

Detailed Conference Program

Session ID	Time	Details (subject to change - an updated version will be posted during the first week in May)	Speaker	Location
		May 12, 2024 - Day 0: Arrivals: Holiday Inn Across from Universal, 5916 Caravan Ct Orlando, FL 32819		
Registration	16:00 - 20:00			
	18:00 - 20:00	Light reception and networking		Corridor
		Foyer/pool		
		May 13, 2024 - Day 1		
Breakfast	7:00 - 9:00			
Registration	8:00 - 10:00	Setting up poster Group 1		
	8:45 - 9:30	Opening of the ISYDMA'8: Conference Co-Chairs		Ballroom
		Opening Remarks: Prof. Achour, Prof Mabrouki, Dr. Boukheir, Prof. Popov, Prof. Touahni and Prof. Tenne		
		Logistics and Operations: Prof. Vaseashta		
Keynote 1	9:30-10:30	Chairs: Vaseashta, Popov		Ballroom
KN1	9:30 - 10:00	Inorganic nanotubes: From WS2 to "misfit" layered compounds	Prof. Tenne	
KN2	10:00 - 10:30	Designing polymer systems with enhanced dielectric response	Prof. Bobnar	
Coffee/Tea	10:30-11:00	Coffee Break, ISYDMA'8 Cake and group photo		Corridor or pool
Invited 1	11:00 - 13:00	Chair: Balazsi, C., Petkov		Ballroom
IS1	11:00 - 11:20	Enhancement of room temperature magnetoelectric coupling in Na _{0.5} Bi _{0.5} TiO ₃ -BaFe ₁₂ O ₁₉ based flexible polymer film	Prof. Phanjoubam	
IS2	11:20 - 11:40	Enhancement of ferroelectric, dielectric and electrocaloric properties in relaxor ceramics through processing-related microstructural features	Dr. Rozic	
IS3	11:40- 12:00	Nanocomposite Ceramics for Novel Biomechanical Energy Harvesting and Dielectric Cooling	Prof. Kutnjak	
Stretch break				
IS4	12:10 - 12:30	Exploring dielectric properties of TiO ₂ Co-Doped with Nb and Mg for energy storage	Dr. Soreto	
IS5	12:30 - 12:50	Structural Characterization of Gd-Doped Ceria Powders and Ceramics: A Comprehensive Study of Composition and Thermal Treatment Effects	Prof. Petkova	

Lunch	13:00 - 14:30	5 minutes walk to Miller House		Miller House
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OL1	14:30 - 15:00	Broad band dielectric spectroscopy - challenges and results	Prof. Banys	Online link
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Keynote 2	15:00 - 16:00	Chairs: Phanjoubam, Mabrouki		Ballroom
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KN3	15:00 - 15:30	Carbon Nanophases in Silicon Nitride	Prof. C. Balazsi
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KN4	15:30 - 16:00	Diamond Photonic devices	Prof. Popov
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Invited 2	16:00 - 17:30	Chairs: Kotru, Petkova		Ballroom
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IS6	16:00 - 16:20	Pressureless Post-sintering on the Hot Isostatic Pressed Alumina Prepared from the Oxidized AlN Powder	Prof. K. Balazsi
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IS7	16:20 - 16:40	Carbon Dots: New Fluorescent Nanoparticles for Advanced Optical Application	Prof. Striccoli
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IS8	16:40 - 17:00	Intermediate phase glasses of the As-S-Ge ternary: self-organization, properties and applications in programmable metallization cells	Prof. Tsiulyanu
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Stretch break	17:00 - 17:10		
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IS9	17:10 - 17:30	Study of thermoelectric Bismuth Chalcogenides	Prof. Petkov
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Speakers I	17:30 - 18:10	Chair: Boukheir, Oueriagli		Ballroom
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SP1	17:30 - 17:40	Advancements in Carbon Fiber 3D Printing for Energy Research	Dr. Palwai
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SP2	17:40 - 17:50	Synthesis and developing a new Mn _{1-x} Cu _x MoO ₄ inorganic chromophores by using sol-gel method and exploring their properties	Ms. Moukhfi
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SP3	17:50 - 18:00	Hygrometric Investigation of the Influence of Cadmium, Magnesium, and Ferric Ions on the Thermodynamic Activities of Phosphoric Acid Solutions at T=333.15 K	Mr. Makka
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SP4	18:00 - 18:15	Experimental investigation of electrical properties of BaSrTiO ₃ /α-Fe ₂ O ₃ compounds for storage energy	Prof. Jomni*
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Poster I	10:00 - 18:10	Chairs: Soto, Palwai		Easles
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PO1	Poster 1	Structural, optical and electrical characteristics of of kesterite (CZTS) for Solar Cells Applications	Dr. Nkhaili
PO2	Poster 2	Effects of La dopant on diffused ferroelectric phase transition and electrical properties of lead-free SrBi2Ta2O9 ceramics	Dr. Belhimira*
PO3	Poster 3	Study of the efficiency of layered double hydroxide-based corrosion inhibitors on mild steel in chemical pickling in HCl medium	Mr. Salim Ayoub
PO4	Poster 4	Experimental and computational studies of crystal violet removal from aqueous solution using sulfonated graphene oxide	Dr. Oluwasina
PO5	Poster 5	Dielectric Spectroscopy of melt-extruded polypropylene carbon nanofiber composites	Dr. Samir*

