



People's Democratic
Republic of Algeria
وزارة التعليم العالي والبحث العلمي
Ministry of Higher Education
and Scientific Research
جامعة أكلي محند أولحاج – البويرة
University of Akli Mohand
Oulhadj – Bouira



Faculty of Exact Sciences
&
Chemistry Department
Organize:

***The Second National Seminar on Materials Science
(NSMS'25)***

November 11-12, 2025, University of Bouira, Algeria

Scientific Program

Daily Program - Tuesday, November 11, 2025		
8:00-9:00 a.m	Hall Block FES	PARTICIPANTS WELCOME AND REGISTRATION
9:00-9:30 a.m	Conference Room (FSE)	OPENING CEREMONY
9:30-10:15 a.m		PLENARY LECTURE N° 01 Title: Les procédés d'oxydation avancée : des processus innovants pour une purification radicale Pr. MOUNI Lotfi , Bouira University
		Session Chair : Pr. MADI Djamel & Pr. FELLAH Mamoune
10:15-10:40 a.m		Keynote Lecture N° 01 Title: Effet d'un extrait de plante sur l'inhibition de la formation du tartre Pr. MAKHLOUFI Laid , Bejaia University
		Session Chair : Pr. MOUNI Lotfi & Pr. GHEMMIT Naima
10:40-11:10 a.m	Hall (FES)	COFFEE BREAK & 1ST SESSION OF POSTER COMMUNICATIONS (CP01 → CP26)
11:10 a.m-12:25 p.m	Room 05	1ST SESSION OF ORAL COMMUNICATIONS
		Topic: Polymer Matrix Materials and Advanced Materials
		Session Chair : Pr. MITICHE Lynda & Dr. SEDKAOUI Youcef
		CO01 (15 min) Title: Elaboration de films d'emballage alimentaire à base de PLA et d'anthocyane d'aubergine Author: Naima Touati (Bejaia. Univ)
		CO02 (15 min) Title: Synthesis and Characterization of Activated Carbon from Date Pits for Application in Refinery Wastewater Treatment Author: Leila Hassaini (USTHB)
		CO03 (15 min) Title: STUDY OF THE ELECTRICAL PROPERTIES OF POLYETHYLENE NAPHTHALATE (PEN) POLYMER FILMS SUBJECTED TO GAMMA RADIATION Author : Driai Leila (Bordj Bou Arreridj. Univ)
	Room 08	CO04 (15 min) Title: Hydrothermal Synthesis and Characterization of ZnTe Semiconductor Nanopowders Author : Aya Belhachemi (Bouira. Univ)
		CO05 (15 min) Title: Sustainable Surface Treatments of Agave Americana Fibers: Effects on Crystallinity, Tensile Properties, and Poly(3-Hydroxybutyrate-Co-3-Hexanoate) (PHBHHx) based Biocomposite Performance Author : Celia Idres (CRTAA)
		Topic: Corrosion, Oxydation and Modeling
		Session Chair : Dr MOKHTARI Salim & Dr. REHKILA Gharib
		CO01 (15 min) Title: Electrodeposition et caracterization des films minces d'oxydes de nickel sur un substrat de titane- Author: Houa Hammache-Makhloufi (Bejaia. Univ)
		CO02 (15 min) Title: Oxydation catalytique du phénol par le peroxyde d'hydrogène en présence de polyoxométallates de type KEGGIN Author : Sadia Mansouri (Bouira. Univ)
	Room 08	CO03 (15 min) Title: Spectral Characterization of Electrochemical Noise in PEMFCs under Different Current Loads. Author: Dissa Boubekour (Bejaia. Univ)
		CO04 (15 min) Title: Effects of heat treatment on the mechanical and electrochemical behavior of stainless-steel coating. Author: Nesrine Kherba (Bejaia. Univ)
		CO05 (15 min) Title: Impact of crack length on stress field and Von Mises near blunt crack tips including surface effects Author: Yassin Belhaoui (Bejaia. Univ)
12:25-1:30 p.m	LUNCH BREAK	
2:00-2:45 p.m	Conference Room (FES)	PLENARY LECTURE N° 02 Title: ENERGY, GLOBAL WARMING AND ENVIRONMENT Pr. ZERROUAL Larbi , Setif University 1
		Session Chair : Pr. MAKHLOUFI Laid & Pr. BOUHDJAR Lazhar
	2ND SESSION OF ORAL COMMUNICATIONS	

