

*Program of the fourth Edition of the International Congress on Water and Environment Studies (CI3E'2021)*

*«The environment at the service of sustainable development »*

*December 15-17, 2021*



Google Meet

<https://meet.google.com/xgg-ioaz-sai>

**WEDNESDAY, DECEMBER 15, 2020 AT 08:30H**

**(LOCAL TIME MOROCCO)**

**08H30-09H00**

**OPENING SESSION**

Pr R. MRABET: President of the University Sidi Mohamed Ben Abdellah (USMBA), Fez, Morocco

Pr M. BENLEMLIH: Dean of the Faculty of Sciences Dhar Al Mahraz, USMBA, Fez, Morocco

Pr M. EL HASSOUNI: Vice Dean of the Faculty of Science Dhar Al Mahraz, USMBA, Fez, Morocco

Pr M. BELKASMI: Vice Dean of the Faculty of Science Dhar Al Mahraz, USMBA, Fez, Morocco

Pr M. TALEB: Chairman of the CI3E-2021 and professor at the Faculty of Sciences Dhar Al Mahraz, USMBA, Fez, Morocco

Pr B. HAMMOUTI: Chairman of the CI3E-2020 and professor at the Faculty of sciences, UMP, Oujda, Morocco

Pr K. HABOUBI: Co-chairman of the CI3E-2021 and Director of the association for scientific research and sustainable development.

**MODERATOR: Pr F. EL-HAJJAJI**

**09H00- 12H00**

**CONFERENCE SESSION 1**

**09H00 – 10H30** **SPEAKER 2: Pr Savaş KAYA**

Sivas Cumhuriyet University, Health Services Vocational School, Department of Pharmacy, Sivas, Turkey

**“A STRONG RELATION BETWEEN CHEMICAL HARDNESS AND TOXICITY”**

**MODERATOR: Pr B. HAMMOUTI**

**11H00 – 12H30** **SPEAKER 1: Pr Ime Bassey OBOT**

Interdisciplinary Research Center for Advanced Materials

King Fahd University of Petroleum and Minerals, Saudi Arabia

**“CORROSION IN OIL AND GAS PRODUCTION: FUTURE CHALLENGES FOR CORROSION INHIBITORS”**

**MODERATOR: Pr F. EL-HAJJAJI**

**14H00-15H30**

**ORAL PRESENTATION SESSION 1**

**MODERATORS: Pr. M. BENIKEN and Dr. E. ECH-CHIHBI**

**ID :103**

**EFFECT OF ANODIZATION PARAMETERS ON THE SURFACE MORPHOLOGY AND PHOTOCATALYTIC PROPERTIES OF TiO<sub>2</sub> NANOTUBES**

