

The 7th Maghreb Conference on
Desalination and Water Treatment
CMTDE 2019

CMTDE 2019
PROGRAMME

Supported by



7th Maghreb Conference on
Desalination and Water
Treatment

22 - 25 December 2019
Sol Azur Beach Hotel 4^{*}, Hammamet, Tunisia

Organized by



Laboratoire de Recherche "Dessalement
et Traitement des Eaux"

With the collaboration of



TUNISIAN DESALINATION ASSOCIATION (TDA)

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STEERING COMMITTEE

HAMROUNI Béchir
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BOUGUERRA Wided
GUESMI Fatma
HANNACHI Chiraz
MNIF Amin
TABBASSI Dorra
BRAHMI Khaled

PROGRAM OUTLINE

SUNDAY DECEMBER 22th, 2019

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|-------------|---------------------|
| 15:00-19:00 | Registration |
| 20:00 | Dinner |

MONDAY DECEMBER 23th, 2019

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|-------------|--|
| 8:00-9:00 | Registration |
| 9:00-10:00 | <p>Opening Ceremony</p> <ul style="list-style-type: none"> 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. |
| 10:00-10:40 | <p>Conference 1 : Ismail Koyuncu : Boron Removal and Recovery from water and wastewaters, Istanbul Technical University, Turkey</p> |
| 10:40-11:20 | Coffee break & Group Photo |
| 11:20-11:50 | <p>Conference 2 : Béchir HAMROUNI : Desalination : a general overview. University Tunis El Manar, Tunisia</p> |
| 11:50-12:20 | <p>Conference 3 : Philippe HABERSCHILL Centre d'Énergétique et Thermique de Lyon - UMR5008 INSA-UCBL-CNRS ; Institut National des Sciences Appliquées</p> |
| 12:20-12:50 | <p>Conference 4 : Jean-Emmanuel GILBERT : Application of new real-time data analysis solutions at desalination scale. AQUASSAY</p> |
| 13:00-14:30 | Lunch |

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|---|---|
| 14:30-16:10 | Oral Session 1 |
| | Room "Forum" : Desalination processes/Energy |
| | Room "Utique" : Water treatment Room " Salambo" : Wastewater Treatment |
| 16:10-17:30 | Coffee break + Posters Session 1 |
| 20:00 | Dinner |
| TUESDAY DECEMBER 24th, 2019 | |
| 9:00-10:40 | Oral Session 2 |
| | Room "Forum" : Desalination processes/Energy |
| | Room "Utique" : Water treatment Room " Salambo" : Wastewater Treatment |
| 10:40-11:10 | Coffee break |
| 11:10-12:50 | Oral Session 3 |
| | Room "Forum" : Desalination processes/Energy Room "Utique" : Water treatment |
| 13:00-14:30 | Lunch |
| 14:30-16:00 | Poster Session 2 |
| 16:00-16:30 | Coffee break + Posters (continuation) |
| 20:00 | Dinner |
| WENSDAY DECEMBER 25th, 2019 | |
| 10:00 -12:00 | Round Table, Awards & Closing session |
| 12:00-14:00 | Lunch |

MONDAY AFTERNOON
DECEMBER 23th, 2019

ORAL SESSION 1

Room Forum

Chair : Desalination Process / Energy

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|--------------------|---|
| 14:30-14:50 | CMTDE_6 : La formulation d'émulsion dans l'extraction du Pb(II) par membrane liquide. BENYAHIA Nacera, BELKHOUCHE Nasr-Eddine |
| 14:50-15:10 | CMTDE_24 : Effect of phase change material and heat exchanger on the performance of a double effect solar still 'Comparison study' TRAD Abderachid ^a , MAHDI Djahida ^b |
| 15:10-15:30 | CMTDE_32 : Experimental study of a membrane distillation unit coupled to solar energy MEJBRI Sami, KHALIFA Zhani |
| 15:30-15:50 | CMTDE_44 : Energetic study of a humidification-dehumidification desalination plant coupled with solar energy FRIKHA Nader, GABSI Slimane,. |
| 15:50-16:10 | CMTDE_102 : Reduced graphene oxide incorporated thin film nanocomposite (tfc) reverse osmosis (ro) membrane for desalination and water purification AOUNI Anissa, ALTINAY Ayşegül Derya, IMER Derya Y. Koseoglu, HAFIANE Amor, KOYUNCU Ismail |
| 16:10-17:30 | Coffee break + Poster Session 1 |

