



June 17-18

For More Information

**SUPERIOR SCHOOL OF
TECHNOLOGY, KENITRA, MOROCCO**

ISAMPEOA-2025 PROGRAM

Tuesday, June 17th, 2025

8h30 – 12h00	Registration
9h00 – 9h30	Opening Ceremony
	Welcome address from the Permanent Secretary of the Hassan II Academy of Sciences and Technology Prof. Omar Fassi-Fehri
	President of Ibn Tofail University, Kenitra Prof. Mohamed Larbi Kerkeb
	Director of the Higher School of Technology, Kenitra Prof. Hassane Erguig
9h30 – 10h30	Plenary Lectures Chairs : Prof. Lalla Btissam DRISSI -Prof. Bouchta SAHRAOUI
	9h30. Holistic Molecular Design Strategies for High-Performance Organic Light Emitting Diodes Prof. Chihaya Adachi (Center for Organic Photonics and Electronics Research (OPERA), Kyushu University)
	10h00. Organic Chromophores and Liquid Crystals as Systems for Nonlinear Optics and Multicolor Laser Light Applications Prof. Jaroslav Mysliwiec (Wroclaw University of Science and Technology, Poland)
10h30 – 11h00	Coffee Break
11h00 – 12h00	Invited Lectures Chair : Prof. Chihaya ADDACHI
	11h00. Organometallic materials using pyridylidene ligands for optoelectronic applications Prof. Jamal Moussa (Sorbonne University, Institut Parisien de Chimie Moléculaire, Paris, France)
	11h20. Thiophene based molecular materials for (non)linear optics Prof. Abdelkrim EL GHAYOURY (Angers University, CNRS, Angers, France)
	11h40. Phenanthroline-pyridylidene Ligand Promotes Near Infrared Luminescence up to 840 nm in Ru(II) and Os(II) Complexes Dr. Salwa SIMONA JAMIL (Lorraine University, CNRS, Laboratoire Lorrain de Chimie Moléculaire, 54000 Nancy, France)
12h00 – 14h00	Lunch
14h00 – 15h00	Invited Lectures Chair : Prof. Jaroslav Mysliwiec
	14h00. Recent Advances in Plasmonic Biosensors for Cancer Prognosis and Prediction of Treatment Benefit Prof. Mohcine ZEKRTI (Euromed University, Fès, Morocco)
	14h20. Low Cost Growth and Characterization of Metallic Oxide Thin Film, Geopolymers and Silver Nanowires Prof. Khalid NOUNEH (Laboratory of Materials Physics & Subatomics, Faculty of Sciences, Ibn Tofail University, Kenitra Morocco)
	14h40. AI at the Atomic Scale: Revolutionizing Nanoscience from Discovery to Manufacturing Prof. Mohammed KHENFOUCH (Faculty of Applied Sciences, Department of Applied Physics, Ait Melloul, Ibn Zohr University, Agadir, Morocco)

