS _x MO-SG: Critical Behavior and Magnetocaloric Effect for Green Cooling Technologies	RIMA ALTALIB New Organic-Inorganic Chloride: Crystal Structure, Optical, and Vibrational Characterization	SAFA MAAMRIA Theoretical Investigation of CdSe/CdS Core-Shell Nanostructures
11h20-11h30	HENI SOUHIR Structural, Cation Distribution, Magnetic, and Optical Properties of Sol-Gel Synthesized Ni _{0.5} Cu _{0.5} Fe ₂ O ₄ Ferrite Nanoparticle for Microwave and Optoelectronic Devices	MOHAMED HANTECH Investigation of the Structural and Magnetic Properties of Strontium Hexaferrites	INES KHELIFI Investigation of the Crystal Structure, Thermal Stability, Optical, and Electrical Properties of a Hybrid Compound Incorporating an Aliphatic Cation	YOSRA BAHROUNI Enhancing the luminescence intensity of Eu ³⁺ activated NaYb(MoO ₄) ₂ phosphors through bismuth doping: Lighting, and temperature-sensing applications
11h30-11h40	SABRINE BOUKETAYA Investigation of crystal structure, thermal behavior, and dielectric properties of a novel hybrid iron fluoride	FERIEL GHENIMI Enhanced Structural, Magnetic, and Dielectric Properties of Mn-Doped La _{0.67} Ba _{0.13} Ca _{0.2} Fe _{1-x} Mn _x O ₃ (x= 0.94 and 0.97) Perovskites for Advanced Electronic Devices	JRIDI CHAIMA A 1D Chlorobismuthate halide semiconductor: Synthesis, Structural characterization, Hirshfeld surface, DFT Calculations, Vibrational, Optical properties, and Biological Activities	IBRAHIM KHALIL CHIBA Theoretical Investigation of Electronic and Optical Properties in CdSe/ZnSe Core-Shell Quantum Dots
11h40-11h50	JIHEN OTHMANI Effect of annealing temperature on the properties of Co _{0.33} Mn _{0.33} Fe _{2.33} O ₄ Compound	MALEK GASSOUMI IMPACT Physical properties of 20% Cr-doped Pr _{0.7} Ca _{0.3} MnO ₃ perovskite	YOSRA REBHI Halogen-regulating synthesis of a novel semiconductor hybrid material [(CH ₃) ₃ N(CH ₂) ₃ Br] ₂ CuBr ₄ with high-temperature phase transition	YESMINE ZAYANI Experimental and theoretical modeling of Zn ₂ TiO ₄ :Cr ³⁺ for optoelectronic applications
11h50-12h00	HAJER MAHJOUB Study of electrical and optical proprieties of Ho _{0.2} La _{0.2} Sm _{0.2} Nd _{0.2} Gd _{0.2} CoO ₃ compound	SONDES BARGOUGUI Study of the structural and magnetic properties of spinel-type oxide nanoparticles Ag@Co _{0.5} Fe _{2.5} O ₄	HANEN ELGAHAMI Mercury (II) compound with a quaternary phosphonium: X ray structure, Hirshfeld surface analysis, optical band gap, and dielectric properties	REFKA TAHRI Exploiting the Biological Window at 808 nm for Enhanced Dual- Mode Optical Thermometry Using Thermally Coupled Levels in Er ³⁺ /Yb ³⁺ Co Doped Phosphors

