

The 9th Mediterranean Conference on
Desalination and Water Treatment
CMTDE 2024

CMTDE 2024
PROGRAM

Supported by



9th Mediterranean Conference
on Desalination and Water
Treatment

22 - 25 December 2024
Sol Azur Beach Hotel 4*, Hammamet, Tunisia

Organized by



With the collaboration of



TUNISIAN DESALINATION ASSOCIATION (TDA)

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"Water-Energy-Environment Nexus"

PROGRAM OUTLINE

SUNDAY DECEMBER 22, 2024

15:00-19:00 Registration

20:00 Dinner

MONDAY, DECEMBER 23, 2024

8:00-9:00 Registration

9:00-10:30 **Opening Ceremony**

- Prof. Béchir HAMROUNI, Tunisian Desalination Association President.
- Prof. Hakim GABTNI, DM of Water Research and Technologies Center.
- Prof. Moez CHAFRA, President of Tunis El Manar University.
- Mr. Minister of Agriculture, Water Resources and Fisheries.
- Mr. Minister of Higher Education and Scientific Research.

10:30-11:00 **Conference 1 :**
"Water and Energy transition", Sami BEN RJEB

11:00-11:30 **Coffee break & Group Photo**

11:30-12:00 **Conference 2 :**
"Membranes in water treatment: from traditional to advanced membrane processes", Alberto FIGOLI

12:00-12:30 **Conference 3 :**
"Seawater desalination in Tunisia", Mohamed ZAARA

13:00-14:30 **Lunch**

14:30-16:30 **Oral Session 1 : Water, Energy and Environment: Interconnections and Challenges**

Room "Forum": Chairmen: S. GABSI & L. ELALOUI

16:30-17:30 **Coffee break + Posters Session 1 : Room "Forum":**
Chairmen : S. BEN JABRALLAH, E. NAHDI & C. HANNACHI

20:00 Dinner

TUESDAY DECEMBER 24, 2024

9:00-9:30 **Conference 4 :**
"Desalination of treated wastewater and its valorisation in aquaponics", Hamza EL FIL

9:30-10:00 **Conference 5 :**
"Development of Nanocomposite Desalination membranes: Merits and Challenges ", Vahid VATANPOUR

10:00-10:30 **Conference 6 :**
"Polymer chelating properties to enhance selectivity in membrane separations process", Mourad AMMAR

10:30-10:45 **Break**

10:45-12:30 **Parallel Oral Session 2**

Room "Forum": **Water Treatment: Techniques, Challenges, and Innovations**

Chairmen : F. TOUATI & J. NIBOU

Room "Hannibal" : **Water and Energy: Interconnections and Challenges**

Chairmen : P. HABERSCHILL & M. LAKHDAR

13:00-14:30 **Lunch**

14:30-16:30 **Parallel Oral Session 3**

Room "Forum": **Water Treatment: Techniques, Challenges, and Innovations**

Chairmen : S. AMOKRANE & V. VATANPOUR

Room "Hannibal" : **Water Energy and Environment: Interconnections and Challenges**

Chairmen: P. HABERSCHILL & S. BEN JABRALLAH

16:30-17:30 **Coffee break + Posters Session 2 : Room "Forum"**
Chairmen : M. AMMAR, L. KAIRAOUANI & W. BOUGUERRA

20:00 Dinner

WEDNESDAY DECEMBER 25, 2024

9:00-9:20 **Conference 7 :**
"Improving the quality of treated wastewater by cultivating microalgae and recovering energy from sludge", Hatem RADDADI

9:20-9:40 **Conference 8 :**
"R-290 le fluide de l'avenir ?", Philippe HABERSCHILL

9:40-10:00 **Conference 9 :**
"Advances in CFD Modelling for Spacer-Filled Membrane Channels in Desalination Membrane Systems", Yong Yeow LIANG

10:00-11:30 **Oral Session 4 : Water, Energy and Environment: Interconnections and Challenges**

Room "Forum" :

Chairmen : S. BEN JABRALLAH & M. YOUSSEF

11:30-12:30 **Closing session & Round Table**

12:30-14:00 **Lunch**

MONDAY Afternoon
DECEMBER 23, 2024

ORAL SESSION 1

Room "Forum"

Water, Energy and Environment:

14:30-14:45	CMTDE 2024_92: A Solar desalination System: Experimental study and comparison with the theoretical results Saida Bahsine, Chaymae Lachguer, Fatima Ait Nouh, Nader Frikha, Slimane Gabsiand Ayoub Elberkaoui
14:45-15:00	CMTDE 2024_78: Technical-Economic and Comparative Study of Solar Water Desalination Systems Fatima Ait Nouh, Chaymae Lachguera, Saida Bahsine, Yassir Bellaziz, Ayoub Elbarkaoui
15:00-15:15	CMTDE 2024_70: Harnessing Power: Enhanced Power Density via Reverse Electrodialysis Sarrah Jomaa
15:15-15:30	CMTDE 2024_26: Experimental Investigation of Desalination and Brine Concentration Using Membrane Distillation on a Pilot Scale Garudachari Bhadrachari, Mansour Ahmad, Rajesha Kumar Alambi, A. Al-Mesri, Jibu P. Thomas
15:30-15:45	CMTDE 2024_172: An Innovative Strategy for Repurposing End-of-Life Desalination Membranes in Technical Textile Applications Mehmet Emin Paşaoğlu
15:45-16:00	CMTDE 2024_175: Solar photo-Fenton at neutral pH using Fe ³⁺ -NTA as a novel tertiary treatment for microcontaminant removal Amal Mejri, Paula Soriano-Molina, Sara Miralles-Cuevas, José Antonio Sánchez Pérez
16:00-16:15	CMTDE 2024_38: Performance analysis of a hybrid forward osmosis-membrane distillation system for seawater desalination Zakaria Triki, Rabah Menasri, Zineb Fergani
16:30-17:30	Coffee break +POSTER SESSION 1:Room "Forum"

TUESDAY Morning
DECEMBER 24, 2024

ORAL SESSION 2

Room "Forum"