15h00 – 17h00	Oral Lectures	
	Session 1 Chair : Prof. Abdelkrim EL GHAYOURY	Session 2 Chair : Prof. Jamal Moussa - Prof. Abdelhafed TALEB
	Abdelhadi El Hachmi , Zouhair Sadoune; Synthesis, Crystal Structure, and Optical Properties of Jeanbandyite $\text{FeSnO}(\text{OH})_5$.	Nabil Bouri , Khalid Nouneh; Performance Comparison of Triple vs. Graded Perovskite Absorber Layers in Solar Cells: A Numerical Study.
	C. Aarab , A.Drighil; Burst Pressure Analysis of Cylindrical Type V Hydrogen Tanks Using Advanced Composite Materials.	Abderrazzak Bouziane , Haddou El Ghazi, Redouane En-nadir; Simulation-Based Analysis of the Efficiency of MAPbI_3 Perovskite Solar Cells with Different Charge Transport Layers.
	Elmahdi Farkouch , Abdelilah Akouibaa, Abdelslam Elassyry; Surface Plasmon Resonance and Photothermal Properties of Silica/Gold/Graphene and Hollow/Gold/Graphene Multi-Shell Nanostructures.	H. BOUSDRA , N. BEN AFKIR, J. MEZIANE and M. ZAZOUI; A coupled optical-electrical multi-physics investigation of the effect of InGaN/GaN multiple quantum well structure on the photovoltaic performance of solar cells.
	F. Ztak , K. Abazine, R. Hsissou, L. C. Costa, L. Nkhaili, M. El Hasnaoui; Dielectric analysis of a nanocomposite based on the dispersion of natural phosphate particles into a crosslinked polymer.	Abdelali Staoui , Abdennacer Idrissi, Zouhair El Fakir, and Said Bouzakraoui; Theoretical Design of Thiophene-Based Hole Transport Materials for Enhanced Perovskite Solar Cell Performance.
	J. El-Hamouchi , A. Ed-Dahmouny, A. Fakkahi, M. Jaouane, O. Ben Hammou, A. Sali; Third Harmonic Generation in Ruddlesden-Popper Phase Perovskites.	A. Elomari , N. Bouri, Y. Salhi, H. Erramli, K. Nouneh; Fabrication of AgCuO_2 Thin Films via Electrodeposition in Ammonia–Citrate Bath for Use as Hole Transport Layers in Inverted Perovskite Solar Cells.
	M. Zaki , H. Jouah, M. Abouricha, S. Amrane; Thermal modeling and performance analysis of nested-ring doping in high-power LMA-TDFLs.	A. Oubari , K. Nouneh, E. Hamzaoui, H. Amayoud, K. Fathi; Optimising solar panel efficiency: a comparison of cleaning and protection strategies.
	Ahmed Akouibaa , Rachid Masrour, Abdelilah Akouibaa, Abdellah Rezzouk, Mabrouk Benhamou, and Heryanto Heryanto; Numerical Analysis of SPR-Based D-Shaped Optical Fiber Biosensor Sensitivity for Early Detection of Cancerous Cells.	M. El-Mrabet , A. Tarbi, M. A. Hachimi, H. Erguig and T. Chtouki; Integration of a Secondary $\text{CsPbCl}_{3-y}\text{I}_y$ Perovskite Layer ($y = 1, 2, \text{ or } 3$) into CsPbI_3 -Based Solar Cells to Boost Thermal Stability and Photovoltaic Performance.
	B. Saâd ; Holographic Interferometry Using a Pulsed Nd: YAG Laser and $\text{Bi}_{12}\text{SiO}_{20}$ Photorefractive Crystals as the Recording Medium.	M.A. Hachimi , A. Tarbi, M. El-Mrabet, A. Migalska-Zalas, G. Myronchuk, H. Erguig; First-Principles Study of Structural, Electronic, and Optical Properties of CsPbCl_3 for Photovoltaic Applications.
17h00 – 18h00	Coffee Break	

Wednesday, June 18th, 2025

9h00 – 09h30	Plenary Lecture	
	Chair : Prof. Bouchta SAHRAOUI -Prof. Hamid ERRAMLI -Prof. Mr Brahim ELOUADI	
	9h00. Beyond Conventional Solar Cell Device Simulations	
	Prof. Alex QUANDT (University of the Witwatersrand, Johannesburg, South Africa)	
09h30 – 10h30	Invited Lectures	
	Chair : Prof. Youssef EL KOUARI- Prof. Ahmed RMILI	
	09h30. Droplet-based Microfluidics and Optofluidics: smart tools for the synthesis and analysis of advanced materials in photonics and plasmonics	
	Prof. Abdel EL ABED (ENS Paris Saclay and Paris Descartes university, Paris, France)	
	09h50. 3D Lead-Free Halide Perovskites: Optoelectronic Properties and Potential for Photovoltaic Applications	
	Dr. Soukaina BOUHMAIDI (Sustainable Emerging Technologies Team, FPL, Abdelmalek Essaadi University, Tetouan, Morocco)	
	10h10. Exploring the Relationship Between Molecular Structure and Nonlinear Optical Properties in Organic and Organometallic Compounds	
	Dr. Said TABOUKHAT (Angers University, LPHIA, SFR MATRIX, 2 Bd. Lavoisier, 49045 Angers, France)	
10h30 – 11h00	Coffee Break	
11h00 – 13h00	Oral Lectures	
	Session 1	Session2
	Chair : Prof. Khalid NOUNEH - Dr. Soukaina BOUHMAIDI	Chair : Prof. Abdel EL ABED - Prof. Mohamed EL HASNAOUI
	S. Bouhamidi Alaoui , H. Labrim, A. Al Shami, M. Benaissa, R.Mghaiouini, and R. El Bouayadi; Structural, Electronic, Optical, and Thermoelectric Properties of $\text{FrSn}_{1-x}\text{Cl}_x$ ($x=0, 1, 2, 3$) Perovskites Using the TB-mBJ Approach.	B. El Ghmari , H. Farah, E. Nadir, A. Ech-chahad; Green Synthesis of Zinc Oxide (ZnO) Nanoparticles, Characterization, Optical Properties, and their Photocatalytic Application.
	Khalid Fareh , M. Oubakalla, Y. Nejmi, M. Beraich, M. Bouachri, Elarbi Laghchim, Z. Barbouch, Mohamed Lharch, Attika Fahmi, Abderrahim Raidou, Faïçal Bennani, Mounir Fahoume; Elaboration and characterization of co-electrodeposited Cu_2SnS_3 thin films: experimental study enriched by DFT calculations.	Said Yaqouti , Nordine Er-rahmany, Soukaina El Kaouahi, Rachid Tourir, Hayat Larhzil, EL Hassan EL Kafssaoui, Rachid Fakhreddine, Abdelkader Zarrouk; Novel pyridine-8-hydroxyquinoline derivatives as corrosion inhibitor for mild steel in 1.0 HCl: Electrochemical measurements, SEM/EDX analysis and theoretical investigations.
	A. Lemnawar , I. El Bakkali, H. Labrim, S. Amraoui, K. Nouneh; Ab initio Analysis of Magnetic Effects on the Electronic Band Structure and Optical Properties of Y_2FeCrO_6 Double Perovskite.	N. EL BIYARI ; Progress in Surface Plasmon Resonance Biosensors: Exploring Technologies, Applications, and Future Directions.
	R. BAKKALI , J. MHALLA, Z. Ech-charqy, I. Benaicha, Y. Ait-Alla, A. Yousfi, K. Brouzi, M. Fahoume ; First-Principles Investigation of the Electronic and Optical Properties of Copper Antimony Sulfide Bulk and Its (001) Thin Film.	B. Benyachou , M.A. Hachimi, A. Moufakkir, M.A. Dabachi ; Modeling the influence of liquid content on the anaerobic degradation of coffee grounds waste: A mathematical and numerical approach.
	Mohamed Fellahi , Abdelali Talbi, Nadia El Harfaoui, Ahmed Rmili, Khalid Nouneh; Chemical Spray Pyrolysis of SnS Thin Films: Controlled n- and p-Type Conductivity via Deposition Temperature.	Mohamed Allaoui , Otemane Allaoui and Said Ibn Ahmed; Evaluation and qualitative and quantitative statistical study of a calcocarbonate adsorbent material.