RF1 **18:00 - 18:15** **Rapidfire presentations**

Day 1: Concludes and Dinner on your own

May 14, 2024 - Day 2

Breakfast	7:00 - 9:00		TGIF
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Registration	8:00 - 10:00	Setting up poster Group 2	Corridor
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Keynote 3	9:00-10:20	Chairs: Jouiad, Silva	Ballroom
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KN5	9:00 - 9:30	Magneto-polaron effects on resonant Raman scattering in transition metal dichalcogenides	Prof. Fomin
KN6	9:30 - 10:00	Heat-Assisted Ferroelectric Reading for High Speed Scanning Nonlinear Dielectric Microscopy Ultrahigh-Density Ferroelectric Data Storage	Prof. Cho
IS10	10:00 - 10:20	Microstructural Investigation of Polarization and Domain Structures in Piezoelectric Films Using Scanning Nonlinear Dielectric Microscopy	Prof. Ogadawa
Stretch Break	10:20- 10:30		

OL2	10:30 - 10:45	Synthesis and Characterization of Metal-based Materials for Opto-electronic Applications	Dr. Al Balushi	Online Link
	10:45 - 11:00	Synthesis characterization and performance of tetrafunctional epoxy resin as a potential anticorrosion protection for mild steel in 0.5 M H2SO4 solution. Computational approaches	Dr. Hsissou	

Invited 3	11:00 - 13:00	Chair: Cho, Fomin	Ballroom
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IS11	11:00 - 11:20	Laser-power dependence effects on the structural stability of nanocomposite catalysts studied by Raman spectroscopy	Dr. Silva
IS12	11:20 - 11:40	Effects of 1D and 2D nanomaterials on Dielectric Relaxation and AC Conductivity in PVA Based Nanocomposites: A Havriliak-Negami Fitting Approach	Dr. Dey

IS13 **11:40 - 12:00** Lead-free ferroelectric materials for high temperature Energy storage capacitors Prof. Lahmar

Stretch break

IS14 **12:10 - 12:30** Suppression of higher acoustic harmonics via a metastructure for nondestructive evaluation of dielectric materials Prof. Choi

IS15 **12:30 - 12:50** New functions of a semiconductor photodetector with a high-resistivity layer Prof. Khudaverdyan

Lunch	13:00 - 14:30	5 minutes walk to Miller House		Miller House
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OL3	14:30 - 14:45	The Effect of Pollution on High Voltage Power Line Insulators	Prof. Hamouda	Online Link
OL4	14:45 - 15:00	m-GGA Calculations of the Optical and Electronic Properties of Pristine and N-doped pentagraphene	Prof. Villagracia	Online Link

Keynote 4	15:00 - 16:00	Chairs: Petkov, Fasquelle		Ballroom
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KN7 **15:00 - 15:30** Enhancement of Energy Storage Performance in Lead-Free Ferroic materials Prof. Marsi

KN8 **15:30 - 16:00** Measurements of thermal diffusivity using atomic force microscopy Prof. Mabrouki

Invited 4	16:00 - 17:00	Chairs: Kotru, Petkova		Ballroom
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IS16 **16:00 - 16:20** Lanthanum-Doped Lead Zirconate Titanate Films for UV Sensing Applications Prof. Kotru