Water Treatment: Techniques, Challenges, and Innovations

10:45-11:00	CMTDE 2024_153: Developement of Sustainable Polymer Inclusion Membranes for Effective Cobalt Ion Extraction and Recovery Ibtissem Alyani, Hayet Mahmoud, Sana Ncib, Wided Bougueurra
11:00-11:15	CMTDE 2024_69: TiO ₂ -based nanocomposite for photocatalytic degradation of pharmaceutical pollutant Beyram Trifi, Amira Nahdi, Salah Kouass, Fathi Touati, Hassouna Dhaouadi
11:15-11:30	CMTDE 2024_6: Physico-chemical study of wastewater discharged in the environment in the East-Algeria sector CGS LaBelle Annaba Fatima Boubidi, Incène Bouasla, Amina Habbeche, Abdallah Djedioui, Boutheina Dendani and Mounia Debili
11:30-11:45	CMTDE 2024_50: Urban wastewater Treatment by infiltration percolation using a filter bed intended for composting: crushed dry palms and smectitic clays Saifeddine Eturki, Massouda Ben Saed, Feryel Hajjaji, et Mohamed Ouassar
11:45-12:00	CMTDE 2024_112: Separation of Zn(II), Ni(II), and Cu(II) Ions using Polymer Inclusion Membranes Hayet Mahmoud, Sana Ncib, Kemla Othmen, Christian Larchet, Lasâad Dammak, Wided Bouguerra, Elimame Elaloui
12:00-12:15	CMTDE 2024_72: Innovative Method for Rare Earth Element Extraction: Development of a Novel Process and Comparison with Supported Liquid Membrane and Solvent Extraction Techniques Khaled Brahmi, Raouf Jebali, Wided Bouguerra and Béchir Hamrouni
12:15-12:30	CMTDE 2024_118: Determination of Na Lignosulfonate Efficiency and Performace as a Natural Coagulant in Textile Wastewater Treatment Atheer Ali Awwad Elhamdan, Sakine Ugurlu Karaağaç
12:30-14:00	Lunch

TUESDAY Morning
DECEMBER 24, 2024

ORAL SESSION 2

Room “Hannibal”
Water and Energy: Interconnections and Challenges

10:45-11:00

CMTDE 2024_145: New and Improved Design for the HDH Humidification-Dehumidification Desalination System
Abir Ghezaïel, Nizar Ben Ezzine, Jalila Sghaier, Ahmed Bellagi

11:00-11:15

CMTDE 2024_62: Improving the Operation of Softening Unit through Advanced Ion Exchange Resin Maintenance Methods
Kamel Bitam Et Nassila Sabba

11:15-11:30

CMTDE 2024_28: Activated Carbon Derived from Sawdust Combined with Ultrafiltration as a Pretreatment of Textile RO Brine : Impact on Water Quality and UF Fouling
Sarrah Ben Salah, Francois Zaviska, Marc Heran and Raja Ben Amar

11:30-11:45

CMTDE 2024_36: Wind direction effect on the thermal performance of the single-slope solar B9
Ahmed Rahmani, Fethi Chouaf, Lakhdar Bouzid

11:45-12:00

CMTDE 2024_41: Optimization of a Hybrid PV/ Wind/ Diesel/ Battery Energy System for Isolated Military Sites in Tunisia Using PSO and HOMER Software
Moez Youssef , Chokri Boubahri, Radhouane Meherzi

12:00-12:15

CMTDE 2024_59: Numerical Simulation of Mass and Heat Transfer in Humidifiers: Optimizing Efficiency in Water Treatment and Humidifier Performance
Nadia Rahali; Ahlem Zouaoui; Leila Zili-Ghedira

12:15-12:30

CMTDE 2024_105 : Study of Reverse Osmosis Membrane Fouling
Belgacem Chandoul

12:30-14:00

Lunch

TUESDAY Afternoon
DECEMBER 24, 2024

ORAL SESSION 3

Room “Forum”
Water Treatment: Techniques, Challenges, and Innovations

14:30-14:45

CMTDE 2024_158: Water Softening Optimization: Calcium and Magnesium Removal via Donnan Dialysis Using Cationic Fujifilm Membranes – A Doehrlert Design Approach
Nabila Chaabani, Lassaad Dammak, Christian Larchet, Wided Bouguerra, Elimam Elaloui

14:45-15:00

CMTDE 2024_144: Paper industrial wastewater treatment by constructed wetlands system
Amal Mahmoudi, Chiraz Hannachi, Béchir Hamrouni

15:00-15:15

CMTDE 2024_161: Nutrient Removal from Aqueous Solutions Using Wood-based Biochar: Adsorption Capacities, Kinetics, and Isotherm Analysis
Amani Haddouk, Ismail Trabelsi, Mohamed Ali Wahab

15:15-15:30

CMTDE 2024_165: Modeling predictions of soluble microbial product using integrate ASM1-SMP model and statistical analysis in a submerged membrane bioreactor for wastewater treatment under different COD/N ratios.
Hana Benaliouche, Djamel Abdessemed, Fouad Benaliouche, Goeffroy Lesage, Marc Heran

15:30-15:45

CMTDE 2024_170: Degradation of Aqueous Quinoline Yellow Solutions Induced by Gamma Irradiation
Malak Ben Salem, Amira Zaouak and Houyem Abderrazak

15:45-16:00

CMTDE 2024_102: NiO Nanoparticles from Green Chemistry : An Innovative Solution for Diclofenac Degradation in Aqueous Media
Bilal Chikhi, Meriem Gouasmi, Adel Saadi And Amel Boudjemaa

16:10-16:15

CMTDE 2024_130: Batch and fixed bed column studies for the removal of triphenylmethane dye by Algae root
El-Khamssa Guechi, Sana Haou, Fethi Saoudi

16:30-17:30

Coffee break + POSTER SESSION 2 : Room “Forum”

TUESDAY Afternoon
DECEMBER 24, 2024

ORAL SESSION 3

Room “Hannibal”
Water, Energy and Environment:
Interconnections and Challenges

14:30-14:45

CMTDE_2024_1: Assessment and comparison of triazole pesticides in agricultural draining water from Tunisia
Mouna Necibi, Dorsaf Abdelaoui, Nadia Mzoughi

