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U. R. Dessalement
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كلية العلوم بتونس
FACULTE DES SCIENCES DE TUNIS



Centre National des Recherches
en Sciences des Matériaux

6th Maghreb Conference on
Desalination and Water
Treatment

17 - 20 December 2017

Sol Azur Beach Hotel 4^{*}, Hammamet, Tunisia

Organized by



Tunisian Desalination Association



Unité de Recherche Dessalement
et Traitement des Eaux

With the collaboration of



TUNISIAN DESALINATION ASSOCIATION (TDA)

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FERJANI Ezeddine – Nabeul, Tunisia

GABSI Slimane – Sfax, Tunisia

HABERSCHILL Philippe – Lyon, France

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YOUNES Mohamed Kadri – Tunis, Tunisia

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HAMROUNI Béchir
HANNACHI Chiraz
LOUATI Islem

PROGRAM OUTLINE

SUNDAY DECEMBER 17th , 2017

15:00-19:00 Registration

20:00 Dinner

MONDAY DECEMBER 18th , 2017

8:00-9:00 Registration

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

- Prof. Béchir Hamrouni, Tunisian Desalination Association President.
- Official Opening : Minister of Agriculture, Water resources and Fisheries.
- Prof. Miriam Balaban, General Secretary of European Desalination Society, Editor in Chief of the journal Desalination and Water Treatment.

10:00-10:30 **Conference 1 : Béchir Hamrouni** : Saline waters desalination : Scientific challenges

10:30-11:00 **Conference 2 : Raja Ben Amar** : African Membrane Society objectives and activities

11:00-11:30 **Coffee break**

11:30-12:00 **Conference 3 : Jean François Fauvarque** : incorporation of functional ceramics into polymers, in order to prepare ion selective membranes

12:00-12:30 **Conference 4 : Hicham El Bakouri** : Research lines developed by Abenga : Applications of innovative desalination technologies and on sustainable brine management strategies

12:30-13:00 **Conference 5 : Philippe Haberschill** : Interest of thermodynamic generators for seawater desalination

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

14:30-16:10 **Oral Communications 1**

Room "Forum" : Desalination processes

Room "Utique" : Pre-treatment and post-treatment

Room "Salambo": Wastewater treatment

16:10-17:30 **Coffee break/ Poster Session 1**

20:00 **Dinner**

TUESDAY DECEMBER 19th , 2017

9:00-10:30 **Oral Communications 2**

Room "Forum" : Desalination processes/Energy for desalination

Room "Utique" : Pre-treatment and post-treatment

Room "Salambo" : Wastewater treatment

10:30-11:00 **Coffee break**

11:00-12:30 **Oral Communications 2 (continuation)**

Room "Forum" : Desalination processes/Energy for desalination

Room "Utique" : Pre-treatment and post-treatment

Room "Salambo" : Wastewater treatment

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

14:30-16:00 **Poster Session 2**

16:00-16:30 **Coffee break**

20:00 **Dinner**

WEDNESDAY DECEMBER 20th , 2017

10:00 **Round Table & Closing session**

12:00 **Lunch**

MONDAY AFTERNOON
DECEMBER 18th , 2017

Room Forum

Desalination processes / Energy for desalination

Chair : S. GABSI, Ph. HABERSCHILL

- 14:30-14:50 CMTDE_30** : A novel composite membrane for selective recovery of lithium by electrodialysis.
T. Ounissi ; E. Selmane Bel.Hadj.Hmida; G. Lepinasse; L. Dammak ; J.J Fauvarque
- 14:50-15:10 CMTDE_37** : A draw solution recovery process and flux behavior in forward osmosis during desalination.
D. Ben Maouia, A.. Boubakri, A. Hafiane, S. Bouguecha
- 15:10-15:30 CMTDE_49** : Direct Contact Membrane Distillation for Synthetic Saline Wastewater Treatment: Optimization By Response Surface Methodology
S. Abdelkader, A. Boubakri, S.Uwe Geissen, L. Bousselmi
- 15:30-15:50 CMTDE_92** : Energetic study of a solar-powered vacuum membrane distillation coupled with a liquid ring pump
Miladi R., Frikha N., Kheiri A., Gabsi S.
- 15:50-16:10 CMTDE_153** : The optimization of a simulation study on an AGMD membrane distillation unit and the experimental validation for desalination of seawater or brackish water.
S. Khmili, M. Boukhriss, S. Mejbri and H. Ben Bacha

MONDAY AFTERNOON
DECEMBER 18th , 2017

Room Utique

Pre-treatment and post-treatment

Chair : J. F. FAUVARQUE, R. BENAMAR

- 14:30-14:50 CMTDE_11** : Monitoring The growth of Marine Bio-films of Different Metallic Alloys in Seawater by Electrochemical Impedance Spectroscopy
Khaled Al-Muhanna¹and Khaled Habib