IS17 **16:20 - 16:40** 3D Printed Microwave Absorber Dr. Le Sage

IS18 **16:40 - 17:00** Zeolite-modified electrodes for electrochemical sensing: Surface and Interfacial Phenomena Prof. Idoulhi

Speakers 2	17:00 -18:10	Chair: Boukheir, Oueriagli		Ballroom
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SP5 **17:00 - 17:10** Eco-Friendly Chalcogenides Semiconductors Cu₂XSnS₄ (X: Zn, Ni, Fe, Co): Elaboration, Characterization and Solar Cells Application Dr. El Kissani

SP6 **17:10 - 17:20** Dielectric behavior and AC electrical conductivity of poly(methylmethacrylate)/Polypyrrole-doped composites Ms. Barnoss

SP7 **17:20 - 17:30** Multi-Faceted Approach: QSAR, Molecular Docking, Molecular Dynamics Simulations, and ADMET Evaluation for Enhanced Binding of SARS-CoV 3CLpro Derivatives as Potent Peptidomimetic Inhibitors Mr. Soufi

SP8 **17:30 - 17:40** Substitution Effects in Oxide Semiconductors (BIMEVOX) on Chemical, Physical, Electrical, Optical, and Microstructural Properties. Photocatalytic Applications on Pharmaceutical Products Dr. Mhaira

SP9 **17:40 - 17:50** Green synthesis of magnesium oxide nanoparticles from leaf extract and modeling of Adsorption for the Removal of Bemacid Red using BBD-RSM and ANN approach Ms. Hamidallah

SP10	17:50 - 18:00	Dielectric relaxation of polyester-based composites reinforced with Argan Nut Shell Powders	Ms. Kreit
SP11	18:00 - 18:10	Recent advancements in the electrolytic water-splitting process for hydrogen production	Mr. Mabrak

Poster 2	10:00 - 18:00	Chairs: Soto, Palwai	Easles
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PO6	Poster 6	Structural, electrical, optical and microstructural properties of Bi ₄ V ₂ -xCu _x /2Sb _x /2O ₁₁ -3x/4	Dr. Mhaira
PO7	Poster 7	Psychoemotional State Sensors and Measurements for Risk Factors Identification	Dr. Sidorenko
PO8	Poster 8	Dynamic simulations of thermal performance of a building based on earth bricks in six climatic zones of Morocco	Mr. Benfars
PO9	Poster 9	Smart Nanocomposites for Energy Harvesting & Biomedical Sensing Applications	Ms. Davis
PO10	Poster 10	Recycling of Office Wastepaper in Eco-Friendly Clay Bricks for Sustainable Manufacturing to Enhance the Thermal Properties of the Clay-Paper Composite Material	Mr. Alioui

RF2	18:00 - 18:15	Rapidfire presentations
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Day 2: Concludes and Dinner on your own		
May 15, 2024 - Day 3		

Breakfast	7:00 - 9:00	TGIF
Registration	8:00 - 10:00	Setting up poster Group 3 Corridor

Keynote 5	9:00-10:00	Chairs: Achour, Mabrouki	Ballroom
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KN9	9:00 - 9:300	Dielectric Barrier Discharge: Generation and Enhancement of Hydrogen Peroxide Action	Prof. Duca
KN10	9:30 - 10:00	Contribution of multiferroic nanomaterials to enhancing photocatalytic properties	Prof. Joud

Coffee/Tea 10:00 -10:15

Invited 5	10:15 - 13:00	Chair: Le Sage, Striccoli	Ballroom
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IS19	10:15 - 10:30	Two-step magnetron sputtering and annealing process for the synthesis of high crystalline and single phase CZTS and CZTSe absorber layers	Dr. Zaki
IS20	10:30 - 10:45	Electrocatalytic materials for anion exchange membrane fuel cells	Dr. Hu

IS21	10:45 - 11:00	3D and 4D Printed Nanocomposite Contact Lenses for Ocular Health Management	Dr. Butt*
IS22	11:00 - 11:15	Experimental investigations on electrical properties of Al ₂ O ₃ and Cyclic Olefin Copolymer composites	Dr. Ionete

