



**Contents**

**Volume 208**

Saltwater desalination by direct solar energy in Madinah, Saudi Arabia A.T. Ahmed, A. Alkassem (Saudi Arabia) .....	1
Experimental study to improve the performance of a conventional single-slope solar still using the photo-catalytic effect of three different metal oxides A. Labied, M. Hassen Sellami, R. Cherraye (Algeria) .....	9
Comparison of the performance of inorganic ultrafiltration and organic nanofiltration membranes for removal of nitrate contamination of groundwater M. Breida, W. Taanaoui, A. Karim, S. Alami Younssi, M. Ouammou, A. Aaddane, Y.A. Boussouga, A. Lhassani (Morocco) .....	17
Improvement of poly(piperazine-amide) composite nanofiltration membranes by incorporating of hollow polypyrrole nanospheres with mesoporous shells Xiaoli Ding, Xiaofeng Li, Hongyong Zhao, Jingwen Yao, Yuzhong Zhang (China) .....	32
A review on sources, types, mechanisms, characteristics, impacts and control strategies of fouling in RO membrane systems L.I. Qrenawi, A.A. Abuhabib (Palestinian Authority) .....	43
Application of reverse osmosis to the regeneration of wastewater in the southeast of the Island of Gran Canaria (Spain) J. Vaswani Rebozo, F. Noval Toyos, J.R. Sánchez Ramírez, B. Peñate Suárez (Spain) .....	70
Distributed generation of freshwater through reverse osmosis desalination units by using various energy sources, techno-economic feasibility study M. Meratizaman, A. Asadi (Iran) .....	79
Impact of high turbidity on reverse osmosis: evaluation of pretreatment processes M.A. Hafiz, A.H. Hawari, A.T. Yasir, R. Alfahel, M.K. Hassan (Qatar), A. Altaee (Australia) .....	96
Development of carbon nanotube membranes for dissolved gases removal as seawater pretreatment B. Garudachari, A. Al-Odwani, R.K. Alambi, M. Al-Tabtabaei, Y. Al-Foudari (Kuwait) .....	104
Integrated system of post-treatment for desalinated water using low cost Egyptian natural materials – a case study F.M. Mohamed (Egypt) .....	110
Membrane concept for valorization of bicarbonate in sulfate-reduced effluent H. Kyllönen, E. Järvelä, O. Torvinen, A. Grönroos (Finland) .....	117
Dehydration of caprolactam–water mixtures by composite membranes with nano silica/polyacrylate active layer by emulsion polymerization Wenhai Lin, Zhenhua Liu, Qin Li, Qian Rong, Huajun Zu, Minghui Sang (China) .....	125
Evaluation the performance of sequencing batch reactor and bio-film sequencing batch reactor for pulp and paper wastewater treatment S. Adel, W.A. Ibrahim, M. Fayed, S.A. Aly (Egypt) .....	136
Distinct bacterial community dynamics during the start-up of sequencing batch reactors treating pharmaceutical wastewater with different inocula Lianpeng Sun, Yuji Lin (China), Guofang Xu (China, Singapore), Yuhong Liao, Lu Wang (China) .....	148
Remediating phenol-contaminated groundwater and aquifer using persulfate oxidation M. Yoo-iam, T. Satapanajaru, C. Chokejaroenrat, C. Sakulthaew (Thailand), S. Comfort (USA) .....	159
Impact of climate and anthropogenic activities on groundwater quality for domestic and irrigation purposes in Attur region, Tamilnadu, India P. Balamurugan, P.S. Kumar, K. Shankar (India), P.J. Sajil Kumar (Germany) .....	172
The effectiveness of urban water conservation and desalination for water resources management in Jeddah city A.E.M. Al-Juaidi (Saudi Arabia) .....	196