- 14:50-15:10 CMTDE_29** : Performance of ion-exchange membranes for the treatment of hard waters by electrodialysis
E. Selmane Bel Hadj Hmida; N. Salaaoui ; J.F. Fauvarque
- 15:10-15:30 CMTDE_35** : Alternative oxidants in seawater industrial cooling towers for biofouling control
Mohammed Albloushi, Kim Choona, and Torove Leiknes
- 15:30-15:50 CMTDE_141** : Chromium removal by adsorption on orange peels : optimization of influencing parameters
Rzig Boutheina, Ben Khalifa E., Nehdi H., Nouaigui H., Hamrouni B.
- 15:50-16:10 CMTDE_151** : Application of a low cost adsorbent for boron removal
Ben Khalifa Eya, Rzig Boutheina, Hamrouni Béchir

MONDAY AFTERNOON
DECEMBER 18th , 2017

Room Salambo

Wastewater treatment

Chair : A. HAFIANE, E. BEL HADJ HAMIDA

- 14:30-14:50 CMTDE_86** : Keggin Polyoxometalates assisted-ultrafiltration process for retention of dye
Malak Kahloul, Anouar Ben Fradj , Amor Hafiane
- 14:50-15:10 CMTDE_95** : Reuse of treated wastewater in agriculture
Debab Abdelkader, Khelladi Malika Et Bekrentchir Khalida
- 15:10-15:30 CMTDE_115** : Beer and soft drinks industry wastewater treatment using an anoxic-aerobic MBR coupling with nanofiltration in sahelian context
S. Boukary, Y. Konaté, G. Lesage, F. Zaviska, M. Heran and H. Karambiri
- 15:30-15:50 CMTDE_121** : Recovery of nickel ions by supported liquid membrane (SLM) extraction
K. Othman, S. Ncib, W. Bouguerra, B. Hamrouni, E. Elaloui

- 15:50-16:10** **CMTDE_135** : Treatment of heavy metals -polluted industrial wastewater by ballasted electroflocculation process
K.Brahmi, W. Bouguerra, E. Elaloui, B.Hamrouni

TUESDAY MORNING
DECEMBER 19th , 2017

Room Forum

Desalination processes/Energy for desalination

Chair : L. KAIROUANI, H. EL BAKOURI

- 09:00-09:20** **CMTDE_124** : Minimizing the total annualized cost of MED-TVC desalination plant.
Benhamad Maha, Ruiz-Femenia Rubén, Snoussi Ali A, Ben Brahim Ammar, Caballero José A.
- 09:20-09:40** **CMTDE_42** : Exergoeconomic analysis of a solar vacuum membrane distillation plant.
Z. Triki, M. N. Bouaziz, M. Boumaza
- 09:40-10:00** **CMTDE_** : Rain-Harvest Theory
ELHASSADI Abdelmonem
- 10:00–10:30** **Coffee break**
- 11:00-11:20** **CMTDE_117** : Synthesis of reduced graphene oxide-polysulfone ultrafiltration nanocomposite membranes for water separation.
Aouni Anissa, Altinay Ayşegül Derya , Koseoglu- Imer Derya Y., Hafiane Amor, Koyuncu Ismail
- 11:20-11:40** **CMTDE_107** : The use of Computational Fluids Dynamics for modeling the fluid flow behavior and heat transfer phenomena in spacer-filled channels for AGMD
El Mokhtar I., Boubakri A., Bouguecha S. Al T., Hafiane A.
- 11:40-12:00** **CMTDE_118** : Design of a forward osmosis unit for urine concentration and nutrient recovery
B. C.W. Nikiema, R. Ito, M. Guizani and N. Funamizu

- 12:00-12:20** **CMTDE_157** :
Experimental study of membrane distillation feasibility for sea water desalination
LOUATI Rami, BEN JABRALLAH sadok

TUESDAY MORNING
DECEMBER 19th , 2017

Room Utique

Pre-treatment and post-treatment

Chair: J. F. FAUVARQUE, K. RIDA

- 09:00-09:20** **CMTDE_120** : Fluoride removal from synthetic groundwater by electrocoagulation process : Parametric and cost evaluation..
Amel Chibani, Afef Barhoumi, Sana Ncib, Wided Bouguerra, Bechir Hamrouni, ELimam Elaloui
- 09:20-09:40** **CMTDE_90** : Effective electro-Fenton regeneration of Tunisian clay adsorbent
I. Ouiriemmi, E. Rosales, M. Pazos, A. Gadri, S. Ammar, Maria Á. Sanromán
- 09:40-10:00** **CMTDE_91** : Mixture study between the alpha-alumina and the natural apatite for making a low cost ceramic support
Youssef Guesmi, Swachchha Majumdar and Amor Hafiane
- 10:00–10:30** **Coffee break**
- 10:30-10:50** **CMTDE_143** : Speciation of mercuric ions from natural waters by cloud point extraction : evaluation and optimization using central composite design
Hsaini J., Hannachi Ch., Nafti M., Guesmi F. And Hamrouni B..
- 10:50-11:10** **CMTDE_104** : A novel thin-film composite membranes by interfacial polymerization for treatment of industrial waste water containing heavy metals.
Ounifi Ibtissem, Ursino C., Hafiane A., Figoli A., Ferjani E.
- 11:10-11:30** **CMTDE_122** : Radiolysis of pharmaceuticals in aqueous solutions by irradiation process
J. Aribi, W. Jahouach-Rabai, R. Lahsni, Z. Azzouz-Berriche, B. Hamrouni