**O. ZAKIR, A. AIT KARRA, R. IDOUHLI, M. ELYAAGOUBI, M. KHADIRI, A. AITYOUB, A. ABOUELFIDA, A. OUTZOURHIT**

<b>ID :104</b>	<p><b>ADSORPTION AND PHOTOCATALYTIC REMOVAL OF PHARMACEUTICAL POLLUTANT MEFENAMIC ACID BY Zn-Cu-Ti LAYERED HYDROXIDES</b></p> <p><b>L. EL MERSLY, E. EL MOUCHTARI, CLAUDE FORANO, M. EL HADDAD, S. BRICHE, S. RAFQAH</b></p>
<b>ID :105</b>	<p><b>TREATMENT OF COLORED WATER USING NATURAL MINERAL MATERIALS AND INDUSTRIAL CO-PRODUCTS</b></p> <p><b>A. BENNANI KARIM, H. TOUNSADI, Z. MAJBAR, A. OMOR, Z. RAIS, M. TALEB, N. BARKA</b></p>
<b>ID :177</b>	<p><b>EFFECT OF THE FERTILIZING POWER OF COMPOSTS BASED ON OLIVE CRUSHING WASTE ON SOME FRUIT TREES</b></p> <p><b>I. ATEMNI, K. HJOUJI, I. MEHDAOUI, T. AINANE, M. TALEB, Z. RAIS</b></p>
<b>ID178</b>	<p><b>EVALUATION OF THE CORROSION INHIBITIVE ACTION OF TWO IMINE DERIVATIVES FOR MILD STEEL IN A MOLAR HYDROCHLORIC ACID SOLUTION BY DFT, EXPERIMENTAL AND SPECTROSCOPIC METHODS</b></p> <p><b>S. ALAOUI MRANI, R. SALIM, J. LAZRAC, C. EL ABIAD, S. RADI, F. EL HAJJAJI, T. SAFFAJ, M. TALEB</b></p>
<b>ID109</b>	<p><b>DETAILED EXPERIMENTAL OF INDAZOLE DERIVATIVES AS CORROSION INHIBITOR FOR BRASS IN 1 M HCl: ELECTROCHEMICAL/SURFACE STUDIES</b></p> <p><b>Z. ARIBOU, M. OUAKKI, M. GALAI, Z. BENZEKRI, S. BOUKHRIS, M. EBN TOUHAMI</b></p>
<b>ID197</b>	<p><b>COMPARATIVE STUDY ON THE INHIBITION PERFORMANCE OF METHANOLIC AND HEXANOLIC EXTRACTS OF G.D.S. AGAINST CORROSION OF MILD STEEL IN 1M HCl MEDIUM</b></p> <p><b>K. HJOUJI, E. ECH-CHIHBI, I. ATEMNI, T. AINANE, M. TALEB, Z. RAIS</b></p>
<b>ID168</b>	<p><b>INSIGHTS INTO THE INHIBITION MECHANISM OF NEW SYNTHETIZED PHENYLHYDRAZINES DERIVATIVES FOR MILD STEEL CORROSION IN 1M HCl VIA ELECTROCHEMICAL TECHNIQUES</b></p> <p><b>O. MERZOUKI, E. ECH-CHIHBI, Y. FERNINE, N. ARROUSSE, E. H. MABROUK, F. EL HAJJAJI, M. TALEB</b></p>
<b>ID173</b>	<p><b>SYNTHESIS AND ANTICORROSIVE ACTIVITY OF TWO NEW IMIDAZO [1, 2-A] PYRIDINE SCHIFF BASES</b></p> <p><b>W. DAUDI, A. EL AATIAOUI, Z. LAKBAIBI, A. EL BOUTAIBI, N. BENCHAT, A. OUSSAID</b></p>
<b>ID174</b>	<p><b>STUDY OF THE ANTICORROSIVE POTENTIAL OF THE ESSENTIAL OIL EXTRACTED FROM THE LEAVES OF THE CALAMENT PLANT FOR MILD STEEL IN AN ACIDIC ENVIRONMENT (1M HCl)</b></p> <p><b>A. EL AATIAOUI, W. DAUDI, A. ELBADRI, M. AZZOUZI, Z. LAKBAIBI, A. AOUNITI, M. LOUTOU</b></p>
<b>ID166</b>	<p><b>NUMERICAL MODELING OF 1D TRANSPORT EQUATION USING SPLITTING OPERATOR AND FINITE DIFFERENCE</b></p> <p><b>I. EL ARABI, A. CHAFI, S. KAMMOURI ALAMI</b></p>
<b>ID124</b>	<p><b>TEMPORAL- SPATIAL ASSESSMENT OF THE QUALITY OF THE MOST POLLUTED SURFACE WATERS IN THE FEZ CITY</b></p> <p><b>F.Z. EL MADANI, N. IDRISSE, K. LAHLOU, M. BENABBOU, A. OMOR, M. MERZOUKI, M. TALEB, Z. RAIS</b></p>