	O. Ben hammou, A. Fakkahi, J. EL- hamouchi, M. Jaouane, and A. Sali; Binding Energy in a Pyramidal Core/Shell Quantum Dot Structure: The Impact of Temperature, Hydrostatic Pressure, and Impurity Position.	CHAKIR EL OUARDI, M. Ezzaafrani, M. Hezzat, L. Azeroual, A. Labkiri, O.Berradi ; Chemical preparation, XRD data, and IR studies of a hydrated organic triphosphate (C₂H₁₀N₂)KP₃O₉·nH₂O.
		I.K. Phiri, M. Zekriti; Enhancing the Performance of Prism-Coupled SPR Biosensors Using Gold-Silver Alloys and Coating Layers.
13h00 – 14h00	Invited Lectures Chair: Prof. Alex QUANDT	
	13h00. Optical properties of metallic nanoparticle assemblies Prof. Abdelhafed TALEB (Sorbonne University;ITODYS/UPCité, Paris, France)	
	13h20. Electrical Conduction Mechanisms in Hybrid composite-Based Vinyl Resin Reinforced with Green Microcrystalline Cellulose and/or Carbon Nanotubes Prof. Mohamed EL HASNAOUI (Laboratory of Material Physics and Subatomic, Faculty of Sciences, Ibn Tofail University, Kenitra, Morocco)	
	13h40. A path toward the Perovskites solar cells commercialization: Opportunities and Challenges Prof. Amal BOUICH (Laboratory of Advanced Materials and Process Engineering, Faculty of Sciences, Ibn Tofail University, Kenitra, Morocco)	
14h00 – 16h00	Lunch	
16h00 – 17h00	Poster Session	
17h00 – 19h00	Closing Ceremony	