11:30-11:50 **CMTDE_131** : Boron removal from aqueous solution by adsorption onto activated carbon and amorphous carbon.
M. Jaouadi, A. H. Hamzaoui, L. Duclaux, L. Reinert

TUESDAY MORNING
DECEMBER 19th, 2017

Room Salambo

Wastewater treatment

Chair : A. HAFIANE, Dj. NIBOU

09:00-09:20 **CMTDE_76** : Organobentonites for textile wastewater treatment

F. Ayari, D. Ben Hassen Chehimi and M. Trabelsi- Ayadi

09:20-09:40 **CMTDE_96** : Treatment of industrial textile effluents using coagulation flocculation and adsorption

Khellouf Meryem, Chemini Rachida, Salem Zineb, Zeriri Djamel, Khodja Mohamed

09:40-10:00 **CMTDE_116** : Simple preparation of Er Doped Zinc Oxide Nanoparticles and their application in photocatalytic degradation of textile dyes under UV light irradiation

H. Chemingui, J. Chékir Mzali, M. Kahloul, M. Smiri, M. Konyar, H. C.Yatmaz, A. Hafiane

10:00–10:30 **Coffee break**

10:30-10:50 **CMTDE_23** : Engineering of Size-Controlled Magnetic Nanoparticles for use as Draw Solution in Forward Osmosis Process.

GUIZANI Mokhar

10:50-11:10 **CMTDE_52** : Environmental Appraisal For Proposed Reverse Osmosis desalination Plant In Red Sea Sudan Portsudan.

ALDIRANY Mohamed Ali Hassan

Monday December 18th, 2017

16 : 00 – 17 : 30

**Poster
Session 1**

Desalination processes/Energy

Chair : S. GABSI, L. KAIROUANI, Ph HABERSHILL

CMTDE 2017_5 Proton exchange membranes based upon sulfonated polyethersulfone for electrodialysis applications
Mabrouk W., Lafi R, Ogier L, Sollogoub C., Fauvarque J. F. , Hafiane A.

CMTDE 2017_6 Experimental evaporation study of salt water Droplet Posed on different substrates
Zouaghi Hiba, Harmand Souad and Ben Jabrallah Sadok

CMTDE 2017_8 Acétylation de la cellulose en vue de l'élaboration d'une membrane
AZAZI Fatima Zohra, BOUTOUMI Hocine, NACEUR Mohamed Wahib

CMTDE 2017_19 Effect of nanofluids on the performance of a solar still with and without heat exchanger Comparison study.
TRAD Abderachid, Mahdi Djahida

CMTDE 2017_26 Box-behnen design for the desalination of seawater using membrane distillation process.
Ali Boubakri Salah Bouguecha, Amor Hafiane

CMTDE 2017_39 Traitement des solutions de chrome hexavalent par couplage procédés.
A. Benhadji ; R. Youcef ; R. Maachi ; M. Taleb Ahmed

CMTDE 2017_56 Removal of Nickel and Copper from aqueous solutions by poly(sodium 4-styrenesulfonate) assisted ultrafiltration.
Nafti Molka , Jellouli Ennigrou Dorra, Horchani Neifer Karima

CMTDE 2017_66 Performance Evaluation of a Hybrid Photovoltaic/ Thermal Collector Using Alumina Nanoparticles.
Amel GHELLAB, Farid BERRAHI

CMTDE 2017_67 Modified gas permeability test for estimating membrane distillation water vapour flux.
Mousa Alharthi, Ahmad S. Alsaadi, Noredine Ghaffour

CMTDE 2017_69 Application of spatial interpolation method study the spatio-temporal variability of rainfall in semiarid region : Case study of Sousse, Tunisia.
Marwa Fourati, Rajouene Majdoub and Dalenda Boujnah

CMTDE 2017_73 Influence of operating variables on the removal copper and zinc ions from treatment surface effluents by nanofiltration.
Jihed Ezzine, Ferjani Ezzedine , Hafiane Amor