14:45-15:00

CMTDE_2024_16: Physicochemical and biochemical responses of apple cultivars during storage as induced by saline water irrigation
Walid Abidi, Rawaa Akrimi

15:00-15:15

CMTDE_2024_32: Characterization of water polluted by wastewater and impacts on the quality of irrigated soil in the short term
Rihab Hedhiri, Ibtissem Haboubi, Emna Grami et Neila Saidi

15:15-15:30

CMTDE_2024_47: Study of the influence of climatic parameters on the water rate evaporation from a free surface
Walid Foudhil, Sadok Ben Jabrallah

15:30-15:45

CMTDE_2024_90: CFD Modeling of an Integrated Evaporative Cooling and Wind Catcher System for Poultry House Climate Control
Mariem Fezai, Mouna Elakhdar, Khaled El Moueddeb

15:45-16:00

CMTDE_2024_120: Sustainable Solutions for Water Scarcity: Co-Current Humidifiers in Humidification-Dehumidification Systems
Nadia Rahali, Ahlem Zouaoui, Leila Zili-Ghedira

16:00-16:15

CMTDE_2024_100: Innovations in Artificial Rain Production Processes : New Process for Local Rain Production
Adel Oueslati, Adel Megriche

16:30-17:30

Coffee break +POSTER SESSION 2 : Room “Forum”

WEDNESDAY Morning
DECEMBER 25, 2024

ORAL SESSION 4

Room “Forum”
Water, Energy and Environment:
Interconnections and Challenges

10:00-10:15

CMTDE_2024_64: Health Risk Assessment of Fluoride Removal from Drinking Water
Abubaker A. Sharif , Nader Alazipy, Iman Shinger, Darin Eltraplsi

10:15-10:30

CMTDE_2024_67: Preparation and Characterization of a Thin-Film Composite Nanofiltration Membrane Based on Polyamide Cellulose Acetate: Application for dyes removal
Ibtissem Ounifi, Badra Abed ,Youssef Guesmi, Amor Hafiane

10:30-10:45

CMTDE_2024_128: Enhancement of a Single Slope Solar Still Performance Using an External Reflector
Sahar Grine, Jamel Madiouli and Ammar Hidouri

10:45-11:00

CMTDE_2024_137: pH measurement of seawater: State of the art for measurement of mean activity coefficients in saline aqueous matrixes
Mounir Ben Achour, Fatma Guesmi, Ikhlass Marzouk, Imed Ben Jemaa, Chiraz Hannachi, Béchir Hamrouni

11:00-11:15

CMTDE_2024_98: Industrial Wastewater Treatment Using Olive Seeds Powder and Aluminum Chloride Hybrid Coagulation
Sakine Ugurlu Karaağaç

11:15-11:30

CMTDE_2024_56: Dynamics of Contaminants Transport under climate change patterns in Varied Soil Types at laboratory scale: Influence of water flow rate and temperature
Sara Abdelli, Luigi Mastrodonato, Paola Calza, Davide Vione, Øyvind Brandvoll, Vian Yasin, Laura Ferrando-Climent

12:30-14:00

Lunch

16 : 30 – 17 : 30 **MONDAY December 23, 2022**

Poster Session 1

16 : 30 – 17 : 30

CMTDE_2024_2	Selective extraction of Co(II) and Ni(II) from sulfate medium by synergistic solvent extraction Tassadit Louichaoui, Fatima Ghebghoub, Djamel Barkat and Amel Khettala
CMTDE_2024_4	Synthesis, Characterization, and Photocatalytic Performance of Bi ₁₂ CoO ₂₀ , ZnO, and BCO/ZnO Nanomaterials Sérine Madji, Mouhamed Belmedani, Mekatel El Hadj
CMTDE_2024_5	Comparative Study of Violet Crystal Adsorption on Raw and Purified Nanomaterials Nacéra Zabat, Imène Zitouni, Bouchra Bounab
CMTDE_2024_7	Removal of emerging contaminants from desalination plane effluent by activated biowaste Amel Louadj, Omar Bouras, Mohamed Houari, Sidali Kourdali
CMTDE_2024_8	Environmental Impact Study Of Reverse Osmosis Desalination Plants B31 Amel Louadj , Omar Bouras, Kaouther Ezzroug, Mohamed Houari, Sidali Kourdali
CMTDE_2024_9	Incorporation of a Nickel Into Polytungstic Matrix (u ₂ P ₂ W ₁₇) ¹⁰⁻ Nanoparticles: A Green and Recyclable Catalyst for Dye Decolorization Nacéra Zabat
CMTDE_2024_10	Study of the Adsorption Characteristics of Various Aqueous Substances Using a Local Adsorbent Nessrine Mechraoui, Mokhtar Benalia and Asma Boudaoud
CMTDE_2024_11	Synthesis and Evaluation of Novel Spirooxypirimidine Derivatives as Antibacterial and Antioxidant Agents Nora Chouha, Boukezzoula Faiza, Haba Hamada
CMTDE_2024_12	Synthesis and characterization of composites based zeolite Y/TiO ₂ for the treatment of BB41 dye from synthetic solution. Nibou Djamel, Hammoudi Hadda Aya, Sebati Farouk, Ferhat Djawad, Amokrane Samira