2:45-4:00 p.m	Room 07	Topic: Polymer Matrix Materials and Advanced Materials	
		Session Chair: Dr. KHEDIDJI Sid-Ali & Dr. DJAFFER KHOUDJA Hakim	
		CO06 (15 min)	Title: Magnetic and structural properties of Heusler Alloy Fe ₂ CuAl powders produced by mechanical alloying Author: Hanane Mechri (USTHB)
		CO07 (15 min)	Title: Synthesis of TiO ₂ -Bentonite Composite via a Modified Sol–Gel Method Author: Kahoul Khadidja (Skikda. Univ)
		CO08 (15 min)	Title: Structural, morphological and optical study of an aluminum-based spinel structure Author: Salim Mokhtari (Bouira. Univ)
		CO09 (15 min)	Title: Effect of the Presence of Lignin on the properties and antioxidant activity of PHBV/PLA Blends Author: IGGUI Kahina (Bouira. Univ)
		CO10 (15 min)	Title: Hygrothermal Ageing of Polyamide-11/Halloysite Nanocomposites Author: Mohamed Sahnoune (Bouira. Univ)
	Room 08	Topic: Corrosion, Oxydation and Modeling	
		Session Chair : Pr. BENSLIMANE Abdelhakim & Dr. OUNISSI Oussama	
		CO06 (15 min)	Title: Empirical Determination of L _β X-Ray Fluorescence Cross-Sections for Bismuth by Photon Effect at Different Excitation Energies Author: Boukchida Amina (Bordj-Bou-Arreridj. Univ)
		CO07 (15 min)	Title: Solution analytique des champs de contrainte et de déplacement à travers la paroi d'un cylindre composite destiné au stockage de l'hydrogène Author: Lyes Belmeduenai (Bejaia. Univ)
		CO08 (15 min)	Title: Analyse des contraintes thermomécaniques d'un cylindre épais à gradient de propriétés : solution analytique et simulation numérique Author: Rafik Benchallal (Bejaia. Univ)
		CO09 (15 min)	Title: Analyse des paramètres de coupe sur la rugosité de surface lors du fraisage de l'aluminium basée sur l'ANOVA Author: Abdelatif Belamri (Bejaia. Univ)
		CO10 (15 min)	Title: FRITTAGE DES INTERMETALLIQUES (Ni-X%Al) avec X=0–3 et 8% en masse Author: Zohra Halem (Bouira. Univ)
4:00 to 4:30 p.m	COFFEE BREAK		