- CMTDE 2017_77** Modélisation d'un système distillation membranaire à contact directe (DCMD).
Remlaoui Ahmed, Nehari Driss, Elmeriah Abderrahmane
- CMTDE 2017_80** Optimization of chromium removal by adsorption on leaves.
RZIG B., GUESMI F., BEN KHALIFA E. , HAMROUNI B.
- CMTDE 2017_81** Experimental study and modeling of air gap membrane distillation Unit : Application in seawater desalination.
I. El Mokhtar, A. Boubakri, S.Al T. Bouguecha, A. Hafiane
- CMTDE 2017_83** Phragmifiltre : les roseaux au service de l'eau.
A. Chadli, H. Benhassaini, N. Fertout
- CMTDE 2017_84** Elaboration de membranes composites en vue d'éliminer des micropolluants par ultrafiltration.
Warda el Hosni, Nadia Chaarana, Sofiane Ben Hamouda, and A. Hafiane
- CMTDE 2017_89** Improvement of the porosity of polymer membranes by the addition of lignin nanoparticles.
Adel Zrelli, Béchir Chaouachi

Pre-treatment and post-treatment

Chair : K. RIDA, J. F. FAUVARQUE, E. BEL HADJ HAMIDA

- CMTDE 2017_1** Treatment of petroleum hydrocarbons-contaminated soil by advanced chemical oxidation.
Arrar Jazia et Moumed Imene
- CMTDE 2017_2** Etude des boues de la station d'épuration de Beni Messous (Algérie)
NAKIB Mammar
- CMTDE 2017_4** Clay minerals for fluoride removal from water: Kinetic modeling.
GUIZA Sami
- CMTDE 2017_14** Synthesis and application of LDH intercalated cellulose nanocomposite for separation of Arsenate and Arsenite
Bessaies Hanen, Sidra I., Kheriji J., Ncibi Ch., Sillanpaa M., Hamrouni B.
- CMTDE 2017_20** Contamination de la baie d'Annaba (extrémité nord-orientale de l'Algérie) par les multi-résidus de pesticides.
S. Khaled-Khodja, S. Cherif, K. Rouibah

- CMTDE 2017_36** Ammoniacal nitrogen removal from water by treatment with Tunisian Natural Clay.
Saifeddine Eturki, Naceur Jedidi and Hamed ben Dhia
- CMTDE 2017_46** Kinetic and thermodynamic study of adsorption of Ni⁺² and Co⁺² Ions in binary system on zeolite A.
Soumia BENSFAFI, Asma AID, Samira AMOKRANE and Djamel NIBOU
- CMTDE 2017_51** Synthèse et caractérisation de nanocomposites styrène butadiène rubber/argiles.
Amina ALLEL, Hassiba BENGUERGOURA, Mohamed Wahib NACEUR
- CMTDE 2017_57** Inhibition of precipitation of CaCO₃ on Polyethylene wall by degazing CO₂ in water.
KETRANE Rachid
- CMTDE 2017_94** Degradation of caffeic acid by a novel electro-Fenton process using chalcopyrite as heterogeneous source of iron catalyst.
Hadj Ltaief Aziza, Labiadh Lazhar , Ammar Salah And Gadri Abdellatif
- CMTDE 2017_99** Distribution of DDTs between different matrices: water, suspended particulate matter and sediment collected from Bizerte Lagoon, Tunisia.
Necibi Mouna, Mzoughi Nadia
- CMTDE 2017_100** Coagulation-flocculation treatment of a pulp and paper mill effluent.
Ltifi Abdelkader , Neila Saidi, Mokded Rabhi , Kathleen Sullivan Sealey, Smaoui Abderrazak, Abdelly Chedly and Hafiane Amor
- CMTDE 2017_101** Response surface methodology for boron removal by donnan dialysis : doehlert experimental design.
Marzouki., Dammak L., Hamrouni B
- CMTDE 2017_102** Adsorption of Bezathren dyes onto Sodic Bentonite from aqueous solutions.
Belbachir Ihssane, Makhoukhi Benamar
- CMTDE 2017_105** Phenol Removal by adsorption onto powdered activated charbon : Isotherm, kinetics study and Factorial design.
Mahfoudhi Selim, Hafiane Amor
- CMTDE 2017_111** Polyoxometalate-enhanced ultrafiltration process for heavy metals removal.
Kahloul Malak, Mahfoudhi Selim, Chmingui Hajer, Hafiane Amor
- CMTDE 2017_113** Oxidation/Mineralization of Acid Orange 7 by a novel electro-Fenton process using chalcopyrite as heterogeneous source of iron and copper catalysts.
Labiadh Lazhar, Gadri^a Abdellatif and Ammar Salah