MONDAY December 23, 2022

Poster Session 1

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CMTDE_2024_13	Hydrogen gas production using semiconductors Fe ₂ O ₃ , CuO, ZnO and composites Clay/Fe ₂ O ₃ , Clay/CuO and Clay/ZnO by photo catalysis Amokrane Samira, Ferhat Djawad, Sebati Farouk and Nibou Djamel
CMTDE_2024_14	Using Support vector machine optimized with Mosquito Swarm Algorithm to predict water productivity of a nanofluid-based solar still equipped with thermoelectric modules Amel Euldji, Maamar Laidi, Mohamed Hentabli
CMTDE_2024_15	Waste water treatment with activated carbon prepared from green residues Boumessaidia Selmane, Bensalem Fella, Houti Iman, Mohammedi Ourida
CMTDE_2024_17	Study of the elimination of phenol from water with intensive and extensive processes. Hanane Belayachi, Sarra Bourahla, Amel Belayachi, Fadela Nemchi, Mostefa Belhakem
CMTDE_2024_18	Water treatment by Photo-catalytic Degradation using Ruta Extracts Hichem Lettreuch, Asma Drioueche, Hocine Boutoumi
CMTDE_2024_19	Optimization of the extraction parameters of bioactive compounds from leaves of the olive cultivar «Chemleli» as induced by saline water irrigation Rawaa Akrimi, Marwa Sessi, Walid Abidi
CMTDE_2024_20	Development of a novel antimicrobial and optimization for future application in poultry farming Emna Grami, Rihab Hedhiri, Belhassen Gassemi and Neila Saidi
CMTDE_2024_21	Adsorption of heavy metals using synthetized biomaterial : application to marine environment Noussaiba Salhi, Samir Touaylia, Sondes Bouslimi, Neila Saidi
CMTDE_2024_22	Effect of the mass ratio of phosphoric acid on the chemical impregnation of a vegetal waste for the preparation of a porous material Renad Rabie, Ahmed Belgacem, Hocine Hadoun

MONDAY December 23, 2022

Poster Session 1

16 : 30 – 17 : 30

CMTDE_2024_23	<i>Facile biosynthesis of Fe₃O₄ nanoparticles and their use for rapid removal of a toxic cationic dye “Methyl Violet” from wastewater</i> Mohammed Cherif Terkhi, Kayra Hammou, Kinza Amel Belhadji, Sabria Terkhi, Mouffok Radouane Ghezzar, Fatiha Abdelmalek, Mohammed Said Nedjimi, Salah Tlili, Ahmed Addou
CMTDE_2024_27	<i>Characterization of the Removal of a Tanning Dye by Adsorption on Gibbsite</i> Loubna Bouhouf
CMTDE_2024_29	<i>Water treatment facility maintenance of flash evaporators</i> Salah Frioui
CMTDE_2024_30	<i>Synthesis of an organic-inorganic nanohybrid composite for dye removal</i> Nesrine Kamoun, Emna Melliti, Fatma Ounis and Hamza Elfil
CMTDE_2024_31	<i>Degradation of Textile Dyes from Wastewater Discharges Using Zeolite Catalysts</i> Fatiha Hamidi, Hanae Sari mohammed, Meriem Seladji
CMTDE_2024_33	<i>Hydrochemical and Hydrogeological Characteristics of the Upper Visean Aquifer of Hassi Abdallah, Tindouf Saoura Watershed (Southwest Algeria)</i> Mohamad Fouzi Bekkouch, Ibrahim Lasgaa, Djelloul Zaneti
CMTDE_2024_34	<i>Adsorption capability of sugar scum as industrial waste for cationic dye removal : experimental and advanced statistical physics modeling</i> Fatiha Atmani, Mohamed Mehdi Kaci, Imane Akkari, Nacera Yeddou-Mezenner, Zohra Bensaadi-Ouznadji, Ouafia Balamane-Zizi and Asma Mokhati
CMTDE_2024_35	<i>Recovery of Ni (II) from Aqueous Sulphate Solution Using Di (2-Ethylhexyl) Phosphoric Acid & 1-octanol</i> Amel Khetala, Tassadit Louichaoui, Fatima Ghebghoub, Djamel Barkat
CMTDE_2024_37	<i>Study of a Building-Integrated Solar</i> Haddad Zakaria, Nahoui Azzedine, Oucif Omar

MONDAY December 23, 2022

Poster Session 1

16 : 30 – 17 : 30

CMTDE_2024_38	<i>Performance analysis of a hybrid forward osmosis-membrane distillation system for seawater desalination</i> Zakaria Triki, Rabah Menasri, Zineb Fergani
CMTDE_2024_39	<i>Structural Analysis and Biological Assessment of a Novel Zwitterionic Cadmium Complex with Antioxidant, Antidiabetic, and Anti-inflammatory Activities</i> Sandra Walha, Mansoura Bourwina, Nourhene Zammel and Houcine Naili
CMTDE_2024_40	<i>Synthesis and characterization of modified activated carbon (Iron Oxide/AC) for cationic dye adsorption: equilibrium isotherm and kinetic studies</i> Wiem Hamza, Olfa Ouled Ltaief, Kouthar Ouali, Mourad Benzina
CMTDE_2024_42	<i>Comparative evaluation of the effects of ethanol and isooctane addition on the performance and NOx emissions of a spark-ignition engine using commercial unleaded gasoline</i> Radhouane Meherzi Chokri Boubahri Moez Youssef
CMTDE_2024_43	<i>Potential elimination of diclofenac sodium (DCF) from aqueous solution by adsorption using orange peel solid waste-based activated carbon</i> Zouhair Salah, Hajer Aloulou, Raja Ben Amar
CMTDE_2024_44	<i>Experimental and Numerical Study of the Performance and NOx Emissions of a Spark Ignition Engine Operating with an Ethanol-Unleaded Gasoline Mixture</i> Chokri Boubahri, Meherzi Radhouan, Moez Youssef
CMTDE_2024_46	<i>Effects of nanoparticles on the performance of a solar distiller</i> Azzedine Nahoui, Zakaria Hdaddad
CMTDE_2024_48	<i>Evaluating Seawater Intrusion Vulnerability in a coastal Aquifer: Application of the Modified GALDIT Model in the Northeast Tunisia Region</i> Amal Kouaied, Ismail Chenini, Severin Pistre
CMTDE_2024_49	<i>Bacteriological Quality of Seawater in the Bousmail Region (Tipaza Province)</i> Fatima Bouchenak, Cherifa Chaouia, Yamina Mouas