<b>ID134</b>	<p><b>EVALUATION QUALITATIVE ET QUANTITATIVE DE L'ÉROSION HYDRIQUE DANS LE BASSIN VERSANT DU BARRAGE M'DEZ (MOYEN ATLAS, MAROC)</b></p> <p><b>T. EL KAMEL, A. BAALI, A. COUSCOUS, O. HAKAM, K. AZENNOUD</b></p>
<b>ID196</b>	<p><b>SOLID WASTE MANAGEMENT AND LEACHATE PRODUCTION IN OUM AZZA</b></p> <p><b>S. BOUAOUDA, R. BOUYAKHSASS, A. TALEB, S. SOUABI</b></p>
<b>ID149</b>	<p><b>LEACHATE FLOW QUANTIFICATION AT THE LEVEL OF OULED BERJAL LANDFILL IN KENITRA CITY</b></p> <p><b>R. BOUYAKHSASS, S. BOUAOUDA, A. TALEB, S. SOUABI</b></p>
<b>ID189</b>	<p><b>OPTIMIZATION OF THE COAGULATION-FLOCCULATION TREATMENT FOR VEGETABLE OIL REFINER WASTEWATER</b></p> <p><b>C. HADDAJI, K. DIGUA, S. SOUABI</b></p>
<b>15H30-17H00</b>	<p><b>ORAL PRESENTATION SESSION 2</b></p> <p><b>MODERATORS: MODERATORS: Pr. M. BENIKEN and Dr. R. SALIM</b></p>
<b>ID :118</b>	<p><b>PROSPECTS OF POST-COVID MOROCCO'S AGRICULTURAL SECTOR: SUSTAINABILITY AND RESILIENCE CHALLENGES</b></p> <p><b>Y. BROUZIYNE</b></p>
<b>ID :120</b>	<p><b>CHARACTERIZATION AND VALORIZATION OF DRINKING WATER TREATMENT SLUDGE ISSUED FROM DRINKING WATER TREATMENT PLANT OF AL HOCEIMA</b></p> <p><b>N. BENSITEL, K. HABOUBI, A. EL KASMI</b></p>
<b>ID132</b>	<p><b>SURFACE WATER QUALITY IN THE CITY OF TAZA, MOROCCO</b></p> <p><b>R. MAHMOUD, M. BEN ABBOU, I. MEHDAOUI, Z. MAJBAR, M. TALEB, Z. RAIS</b></p>
<b>ID183</b>	<p><b>ECONOMICAL, EFFICIENT AND ENVIRONMENTALLY FRIENDLY SYNTHESIS STRATEGY OF O-ALKYLATION STRATEGY BASED ON PHENOLPHTHALEIN REACTIONS WITH ELECTROPHILES: A COMBINED EXPERIMENTAL AND THEORETICAL STUDY</b></p> <p><b>Y. FERNINE, N. ARROUSSE, O. MERZOUKI, E. H. MABROUK, F. EL HAJJAJI, M. EBN TOUHAMI, M. TALEB</b></p>
<b>ID:184</b>	<p><b>HUMIDITY AND C/N RATIO: IMPORTANT FACTORS FOR SOIL FERTILITY ACCORDING TO THE PLACKETT-BURMAN MODEL</b></p> <p><b>I. MEHDAOUI, F. ELOUADRHIRI, Z. MAJBAR, Y. GAGA, M. ELHAJI, M. TALEB, Z. RAIS</b></p>
<b>ID:180</b>	<p><b>VALORIZATION OF A BIOMATERIAL FROM ANIMAL ORIGIN IN THE TREATMENT OF WATER CHARGED WITH CATIONIC DYE</b></p> <p><b>E. SAOUDI HASSANI, M. IDRISSE, M. BELLAOUCHI, D. AZZOUNI, A. TALEB, M. TALEB, Z. RAIS</b></p>
<b>ID199</b>	<p><b>EFFICIENT WAY TO SYNTHESIS MESOPOROUS CARBON MATERIALS FROM DATE SEED WASTE BY CATALYTIC HYDROTHERMAL CARBONIZATION: OPTIMIZATION AND APPLICATION TO DYES ADSORPTION</b></p>

**F. EI OUADRHIRI, M. ELYEMNI, A. LHASSANI, M. TALEB, M. CHAOUCH, A. LAHKIMI**

**ID :121**

**SYNTHESIS, STRUCTURAL AND DIELECTRIC CHARACTERIZATION OF LEAD-FREE COMPLEX OXIDES OF PEROVSKITE STRUCTURE: CASE OF THE SYSTEM  $(\text{Na}_{0.5}\text{Bi}_{0.5})\text{TiO}_3$**

**F. CHAOU, M. ABOU-SALAMA**

**ID :122**

**SYNTHESIS AND CHARACTERIZATION OF NEW LC3 LOW CARBON CEMENTITIOUS COMPOSITES: A CASE STUDY**

**S. MALIKI, A. OUSSAID, M. LOUTOU**

**ID :123**

**AN OVERVIEW OF WATER RESOURCES CHALLENGES IN THE SOUSS-MASSA BASIN: PATHWAYS TO A MORE SUSTAINABLE WATER MANAGEMENT IN THE AGRI-FOOD SECTOR**