- CMTDE 2017_119** Performance study of Electrocoagulation process to remove sulfate ions from aqueous solutions using aluminum electrodes.
A. Chibani, S. Ncib¹, A. Barhoumi, W. Bouguerra, B. Hamrouni, E. Elalou
- CMTDE 2017_127** Mineralization of the antihypertensive losartan in aqueous solution by gamma radiation.
ZAOUAK Amira, NOOMEN Ahlem , JELASSI Haikel
- CMTDE 20157_129** Cadmium Immobilization by means of Calcium phosphates.
Jebri Sonia, Jandoubi Montasar, Khattech Ismail
- CMTDE 2017_134** Treatment of hardness on tunisian underground water by the new ballasted electroflocculation process.
Khaled Brahmi *, Wided Bouguerra , Elimame Elaloui , Béchir Hamrouni
- CMTDE 2017_137** Etude de l'adsorption d'un colorant sur un bio adsorbant.
Bouallegue M. Ch., Trifi B., Marzouk Trifi I
- CMTDE 2017_138** Optimization of dyes Removal by adsorption onto activated carbon.
Trifi B , Marzouk Trifi I, Bouallegue M.C, Hamrouni B.
- CMTDE 2017_139** Nickel removal from wastewater by electrocoagulation using aluminium electrodes : Effect of lectrocoagulation parameters.
Barhoumi A. *, Bouguerra W., Hamrouni B^B, Elimame E.
- CMTDE 2017_140** Separation of copper(II), chromium(III) and nickel(II) from nitric solutions by polymer inclusion membrane.
Ncib S., Barhoumi A., Bouguerra W. , Larchet C. , Dammakl., Hamrouni B., Elaloui E.
- CMTDE 2017_144** Removal of boron from geothermal water by reverse osmosis and adsorption onto activated charcoal originated from palm bark: experimental design and break through curves modeling.
Kheriji Jamel, Melliti Abir, Bessaies Hanen, Hamrouni Béchir
- CMTDE 2017_145** Equilibrium Modeling for Adsorption of Aqueous Phenol Onto Activated Carbon: Linear versus Nonlinear Regression Analysis.
Tabassi Dorra, Harbi Soumaya, Louati Islem, Hamrouni Béchir
- CMTDE 2017_146** Adsorption of cadmium from aqueous solution by bioadsorption using a marine plant, Posidonia oceanica: Kinetics, equilibrium, and thermodynamics.
Bessaies Hanen, Kheriji Jamel, Hamrouni Béchir
- CMTDE 2017_147** Optimization of a new method for Nickel dosage in industry effluents water using ET-AAS.
M. Nafti · Ch. Hannachi, R. Chakroun, A. Dougari, B. Hamrouni, H. Nouaïg

- CMTDE 2017_149** Equilibrium modeling of single and binary adsorption of Cr(VI) and phenol onto Dowex 1X8 ion exchange resin: Kinetic and thermodynamic study.
Harbi Soumaya, Tabassi D., Hannachi Ch., Guesmi F. And Hamrouni B.
- CMTDE 2017_150** Application of response surface methodology for chromium removal by biosorption.
Ben Khalifa Eya, Rzig Boutheina, Hamrouni Béchir
- CMTDE 2017_154** Response surface methodology for optimization of boron adsorption by activated carbon: Isotherm and Kinetics study.
LOUATI Islem, GUESMI Fatma, HANNACHI Chiraz, HAMROUNI Béchir
- CMTDE 2017_156** Effect of physico-chemical parameters on the interaction between methylene blue and poly(acrylamide-co-styrene-co-2-acrylamido-2-methylpropane sodium sulfonate).
Zarroug Sondess, Jemili Nouha, Ben Mahmoud Souha, Rawiso Michel, Hamzaoui Ahmed Hichem D, Essafi Wafa

Wastewater treatment

Chair : R. BENAMAR, A. HAFIANE, J. NIBOU

- CMTDE 2017_9** Modeling adsorption in multicomponent system in industrial wastewater
LAIDI Maamar
- CMTDE 2017_10** A binderless monolith activated carbon from date stone : application as supercapacitor in water treatment
Rezma Souad ^{1*}, Birot Marc ², litaiem Yousra ³ Radhouane Chtourou³, Hafiane Amor ¹, Deleuze Hervé ²
- CMTDE 2017_12** Green synthesis of Zinc Oxide (ZnO) nanoparticles from Laurus Nobilis plant extract: Optical properties and their Antibacterial Activity
Chemingui Hajer, Missaoui Takwa, Smiri Moez, Saïdi Neila, Hafiane Amor
- CMTDE 2017_13** Cartographie de la vulnérabilité du bassin SEBKHA D'ORAN
BOUALLA Nabila
- CMTDE 2017_15** Nigella sativa L. seeds biomass as a potential sorbent in sorption of lead from aqueous solutions and wastewaters.
Abdelhamid Addala¹, Noureddine Belattar¹ *, Maria Elektorowicz
- CMTDE 2017_16** New approach of cost maintenance evaluation for the Multi Stage Flash
FRIOUI Salah
- CMTDE 2017_17** Fixed Bed Adsorption Column Studies for the Removal of Aqueous Amoxicillin from Activated Carbon
BERRAMA Tarek