MONDAY December 23, 2022

Poster Session 1

16 : 30 – 17 : 30

CMTDE_2024_51	<i>Design and Study of a Plate Heat Exchanger with Phase Change Materials for HDH Desalination</i> Khouloud Ben Hassen, Nader Frikha, Slimane Gabsi
CMTDE_2024_53	<i>Investigation of methylene blue Adsorption by Fe₃O₄ Nanoparticles: An Optimization Study Using Response Surface Methodology</i> Imene Gritli, Hajer Chemingui, Kais Djebali, Walid Mabrouk, Amor Hafiane, Riadh Marzouki, Salah Ammare, Radhouane Chtourou, Sherif M.A.S. Keshk
CMTDE_2024_57	<i>Study of the Parameters Influencing the Adsorption of Chromium (VI) on Bentonite</i> Dhia Bellache
CMTDE_2024_58	<i>Study of the Adsorption Performance of Chrysoidine R by a Synthesized Nanocomposite</i> Oukacha Douinat, Ahmed Boucherdoud, Benaouda Bestani, Benzeki Mokhtar Benallou, Nadia Douara, Zohra Mekibess, Mohamed Amine Chemrak
CMTDE_2024_60	<i>Kinetic study of the adsorption of dye from wastewater on Algerian activated clay</i> Boumediene Bounaceur, Amina Sardia, and Néji Besbes
CMTDE_2024_63	<i>Reduction of Total Dissolved Solids (TDS) in industrial water storage tanks while maximizing water resource recovery through reverse osmosis (RO)</i> Kamel Bitam et Nassila Sabba
CMTDE_2024_66	<i>Adsorption and Regeneration of iron pillared clay adsorbents for removal orange methyl</i> Randa Sellam, Faiza Zermane, Omar Chaknane
CMTDE_2024_68	<i>Separation Methods of Terpenes</i> Ghada Ben Salha, Manef Abderrabba and Jalel Labidi
CMTDE_2024_71	<i>Ibuprofen adsorption onto natural Tunisian chert</i> Najah Mahjoubi, Manel Araissi, Elimame Elaloui

MONDAY December 23, 2022

Poster Session 1

16 : 30 – 17 : 30

CMTDE_2024_73	<i>Innovative Leaching Techniques for Sustainable and Efficient Recovery of Rare Earth Elements from Phosphogypsum</i> Khaled Brahmi, Raouf Jebali, Wided Bouguerra and Béchir Hamrouni
CMTDE_2024_74	<i>Assessment of the microbiological quality of irrigation water and dispersal of antibiotic resistance genes</i> Sihem Jebri, Rafik Dridi, Ahmed Slaheddine Masmoudi, Islem Amri And Mouldi Saidi
CMTDE_2024_75	<i>Adsorption of a Phenolic Compound by Activated Carbon Derived from Pinecones: Preparation, Characterization, and Thermodynamic Study</i> Salima Attouti, Mourad Termoul, Mokhtar Benzekri Benallou, Baghdad Benabed Fatma, Benaouda Bestani, Nouredine Benderdouché
CMTDE_2024_76	<i>Development of a Machine Learning Algorithm for Predicting User Engagement and Data Consumption in Popular Applications</i> Ameel yahyaoui, Mohamed Nejib El Melki
CMTDE_2024_82	<i>Impact des Eaux Usées sur la Plante Aquatique « Posidonia Oceanica (L.) Delile 1813 » dans le Golfe d'Annaba</i> Habbeche Amina, Habbeche Amira, Boutabia-Trea Saliha, Habbachi Wafa
CMTDE_2024_86	<i>Optimizing the Treatment of Medjerda River Water : The Potential of Moringa Seeds as an Eco-Friendly Adsorbent</i> Hanene Najjar, Faten Laouini, Naima Werfelli
CMTDE_2024_89	<i>Elimination of Inorganic Micropollutants Present in Water by Bio adsorption: Optimization and Applications</i> Mohammed AL khazaali, Chiraz Hannachi, Béchir Hamrouni
CMTDE_2024_93	<i>Study of the Thermal and Mechanical Properties of a Phosphogypsum and date palm fiber composite</i> Hela Garbaya, Abderraouf Jraba and Elaloui Elimame
CMTDE_2024_94	<i>Adsorption of Malachite Green using a Magnetized Biosorbent</i> Yasmine Benmansour, Khalil Oukebdane, Souad Feddane, Zineb Sefrou

MONDAY December 23, 2022

Poster Session 1

16 : 30 – 17 : 30

CMTDE_2024_95	Methodology and Feasibility of Flood-Control Dams in Artificial Recharge through the Application of Modflow and PhreeqC: Case of the Large Algerian-Tunisian Transboundary Basin, Oued El Kebir Mohamed Amine Tatar, Rayene Ramdani Sirine Chemsedinne Fehdi
CMTDE_2024_96	The utilization of pistachio shell powder as a cellulose producer and its impact on the development of a bio composite Fatma Kallel
CMTDE_2024_97	Adsorption of methylene bleu on effective Bio-sorbent from Almond Shell Jamila Bahroun, Christian Larchet, Afef Attia, Lasâad Dammak, Raja Ben Amar
CMTDE_2024_99	Critical Review of Artificial Rain Production Processes Adel Oueslati, Adel Megriche
CMTDE_2024_101	Photocatalytic Degradation of Calcifying Organic Molecules in Aqueous Medium Using Synthesized Zinc Oxide: Characterization and Comparative Analysis of Photocatalytic Performance Naima Gherbi, Aya Bouaziz, Nuria Fiol, Filali Djihene , Sifeddine Rebbadj, IKram Benzagri
CMTDE_2024_107	Supported liquid membrane and polymer inclusion membranes for Nickel (II) transport Kemla Othmen, Sana Ncib, Ibtissem Alyani, Lasaad Dammak, Elimem Elaloui , Wided Bouguerra
CMTDE_2024_108	Development and Characterization of Zinc Oxide Quantum Dot Based Fluorescent Probes for Heavy Metal Detection Karim Ben Kamel, Souhaira Hbaieb, Nouredine Amdouni
CMTDE_2024_109	Hydrochemical Study and Groundwater Quality Assessment of Gafsa South-El-Guettar Naima Hidouri, Zouhour Moussaoui, Noomene Sleimi, Younes Hamed, Fadoua Hamzaoui-Azzaza
CMTDE_2024_110	Fluorescence Turn-On Mode via Europium Complexation for Sensitive Detection of Histamine in Food Karim Ben Kamel, A. Ben Issa, Yves Chevalier, Nouredine Amdouni, Souhaira Hbaieb