MONDAY AFTERNOON
DECEMBER 23th, 2019

ORAL SESSION 1

Room Utique

Chair : Water Treatment

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|--------------------|---|
| 14:30-14:50 | CMTDE_16 : Synthesis, characterization and application of Dawson cerium heteropolyanions compounds towards nitrites electrocatalysis BELGHICHE Robila *, MOHAMED Azzedine, SAIFI Hayette |
| 14:50-15:10 | CMTDE_28 : Evaluation des émissions dans l'air dans un procédé de traitement CHEMINI Rachida, CHABBI Meriem, KHELLOUF Meryem, IBELAIDENE Karima |
| 15:10-15:30 | CMTDE_31 : Etude de l'élimination de la matière organique neutre dissoute dans les eaux de surface par des techniques membranaires BOUMARAF Roumaïssa, KHETTAF Sami, BOUHIDEL Kamel-Eddine et BOUHELASSA Mohammed |
| 15:30-15:50 | CMTDE_147 : Equilibrium, kinetic and thermodynamic investigations on Pb(II) retention onto an ecological biosorbent. YAAKOUBI Hedia, FEZEI Radouanne, HAMZAOUI Hichem |
| 15:50-16:10 | CMTDE_154 : Optimization of electrocoagulation treatment using box-benhenk design on sulfate removal CHIBANI Amel, NCIB Sana, BARHOUMI Afef, BOUGUERRA Wided, ELALLOU Elimame |
| 16:10-17:30 | Coffee break + Poster Session 1 |

TUESDAY MORNING
DECEMBER 24th , 2019

ORAL SESSION 2

Room Forum

Chair : Desalination Process / Energy

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|---------------------|--|
| 09:00-09 :20 | CMTDE_52 : Determination of heat and mass transfer coefficients in a spray humidifier of a humidification-dehumidification desalination system. HIJAJI Karima ¹ , FRIKHA Nader ² , GABSI Slimane |
| 09:20-09:40 | CMTDE_77 : Polylactic acid (PLA) Membranes for azeotropic meoh-mtbe mixtures separation by pervaporation. MSAHEL Asma, BEN HAMMOUDA Sofiane, FIGOLI Alberto, GALIANO Francesco, HAFIANE Amor |
| 09:40-10:00 | CMTDE_85 : Optimization of the condensation and vacuum creation system of solar vacuum membrane distillation. MILADI Rihab, FRIKHA Nader, GABSI Slimane |
| 10:00-10:20 | CMTDE_99 : Effect of support pore size and monomer type on the performance of thin-film composite membranes for nanofiltration. OUNIFI Ibtissem, URSINO Claudia, HAFIANE Amor, FIGOLI Alberto, FERJANI Ezzedine |
| 10:20-10:40 | CMTDE_88 : Synthesis and characterization of sodium alginate/PVA/graphene oxide nanocomposite membrane crosslinked with chloride calcium and Glutarialdehyd. RHIMI Asma, ZLAOUI Khira, HORCHANI NAIFER Karima, JELLOULI ENNIGROU Dorra |
| 10:40-11:10 | Coffee break |