12h00-12h10	HANEN DARDOURI Synthesis, structural and dielectric characterization of a BST-BFO	AMENI HIDRI Critical behaviour, the phenomenological model, electrical and dielectric properties of $\text{La}_{0.67-x}\text{Pr}_x\text{Ba}_{0.33}\text{MnO}_3$ ($x = 0.1$ and 0.2) Manganites	ARAFET GHOUIDI Exploring the Optical and Electrical Properties of the Organic-Inorganic Hybrid $(\text{C}_6\text{H}_9\text{N}_2)_2\text{ZnCl}_4$ for Optoelectronic Applications	AYOUB CHERNI Supervised machine learning models prediction of dielectric matrix effect on optical properties of impurity in CdS/ZnSe core/shell quantum dot
12h10-12h20	YOSRA ZIDI Exploring the Influence of Rare-Earth Doping on the Structural, Optical, and Dielectric Properties of $\text{Ba}_{0.7}\text{Sr}_{0.3}\text{TiO}_3$ Ceramics	AMENI HIDRI Critical behaviour, the phenomenological model, electrical and dielectric properties of $\text{La}_{0.67-x}\text{Pr}_x\text{Ba}_{0.33}\text{MnO}_3$ ($x = 0.1$ and 0.2) Manganites	AZZAZ SOUHIR Enhancing Perovskite Solar Cells Efficiency through OAI-Based Surface Passivation	IBTISSEM FRAJ Engineering Light: Spacer Layer Effects in Stacked InAs/GaAs Quantum Dots
12h20-12h30	FATEN GADHOUMI Correlation of structural and physical properties of Mn doped $0.8\text{BiFeO}_3-0.2\text{BaTiO}_3$ multiferroic material	ABIR ARFA Enhancing the Magnetic Properties of Superparamagnetic Cobalt–Nickel Ferrite (Co 0.5 Ni 0.5 Fe ₂ O ₄) Nanoparticles via One-Step Solvothermal Treatment for Biomedical Applications	GHADA BRUINA Influence of hydrothermal activity on the petrographic and mineralogical composition of Cretaceous basic magmatic rocks at Jebel Fadhloun (Eastern Tunisia)	ZEINEB GNICHI Structural, Magnetic, and Optical behavior of $\text{Ni}_{0.5}\text{Cd}_{0.5}\text{Fe}_2\text{O}_4$ ferrite nanoparticles for advanced functional devices
12h30-12h40	MOOTEZ SMITI Effect of Cs doping on the properties of $\text{Cd}_{0.7}\text{Fe}_{2.3}\text{O}_4$ thin films prepared by spray pyrolysis technique	MOHSEN ELAIN HAJLAOUI Study of X-Ray diffraction, electrical conductivity and dielectric relaxations of multi- relaxer Nickel-Zinc ferrites	HEJER LITAIEM Physico-chemical synthesis and characterization of a material used in a photovoltaic cell	IBTISSEM MISSAOUI Influence of Calcination Temperature on the Structural and optical properties of $\text{Mg}_{0.4}\text{Cd}_{0.3}\text{Cu}_{0.3}\text{FeCrO}_4$ spinel ferrites for Optoelectronic Applications
12h40-12h50	HAJER METOUI Study of physical proprieties of $\text{Ca}_{0.2}\text{Sr}_{0.2}\text{Ba}_{0.2}\text{Mg}_{0.2}\text{Yb}_{0.15}\text{Pr}_{0.05}\text{Nb}_2\text{O}_6$ compound synthetized by solid-state	LOUHICHI SOUMAYA Structural, magnetic and magnetocaloric properties of $\text{Pr}_{0.55}\text{Sr}_{0.45}\text{Mn}_{1-x}\text{Ni}_x\text{O}_3$ perovskite manganites	YASSINE CHAKER Structural and Morphological Effects of 1-(2-Hydroxyethyl)-3-methylimidazolium Chloride on BaSrO_3 Perovskite: Insights from XRD, SEM, and ATR-FTIR	OUMAIMA ATHMOUNI Structural and Optical Investigation of $\text{Mg}_{0.9}\text{Ni}_{0.1}\text{Fe}_2\text{O}_4$ Spinel Ferrite for Advanced Optoelectronic Applications
12h50-13h00	YOUSSEF MOUALHI Contribution of Multiple Trapped Centers to the hopping conduction and scattering mechanisms of oxides	ABDESSALEM OMRI Synthesis, characterization and photocatalytic evaluation of manganese doped TiO_2 - based material	HOURIA ELLOUMI Characterization of Miocene magmatic rocks: alteration processes and neoformed minerals (Ain Araar, Nefza)	MOUNA FHOULA Comparative optical thermometry analysis using phosphates co-doped with lanthanide ions under 980 nm excitation
13h00-15h00	Lunch break			

15h30-16h10	Plenary Conferences (Hall 1), Chairman KAMEL KHIROUNI MOHAMED AYMEN BEN ACHOUR Polytechnic University of Hauts-de-France Lead-Free Green Piezoelectric Technologies			
16h10-16h40	Coffee Break + Posters (P1-P32)			
Oral presentations				
Topics	Magnetic and Multiferroic Materials	Energy and mechanic storage Semiconductors and nanotechnology	Materials modeling	Clay Materials
	Hall 1: Chairwoman RADHIA DHAHRI	Hall 2: Chairman ABDELAZIZ ZOUARI	Hall 3: Chairman SLIM ELLEUCH	Hall 4: Chairman MOUNIR MEDHIOUB
16h40-16h50	MOHAMED AMINE DJEBBI Ultrasensitive Electrochemical Detection of Cardiac Troponin-T Using Gold-Coated Magnetic Nanoparticles	MINYAR MNAKRI Investigation of Structural, Optical, and Electrical Properties of a Solid-State Synthesized Li-Based Delafossite Compound	NAHLA AJNEF Enhanced inter-subband terahertz absorption in n-type delta doped GaNAsBi/GaAs quantum well	MALEK LAHBIB Multifunctional Chitosan/Montmorillonite/TiO ₂ Nanocomposites: correlating microstructure with dielectric and photocatalytic properties
16h50-17h00	SANA SMARI Thermal Annealing Effects on Magnetoconductance in Bulk Heterojunction Solar Cells Based on an Ambipolar Polymer	KHALED KHARRATI Thermal properties of plaster composites reinforced by luffa fibers for use as insulating materials in building	SONIA MAHMOUD Modeling Methylene Blue Adsorption on Trititanate Nanotubes: Steric and Energetic Approach through Statistical Physics Formalism	EMNA JMAL Impact of diagenesis on clay mineralogy and organic matter in the eastern tunisian subsurface
17h00-17h10	ZAYNEB MECHLIA Tuning the magnetic properties of a 2D ferromagnetic semiconductor based on a rare-earth monolayer under biaxial strain	HAMZA NASRI Charge carrier dynamics in Samarium manganite doped Praseodyme Sm _{0.15} Pr _{0.4} Sr _{0.45} MnO ₃ based on conductivity measurements and mechanisms conduction models	DHIFLAOUI JAMILA DFT Study of <i>NenLi₂</i> + (n = 1–22) Clusters: The Structural, Electronic, Thermodynamic and Spectral Properties	RAMZI CHALGHAF Effective Removal of Congo red Dye Using an Adsorbent Prepared from MgAl-layered double hydroxide and cuttlebone