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CMTDE_2024_111	Binary and ternary removal of cationic and anionic dyes by adsorption onto activated biosorbent: isotherm and kinetics studies Fatma Boumaiza, Ikhlasse Marzouk Trifi, Amine Mnif, Béchir Hamrouni
CMTDE_2024_113	Paradigm Shift: How desalination is changing water resources availability and management in Algeria Hassoun Nedjar Nizar, Mrad Dounia and Djebbar Yassine
CMTDE_2024_114	Emerging trends in textile wastewater treatment using cellulose nanofibrils: optimization through Response Surface Methodology Nedra Azizi, Yasmin Cherni, Kais Djebali, Ramzi Khiari, Ismail Trabelsi
CMTDE_2024_115	Synthesis of Nanomaterial Based Sensor for Heavy Metals Detection Abdelhakim Benchettara, MI. Khenissa, Salah Eddine Berrabah
CMTDE_2024_121	Preparation and characterization of membranes for membrane distillation: Application for water purification Rokaya Ben Abed, Francesca Russo. Chiraz Hannachi , Béchir Hamrouni , Alberto Figoli
CMTDE_2024_123	Enhancing Rhodamine B Removal from Aqueous Solutions: A Comparative Study of Clinoptilolite and Fe ₂ O ₃ -Modified Clinoptilolite for Advanced Wastewater Treatment Hammoudi Hadda Aya, Nibou Djamel, Amokrane Samira
CMTDE_2024_126	Thermally Activation of Persulfate for Brilliant Green degradation: Plackett-Burman Design and Response Surface Methodology Ouahiba Bechiri, Amel Benzidoune, Naima Habache
CMTDE_2024_151	Investigation on the Impact of Renovating Old Buildings on Energy Consumption and Greenhouse Gas Emissions: A Case Study of Single-Family Homes in France Taycir Ben Abid
CMTDE_2024_164	Memo on Microprocessor Cooling Khaoula Amara, Ridha Abdejaraba

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CMTDE_2024_3	<i>Elaboration and Characterization of Microfiltration Ceramic Membrane</i> Ferhat Bouzerara
CMTDE_2024_24	<i>Optimization and kinetic studies for real industrial liquid waste treatment using combined electrochemical processes</i> Najia Hamrouni , Wafa Sassi , Ayman Nafady , Jean-Yves Hihn , Salah Ammar
CMTDE_2024_25	<i>Preparation of novel porous ceramic membrane supports based on silicon carbide/bentonite mixtures at very low- sintering temperature</i> Mouna Hecini, Nabila Saighi, Yacine Kerchich, Meftah Tablaoui, Amar Manseri, Ouahiba Bouchelaghem, Nadjib Meribai
CMTDE_2024_45	<i>Bio-based ceramic membrane preparation and application for textile wastewater treatment</i> Afef Attia, Jamila Bahrouni, Lasâad Dammak, Raja Ben Amar and Andre Deratani
CMTDE_2024_52	<i>Experimental study of a vacuum membrane distillation system comprising an immersed hollow fiber module</i> Samira Ben Abdallah, Nader Frikha, Slimane Gabsi
CMTDE_2024_54	<i>Monitoring and Simulation of the puratory performances of the ANNABA STEP for safe use of purified water in agriculture</i> Wahida Kherfane, Omar Sekiou, Yahia Hammar, Aissa Benselhou
CMTDE_2024_55	<i>Etiological survey on contaminations of thermal waters and disinfectant tests and purely natural flavorings</i> Mohamed Ali Dridi , Faycal Ig Kolsi
CMTDE_2024_61	<i>Innovative adsorbent based on bentonite clay-polymer composite for wastewater treatment</i> Boumediene Bounaceur, Amina Sardia, and Néji Besbes
CMTDE_2024_65	<i>Optimization of the condensation and vacuum creation system for vacuum membrane distillation</i> Rihab Miladi, Nader Frikha, Slimane Gabsi
CMTDE_2024_77	<i>Effect of stibnite thickness on the degradation of methylene blue in aqueous solutions under visible light</i> Adel Chihi

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CMTDE_2024_79	<i>Mini-station for desalination based on the electromagnetic method</i> Islam Nacer Eddine EL Ghoul, Ala Eddine Lakhdari, A. Tarek Ouamane, Rachid Lakhdari
CMTDE_2024_80	<i>Desirability function and Box-Behnken design optimization for anionic and cationic dyes adsorption by activated Algerian Bentonite</i> Kaouther Ouali, Wiem Hamza, Nadim Fakhfakh, Mourad Benzina
CMTDE_2024_81	<i>Electrochemical Magnetization of Wastewater for Cleaner Production</i> Wafa Sassi, Salah Ammar, Jean-Yves Hihn
CMTDE_2024_83	<i>Adsorption of methyl blue dye from aqueous solution by blend polymer based on PVC</i> Noura Benbellat, Amel Agaguena, Oussama Khaoua, Tahar Bendaikh
CMTDE_2024_84	<i>Application of statistical physics formalism for the modeling of adsorption isotherms of water molecules on the microalgae spirulina platensis</i> Ayachi Fakher, Nakbi Amel, Sakly Abdellatif, Pinto Luiz A.A., , Abdelmottaleb Ben Lamine
CMTDE_2024_85	<i>Using hybrid adsorbents to remove contaminants from water</i> Amir Djellouli, Mehenni Moktar, Berredjem Yamina
CMTDE_2024_87	<i>Advanced high sensitive hybrid nanomaterials for heavy metal ions detection and water treatment</i> Ferdaous Addeli, Jacem Wannassi, Afef Dhaffouli, Hamza Kahri, Fraj Chouchene and Houcine Barhoumi
CMTDE_2024_88	<i>Development and Application of an LC-MS/MS Methodology for the Detection and Quantification of Pharmaceutical Residues in Wastewater</i> Hana Mechmeche, Catherine Serreau, Chaima Fersi, Radhia Souissi, Emmanuelle Vulliet Et Houyem Abderrazak
CMTDE_2024_91	<i>Optimization of a solar dryer with forced convection for food products</i> C. Hamdi, M. Elakhdar Abouda, B. Ben Fathallah, L. Kairouani