Poster Session

P1	A. Allam , M. Y. Messous, O. AitMellal, B. Dirrouch, M. Tahri, H. Lemziouka; Erbium-doped LaCrO_3 Perovskite: study of structural, morphological and optical properties for energy conversion.
P2	M. Ayad , L. B. Drissi, C. Kasbaoui; Computational Analysis of Novel Hydride Perovskites Y_2LiCuH_6 (Y = Be, Mg, Ca, Sr) for Energy Storage Applications.
P3	Z. Barbouch , S. El alioui, A. El-habib, J. Zimou, M. Fahoume; Fabrication and Characterization of Zn-Doped Co_3O_4 Thin Films as Absorber Layers for Photovoltaic Solar Cells.
P4	L. Boughlima , S. Dahri, A. Jabar, L. Bahmad, L. B. Drissi, and R. Ahl Laamara; Electronic, thermodynamic, and optical properties of RbScO_2 alloy explored via first-principles calculations.
P5	S. Dahri , A. Jabar, L. Bahmad, L. B. Drissi, and R. Ahl Laamara; First principles investigation of structural, elastic, thermoelectric, electronic and optical properties XH_3 (X=Ac, La) for hydrogen storage.
P6	K. Derraji , S. Derbali, A. Almaggoussi, M. Ilouk; Effect of Calcination Temperature on the Morphology and Photoluminescent Properties of the $\text{Sr}_3\text{Al}_2\text{O}_6$ / SrAl_2O_4 Mixed Phases Prepared by Sol-gel.
P7	B. El Ghmari , H. Farah, E. NADIR and A. Ech-chahad; Green Synthesis of Zinc Oxide (ZnO) Nanoparticles, Characterization , Optical Properties, and their Photocatalytic Application.
P8	M. El-Mrabet , A. Tarbi, M. A. Hachimi, H. Erguig and T. Chtouki; Improving CdTe Solar Cell Efficiency via Optimized Structural Design Using SCAPS.
P9	H. EL Ouardi , A. Akouibaa, A. EL assyry; Gratings For Enhanced Sensitivity: Advancing D-Shaped Optical Fiber Surface Plasmon Resonance Sensors With Ag- TiO_2 Structures.
P10	M. Enasraoui , N. Bourhalem, A. Farh, M. Y. Messous, A. Fakhim Lamrani; SCAPS-Based Simulation and Optimization of Lead-Free CsSnCl_3 Perovskite Solar Cells for Sustainable Photovoltaic Applications.
P11	M.A. Hachimi , A. Tarbi, M. El-Mrabet, A. Migalska-Zalas, G. Myronchuk, H. Erguig; Numerical Optimization of Lead-Free CsSnI_3 and CsSnCl_3 Perovskite Solar Cells Using SCAPS-1D.
P12	A. Degdagui , M. Hassoun, H. Baida; Exploring the Potential of AsB Monolayer for Li-Ion Storage: A DFT Study.
P13	O. Hafs , M. Ilouk; Investigating the Impact of Ligand Substitution on the Luminescent Properties of Lanthanide Complexes for Energy Conversion Applications.
P14	K. Jamaffou , B. Dirrouch, M. Y. Messous, O. Aitmellal, M. Tahri, L. Atourki; Influence evaluation of Ni doping LaCrO_3 perovskite material for energy storage.
P15	S. Khairredine , R. Assad, M. El falaki, R. Ahl lamara, L.L. drissi; Magnetic Phase Transitions and Mixed Spin in Double Perovskite $\text{Sr}_2\text{FeMoO}_6$.
P16	A. Lakhroufi , M.Y. Messous, O. AitMellal, S. khairredine, L.B. Drissi; Co-precipitation Synthesis and Characterization of Mn-doped CuSnO_3 Perovskite Oxide for energy storage.
P17	S. Mchichou , A. Fahmi; Effect of Magnetic Field Annealing on Excitation Spectra and Magnetization in Co/Si Superlattices.
P18	M. Hassoun , A. Degdagui, H. Baida, A. El Kharrim, A. Marjaoui, M. El Hadri, F. Ben Abdelouahab, M. Zanouni; Unraveling the Properties of AlSnX_3 (X = I, Br, Cl) Perovskites: A DFT Study on Optoelectronic and Thermoelectric Performance.
P19	A. Staoui , I. Abdennacer, Z. El Fakir, and S. Bouzakraoui, Engineering Thiophene-Based Hole Transport Materials: A Computational Route to High-Performance Perovskite Solar Cells.
P20	J. Zimou , E. Laghchim, M. Bouachri, L. El Gana, A. El-Habib, Z. Barbouch, M. Fahoume, M. Addou, K. Nouneh; Enhancing CeO_2 Thin Films with Mo Doping for High-Performance Supercapacitors.
P21	M. Ait Oufrakir , Y. Chrafi, K. Rahmani; Next-Gen Solar: Revealing the Promise of $\text{CsPbI}_3/\text{CsSnI}_3$ Tandem Cells.
P22	M. Idbella, L.B. Drissi; Photocatalytic Potential of MXene Quantum Dots and g- C_3N_4 QDs for Green Hydrogen Production and CO_2 Reduction.
P23	K. Assiouan , J. Elkhamkhami, A. Achahbar; Optoelectronic Properties and Photovoltaic Potential of $\text{Rb}_2\text{InRhX}_6$ (X=F,Cl,Br) Double Perovskites.
P24	M. Ouarch, A. Akouibaa, R. Masrour, M. Benhamou; Thermoplasmonics Properties of Gold Nanoparticles Embedded in the Oxygenated and Deoxygenated Human Blood.
P25	S. El Alioui , Z. Barbouch, A. Rmili and K. Nouneh; Comparative study of techniques for the synthesis of thin films of titanium dioxide for application in photocatalysis.
P26	H. Ouchaghoui , S. Amraoui. K. Nouneh. A. Rmili; Investigation of the Optical Properties of Copper Oxide (CuO) Using DFT Simulations.