17h10-17h20	MOUADH KHLIFI Cationic distribution effect on structural, magnetic and electrical properties of Crdoped spinel ferrite	NOUARI KEBAILI Enhanced Energy Conversion and Storage Using Fractal Nanostructures	NOUR HAMZA Study of physical properties of the system ZnFe2O4/LaFeO3	YAMINA ROMDHANI Production of eco-friendly geomaterials from Boujaber mining waste to reduce environmental impact
17h20-17h30	NAILA DHAHRI Implementation of Sn ⁴⁺ and Mg ²⁺ ions substituted M-type baryum hexaferrite powders for enhancement of magnetic properties	ZEIN EL ABIDINE ALY TALEB Advanced dual-mode Er ³⁺ /Yb ³⁺ phosphors for high-precision optical thermometry across broad temperature ranges	DJAMILA MOKHTAR Time-Dependent Degradation and Tensile Performance of Glass Fiber-Reinforced Polyester Composites	SONIA LAZAAR Sustainable Stabilization of Hazardous Phosphogypsum Waste via Alkaline Activation: A Geopolymer-Based Strategy to Mitigate Environmental and Health Risks
17h30-17h40	ABDELBAKI GUEDRI The Impact of Cd substitution on the microstructural, vibrational magnetic and efficient photocatalytic properties of spinel materials for dye degradation	IMEN KARAOUD Effect of iron substitution on the structural, morphological and electrochemical properties of the La _{1.5} Mg _{0.5} Ni _{7-x} Fe _x (x=0, 0.1, 0.2, 0.3, 0.4 and 0.5) negative electrode of the Ni-MH battery	MOHAMED BARHOUMI Ultrafast Spin Dynamics in Ni 4@ C 40 H 34 Carbon Crosses: An Ab Initio Approach	SAMAR BEN ATIG Polymeric membranes towards water remediation of contaminants of emerging concern
17h40-17h50	AHMED DHAHRI Influence of Diamagnetic Sn ⁴⁺ Ion Substitution on Crystal Structure, Magnetic Features, and Magnetocaloric Effect in La _{0.65} Gd _{0.05} Ba _{0.3} Mn _{1-x} Sn _x O ₃ perovskite	FAKHER HCINI Physical properties of Cd _{0.3} Ni _{0.2} Co _{0.3} Cu _{0.2} Fe ₂ O ₄ spinel ferrites generated by the sol-gel process at two different calcination temperatures	FATMA REJAB Electrochemical sensing of levofloxacin using a Mn-porphyrin-modified ITO electrode	WALID OUESLATI A Comprehensive Study of Radionuclide Interactions with Montmorillonite: Statistical Physics, PHREEQC Modeling, and XRD Analysis
17h50-18h00	IKBEL MALLEK-ZOUARI Synthesis and characterization of multiferroic materials for environmental remediation	SONIA REBEI Structural and Optical Properties of Semiconductor Nanoparticles for the Photocatalytic Degradation of Pollutants	NOURHENE MANSOURI Tuning the Properties of CuO/SnO ₂ Mixed Oxide Thin Films via Composition and Annealing for Environmental Applications	SABER BOUBAKRI Removal of two anionic reactive textile dyes by adsorption into MgAl layered double hydroxide in aqueous solutions
	Dinner			

Friday 4 July 2025

9h00-9h40		<p>Plenary Conferences (Hall 1), Chairman SAMIR GUERMAZI NAJEH THABET MLIKI Faculty of Science of Tunis, Tunisia Surfactant-Free Synthesis of Multifunctional Spinel Ferrite Nanoparticles: From Magnetic and Photocatalytic Properties to Biomedical Applications</p>		
9h40-10h20		<p>Plenary Conferences (Hall 1), Chairman KAMEL BOUKHEDDADEN SMAIL TRIKI Université de Brest, France Synergy between spin crossover, fluorescence and viscoelasticity in soft nanocomposites</p>		
10h20-11h00		Coffee break + Posters (P33-P69)		
		Oral Presentations		
Topics	Energy and mechanic storage Semiconductors and nanotechnology	Dielectric Materials and Nanocomposites	Optical Materials and Laser Technology	Dielectric Materials and Nanocomposites
	Hall 1: Chairman TIMUR NIKITIN	Hall 2: Chairman ABDELHEDI AYDI	Hall 3: Chairman MOHAMED DAMMAK	Hall 4: Chairman HICHEM SMAOUI
11h00-11h10	WIJDENE BEN MOHAMED Colloidal Synthesis of AgInS ₂ /ZnS Core-Shell Quantum Dots with Tunable Red Emission for Enhanced Biological Applications	MOHAMED MOUNIR BOUZAYANI A Comprehensive Study of the Structural, Morphological, and Electrical Transport Characteristics of Niobate Ceramics	INTISSAR BEN ALI MOVPE of cubic GaN:Bi on GaAs(114) substrate	MOHAMED NOISSRIA Enhanced electrical conductivity and negative differential resistance in carbon/vanadium oxide nanocomposites