**O. ATTAR, Y. BROUZIYNE, L. BOUCHAOU, D. DHIBA, A. CHEHBOUNI**

**ID198**

**VALORISATION D'UN BIOMATERIAU D'ORIGINE ANIMAL DANS LE TRAITEMENT D'UNE EAU CHARGE EN COLORANT CATIONIQUE**

**D. AZZOUNI, ROBERTA BERTANI, PAOLO SGARBOSSA, Z. RAIS, M. TALEB**

**ID: 182**

**DETAILED DFT/MD SIMULATION AND EXPERIMENTAL STUDIES OF ALDEHYDE DERIVATIVES FOR MILD STEEL IN 1M HCl SOLUTION**

**J. LAZRAK, E. ECH-CHIBBI, EL. ELASSIRI, S. ALAOUI MRANI, F. EL HAJJAJI, T. SAFFAJ, M. TALEB**

**ID147**

**INTEGRAL VALORISATION OF OIL MILL WASTEWATER USING EXTRACTION OF OF NATURAL ANTIOXIDANTS, BIOMETHANISATION AND CO-COMPOSTING TECHNOLOGIES**

**Z. MAJBAR, H. MIKDAM, M. BEN ABOU, M. EL HAJI, M. TALEB, Z. RAIS**

**ID170**

**TREATED WASTEWATER RECYCLING IN THE MANUFACTURE OF FIRE-BRICKS: A MAJOR CHALLENGE IN THE COMING DECADES**

**F.Z. BOUAICH, W. MAHERZI, N.H. MTARFI, N. ABRIAK, M. BEN ZARZOUR, M. TALEB, Z. RAIS**

**ID194**

**INVESTIGATION OF THE CORROSION INHIBITORY IMPACT OF PLANT EXTRACT (ZLE) FOR CARBON STEEL IN MOLAR HYDROCHLORIC ACID SOLUTION**

**O. ANOR, S. LAHMADY, I. FORSAL, K. BENBOUYA, A. HARAMI, K. DEHOU**

**ID141**

**CHARACTERIZATION, BIOLOGICAL TREATMENT AND PHYTOTOXICITY EVALUATION OF TANNERIES EFFLUENTS**

**K. HARBOUL, K. HAMMANI, A. EL-KARKOURI**

**THURSDAY, DECEMBER 16, 2020 AT 09:00H  
(LOCAL TIME MOROCCO)**

**09H00- 12H00**

**CONFERENCE SESSION 2**

**09H00 – 10H30**

**SPEAKER 1: Pr Abdeslam TALEB**

Faculty of Sciences and Technology Mohammedia Hassan II University Casablanca Morocco

**“NEW APPROACH TO LEACHATE TREATMENT ; MOROCCAN CASE STUDY NOUVEL APPROCHE DE TRAITEMENT DE LIXIVIATS ; ETUDE DE CAS AU MAROC”**

**MODERATOR : Pr K. HABOUBI**

**10H30 – 12H00 SPEAKER 2: Pr Konstantin P. KATIN**

National Research Nuclear University “MEPhI”, Moscow, Russian Federation

Research Institute for the Development of Scientific and Educational Potential of Youth, Russian Federation

**“CARBON AND SILICON PRISMANES DECORATED BY LIGHT METAL IONS AS THE EFFICIENT CO<sub>2</sub> ADSORBENTS”**

**MODERATOR : Pr S. KAYA**

**14H00-15H30**

**ORAL PRESENTATION SESSION 3**

**MODERATORS: Pr. H. TOUNSADI and Pr. A. AINANE**

**ID :125**

**USE OF BOTTOM ASHES IN THE SYNTHESIS OF GEOPOLYMERS**

**H. EL HAROUACHI, M. LOUTOU, M. EL GETTAFI**

**ID :127**

**USE OF STEVENITE CLAY AS POTENTIAL ADSORBENT FOR THE REMOVAL OF CATIONIC DYES FROM AQUEOUS MEDIA: STATIC STUDY USING A FFD, AND EQUILIBRIUM, KINETICS, ADSORPTION ISOTHERMS, THERMODYNAMICS STUDIES.**

**A. NABOULSI, H. YAZID, M. EL HIMRI, M. EL HADDAD**

**ID :111**

**GIS TECHNIQUES AND AHP MULTI-CRITERIA ANALYSIS METHODS FOR ASSESSING THE SUITABILITY IN AGRICULTURAL SOIL IRRIGATED WITH WASTEWATER: CASE OF THE DAY RIVER, BENI MELLAL (MOROCCO)**