- CMTDE 2017_18** Adsorption of anionic Direct yellow (DY9) dye onto natural untreated clay (NUC) from aqueous phase – Use of Doehlert design for optimizing process conditions
S.Dadou, T. Berrama¹, C.Nekaa; S. Benredouane, and A.Berber¹
- CMTDE 2017_21** Valorization of agricultural waste (pedicels of date) into activated carbon for the emergent pollutant (amoxicillin) elimination from contaminated water.
S. Benredouane, T. Berrama, N. Doufene, S. Dadou and C. Nekaa
- CMTDE 2017_22** Synthesis and characterization of activated carbon coated by zinc oxide nano-particles and its performance on adsorption of methyl bleu
Chékir Mzali Jalila, Chemingui Hajer, Hafiane Amor
- CMTDE 2017_24** Impact des eaux usées sur la qualité des sols agricoles par évaluation de leur contamination par deux métaux (Cd et Pb) avec étude de leur spéciation et leur biodisponibilité.
Benseighir T. Hallouch A. et Bouhadjera K.
- CMTDE 2017_25** Phytoplankton characterization of a domestic wastewater.
Haifa Hammami, Rabaa Hidri et Ouissal Metoui-Ben Mahmoud*
- CMTDE 2017_27** Experimental and Numerical Study Of Liquid Liquid Extraction Of Diode And Salicylic Acid For Water Treatment.
S. Zermane*, A. Fennour, Hen Abid, A. H.Menia
- CMTDE 2017_31** Effect of the electrodes connection mode and the recirculation of the effluent on elimination of a synthetic textile wastewater by electrocoagulation.
Bilal Khemila, Mohammed Tiaiba, Aicha Messaad, Meriem Abbas, Belkace Merzouk
- CMTDE 2017_32** Evaluation of chemically treated pin cones as potential biosorbent for treatment of cationic dye contaminated waters: equilibrium modelling.
El-Khamssa Guechi, Oualid Hamdaoui, Djihed. Beggas
- CMTDE 2017_33** Structure, Spectroscopic measurement, thermal studies and photocatalytic properties of new hybrid compound of aquapentachloroindoidate (III) complex.
Mohamed Saber Lassoued,^{a,b,c} Salah Ammar,^a Abdellatif Gadri,^a Abdelhamid Ben Salah^b and Santiago García-Grand^{ac}
- CMTDE 2017_34** Copper doped α -Fe₂O₃ nanoparticles synthesized through co-precipitation technique for photocatalytic degradation of methylene blue.
Abdelmajid Lassoued, M.S. Lassoued, B. Dkhil, A.Gadri and S. Ammar

- CMTDE 2017_40** Décoloration du méthyle orange par électro-flottation.
Kermet Said Hadjira, Nadji Moulai-Mostefa
- CMTDE 2017_41** Modelling of reactions for phosphorus recovery from human urine by fixed bed reactor with scallop shell particles.
Ryusei Ito, Shuto Kaneko, Naoyuki Funamizu
- CMTDE 2017_43** Modified natural hydroxyapatite (derived black phosphate + polymer) tested for environmental application.
Khiredine H., Ankik S.
- CMTDE 2017_44** Adsorption of Methylene blue from Aqueous Solution onto waste plastic .
Nadib Dahdouh, Samira Amokrane, FullaZiane and DjamelNibou
- CMTDE 2017_45** Synthesis and characterization of polyaniline / Seaweed Enteromorpha composite by chemical oxidation method.
Benzerafa Asma^a, Amokrane Samira^b, Boulaouche Tarik^c
- CMTDE 2017_48** Étude de l'adsorption du méthyle orange et du chrome hexivalent par le charbon actif préparé.
RIDA Kamel
- CMTDE 2017_50** Recovery of neodymium and samarium from aqueous solutions by polyelectrolyte enhanced-ultrafiltration.
Hammami Mahria, Jellouli Ennigrou Dorra, Horchani Naifer Karima, Mokhtar Ferid
- CMTDE 2017_53** CuO, ZnO and TiO₂ impregnated NaY as novel catalysts for adsorption and photocatalytic degradation of methylene blue under sunlight.
Nazim Younes Baouali, Djamel Nibou and Samira Amokrane
- CMTDE 2017_58** Assistance of ultrasound to the biosorption of crystal violet from aqueous media by untreated pin cones.
El-Khamssa Guechi, Oualid Hamdaoui, Djihed. Beggas
- CMTDE 2017_60** Adsorption d'un colorant acide par des Argiles Algériennes.
R. YOUS*, H. CHERIFI
- CMTDE 2017_61** Removal of pharmaceutical compound in water environment onto calcined ZnAl-CO₃ layered double hydroxides.
Nadia Boukhalfa, Nassima Djebri, Mokhtar Boutahala