11h10-11h20	ICHRAK BEN SLIMA Effect of particles size on the electrochemical performance of NaCu0.2Fe0.8-xMnxO2 layered cathode active materials for Sodium-ion batteries	NISSAF MZABI Synthesis, structural and optical characterization of ZnO/epoxy nanocomposites	AMIRA BEN ABDELWAHED AP-MOVPE grown GaAsBi quantum dots on GaAs pseudo-substrate	MAHER TOUMI Structural, Raman, and Dielectric Characterization of La0.67Ca0.2Ba0.13Fe0.97Cr0.03O3 Perovskite Synthesized by Auto-Combustion
11h20-11h30	MOHAMED BESSAOUD A comprehensive exploration of optical properties of tri-doped GdAlO ₃ :Sm ³⁺ , Er ³⁺ , Cr ³⁺ for diverse applications across multiple disciplines	ABIR SLIMANI Study of the Dielectric and Electrical Properties of the Ferrite Co _{0.975} Bi _{0.025} Fe ₂ O ₄	MOHAMED HELMI HADJ ALOUANE Optical properties of InAs/InP quantum rod-nanowires grown on Si substrate for telecom band emission	DHOUHA HCINI Improvement of the properties of Ni 0.4 Cu 0.4 Cd 0.2 FeCrO ₄ spinel ferrites via heat treatment for use in electrical applications
11h30-11h40	WISSEM ZRAFI Theoretical Study of van der Waals Complexes Formed by Sr q+ (q = 0, 1, 2) and Helium Including Spin–Orbit Coupling	DJILAT KHAWLA Novel Series of High-Entropy Rare-Earth Zirconates (RE ₂ Zr ₂ O ₇): Synthesis, Microstructure, and Dielectric properties	ZEINEB SEBOUI Pb addition effect on the physical properties of phosphate glasses	HENI SOUHIR Structural, Cation Distribution, Magnetic, and Optical Properties of Sol-Gel Synthesized Ni _{0.5} Cu _{0.5} Fe ₂ O ₄ Ferrite Nanoparticle for Microwave and Optoelectronic Devices
11h40-11h50	MOHAMMED AMIN CHEMRAK Performance Evaluation of Olive Waste-Based Activated Carbon for Mercury(II) Removal in Dynamic Systems	YOSR GAHMERI Exploring the Plasmonic behavior and Negative Permittivity of CuBi ₂ O ₄ Spinel oxide at High-Temperatures: A Detailed Structural, Dielectric, and Electrical Analysis	ABDELHAMID ISSAOUI Cr-Substituted Cu-Cd-Ni Ferrites via SolGel Synthesis: Tunable Bandgap and Enhanced UV Photodetection Performance	MOLKA EZZEDDINE Vibrational, Optical, and Electrical Characterization of a Novel BisTetrabutylphosphonium Tetrabromozincate(II) Hybrid Materia
11h50-12h00	MOHAMED HAMMAMI Optical Simulation and Optimization of Nanowire Solar Cells Based on Perovskites and Kesterites	BILEL ZAAFOURI Advanced Spinel Ferrites for Gas Sensors: Synthesis and Characterization of Co _{1-x} BixFe _{2-x} Cr _x O ₄ Compounds	MARIAM YENGUI Codoping-Driven Dual-Mode Optical Thermometry via Upconversion and Downconversion Emissions in Tm ³⁺ /Yb ³⁺ Codoped NaSrY(MoO ₄) ₃ Phosphors	ABDELFATTEH BOUZIDI Enhanced Linear, Nonlinear Optical, and Modulus Dielectric Properties of Fluorescein Sodium Salt Dye Embedded Within Epoxy Resin Composite Materials for Renewable Energy Applications

12h00-12h10	MOURAD OUANID Improving Photocatalytic Efficiency through the Synthesis and Analysis of TiO ₂ Nanoparticles Supported on Fly ash/Iron Sludge for Organic Pollutant Degradation Ability	DHOUHA HCINI Improvement of the properties of Ni 0.4 Cu 0.4 Cd 0.2 FeCrO 4 spinel ferrites via heat treatment for use in electrical applications	AMAL HOMRI Deep insights into structural, morphological, optical and electrical properties of nanocrystalline SrLaFeCo0.5Mo0.5O 6 Synthesised by the sol-gel combustion method	WISSAL JILANI Potential of 5CBLC-doped PVA-PVP flms in optoelectronic devices: particularly regarding their enhanced insulation properties
12h10-12h20	AMIRA AKROUTI From Waste to Energy: Pinecone Powder as a Sustainable Support Matrix for High-Performance ssPCMs	INES MBAREK Investigating of Li ₂ Mg ₂ (WO ₄) ₃ : Structure, Morphology, and Electrical Properties with Ultra-Low Dielectric Loss for Optimizing Laser Host Materials	HOUCINE LABIADH Aqueous synthesis and optical study of undoped and Gd-doped ZnS semiconductor nanoparticles (Zn 1-3x Gd 2x S)	SAMIR CHAREF Probing the Optoelectronic properties of K ₂ CuSbCl ₆ for solar cells materials
12h20-12h30	NOURA AMAMOU Effect of Cu ²⁺ /Pr ³⁺ Co-Doping on the Structure and the Antibacterial Properties of Fluorapatite	FERDAOUS ADDALI Computational Modeling of Ultramicroporous Zeolitic imidazolate Framework ZIF-8, Microporous n-MOF-5 and Amino-Substituted n-MOF-5-NH ₂ for Efficient Adsorption of VOCs and Greenhouse Gases	IKHLAS KACHOU Multifunctional optical sensing nanoplatform of temperature and biomedical applications based on Nanophosphors doped lanthanide	MOHAMED YOUSSEF GNEBER Study of the electrical conductivity of Barium-doped GdCrO ₃
12h30-12h40	SARRA TOUMI DFT insights into the dynamic stability of anatase TiO ₂ (101)surface and its efficient experimental photocatalytic removal of some industrial leather dyes	KAOUTHER TRABELSI Enhancing the microstructure, optical, electrical and electrochemical mechanism in Na ₂ Co _{1-x} Fe _x SiO ₄ cathode material for sodium ion batteries by doping Fe in Co-tetrahedra site	SAIDI KAMEL Vacuum-assisted colossal enhancement of up-conversion luminescence of lanthanide-doped nanoparticles upon NIR laser irradiation	
13h:00-15h	Lunch break			