**A. HILALI, M. EL BAGHDADI, E. EL HAMZAOU**

**ID169**

**ETHNOBOTANICAL INVESTIGATION OF AROMATIC AND MEDICINAL PLANTS USED IN THE TRADITIONAL TREATMENTS IN AIN MADIOUNA AND THAR SOUK (TAOUNATE; MOROCCO)**

**A. LAFTOUHI, E. ECH-CHIBBI, R. SALIM, F. EL-HAJJAJI, Z. RAIS, M. TALEB**

**ID130**

**GC-MS ANALYSIS, ANTIOXIDANT, ANTIMICROBIAL AND ANTIFUNGAL ACTIVITIES OF ARTEMISIA HERBA-ALBA ESSENTIAL OIL FROM REGION FEZ-MEKNES (CENTRAL NORTH OF MOROCCO)**

**G. BENIAICH, R. SALIM, E. ECH-CHIBBI, F. EL-HAJJAJI, Z. RAIS, M. TALEB**

**ID113**

**THE EFFECT OF ENVIRONMENTAL POLLUTION ON THE CONSUMPTION OF MEDICAL AND AROMATIC PLANTS**

**E. UÇAR**

**ID :114**

**TRACE METAL LOAD IN THE SOIL OF LANDFILLS AND ASSESSMENT OF THE ASSOCIATED ECOLOGICAL RISK (SAFI, MOROCCO)**

**A. BENHAMDOUNA, H. ACHTAKA, F. RAFIQA, A. DAHBI**

**ID223**

**STUDY OF THE ANTIBACTERIAL AND ANTIFUNGAL ACTIVITIES OF ESSENTIAL OILS OF MENTHA PULEGIUM AND CALAMINTHA OFFICINALIS**

**F.Z. BOUSRAF, H. ZEJLI, F. EL HAJJAJI, A. ABDELLAOUI, M. TALEB**

<b>ID187</b>	<p><b>CONTRIBUTION TO THE PRODUCTION AND QUALIFICATION OF REFRACTORY MATERIALS USING EFFICIENT TECHNOLOGIES AND IMPROVING ENERGY AND ENVIRONMENTAL EFFICIENCY</b></p> <p><b>L. BALLI, M. HLIMI, L. HAMRI, A. ATIFI</b></p>
<b>ID172</b>	<p><b>THERAPEUTIC FIELD CROPS AND GROWING CONDITIONS</b></p> <p><b>G. GÜÇLÜ</b></p>
<b>ID :116</b>	<p><b>PHYSICO-CHEMICAL AND BACTERIOLOGICAL QUALITY OF GROUNDWATER IN THE KETAMA-AL-HOCEIMA REGION (MOROCCO)</b></p> <p><b>R. ELBARGHMI, A. LAMHAMDI, M. ABOURRICH, M. GHALIT, K. BENZHIR</b></p>
<b>ID133</b>	<p><b>MORPHOMETRIC STUDY AND HYDROLOGICAL MODELING USING HEC-HMS AND LINEAR REGRESSION OF THE BOUREGREG BASIN</b></p> <p><b>M.M. MLIYEH, A. LACHKAR, L. BENAABIDATE</b></p>
<b>ID188</b>	<p><b>WASTEWATER TREATMENT AND ENERGY GENERATION USING NICKEL VANADATE NANORODS AS NOVEL CATALYST IN WASTEWATER-FED MICROBIAL FUEL CELLS</b></p> <p><b>H. KHARTI, N. TOUACH, A. BENZAOUAK</b></p>
<b>ID106</b>	<p><b>CONTRIBUTION OF REMOTE SENSING IN ASSESSING THE EXTENT OF RAINFALL AND TEMPERATURE EFFECT ON AGRICULTURE: CASE OF THE LOWER SEBOU BASIN, MOROCCO</b></p> <p><b>O. HAKAM, A. BAALI, T. EL KAMEL, K. AZENNOUD</b></p>
<b>ID100</b>	<p><b>SEQUENCING BATCH REACTOR EFFICIENCY TO REDUCE POLLUTANT IN OLIVE OIL MILL WASTEWATER</b></p> <p><b>S. KHATTABI RIFI, M. HAFIDI, S. SOUABI</b></p>
<b>ID195</b>	<p><b>THE WORD ADOPTION STATE OF PRECISION FARMING TO 2022: POSITIONING AND PERSPECTIVE FOR MOROCCO</b></p> <p><b>A. EL BOUDYQ, A. TALEB, F. Z. OUALI ALAMI</b></p>
<b>ID190</b>	<p><b>RIVER DYNAMICS AND ITS SPATIAL INFLUENCE IN THE MIDDLE SEBOU VALLEY, BETWEEN OUED INAOUEN AND OUED BOUCHABEL (PRE-RIF) – MOROCCO</b></p> <p><b>M. YAZAMI ZTAIT, A. TALEB, F. Z. OUALI ALAMI</b></p>
<b>15H30-17H00</b>	<p><b>ORAL PRESENTATION SESSION 4</b></p> <p><b>MODERATORS: MODERATORS: Pr. A. LAHKIMI and Pr. A. AINANE</b></p>
<b>ID:142</b>	<p><b>EXPLORING THE POTENTIAL OF A NEW 1,2,4-TRIAZOLE DERIVATIVE FOR CORROSION PROTECTION OF CARBON STEEL IN HCl: A COMPUTATIONAL AND EXPERIMENTAL EVALUATION</b></p> <p><b>M. NACIRI, Y. EL AOUFIR, H. LGAZ, H. GHANIMI, A. GUENBOUR</b></p>
<b>ID:146</b>	<p><b>CLIMATE CHANGE IMPACT ON THE ALTERATION OF THE ECOHYDROLOGICAL STATUS OF THE INTERMITTENT FLOW RIVERS AND EPHEMERAL STREAMS IN MEDITERRANEAN WATERSHEDS</b></p> <p><b>S. NABIH, Y. BROUZIYNE, L. BENAABIDATE</b></p>