Stretch break

IS23	11:30 - 11:45	Effects of change of chirality of green dielectric gold nanoparticles on the antimicrobial activity	Dr. Soto
IS24	11:45 - 12:00	Vibrational Study of Hybrid Systems Based on carbon nanotubes for organic solar cells.	Prof. Rahmani

OL5	12:30 - 12:45	Modeling of time, temperature, and composition effect variation upon the thermic treatment of aluminum-silicon alloys	Dr. Elhamzi	Online Link
OL6	12:50 - 13:00	Development and implementation of a blind source separation algorithm to extract the fetal electrocardiographic (ECG) signal in real time	Dr. Mekhfioui	Online Link

Lunch	13:00 - 14:30	5 minutes walk to Miller House		Miller House
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OL7	14:30 - 14:50	Study of Spintronics and Spinqunt 2D Structures Prepared by Laser Plasma Method	Prof. Kervalishvili	Online Link
OL8	14:50 - 15:00	Optical and Structural characterizations of the base schiff complexes for solar cells	Dr. Hnawi	Online Link

Keynote 6	15:00 - 16:00	Chairs: El Haj, Rahmani		Ballroom
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KN11	15:00 - 15:20	Functional materials for electrical energy production: Applications to Metal-Supported Intermediate-Temperature Solid Oxide Fuel Cells (MS-IT-SOFCs) Raspberry Nanoparticles and Thermally Controllable Dual-Scale Roughness for Superhydrophobic, Transparent, and Durable Coatings	Prof. Fasquelle
IS25	15:20 - 15:40		Dr. Boukheir
KN12	15:40 - 16:10	High K dielectrics in Al-Based Next Generation Sensors for Biomedical Applications	Prof. Vaseashta

Invited 6	16:15 - 17:00	Chairs: Noorali, Kavaz		Ballroom
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IS26	16:15 - 16:30	Green synthesis under microwave of the Knoevenagel-phospha-Michael Addition Reaction by Doped Natural Phosphate	Dr. Youness
IS27	16:30 - 16:45	Green Synthesis and Doping Strategies for Enhanced ZnO Photocatalysts: Sustainable Approaches for Solar-Driven Dye Remediation	Prof. Kavaz*
IS28	16:45 - 17:00	Artificial Intelligence-Based Next Generation Sensors for Biomedical Applications	Prof. Noorali / Dr. Baldwin

Speakers 3	17:00 - 18:00	Chair: Hu, Butt		Ballroom
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SP12	17:00 - 17:10	Effect of Annealing Time On the Properties of the CNTS Thin Films	Prof. Dris-El-Haj
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SP13	17:10 - 17:20	A natural coagulant from capers: characterization, optimization, potential use for water treatment and recovery of sludge in vitrification	Ms. Kouniba
SP14	17:20 - 17:30	Harvesting Energy from Garden Compost Leachate through Microbial Fuel Cells for Tomorrow's Sustainable Power Generation	Ms. Elmazouzi
SP15	17:30 - 17:40	Elaboration, characterization, and thermodynamic study of superphosphate in aqueous solutions at 313.15 K	Ms. Ghallali

OL9	17:40 - 17:50	Energy harvesting efficiency analysis using artificial intelligence	Ms. Touari	Online link
OL10	17:50 - 18:00	Enhancing Piezoelectric Properties of PLA/GO Nanocomposite for Energy Harvesting Application	Ms. Oumghar	Online link

Poster 3	10:00 - 18:00	Chairs: Soto, Palwai		Easles
PO11	Poster 11	Platinum-functionalized CVD Growth Graphene Foam for Fuel Cells Applications	Dr. Ion-Ebrasu	
PO12	Poster 12	A comparative study on the chemical, structural, thermal and mechanical properties of polyester and epoxy resin reinforced by sisal fiber	Dr. Belhimria	
PO13	Poster 13	Mechanical Performance Evaluation of Adobe Bricks Manufactured Using Different Clay Soils Extracted from Northcentral of Morocco	Mr. Azalam	
PO14	Poster 14	Hybrid simulation method for dynamic energy harvesting systems	Ms. Touari	
PO15	Poster 15	AC electrical conductivity modeling of polypropylene-based composites melt-processed with carbon nanofibers	Dr. N. Aribou	

RF3	18:00 - 18:30	Rapidfire presentations, Student Presentation awards and Cloisng Remark
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Closing	Departure for local site visit and Dinner
	May 16, 2024 - Departures - Free time on your own