Daily Program- Wednesday, November 12, 2025

8:00-8:30 a.m	Hall Bloc MI	PARTICIPANTS WELCOME AND REGISTRATION	
8:30-9:15 a.m	Conference Room (FES)	PLENARY LECTURE N°03 Title: Chimie verte et Matériaux Pr. HACHEMI Messaoud , Boumerdes University	
		Session Chair : Dr. KAOUA Rachedine & Dr. IGGUI Kahina	
9:15-09:40 a.m		Keynote LECTURE N°02 Title: A Hybrid Modeling Approach to Advanced Oxidation Processes: Integrating RSM and ANN Dr. SMAALI Anfal , Annaba University	
		Session Chair : Pr. ZERROUAL Larbi & Dr. HALEM Zohra	
09:40-10:10 a.m	Room 05	3rd SESSION OF ORAL COMMUNICATIONS	
		Topic: Polymer Matrix Materials	
		Session Chair : Dr. SAHNOUNE Mohamed & Dr. AIT MERZEG Farid	
		CO01 (15 min)	Title: Effect of Triethoxyoctylsilane Modification on the Behavior of Algerian Palygorskite as a Reinforcing Nanofiller for PLA/PHBV Blends Author: Nora Benkhacher (Guelma. Univ)
		CO02 (15 min)	Title: Analysis of Tensile Characteristics in Epoxy Composites: Assessing TWARMAT, Woven Glass, and Woven Carbon Fiber Reinforcements Author: Malha Oudir (ESSAIA)
	Room 08	Topic : Advanced Materials	
		Session Chair : Pr. HAZIL Nawel & Pr. GHEMMIT Naima	
		CO01 (15 min)	Title: Hiérarchisation contrôlée de la zéolithe Ti-MWW : Meilleure efficacité dans la sulfoxydation de Dibenzothiophène Author: Thilali akkal (Bejaia. Univ)
		CO02 (15 min)	Title: Iron Based Silica Materials: Synthesis, Characterization, and Catalytic Applications Author: Dalila Meziane (USTHB)
10:10-11:40 a.m	Hall (FES)	COFFEE BREAK & 2nd SESSION OF POSTER COMMUNICATIONS (CP27 → CP52)	
11:40-12:25 p.m	Room 05	3rd SESSION OF ORAL COMMUNICATIONS (continued)	
		Topic: Polymer Matrix Materials	
		Session Chair : Dr. SAHNOUNE Mohamed & Dr. SMAALI Anfal	
		CO03 (15 min)	Title: Compatibility, Thermal, and Mechanical Performance of Poly(lactic acid)/Poly(3hydroxybutyrate-co-3-hydroxyvalerate) Blend Reinforced with Halloysite Nanotubes. Author: Zeyneb Abir Mekhania (Guelma. Univ)
		CO04 (15 min)	Title: Développement de new absorbent matrix based on polymère in solution Author: Sabiha Hamidouche (Bouira. Univ)
		CO05 (15 min)	Title: Development and characterization of eco-friendly polymer composite films based on opuntia ficus-indica mucilage and agar Author: DELIOU Adel (Jijel. Univ)
	Room 08	Topic: Advanced Materials	
		Session Chair : Pr. HAZIL Nawel & Dr. MOULAHCENE Lamia	
		CO03 ((15 min)	Title: Synthèse et Caractérisation de l'Hétéro-Système NiAl ₂ O ₄ /ZnO pour la Dégradation de Rhodamine B Sous Irradiation Solaire Author: Rekhila Gharib (USTHB)
		CO04 (15 min)	Title: micro-defect detection in transparent ceramics via transmission interferometry Author: Meziane Rahima (Research Unity-Setif)
		CO05 (15 min)	Title: Industrial dye degradation from aqueous solutions using nanoscale zero-valent iron composite materials supported by titanium diatomite Author: Walid Rezig (USTO)
12:25-1:30 p.m	LUNCH BREAK		
1:30-2:00 p.m	CLOSING CEREMONY		

Tuesday, Novembre 11, 2025

POSTER COMMUNICATIONS (CP01 → CP26)