Optimising powdered activated carbon dosing strategy in aspect of NOM removal and the floc strength J. Gumińska, M. Kłos (Poland) .....	210
Magnetically modified activated carbon prepared from pine cones for treatment of wastewater containing heavy metals M. Mehrvar, H. Esmaili, S. Khalili (Iran) .....	216
Filtration efficiency of self-cleaning drum-shaped mesh continuous filter Hongfei Tao, Yang Zhou, Wenxin Yang, Mahemujiang Aihemaiti, Qiao Li, Youwei Jiang, JianQun Wei (China) .....	227
The role of controlling zeta potential for endotoxin removal in dialysis water preparation Y.R. Humudat, S.K. Al-Naseri (Iraq) .....	239
Seasonal variation pattern of physicochemical and microbial parameters in a wastewater treatment plant A. Alsulaili, B.Y. Al-Buloushi, M.F. Hamoda (Kuwait) .....	244
Efficiency of titanium salts as alternative coagulants in water and wastewater treatment: short review M. Thomas, J. Bąk, J. Królikowska (Poland) .....	261
Hydrogen evolution via water splitting using TiO <sub>2</sub> nanoparticles immobilized on aluminosilicate mineral: synergistic effect of porous mineral and TiO <sub>2</sub> content R. Akbari Sene, G.R. Moradii, S. Sharifnia, F. Rahmani (Iran) .....	273
Influence of sodium dodecyl sulfate on the morphology and performance of titanate nanotubes/polyethersulfone mixed-matrix membranes S. Mozia, A. Czyżewski, P. Sienkiewicz, D. Darowna, K. Szymański, M. Zgrzebnicki (Poland) .....	287
Coagulation and flocculation of printing ink effluent using polyaluminium chloride (PAC): optimization and phytotoxicity study H. Shaheed, R. Mohamed, M. Al-Sahari, N.S. Mohd-Zind, A. Al-Gheethi, T. Alomari (Malaysia) .....	303
Occurrence and risk assessment of heavy metals in urban water systems of Beijing, China Bin Zhao, Bin Bi, Shaoyong Lu, Xiaohui Liu, Baosen Ni (China) .....	312
Iron nanoparticles and nanowires as modifiers of carbon paste electrodes for the detection of traces of copper, lead and zinc ions in water M. Krajewski, A. Świątkowski, K. Skrzypczyńska, O. Osawaru, K. Pawluk (Poland) .....	322
Catalytic ozone oxidation treatment of wastewater from a pesticide enterprise Lei Chen, Yongjun Sun (China) .....	330
Water treatment practices in rural Myanmar and residents' perceptions of technologies from donor countries S.H. Ko (Japan, Myanmar), H. Sakai (Japan) .....	337
Biogenic nanosilver-assisted degradation of tetracycline in aqueous solutions via sulfate and hydroxyl radicals M. Malakootian, S.N. Asadzadeh, M. Khatami (Iran) .....	345
Ionic liquid modified magnetic nanoparticles-graphene hybrid (Fe <sub>3</sub> O <sub>4</sub> @GO-IL) for the removal of ibuprofen and penicillin G from aqueous solutions B. Karimi (Iran), L. Ma'mani, A.A. Amin, H. Karimi (Iraq), H. Hossini (Iran) .....	355
Removal of Bisphenol A from synthetic wastewater solutions using a polymer inclusion membrane A.M. Balahouane, N. Benosmane, B. Boutemour (Algeria), S.M. Hamdi (France), M. Hamdi (Algeria) .....	367
Enhanced photocatalytic ozonation of 2,4-dichlorophenoxyacetic acid using P25/g-C <sub>3</sub> N <sub>4</sub> composite under visible light irradiation Yahong Zhou, Daiqiong Yang, Changyu Lu, Shuqi Dai, Jinlin Li, Weisheng Guan, Duo Li (China) .....	377
Effective removal of carcinogenic dye from aqueous solution by using alginate-based nanocomposites A. Bibi, Sadiq-ur-Rehman, T. Akhtar, M.I. Shahzad (Pakistan) .....	386
TiCe <sub>0.667</sub> O <sub>3</sub> particles: sol-gel synthesis, characterization, and kinetics of photocatalytic decomposition of diazo dye — Reactive Black 5 (RB5) F. Guenfoud, A. Chaouche Ramdane, C. Belmir (Algeria), M. Sönmez-Çelebi (Turkey) .....	399
Adsorption of anionic dyes from aqueous solution using polyelectrolyte PDADMAC-modified-montmorillonite clay R. Ait Akbour, J. El Gaayda, F.E. Titchou (Morocco), A. Khenifi (Algeria), H. Afanga, A. Farahi (Morocco), P.-S. Yap (China), M.B. Soares Forte (Brazil), M. Hamdani (Morocco) .....	407

Comparative study of solar-Fenton: catalytic degradation of pure and impure biotemplated BiFeO <sub>3</sub> nanocatalyst towards 4-chlorophenol N.H. Mohd Kaus, Yi Thing Khor, R. Adnan, Hooi Ling Lee, M.L. Ibrahim, N.A. Athira Zaahari, M.H. Mohamad Kassim (Malaysia) .....	423
Central composite design for the advanced treatment of biologically treated leachate nanofiltration concentrate using zero-valent copper and iron activated persulfate G. Varank, S. Yazici Guvenc, A. Çebi, E. Can Güven (Turkey) .....	434
Author Index .....	448