<b>ID:152</b>	<p><b>THEORETICAL STUDY OF NEW DYES OF STRUCTURE D-<math>\pi</math>-A-A BASED ON PYRANYLIDENE</b></p> <p><b>Y. BOUZINEB, A. SLIMI, A. FITRI, A. TOUIMI BENJELLOUN, M. BENZAKOUR, M. MCHARFI, M. RAFTANI, M. BOUACHRINE</b></p>
<b>ID:153</b>	<p><b>PARTICIPATORY HUB FOR EFFECTIVE MAPPING, ACCELERATION AND CAPITALIZATION OF EU-MPC NEXUS BEST PRACTICES (PHEMAC)</b></p> <p><b>N. EL AMRANI EL IDRISSE, L. BENAABIDATE, A. ALAMI HASSANI, H. GHENNIQUI</b></p>
<b>ID181</b>	<p><b>ETUDE ETHNO PHARMACOLOGIQUE DES PLANTES MÉDICINALES UTILISÉES DANS LE TRAITEMENT DES BRÛLURES CUTANÉES DANS LA PROVINCE DE SÉFROU (MAROC)</b></p> <p><b>A. MAHRAZ, E. ECH-CHIHBI, R. SALIM, F. EL-HAJJAJI, Z. RAIS, M. TALEB</b></p>
<b>ID:155</b>	<p><b>ANALYSIS OF CLIMATE VARIABILITY IN THE GUIR-ZIZ BASIN</b></p> <p><b>T. EL GHAZLANI, L. BENAABIDATE, M. ZEMZAMI</b></p>
<b>ID161</b>	<p><b>ECO-FRIENDLY AND LOW COST ADSORBENT FOR REMOVAL OF CATIONIC DYE FROM TEXTILE WASTEWATER</b></p> <p><b>S. AKHOUIRI, R. HAOUNATI, H. OUACHTAK, A. AITADDI, J. DOUCH</b></p>
<b>ID :193</b>	<p><b>ELECTROCHEMICAL EXAMINATION OF AN ECO-FRIENDLY CORROSION INHIBITOR “AFE” FOR CARBON STEEL IN ACIDIC MEDIUM (1 M HCl)</b></p> <p><b>S. LAHMADY, O. ANOR, I. FORSAL, K. BENBOUYA, A. TALFANA</b></p>
<b>ID165</b>	<p><b>PHYSICAL CHARACTERISTICS OF THE SOILS OF TWO SITES IN THE CASCADES REGION WITH A VIEW TO DETERMINING THE CAUSES OF PHYSICAL AND CHEMICAL CONTAMINATION OF BOREHOLES IN RURAL AREAS, IN THE SHORT AND LONG TERM IN BURKINA FASO</b></p> <p><b>A. SAWADOGO, S. OUOBA, B. HARTITI, A. NOUIRA, B. BAGRE, I. OUARMA, A. BERE</b></p>
<b>ID :156</b>	<p><b>THE DEGRADATION OF NITROGEN POLLUTION BY AERATED LAGOONING IN AN ARID CLIMATE: THE CASE OF THE ERRACHIDIA WASTEWATER TREATMENT PLANT IN SOUTHEAST MOROCCO</b></p> <p><b>M. OUHAMMI, M. MERZOUKI, H. BELHASSAN</b></p>
<b>ID186</b>	<p><b>QUALITY ASSESSMENT OF PORE SEDIMENT WATERS OF EL MALLEH DAM RESERVOIR</b></p> <p><b>N. MAZIGH, A. TALEB, N. BAJI, B. FATHI, M. MOUKHLISS, A. EL BILALI</b></p>
<b>ID192</b>	<p><b>GROUNDWATER QUALITY PREDICTION USING PRINCIPAL COMPONENT ANALYSIS IN BERRECHID AQUIFER</b></p> <p><b>M. MOUKHLISS, A. TALEB, B. EL FATHI, N. MAZIGH, A. OUALLALI, A. EL BILALI</b></p>
<b>ID179</b>	<p><b>SURVEILLANCE DE LA QUALITÉ DES EAUX DE SURFACE D’OUED FÈS PAR QUAL2K</b></p> <p><b>B. EL FATHI, F. EL HASSANI, M. MOUKHLISS, N. MAZIGH, A. TALEB</b></p>
<b>ID148</b>	<p><b>STUDY OF THE CHEMICAL COMPOSITION OF PLANT WASTE IN THE FEZ-MEKNES REGION, MOROCCO</b></p> <p><b>A. BENDAOU, N. ELOUTASSI, A. HMAMOU, A. BELKHIRI, A. LAHKIMI</b></p>