Saturday 5 July 2025

9h00-9h40

Plenary Conferences (Hall 1), Chairman ABDERRAZEK OUESLATI
MOHAMED-RAMZI AMMAR

Orléans University, France

Raman Scattering Techniques: From Conventional Analysis to In Situ Experiments

Oral Presentations

Topics	Electronic Materials	Dielectric Materials and Nanocomposites	Organics/Inorganics materials	Sensors and Biosensor ***** Magnetic and Multiferroic Materials
	Hall 1: Chairman ABDELHEDI AYDI	Hall 2: Chairwoman SOUHA KAMMOUN	Hall 3: Chairman FATHI BAHRI	Hall 4: Chairwoman NAJEH THABET MLIKI
09h40-9h50	GHOFRANE HAJJAJI Printable energy harvester systems for wearable sensors devices	MOHAMED MOUNIR BOUZAYANI A Comprehensive Study of the Structural, Morphological, and Electrical Transport Characteristics of Niobate Ceramics	MANEL SAADOUЛИ Toward thermoelectric application of Cu ₂ SnS ₃ nanoparticles synthesized via solvothermal route	NABILA BITRI Dysprosium-Doped SnO ₂ Thin Films for NO ₂ Detection: Correlating Microstructural Features with Sensor Performance
9h50-10h00	IMEN HEMMEDI Exploring the Gas Sensing Capabilities of Reduced Graphene Oxide Thin Films	RIHEB BARBRI Study of physical proprieties of Bi _{0.2} Na _{0.2} Ba _{0.2} Sr _{0.2} Ca _{0.2} TiO ₃ compound	JAWAHER NCIB Synthesis and characterization of a new hybrid antimony-based compound	IMEN IBRAHMI Synthesis and Properties of a Trigonal Lead-Free Zero-Dimensional Perovskite (CH ₃ NH ₃) ₂ [SnBr ₆] for Optical and Electrical Applications
10h00-10h10	MARAM BOUAZIZI Experimental study and numerical modelling of the hygrothermal properties of cellular concrete	HELA AYED Elaboration and study of the physical properties of systems (La-Ag) Mn 1-x X _x O ₃	MOHAMED EL GHEITH HEMADE Crystal structure, Hirshfeld surface analysis, conduction mechanism and electrical study of the new organic-inorganic compound [C ₈ H ₁₀ NO] ₂ ZnBr ₄	ASMA JEMMALI Optimization of Lab on a CD by experimental design and machine learning models for microfluidic biosensor application