TUESDAY MORNING
DECEMBER 24th , 2019

ORAL SESSION 3

Room Forum

Chair : Desalination Process / Energy

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|--------------------|---|
| 11:10-11:30 | CMTDE_45 : Performance evaluation of a membrane distillation system coupled with solar energy. GABSI Slimane, FRIKHA Nader |
| 11:30-11:50 | CMTDE_46 : Couplage de procédés innovants pour le traitement des rejets de textiles. ZERROUKI Djahida, BENHADJI Amel, DJELAL Hayet, TALEB AHMED Mourad |
| 11:50-12:10 | CMTDE_114 : Cellulose acetate (ca) ultrafiltration membranes modified by poly (ACRYLIC ACID): Synthesis, characterization and separation performance. GUESMI Youssef, OUNIFI Ibtissem, HAFIANE Amor |
| 12:10-12:30 | CMTDE_38 : Hybrid electrochemical/ membrane couplings as pretreatment processes for seawater desalination. AOUNI Anissa, TOUNAKTI Rim, HAFIANE Amor |
| 11:30-11:50 | CMTDE_86 : Exergetic analysis of multi-effect distillation with thermal vapor compression (MED-TVC) system. MENASRI Rabah, TRIKI Zakaria, BOUAZIZ Mohamed Nadjib |
| 13:00-14:30 | Lunch |

TUESDAY MORNING
DECEMBER 24th , 2019

ORAL SESSION 2

Room Utique
Chair : Water Treatment

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|---------------------|---|
| 09:00-09 :20 | CMTDE_98 : Porous gelatin membrane obtained from pickering emulsions Molka NAFTI, Céline POCHAT-BOHATIER, Karima HORCHANI NAIFER, Dorra JELLOULI ENNIGROU |
| 09:20-09:40 | CMTDE_130 : Synthesis of novel adsorbent by intercalation of biopolymer in ldh for the removal of arsenic from synthetic and natural water. BESSAIES Hanen, IFTEKHAR Sidra, DOSHI Bhairavi, KHERIJI Jamel, NCIBI Mohamed Chaker, SRIVASTAVA Varsha, SILLANPÄÄ Mika, HAMROUNI Béchir |
| 09:40-10:00 | CMTDE_145 : Fluoride removal from water using synthetic hectorite clays : Laponite. BRAIK Saber, BEN AMOR Taissire, ATTOUR Anis, MICHELIN Laure, RIGOLET Séverinne, BONNE Magali, LEBEAU Bénédicte, HAFIANE Amor, ZAGROUBA Féthi |
| 10:00-10:20 | CMTDE_1 : Exploitation cost in nitrate removal of ground water by Nanofiltration, Reverse Osmosis and Electrolysis. BELHAMIDI Sakina, TOUIR Jamal, TAHAIKT Mustapha, ELHANNOUNI TAKY Fatima, Mohamed, ELMIDAOUI Azzeddine |
| 10:20-10:40 | CMTDE_164 : Development of novel magnetic composite Fe ₃ O ₄ /pine waste gel beads for heavy metal removal: Kinetic and isotherm studies of biosorption process TOUIHRI Manel, HANNACHI Chiraz, HAMROUNI Béchir, POCH Jordi, FIOL Núria |
| 10:40-11:10 | Coffee break |

TUESDAY MORNING
DECEMBER 24th , 2019

ORAL SESSION 3

Room Utique
Chair : Water Treatment

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|--------------------|--|
| 11:10-11:30 | CMTDE_7 : Response surface modeling and optimization of Hg(II) removal by functionalized nano-cellulose. GOUAMID Messaoud, ZAGHOUD Laid, LEMKADDAM Ryad |
| 11:30-11:50 | CMTDE_95 : Boron removal by adsorption into modified activated carbon. JAOUADI Mouna, DUCLAUX Laurent |
| 11:50-12:10 | CMTDE_98 : POROUS GELATIN MEMBRANE OBTAINED FROM PICKERING EMULSIONS Molka NAFTI, Céline POCHAT-BOHATIER, Karima HORCHANI NAIFER, Dorra JELLOULI ENNIGROU |
| 12:10-12:30 | CMTDE_18 : Treatment of Landfill Leachate from Fez City Using a Combination of Fenton and Adsorption Processes. EL MRABET Imane, BENZINA Mourad, and ZAITAN Hicham |
| 11:30-11:50 | CMTDE_34 : Textile dyes removal capacity by Tunisian clays. BOUGUERRA N, ARFAOUI K., HAJJAJI W., MOUSSI B., ROCHA F., JAMOUCSI F |
| 13:00-14:30 | Lunch |