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CMTDE_2024_103	<i>Eco-Friendly Chromium Removal from Tannery Wastewater Using Electrocoagulation and Opuntia ficus indica Powder</i> Saliha Elabbas, Yasamine Jaouad, Nawel adjeroud , Marie Noelle Ponse, Mandi Lailaa, Naaila Ouazzani
CMTDE_2024_104	<i>Photocatalytic Degradation of Anionic and Cationic Dyes Using Magnetic Iron-Doped Zinc Oxide Nanoparticles: A Green Chemistry Approach for Sustainable Water Treatment</i> Aya Bouaziz, Naima Gherbi, Hafida Hadjar
CMTDE_2024_106	<i>Effect of thermal dispersion on mixed convection flow in non-Darcy porous medium filled by Das nanoliquid</i> Hamza Ali Agha, Nadir Boutalbi, Soufiane Rahal
CMTDE_2024_116	<i>Osmotic Energy and Water Use in Electricity Generation (Application to the Waters of the Ouargla Region)</i> Nawel Boussaada, Nabila Hammad
CMTDE_2024_117	<i>Evaluation of Groundwater Hydrogeochemical Characteristics Using an Integrated Approach: Graphical and Statistical Methods Applied to the 'UZ' Maknessy Basin, Central Tunisia</i> Zouhour Moussaoui, Naima Hidouri, Fatma Ben Brahim, Hamed Younes, Salem Bourri
CMTDE_2024_119	<i>Study of the Corrosion Inhibitory Effects of Plants on Steel in Contact with Oilfield Produced Water</i> Sahar Raissi, Sonia Barbouchi, Mariem Ibidhi, Mohamed Kadri Younes
CMTDE_2024_122	<i>Photocatalytic Degradation of Pharmaceutical Pollutants in Water Using BaMnO₃</i> Mohamed Dahmane, Tawous Mzir, Asma Tab Semiconductor
CMTDE_2024_124	<i>Removal of emerging pollutants using gamma irradiation combined by nanofiltration</i> Sabrine Ghazouani, Faten Boujelbane, Dorra Jellouli Ennigrou, Bart Van der Bruggen and Nadia Mzoughi
CMTDE_2024_125	<i>Synthesis and optoelectronic study of TiO₂ nanotubes decorated with Palladium Pd nanoparticles for photocatalytic application.</i> Ayda Mehdaoui, Anouar Hajjaji, Bernabé Mari Soucase

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CMTDE_2024_127	<i>Desalination in Mud Fluids</i> Hanen Ghanmi
CMTDE_2024_129	<i>Remediation of Paracetamol as Model Emerging Pollutant from Aqueous Medium Using an Inexpensive Adsorbent: Adsorption Modelling</i> Imane Akacha, Abdelkrim Merzougui, khadidja Bouzid
CMTDE_2024_131	<i>Removal of Fuchsin basic dye with Ultrasonic-assisted and Conventional batch biosorption on Cattail leaves</i> El-Khamssa Guechi, Sana Haou, Soulef Benabdesselam, Oualid Hamdaoui
CMTDE_2024_132	<i>Remediation of soils polluted by crude oil with anionic surfactants</i> Rahal Soufiane, Moulai-Mostefa Nadji, Ali Agha Hamza
CMTDE_2024_133	<i>Study of the inhibitory effect of nickel oxide nanoparticles on the corrosion of carbon steel X70</i> S. Bougherara, D. Cherik, F. Lecheb, M. Belkhir , S. Smaili, F. Aissat, K. Deleci, L. Neggache , A. Dremchi
CMTDE_2024_134	<i>Adsorption Test of Lead by Two Natural Adsorbents: Thistle Stems (Scolymus maculatus) and Jujube (Ziziphus lotus)</i> Bougherara Saliha, Medjdoub Fatma, Bouzid Radia, Illouli Thileli, Mouhouche Hanane, Lecheb Fatma, Delleci Kamel, Belkhir Meriem, Louhab.k
CMTDE_2024_135	<i>The Application of Donnan Dialysis for micropollutants removal</i> Ikhllass Marzouk Trifi, Lasâad Dammak, Ramzi Mejri, Donia Zgolli, Béchir Hamrouni, Chiraz Hannachi
CMTDE_2024_136	<i>The removal of dyes by adsorption onto bioadsorbent from agricultural waste</i> Amira Djemel, Ikhllass Marzouk Trifi, Chiraz Hannachi, Béchir Hamrouni,
CMTDE_2024_138	<i>Highly porous biochars developed from orange, pomegranate, and watermelon peels as potential adsorbents for hexavalent chromium removal: Optimization by Response Surface Methodology</i> S. Azaiez, E. Ben Khalifa, G. Magnacca, F. Cesano, B. Hamrouni