Tuesday December 19th, 2017

14 : 30 – 16 : 30

**Poster Session
2**

Desalination processes/Energy

Chair : L. KAIROUANI, H. EL BAKOURI, S. GABSI

- CMTDE 2017_93** *An optimized photovoltaic electro dialysis system for brackish water desalination.*
NAFAA Hanen, FARHAT Maissa, LASSAA Sbita
- CMTDE 2017_98** *Simulation and experimental study of an AGMD membrane distillation pilot for the desalination of seawater or brackish water with zero liquid discharged.*
Mokhless Boukhriss, and Habib Ben Bacha
- CMTDE 2017_103** *Effect of concentration of cellulose acetate in performance of ultrafiltration membrane.*
Ounifi Ibtissem, Hafiane Amor , Ferjani Ezzedine
- CMTDE 2017_104** *A novel thin-film composite membranes by interfacial polymerization for treatment of industrial waste water containing heavy metals.*
Ounifi Ibtissem, Ursino C., Hafiane Amor, Figoli A, Ferjani Ezzedine
- CMTDE 2015_106** *Removal of humic substances by a hybrid process, powdered activated carbon (PAC) adsorption/ UF (Oral Communication).*
Mahfoudhi Selim, Ben Mansour Aida, Hafiane Amor
- CMTDE 2017_109** *Modeling and simulation of a microbial desalination cell.*
Hedia KHALED, Béchir CHAOUACHI, Nidhal becheikh
- CMTDE 2017_123** *Étude theorique et expérimentale d'un distillateur solaire couplé à une pompe à chaleur.*
Akrouit Hiba, Chaouachi Béchir, Ben Slama Romdhane
- CMTDE 2017_125** *Development of a predictive model of the limiting current density of an electro dialysis process using response surface methodology.*
Ben Sik Ali Mourad and Béchir Hamrouni
- CMTDE 2017_126** *Numerical study of a solar desalination system by humidification-dehumidification.*
SAIDI S., BEN RADHIA R., BENHAMOU B., NAFIRI N., S. Ben Jabrallah
- CMTDE 2017_136** *Seawater desalination and its impact on the environment.*
ZENDAH Houda, MARS Abdelmoneim, ELFIL Hamza

- CMTDE 2017_161** *Once-through multistage flash desalination process combined with thermal vapor compression MSF-OT/TVC.*
Sellami Ahlem, Ben Ali Mongi, Lakhdar Mouna, Kairouani Lakdar
- CMTDE 2017_162** *Improvement of performance indicators of multistage flash desalination plant.*
Ben Ali Mongi, Kairouani Lakdar
- CMTDE 2017_164** *Production du bioéthanol par fermentation alcoolique d'une biomasse riche en sucre : Opportunité énergétique et environnementale*
N. Nedjah, N. Laskri, D. Daas et M. Baccouche
- CMTDE 2017_165** *Preparation and characterization of ceramic membrane supports for microfiltration*
Bouzerara Ferhat, Harabi Abdelhamid, Ghouil Boudjemaa, Brihi Noureddine.

Pre-treatment and post-treatment

Chair : J. F. FAUVARQUE, K. RIDA, E. BEL HADJ HAMIDA

- CMTDE 2017_54** *Adsorption of Ni²⁺ ions on synthetic and commercial NaX zeolites: Equilibrium, kinetic, intra crystalline diffusion and thermodynamic studies.*
Djawad Ferhat, Djamel Nibou, Mekatel El-Hadj and Samira Amokrane
- CMTDE 2017_55** *Photo-réduction des ions Cr(VI) sur des catalyseurs à base d'illite-montmorillonite/ Hematite Fe₂O₃.*
Yasmine Bouchemaa, Djamel Nibou and Samira Amokrane
- CMTDE 2017_59** *Adsorption du cristal violet sur le caroubier sauvage.*
Meryem Bounaas, Abdallah Bouguettoucha et Derradji Chebli
- CMTDE 2017_62** *Electrochemical sensors performance : The role of specific surface and recognition receptors dynamic.*
S. Falah, X. Yanpeng, A. Taleb
- CMTDE 2017_71** *Etude des capacités adsorbantes et caractérisation physico-chimique d'un matériau en vue de l'élimination des polluants industriels.*
Nedjhioui M.; Hamidi N.; Bensalah M.; Labbaci A.
- CMTDE 2017_159** *Natural zeolite for elimination of fluoride from drinking water.*
TURKI Thouraya , BEN AMOR Mohamed

CMTDE 2017_160 Boron removal from water by adsorption onto activated carbon (prepared from Palm Bark) in batch process and fixed bed column.
MELLITI A., KHERIJI J., BESSAIES H., HAMROUNI B.