Session Chair : Dr. AICHOUR Amina & Dr MANSOURI Sadia

CP01	Title: Synthesis and characterization of polyaniline/magnetite PANI/Fe ₃ O ₄ nanocomposite Author: BEN BOUABDALLAH Amina, Boumerdes University
CP02	Title: Microwave enhanced Fenton-like process for degradation of phenolic compounds from olive mill wastewater using BiFeO ₃ as heterogeneous catalyst- Author: IBOUKHOULEF Hamida, UMMTO
CP03	Title: Ternary ABX Compounds as a New Frontier for Ferroelectric and Antiferroelectric Materials Design Author: BELGHIT RAFIK, Annaba University
CP04	Title: Encapsulation of Quercetin with Alpha-Cyclodextrin: Toward Enhanced Biological Activity- Author: BOUYAHMED Wissam, Bejaia University
CP05	Title: Numerical Assessment of Natural Environmental Radiation levels- Author: Bennour Zahira, B. B. Arreridj University
CP06	Title: Propriétés diélectriques de nanocomposite ZnO/CQDs Author: Bozetine Hakima, UMMTO
CP07	Title: Étude Théorique des Propriétés Électroniques, Pharmacocinétiques et Toxicologique de Nouveaux Dérivés Hétérocycliques Author : Triaki Nabila, USTHB
CP08	Title: Influence des paramètres sur les propriétés colloïdales des microparticules de polycaprolactone obtenues par la méthode de double émulsion Author: AMRANE Sylia, Bejaia University
CP09	Title: The Impact of Reprocessing on the Properties of Composites Materials based on Polypropylene Loaded with Olive Husk Flour. Author: KRIM Salem, CRTAA (Bejaia)
CP10	Title: Acetylated Alfa Fibers as Sustainable Reinforcement for Advanced Polymer Composites Author : ZITOUNI Khalida, Bouira University
CP11	Title: Valorization of Spanish Broom Fibres as a Filler for Biocomposites based on Poly(3-Hydroxybutyrate-Co-3-Hydroxyvalerate) (PHBV) Author: ABALACHE Amel, Bejaia University
CP12	Title: Optical Properties of Vanadium Pentoxide Thin Films Deposited by Spray Pyrolysis Technique Author: Ghemid Mouna, ENS Setif
CP13	Title: Optimisation du procédé de coagulation–floculation dans la station de traitement de Boudouaou (Boumerdès) Author : Hamzaoui Sarra, Bouira University
CP14	Title: - Valorisation de déchets végétaux en vue d'élimination d'un colorant textile dissous dans l'eau par adsorption Author : KHENNICHE Lamia, Bejaia University
CP15	Title: Étude de la corrosion marine de l'acier au carbone en présence de bactéries- Author : Aimeur Nacera, Université de Bouira
CP16	Title: Incorporation of grapheneoxide on the structural and thermal properties of HDPE Author: Benayache Walid, Setif University
CP17	Title: Theoretical and Experimental Investigation of the Compatibilization Agent Contribution to the Interactions of Polymer Blend (PP/LDPE): Thermal, Morphological, and DFT Insights Author: Benayache Walid, Setif University
CP18	Title: Étude théorique de composés bioactifs à potentiel anti-inflammatoire Author: FEDDAL Samira, USTHB
CP19	Title: Synthèse Éco-Responsable de Nanostructure TiO ₂ -SiO ₂ pour la Dégradation Photocatalytique du Colorant Rhodamine B Sous Lumière Solaire Author : Khalfoun Seloua, Bouira University

CP20	Title: Determination of L2–L3 Coster–Kronig transition probabilities for some heavy elements Author: Meddah Samia, Bordj-Bou-Arredj University
CP21	Title: Enhancing Mechanical Properties of PHBV-based bionanocomposites via ZnO Nanofillers: Comparative Study of Sol-Gel and Co-Precipitation Methods Author: Oulmou Fadila, Bejaia University
CP22	Title: Valorisation des boues de la STEP de Bouira dans l'élaboration des membranes tubulaire destinées à la filtration des effluents industriel Author: Bestani Amar, Bouira University
CP23	Title: Filtration d'un effluent industriel sur une membrane d'ultrafiltration Author: Hamoudi Leyla, USTHB
CP24	Title: Synthèse et caractérisation structurale du complexe dinucléaire $[Cu(PPh_3)(bzimH)]_2$: études spectroscopiques et applications potentielles- Author: Grine Assma, Bouira University
CP25	Title: A study of a new corrosion inhibitor efficiency in the Hassi Messaoud field Author: Yarou Madjed, Ouargla University
CP26	Title: Influence of Microstructure on the Corrosion Resistance of Ti-Ni Shape Memory Alloys for Biomedical Application Author: Nabila Bouchareb, Khenchela University

Wednesday, November 12, 2025

POSTER COMMUNICATIONS (CP27 → CP52)