**FRIDAY, DECEMBER 17, 2020 AT 09:00H  
(LOCAL TIME MOROCCO)**

**09H00- 12H00**

**CONFERENCE SESSION 3**

**09H00 – 10H30 SPEAKER 1: Pr Shehdeh JODEH**

Department of chemistry, An-Najah National University, Nablus, Palestine

**“ASSESSMENT AND REMOVAL OF HEAVY TRACE METALS BY MAGNETIC MULTIWALL CARBON NANOTUBE DECORATED BY NOVEL FUNCTIONALITY FROM GROUND WATER IN JERICHO, PALESTINE”**

**MODERATOR: Pr A. AINANE**

**10H30 – 12H00 SPEAKER 2: Pr Amjad M. SHRAIM**

Department of Chemistry and Earth Sciences, Qatar University, Doha, Qatar

**“WATER-FOOD-HEALTH NEXUS. RICE: A SOURCE OF TOXIC ELEMENTS”**

**MODERATOR : Pr S. JODEH**

**12H00-12H30**

**POSTER PRESENTATION SESSION**

**MODERATORS: E. ECH-CHIHBI and R. SALIM**

**ID:211**

**EVALUATION OF HEAVY METAL CONTAMINATION AND ECOLOGICAL RISK OF AGRICULTURAL SOILS IRRIGATED WITH WASTEWATER FROM THE DAY RIVER IN BENI MELLAL (MOROCCO)**