10h10-10h20	MOHAMED LOUCIF Amine-Impregnated Zeolite Adsorbents for Efficient CO ₂ Removal from Natural Gas: Experimental and Theoretical Insights	AMIRA CHOURABI Charge Image Effect Induced by the Dielectric Mismatch in PbSe/CdSe Core/Shell Spherical Quantum Dots through the Influence of Electric Field	AIDA BENCHAABANE Op Performances of hybrid P3HT: ZnO@SiO ₂ nanocomposites thin films	ISSAM OUNI Thermistor and Capacitor Parameter Analysis Through Electrical and Dielectric Investigations of Manganite Systems for Technological Applications
10h20-10h30	BOUTHAIAN SHILI Synthesis and Characterization of pure and X doped TiO ₂ Photocatalyst: A combined Experimental + DFT Study	MARAM HFAIEDH Manganese Alchemy: doping effect on Cs ₂ Na ₂ FeCl ₆	SALIM MECHERGUI Anisotropy of the Landé g-Factor in Tetragonal MAPb _x Sn _{1-x} I ₃ Perovskites with C 4v Symmetry	MONCEF BENAMOR Development of ultrasensitive gas sensors based on SnO ₂ thin films structured by GLAD
10h30-11h10	Coffee break			
11h10-11h20	EMNA FETOUI Chiral Ligand-Induced Structural Transformation of Low-Dimensional Hybrid Perovskite	REDAOUI DJAIDA Synthesis, characterization, and properties of A ₂ B ₂ O ₇ (A = La, Sm, Nd, Yb; B = Zr, Ti) pyrochlore ceramics	RIDHA BRIKI Synthesis, crystal structure and high temperature phase transition in the organic-inorganic hybrid crystals [N(C ₄ H ₉) ₄] ₂ ZnBr ₄	FADWA AYACHI Investigation of Luminescence Quenching and Thermal Sensing Behavior in Sm ³⁺ -Doped LiSrYW ₃ O ₁₂ Phosphors
11h20-11h30	IBTIHEL SOUDANI Characterization of the Structure and Conduction Behavior of LiA _{0.5} Fe ₂ O ₄ (A = Sr, Ba)	AMENI HIDRI Critical behaviour, the phenomenological model, electrical and dielectric properties of La _{0.67-x} P _x Ba _{0.33} MnO ₃ (x = 0.1 and 0.2) Manganites	SIWAR FRIDHI Investigation of the Crystal Structure, Optical Band Gap, and Electrical Properties of a New Tin-Based Organic-Inorganic Material: (C ₃ H ₅ N ₂) ₂ SnCl ₆	MARIEM ESSAADI Morphological and dielectric properties of pomegranate peels waste synthesized by spray pyrolysis
11h30-11h40	ABDELHADI LACHABI Structural and phonon calculations of two-dimensional tantalum nitride 2D-TaN: a first principles study	WALID TAQUALI Cyano-Modified Non-Fullerene Acceptors for Improved Organic Solar Cells: A DFT Study	ALIBI AMINE Comprehensive Structural and DFT Analysis of a Novel Bismuth-Based Organic-Inorganic Hybrid Material: In-depth Insights into Vibrational, Optical, and Photoluminescence Properties of (C ₈ H ₁₄ N ₂) ₂ [Bi ₂ Br ₁₀] ₂ H ₂ O	RAOUAA FAKRAOUI Experimental and theoretical studies of the structural, magnetic, and electronic properties of the La _{0.6} Ca _{0.4} MnO ₃ perovskite

11h40-11h50	SONIA BEN MAHMOUD Modeling Methylene Blue Adsorption on Trititanate Nanotubes: Steric and Energetic Approach through Statistical Physics Formalism	INTIDHAR MANSOUR Optical and electrical conduction mechanisms of $\text{Na}_2/3\text{MnO}_2$ compound	EYA TOUMI Investigation of Vibrational, Hirshfeld Surface and Optical Properties of a New Organic-Inorganic Semiconductor Hybrid Material Based on Bi (III)	FREDJ TARRACH The effect of (Al, V) co-doping on the structural and optical properties of ZnO NPs for the sun-light assisted degradation of organic pollutants
11h50-12h00	KHAOULA BEN BRAHIM Structural and optical properties of semi-conductor organic–inorganic hybrid components ($[\text{N}(\text{CnH}_{2n+1})_4]_2\text{SnBr}_6$ (n = 1;2)): Potential applications in solar cells, LEDs and photodetectors	NADJIB BAADJI Quantum transport in molecular junctions	SAMEH DABOSSI Surface Nanotexturing of Gallium Arsenide: Toward Enhanced Performance in Photovoltaic and Microstructured Devices	ABDELHAFID MAHROUG Synthesis and characterization of ZnO/CuOnanocomposites for efficient degradation of pollutants and antibacterial applications
12h00-12h10	FAKHER AYACHI Application of statistical physics formalism for the modeling of adsorption isotherms of water molecules on the microalgae <i>spirulina platensis</i>	MASSOUD KAHLAOUI Innovative Approach to Enhance SOFC Ruddlesden-Popper Cathode Materials: High Entropy $\text{RE}_{2.5}\text{A}_{0.2}\text{O}_{4+\delta}$ ($\text{RE} = \text{La, Nd, Pr}$; $\text{A} = \text{Ni, Cu, Co, Fe, Mn}$) Family Synthesized by the Polyol Method	WAFA MALEK Thermal annealing effects on GaN epilayer properties	SAMIR HAMRIT Nanostructured flexible transparent conductive oxide ZnO:Al/PEN prepared by rf- magnetron sputtering and supercritical solvothermal methods
12h30-13h00	Closing			
13h00	Lunch break			

Poster Presentations (Thursday 3 July 2025: 16:10h-16:40h)