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CMTDE_2024_139	<i>Rehabilitation Study Calco-Carbonic Equilibrium of Water</i> L. Larbi, N. Fertikh
CMTDE_2024_140	<i>Dyes removal from water by adsorption on coffee grounds</i> Fatma Guesmi, Jalel Ferchichi, Chiraz Hannachi, Béchir Hamrouni
CMTDE_2024_141	<i>Application of response surface methodology for chromium removal by adsorption on date pits</i> Imen Maalaoui, Kaouther khiari, Fatma Guesmi, Chiraz Hannachi, Béchir Hamrouni
CMTDE_2024_142	<i>Preparation and characerization of PVDF flat sheet membranes using DMF solvent for the water treatment by membrane distillation</i> Chiraz Hannachi, Mourad Ben Sik Ali, Béchir Hamrouni
CMTDE_2024_143	<i>Water contaminated by Legionella pneumophila: Detection, Quantification and Typing of Strain</i> Amina Amal Benabbou, Fatma Guesmi, Chiraz Hannachi, Béchir Hamrouni
CMTDE_2024_146	<i>Prevention of iron fouling of reverse osmosis desalination membrane</i> Emna Melliti, Bart Van der Bruggen, Hamza Elfil
CMTDE_2024_147	<i>Eco-friendly adsorption of Nitrates and Phosphates from Natural Waters by Oleander Leaves</i> Houda Zendah, Ikhllass Marzouk Trifi
CMTDE_2024_148	<i>NiAl₂O₄-NiO nanostructures as a new nanotechnology platform for detecting pesticides in natural water</i> Asma Hammami, Afrah Bardaoui, Olfa Messaoud
CMTDE_2024_149	<i>Modeling and performance analysis of membrane distillation coupled with thermo-solar for seawater desalination</i> Rabah Menasri, Zakaria Triki, Yahia Menasri, Yasmine Ounnar
CMTDE_2024_150	<i>Effective Alzarin Red S dye adsorption and removal from aqueous solution onto artichoke waste biochar, synthesis, characterization, adsorption studies and optimization by Box-Behnken design</i> Dorra Tabassi, Eya Ben Khalifa, Fatma Guesmi, Chiraz Hannachi, Béchir Hamrouni

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CMTDE_2024_152	<i>Numerical simulation of energy storage with phase change materials in building applications</i> S. Bhiri, S. Trabelsi, S. Souai, S. Garrouri & E. Sediki
CMTDE_2024_154	<i>Enhancing Copper Recovery: The Impact of Voltage in Electromembrane Extraction with Supported Liquid Membranes</i> Chafik Ghabri, Sana Ncib, Chiraz Jadlaoui, Wided Bougueurra
CMTDE_2024_155	<i>Synergistic Adsorption and Photocatalysis: A Bifunctional Approach for Efficient Dye Removal in Wastewater Treatment</i> Maroua Abbes, Hicham Zeghioud, Abdoulaye Kane, Wided Bougueurra, Elimame Elaloui
CMTDE_2024_156	<i>Optimization of Cadmium Extraction from Tunisian Phosphates via Vapometallurgy: An Experimental Design Approach</i> Marwa Mlaouah, Ghada Mouedhen, Wided Bougueurra
CMTDE_2024_157	<i>Impact of Mining Activities on Soil Contamination: Assessment of Trace Elements: Cadmium in Phosphate transformation Sites of Mdhilla, Tunisia.</i> Marwa Mlaouah, Amel Chibani, Wided Bougueurra, Elimame Elaloui
CMTDE_2024_159	<i>Optimization of Copper and Nickel Removal from Aqueous Solutions Using Donnan Dialysis with Fujifilm Cation-Exchange Membranes: A Response Surface Methodology Approach</i> Nabila Chaabani, Lassaad Dammak, Christian Larchet, Wided Bougueurra, Elimam Elaloui
CMTDE_2024_160	<i>Development of Polymer Inclusion Membrane System for Selective Cadmium Removal from acidic media</i> Chiraz Jadlaoui, Sana Ncib, Wided Bougueurra, Elimam Elaloui
CMTDE_2024_162	<i>Optimization of dye removal from wastewater by adsorption onto raw and activated carbon obtained as a co-product from fast pyrolysis of sawdust</i> Boutheina Rzig, Nizar Bellakhal
CMTDE_2024_163	<i>Sorption-photocatalysis-enhanced effects of biochar-nanocomposite based on palm cellulose fibers</i> Radhia Msaadi, Wafa Sassi, Salah Ammar, Mohamed M Chehimi

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CMTDE_2024_166	<i>A novel LiBr-H₂O Absorption Cooling System Incorporating a Turbo-Compressor</i> Haythem Sahli, Rania Hammemi, Mouna Elakhdar
CMTDE_2024_167	<i>Using desalination brine on Halophyte Cultivation</i> Nesrine Kalboussi , Hajer Azeiz , Karim Ben Hamed, and Hamza Elfil
CMTDE_2024_168	<i>Effect of Demister Separation Efficiency on the Freshwater Purity in MSF-OT/TVC Desalination Process</i> Sellami Ahlem, Ben Ali Mongi, Kairouani Lakdar
CMTDE_2024_169	<i>Naturel tracer and Isotopic approach to describe groundwater behaviour: an example of the Sejnane Basin (North-Western Tunisia)</i> Mohamed Khouatmia, Chorouk Amiri
CMTDE_2024_171	<i>Valorization of biomass in an efficient treatment process for oil wastewater</i> Fakhfakh Fatma, Barhoumi Malek, Barbouchi Sonia
CMTDE_2024_173	<i>Eco-Friendly and Cost-Effective Water Treatment: Degradation of Acid Green 25 via Fenton Process Using Fe/Perlite Catalyst</i> Sondess Amri, Ibtissem Boumnijel, Rihab Hdhiri
CMTDE_2024_174	<i>Synthesis and characterization of a novel eco-friendly bioflocculant: Performance study for treatment of real industrial effluent</i> Zahwa Ghodbani, Safa Gamoudi
CMTDE_2024_176	<i>Cysticidal Activity of Trachyspermum ammi Essential Oil against Acanthamoeba Isolates from Dental Clinic and Hospital Water Networks</i> Wafaa M. Hikal and Hussein A.H. Said-Al Ahl
CMTDE_2024_177	<i>Bacteriological Evaluation of Treated Wastewater in Tunisia</i> Soukeina Dhib
CMTDE_2024_178	<i>Valorization and Development of a Polyester Polymer from Alfa Fiber</i> Nouri LAIB
CMTDE_2024_179	<i>Study of the Salinity of Irrigation Water and Soil in Several Irrigated Plots in the Relizane Wilaya</i> Moussa Kouadri Sameut

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CMTDE_2024_180	<i>Hydro-chemical diagnosis and quality of groundwater in the M'zab Valley following the effects of floods. Algeria</i> Zohra BabaAmer, Farida Boulaghmen
CMTDE_2024_181	<i>Validation of analytical method for the determination of pesticides residues in environmental matrix</i> Nadia Nasraoui, Wided Bellarzreg, Manel Haraketi, Faten Daly, Houyem Hamdi