**A. HILALI, M. EL BAGHDADI, E. EL HAMZAOU**

**ID:224**

**ANTHROPOGENIC FACTORS IMPACT ON SURFACE WATER POLLUTION IN THE CITY OF FEZ**

**F. Z. EL MADANI, N. IDRISSE, K. LAHLOU, A. OMOR, M. BENABBOU, M. MERZOUKI, M. TALEB, Z. RAIS**

**ID:269**

**REPRESENTATIONS DES CHANGEMENTS CLIMATIQUES CHEZ LA POPULATION RURALE DE LA REGION DE TAOUNATE (MAROC)**

**A. LAFTOUHI, E. ECH-CHIHBI, R. SALIM, F. EL-HAJJAJI, Z. RAIS, A. ABDELLAOUI, M. TALEB**

**ID:280**

**SIMULATION OF LEACHATE TREATMENT IN FEZ CITY**

**E. SAOUDI HASSANI, I. MEHDAOUI, A. TALEB, M. TALEB, Z. RAIS**

**ID277**

**BIOLOGICAL ACTIVITIES OF CAPER FRUIT EXTRACTS OBTAINED BY TWO EXTRACTION METHODS**

**I. ATEMNI, K. HJOUJI, A. AINANE, T. AINANE, M. TALEB, Z. RAIS**

**ID:294**

**PERFORMANCE AND EFFICIENCY OF VEGETABLE OIL (CSVO) AS AN ECO-FRIENDLY INHIBITOR FOR CARBON STEEL IN 1.0 M HCl**

**S. LAHMADY, O. ANOR, K. BENBOUYA, I. FORSAL, C. BELMEJDOUB**



<b>ID297</b>	<p><b>LC-MS ANALYSIS OF BIOACTIVE COMPOUNDS, ANTIOXYDANT AND ANTIBACTERIAL ACTIVITY OF ESSENTIAL OILS OF A.P.A.</b></p> <p><b>K. HJOUJI, I. ATEMNI, S. BERRADA, I. MEHDAOUI, A. AINANE, T. AINANE, M. TALEB, Z. RAIS</b></p>
<b>ID299</b>	<p><b>INVESTIGATION OF THE PHYSICO-CHEMICAL QUALITY OF THE WASTEWATER IN FEZ CITY (MOROCCO) USING PRINCIPAL COMPONENTS ANALYSIS METHOD</b></p> <p><b>F. EI OUADRHIRI, M. CHAOUCH, M. ELYEMNI, N. ELOUTASSI, M. TALEB, A. LAHKIMI</b></p>
<b>ID284</b>	<p><b>INNOVATIVE VALORIZATION OF OLIVE MILL WASTE WATER</b></p> <p><b>I. MEHDAOUI, S. BERRADA, K. HJOUJI, I. ATEMNI, A. AINANE, T. AINANE, M. TALEB, Z. RAIS</b></p>
<b>ID:282</b>	<p><b>THE CORROSION INHIBITING EFFECT OF THE ESSENTIAL OIL OF MENTHA VIRIDIS: EXPERIMENTAL AND SEM/EDX STUDIES</b></p> <p><b>J. LAZRAK, R. SALIM, EL. ELASSIRI, S. ALAQUI MRANI, F. EL HAJJAJI, T. SAFFAJ, M. TALEB</b></p>
<b>ID210</b>	<p><b>CHARACTERISATION AND BIOLOGICAL TREATMENT OF WASTE FROM PETROLEUM ORIGIN</b></p> <p><b>Z. ETTALLOUI ZINEB, S. SOUABI SALAH, A. TALEB</b></p>
<b>ID221</b>	<p><b>CLIMATE CHANGE AND DECISION SUPPORT USING THE COMPUTER TOOL "INSTAT": CASE STUDY OF THE CENTRAL PLATEAU "NORD_ZEMMOUR" COMMUNE ELGANZRA.</b></p> <p><b>O.K. ELFANNE, A. BOUTCHKKOUCHT, R. ELMOUFID, A. TALEB, A. OUALLALI</b></p>
<b>ID222</b>	<p><b>ETUDE DES PARAMÈTRES DE SIMILARITÉ DES BASSINS VERSANTS DU NORD DU MAROC EN UTILISANT LES SIG ET TÉLÉDÉTECTION</b></p> <p><b>S. HOBAIZI, I. OUMECHTAQ, M. MOUKHLISS, F.Z. OUALI ALAMI, A. TALEB</b></p>

**12H30- 13H00 CLOSING SESSION**

- Pr R. MRABET: President of the University Sidi Mohamed Ben Abdellah (USMBA), Fez, Morocco
- Pr M. BENLEMLIH: Dean of the Faculty of Sciences Dhar Al Mahraz, USMBA, Fez, Morocco
- Pr M. EL HASSOUNI: Vice Dean of the Faculty of Science Dhar Al Mahraz, USMBA, Fez, Morocco
- Pr M. BELKASMI: Vice Dean of the Faculty of Science Dhar Al Mahraz, USMBA, Fez, Morocco
- Pr M. TALEB: Chairman of the CI3E-2021 and professor at the Faculty of Sciences, USMBA, Fez, Morocco
- Pr B. HAMMOUTI: Chairman of the CI3E-2020 and professor at the Faculty of sciences, UMP, Oujda, Morocco
- Pr K. HABOUBI: Co-chairman of the CI3E-2021 and professor at the ENSA of Alhoceima.

**MODERATOR: Pr F. EL-HAJJAJI**