Name	Title
IHEB GAROUI	P1: Structural Characterization, BFDH Morphology, Optical Properties, and Charge Transport Mechanism of a Novel Tin-Based Organic-Inorganic Hybrid Compound
MEHDI MSAED	P2: LE and ICT properties of pyrazolo[1,5-a]pyrimidines based dyes: Experiments and DFT/TDDFT Calculations
AZABOU MARIAM	P3: Combined Effects of Nanoscale Size and Biphasic Stability in Magnetic Co-Fe Alloys
ZOUHAYRA AYDI	P4: Promising properties and applications in advanced electronic devices of Nd _{0.6} Sr _{0.3} Ba _{0.1} MnO ₃ Perovskite
HAJER BOUZNIF	P5: Water soluble Al(III) Schiff base complex: Synthesis, structural characterization and computational studies
AIDA BEN JAZIA KHARRAT	P6: Synthesis, Structural Characterization, and Optical Properties of NdCrO ₃ Orthochromite compound prepared via the Sol-Gel Method
HANANE BERDAA	P7: Smart Fluorescent Assemblies: New Donor-Spacer-Acceptor Systems with Enhanced Charge Transfer
MARIEM LTAYEF	P8: Elaboration and characterization of Nanofibers based on MEH-PPV-P3HT copolymer for organic optoelectronic application
RANIA TURKI	P9: Effect of growth interruption on optical properties of GaAs/AlGaAs multiple quantum well active region VECSELs grown by MO
TAREK LARBI	P10: Ab Initio design and modeling of some low dimensional materials
MSELMİ FAİÇAL	P11: Origin of red luminescence and energy transfer mechanism in Gd _{0.99} Er _{0.01} Al _{0.995} Cr _{0.05} O ₃ nanophosphor
YAMINA ROMDHANI	P12: Exploring Tunisian natural sand for the synthesis of Co-doped willemite (CoxZn _{2-x} SiO ₄) ceramic pigments
MOHAMED BEJAOUI	P13: Synthesis and XRD Characterization of Hybrid Membranes Based on PVA, Montmorillonite, and ZnO Nanoparticles for Environmental Application
NAJIB MNASRI	P14: Submicron-sized monodisperse mesoporous silica particles with adjustable morphologies and incorporated silver nanoparticles
WAFA MALEK	P15: Study of chemical etching of GaN
WIDED HIZI	P16: Exploring the temperature and frequency effects on the charge carriers dynamics in doped-perovskite system
SAMIA AYDI	P17: Morphological, Optical, and Electrical properties of Li ₂ CoP ₂ O ₇ for Advanced Applications
LIELA MILEDI	P18: Impact of crystal structure on the Ionic Conduction and Electrical Properties of Sodium Chromate compounds Na ₃ Cr ₂ (PO ₄) ₄
HOURIA ELLOUMI	P19: Petrographic, Mineralogical, and geochemical Study of Ragoubet Essid rocks in the Nefza area
MAYSSA KARRY	P20: Characterization of the Optical and Conduction Behavior of NaBa(PO ₄) ₃ Using the Correlated Barrier Hopping (CBH) Model
GHADA BRUINA	P21: Mineralogy, petrography and geochemistry of Cretaceous basic magmatic rocks at Jebel Abid (eastern Tunisia)
YASSINE CHAKER	P22: Structural Investigation of CdTiO ₃ Perovskite Modified with 1-(2-Hydroxyethyl)-3-methylimidazolium Chloride Using XRD, ATR-FTIR, and SEM Analyses
SANA MEFETH	P23: Theoretical study of the magnetic and magnetocaloric properties of La _{1.965} Ce _{0.0175} Er _{0.0175} NiMnO ₆ double perovskite: Landau theory and phenomenological models
MOUADH TLILI	P24: Hydrogen-bond network in an equimolar acetic acid–water mixture as studied by neutron scattering
SIHEM BENALI	P25: Synthesis of geopolymers and zeolite from the mixture of porcelanite and white clays: Clarification of phosphoric acid
MOHAMED DADI	P26: Study of physical properties of Br _{0.2} Ti _{0.2} Sn _{0.2} Ta _{0.2} Hf _{0.2} BaO ₃ compound synthetized by solid-state
FADHEL HAJLAOUI	P27: Chiral Ligand-Induced Structural Transformation of Low-Dimensional Hybrid Perovskite
BOCHRA BEN SALAH	P28: 1D vs 0D crystal architecture of palladium hybrid Perovskites incorporating chiral organic molecules: Investigation on optical and electrical properties
MOHAMED IKBAL HOUCHATI	P29: The extraction of lignin using the organosolv process
FATMA CHAKROUN	P30: Structural characterization and ZFC/FC magnetization study of La _{1-x} K _x MnO ₃ nanoparticle compounds

HOUYEM GHARBI	P31: Electrochemical and Structural Properties of ZnFe2O4 Spinel Ferrite for Ni-MH Battery Applications
KHALIL LAZAAR	P32: Degradation of methylene blue dye using a novel modified natural clay: combined adsorption and Fenton technology

Poster Presentations (Friday 4 July 2025: 10h20-11h00)