CMTDE 2017_167 Biosorption of zinc by *inula viscosa* : kinetic, isotherm and thermodynamic study
K. Rouibah , S. Khaled-Khodja, Y. Boulakroune, Y. Khalfi, A.H. Meniai

Wastewater treatment

Chair : R. BENAMAR, J. NIBOU, A. HAFIANE

CMTDE 2017_63 Adsorption de l'acide humique sur chitosane.
Nabil Bougdah, S. Bousba, N. Messikh, F. Djazi, R. Zaghdoudi

CMTDE 2017_64 Etude d'adsorption des colorants sur kaolin et kaolin modifiée.
Nabil Bougdah, Nabil Messikh, S. Bousba, F. Djazi, R. Zaghdoudi

CMTDE 2017_65 Treatment of bilge water by an electrocoagulation (EC) / Calcined eggshells adsorption coupling process.
Fatiha Atmani Nacera Yeddou-Mezenner

CMTDE 2017_68 Effect of size scale of TiO₂ on photodegradation of dye RR180.
T. Missaoui, M.Smiri, H. Chemingui, M. Konyar, H. C.Yatmaz, A. Hafiane

CMTDE 2017_70 Recovery of waste paper for the elimination of textile dyes in water.
R. Laib, N. Dahdouh, S. Amokrane and D. Nibou

CMTDE 2017_72 Multiobjective optimization of wastewater treatment by electrochemical process.
M. Bendjaballah, H. Saidi, H.Boudjehem, M.Eh.Benhamza

CMTDE 2017_74 Degradation of aqueous solutions of diclofenac using Gamma Radiolysis.
J. Aribi, O. Chater, W. Jahouach-Rabai, Z. Azzouz-Berriche, R. Lahsni, B. Hamrouni, A. Ghrabi

CMTDE 2017_75 Removal of reactive acid dye by TiO₂ and TiO₂ Pillared-Bentonite Effect of various parameters.
F. Ayari; E. Srasra and M. Trabelsi-Ayadi

CMTDE 2017_78 Catalytic and photocatalytic efficiencies of mixed pillared locally bentonite for acid azo dye and real wastewater degradation.
F. Ayari ; S. Khelifi and M. Trabelsi-Ayadi

CMTDE 2017_79 Study of the corrosion behavior of zinc and Zn-Co alloy electrodeposits in weakly acid bath containing saccharine.
Karima HAMOUCHE, Rabah REHAMNIA

CMTDE 2017_87 New hybrid process combining adsorption on perlite and electro-Fenton using a Pt anode for the treatment of dilute wastewater.
Imen Ouiriemmi, Abdellatif Gadri, Salah Ammar

CMTDE 2017_88 A Study on the degradation of an anti tuberculosis drug by ZnO Photocatalysis upon UV Light Irradiation .
H. Kais, N. Yeddou-Mezenner, A. Hamadi, F. Atmani, N. Sabba

CMTDE 2017_97 Simulation of pretreatment industrial plant for textile wastewater.
Khellouf M., Chemini R., Salem Z., Zeriri D., Khodja M.

CMTDE 2017_108 Design of solid fertilizer production process from dairy liquid waste.
MINAMI Fujioka

CMTDE 2017_110 Organic matter recovery from wastewater using brine from reverse osmosis as draw solution.
Mokhtar Guizani , Megumi Saito

CMTDE 2017_112 Evaluation of an adsorbent based on agricultural waste for removal of phenylalanine from aqueous solutions.
Merzougui Zoulikha, Belhamdi Badreddine

CMTDE 2017_114 Effect of F/U ratio on nitrogen release pattern of urea form from synthetic human urine.
Hiroki Kobayashi, Ryusei Ito, Naoyuki Funamizu,

CMTDE 2015_128 Nanoscale zero-valent iron functionalized-*Posidonia oceanica* marine biomass for heavy metals removal from water
Boubakri S., Djebbi M. A., Bouaziz Z., Namour Ph., Ben Haj Amara A., I. Ghorbel-Abid, Kalfat Rafik

CMTDE 2017_158 Treatment of textile releases by membrane techniques. Study of clogging and the unclogging.
BOUGHDIRI Aouatef , FERJANI Ezzedine

CMTDE 2017_163 Purification of the waste water by coagulation – flocculation treatment of the city of Annaba (east of Algeria).
Laskri N., Nedjah N., Daas D. And Baccouche M.

CMTDE 2017_166 Synthesis, characterization and application of a new composition of a semiconductor material in the treatment of wastewater.
L. Larbi, N. Fertikh , D. Chebli

CMTDE 2017_168 Phenol abatement from water using simultaneous RO - UF hybrid process with effluent recirculation.
Amine MNF, Méral MOUELHI and Béchir HAMROUNI

CMTDE 2017_169 Elimination of mercury in laboratory waste by three different protocols: a comparative study
Mariem Nafti, Ch. Hannachi, A. Dougari, B. Hamrouni, H. Nouaïgui.