Session Chair : Pr. FELLAH Mamoune & Dr. BERRICHE Lakhedhar

CP27	Title: Evaluation de l'extrait de Rétama raetam comme inhibiteur vert de corrosion contre l'acier XC38 Author: Zaoui Oussama, Ouargla University
CP28	Title: Déshydrogénation oxydante du cyclohexène sur $H_3PMo_{11}WO_{40}$ Author: Chekhoun salem, UMMTO
CP29	Title: Synthèse des ferrites spinelles $Ni(1-x)Mn(x)Fe_2O_4$ l'étude de leur propriété structurale, morphologique et magnétique. Author: Fortas Nabil, USTHB
CP30	Title: Electrochemical Study of the Corrosion Behavior of TA6V4 Alloy in Sodium Chloride Solution: Potential & Current Evolution Author: MEFTAH SOUAD, Mascara University
CP31	Title: Simulation de phénomène de transfert de matière dans des particules de charbon actif en suspension dans un réacteur à lit fixe. Author: Guenounou Hassiba, Bejaia University
CP32	Title: Durabilité des composites à matrices polyesters insaturés / farine de grignon d'olive Author: HAMADACHE Hassiba, Bejaia University
CP33	Title: Comportement tribologique, structurales et microstructurale de la fonte blanche après traitement thermique Author: Hadjou taye, Bejaia University
CP34	Title: Caractérisation des matériaux de remplissage des colonnes chromatographiques en RPLC à l'aide des indices de retention des benzènes monosubstitués en utilisant des méthodes chimométriques Author: larbi hassina, Bouira University
CP35	Title: Synthèse et caractérisation structurale du complexe dinucléaire $[Cu(PPh_3)(bzimH)]_2$: études spectroscopiques et applications potentielles Author: Kaoua Rachedine, Bouira University
CP36	Title: Synthesis and characterization of magnetic nanoparticles Fe_3O_4 for dye simulated wastewater treatment Author: AICHOUR Amina, Bouira University
CP37	Title: Synthesis, Characterization and Electrochemical Study of a Copper-Malonate Coordination Polymer Author: ZAAMOUCI Imane, Bejaia University
CP38	Title: Caractérisation de la boue de la station d'épuration de Sour El Ghoulzene



	Author: Tijani Fatiha, Bouira University
CP39	Title: Structural, optical, and electrochemical study of ZnO/CuO nanocomposites Author: boughanem mohd Oulmessaoud, Bouira University
CP40	Title: Synthèse et caractérisation d'un nouveau polymère de coordination à base de terbium et étude de ses propriétés optiques Author: CHEDDANI Yasmine, Bejaia University
CP41	Title: Unveiling the Structural, Electronic, and Magnetic Attributes of Double-Layer MAX Phase Cr ₂ Ge ₂ C Through Ab-initio Calculations Author: BERROUNA Henen, Sidi Bel Abbes University
CP42	Title: Study of the photodegradation of Rhodamine B in water using different materials under solar light. Author: BENOUDAH Lamia, Bouira University
CP43	Title: Synthesis of a Photocatalytic Material for the Degradation of Organic Pollutants in Water under Solar Light Author: Mousli Ghania, Bouira University
CP44	Title: Electricity generation using glucose as substrate in microbial fuel cell Author: TOUMI Khadra Hanane, University of Constantine 3
CP45	Title: Numerical Simulation and Kinetic Modeling of Bioactive Compound Extraction Processes Author: BOUAZZA Fatma, Medea University
CP46	Title: Computational Investigation of K ₂ TiSbCl ₆ Double Perovskite: Insights for Solar Cell Materials Author: Charef Samir, Mostaganem University
CP47	Title: Natural fiber/thermoplastic polymer composite materials Author: DAIRI Nassima, Bouira University
CP48	Title: Green Synthesis of Zinc Oxide Nanoparticles Using Mentha spicata Extract and Evaluation of Their Adsorption Potential Author: Boudjada Amina, Bouira University
CP49	Title: Utilisation d'un plan d'expérience pour optimisation de l'adsorption des colorants sur un biomatériau Author: Berkane Nabila, Bouira University
CP50	Title: Calcul numérique de l'excès thermodynamiques des propriétés thermiques des structures de nano-alliage de surface ordonnées Au ₃ Pd, AuPd et AuPd ₃ Author: Mengueli Bilal, UMMTO
CP51	Title: Investigation of the Structural and Magnetic Properties of Rare Earth Compounds Author: Karima Belkacem, Khenchela University
CP52	Title: Hydrothermal synthesis method of biochar for organic wastes treatment Author: Kheznadji Zakari, Bouira University