SAMIR MEFTEH	P33: Environmental impact and spatial distribution of potentially toxic elements in soils around the abandoned Bou Jabeur mine (Northwestern Tunisia)
AMEL LAZZEZ	P34: Investigation of the physical properties of Mg0.5Sr0.5Fe2O4 spinel ferrites through the combined analysis of structural and dielectric behaviors
EMNA BEN SASSI	P35: Multiscale Characterization of ZnO-SnO ₂ Thin Films Deposited by RF Sputtering: Influence of Substrate Temperature
MAALEJ WASSIM	P36: Synthesis, Crystal Structures, Electrical and Optical Properties of Non-centrosymmetric Organic Salts [(C ₆ H ₈ N ₂)NO ₂]X.H ₂ O (X=Cl; Br)
ASMA BEN RACHED	P37: Significantly Dense Three-Dimensional Hydrogen-Bond Network in a Tellurium Phosphate: Proton Conduction in Anhydrous versus Humid Environments
NESRINE MAHMOUDI	P38: Theoretical investigation of structural and electronic properties of SrTiO ₃
MOUFIDA KRIMI	P39: Structural, Optical, and Electrical Characterization of Hexagonal Cs ₃ Fe ₂ Cl ₉ Perovskite Nanocomposites for Lead-Free Solar Cell Applications
LAOUYENNE MOHAMED RADHOUANE	P40: Sudden decline of the critical universal model for the nominal compositions La0.7Ca0.2Sr0.1Mn1-xEuxO ₃ (x=0 and 0.04) synthesized by Sol-Gel technique
RANIA TURKI	P41: Effect of growth interruption on optical properties of GaAs/AlGaAs multiple quantum well active region VECSELs grown by MOCVD
NAAMEN SONIA	P42: Organic Intercalation of Nacrite with Octadecylamine: A DFT Approach to Structural and Energetic Characterization
IBTISSEM TOUATI	P43: Acoustic Evaluation of 3C, 4H, and 2H SiC Polytypes via Rayleigh Wave Simulation and Spectral Analysis
NOUREDDINE MHADHB	P44: Multifunctional Characterization and Therapeutic Potential of a benzyltriethylammonium [CoBr ₄] salt: Integrating Photocatalysis and Enzyme Inhibition for Anti-inflammatory, Anti-obesity, and Anti-diabetic Applications
HOUCINE DHAHRI	P45: Conduction Mechanisms in Ni-Doped La0.8Sr0.1Ba0.1FeO ₃ Perovskites
MILAINE JEBALI	P46: Enhanced Electrochemical Sensing Performance of Chitosan-Based Sensors via Silver Nanoparticles
AKREM ESSAOUDI	P47: High-Temperature Performance Assessment of AlGaN/InGaN pHEMT: Electrical and RF Perspectives
LAMIA SAIDI	P48: Characterization of mixed CoFe ₂ O ₄ Spinel Ferrite: Insights into Structural, Optical, and Magnetic Properties
SOUROUR BEN YAHYA	P49: Solid-state synthesized Li ₄ GeO ₄ germanate: An Exploration of its Structure, Vibrational characteristics, Electrical conductivity, and Dielectric properties
ABDOULI AMAL	P50: Corrosion Inhibitors Intercalated into Layered Double Hydroxides Prepared In Situ on AA2024 Aluminum Alloys: Structure and Protection Ability
AMAR DJEMLI	P51: Synthesis, Characterization and Crystallization Kinetics of NaLaP ₂ O ₇ Compound synthesized via Sol-Gel Auto-Combustion Method
AMENI KOUTTY	P52: Effect of Deposition Angle on the Microstructure and Optoelectronic Properties of SnSb ₄ S ₇ Thin Films Deposited via the GLAD Technique
FATMA NAMOUCHI	P53: Valorization of Steel Slag as an Adsorbent Material for Heavy Metal Removal
IBTIHEL SOUDANI	P54: Dielectric relaxation and ionic conductivity Studies of SrZnP ₂ O ₇
INSAF BEN BRAIEK	P55: Molecularly Imprinted Polymer-Modified Electrode for the Detection of Lipid Biomarkers Associated with Alzheimer's Disease
MOHAMED BAAZAQUI	P56: Magnetic and dielectric studies of the La _{0.8} Na _{0.2} Mn _{0.97} Fe _{0.03} O ₃ sol gel compound
MOHAMED IKBAL HOUCHATI	P57: Study of Novel Lithium Transition Metal Phosphate Materials: LiMn 0.25 Fe 0.25 Co 0.25 Ni 0.25 PO ₄

NAOURES BEN FADHEL	P58: Development of Silicon Nanowires/Graphene Oxide Structure for High Electrochemical Performance
SABER NASRI	P59: Structural investigation, vibrational study and Na-ion transport properties of NaGaP ₂ O ₇ as sodium solid electrolyte
SOUAD CHKOUNDALI	P60: Synthesis and Characterization of new organic -inorganic hybrid compound: bis(4-acetyl anilinium) tetrabromomercurate (II)
WISSEM BELLAAJ	P61: Impact of the oxygen deficiency on the magnetic anisotropy and the Griffiths phase suppression
WOUROUD SGHAIER	P62: A statistical physics- based method in evaluating the adsorbed phase thermodynamics
YESMINE TRIGUI	P63: Study of the crystal structure and thermal properties of a novel hybrid compound based on iron fluoride
SLIM ELLEUCH	P64: Structural, vibrational and optical properties of a new Nickel based compound
RIHIA GHANI	P65: Investigating the influence of Ca substitution on the structural and optical properties of La _{0.7} Sr _{0.3} MnO ₃
KHAWLA FRADI	P66: Achieving Efficient and Stable FA _{1-x} MA _x PbI ₃ Perovskites with Improved Film Quality through Mixed Cation Incorporation
LOUIZ SONIA	P67: Electrical Properties and Charge Transport in a Pyrazolyl-Based Amidine
ICHRAK TOUHAMI	P68: Compositional Optimization of Triple Cation Perovskites for Enhanced Optoelectronic Properties and Device Performance
MOUNA WALI	P69: Enhancement of the magnetocaloric effect by deficit in A site at room temperature and correlation with transport properties