



## Contents Volume 233

Production aquifer water salinity change impacts on brackish-water reverse osmosis desalination facility process design and operation: The City of Clewiston, Florida D. Schroeder, R.G. Maliva, T.M. Missimer (USA) .....	1
Purification of tap water to drinking water: nanobubbles technology C. Rameshkumar, G. Senthilkumar, R. Subalakshmi (India) .....	11
Rainwater harvesting and storage in Asir, Kingdom of Saudi Arabia, using spatial modeling and geographic information systems M. Alzghoul (Saudi Arabia), Y. Al-Husban (Jordan) .....	19
Analytical study of photovoltaic thermal compound parabolic concentrator active double slope solar distiller with a helical coiled heat exchanger using CuO nanoparticles Dharamveer, Samsher, A. Kumar (India) .....	30
Evaluation of the recirculation process of aerobic sludge from a percolating biological filter in an upflow anaerobic sludge blanket digestion reactor, with characterization of sludge solids F.Z. Gomiero, M.A. Knopik, J.C.M. Velho, J.E. Gonçalves, L.F.M. Velho (Brazil) .....	52
Petroleum refinery wastewater treatment using rGo-biochar composite – parametric studies and neural network modeling R. Natarajan, F. Al Shibli (Oman), R. Manivasagan (India) .....	62
Analysis of heavy metal toxicity in the sediments of deteriorating Pallikaranai Marshland, Chennai, Tamilnadu G. Sarah, S. Amal Raj, I. Arul Aram (India) .....	70
Functionalized carbon/alumina/silica nano-fibrous membrane: preparation, characterization and heavy metal filtration performance A. Sepahdar, A. Almasian, H. Akbari Javar (Iran) .....	81
Biosorption of lead ion from aqueous environment using wheat stem biomass A. Jalali, F. Mirmezami, M. Lotfi, M. Shafiee (Iran), A.H. Mohammadi (South Africa) .....	98
Shrimp shells-derived biochar for efficient adsorption of Pb <sup>2+</sup> in aqueous solutions Tao Feng, Tan Yi, Qiaobing Wang, Pengwei Li (China) .....	106
Surface modification of sulfuric acid activated lignocellulose-based material for recovery of Ca, K, Mg and Na from seawater Hee-Jeong Choi (Korea) .....	118
Kinetics and thermodynamics of the removal of metal ions using EDTA-modified cation ion exchange resin S.N. Katariya, S. Kumar, R.B. Yadav (India) .....	133
Analysis of heavy metal content in sewage sludge as an instrument of selecting new method of sustainable sewage sludge management J. Bondaruk, J. Karwot, M. Magdziarczyk, A. Smolinski (Poland) .....	150
Sodium acetate functionalized timber sawdust for effective removal of cadmium ions and basic/acid dyes from aqueous solutions M. Bendjelloul, E.H. Elandaloussi (Algeria), L.-C. de Ménorval (France) .....	158
Optimization of separation phases of activated carbon by hydrocyclone process on using response surface methodology N. Barrak (Tunisia), W. Miled (Saudi Arabia, Tunisia), R. Mannai, M. Zaag, A.N. Helal (Tunisia) .....	170
Performance evaluation of <i>Solanum incanum</i> leaves as a biodegradable adsorbent for oil-spill cleanup in seawater A. Abutaleb, N. Zouli (Saudi Arabia), O.Y. Bakather (Saudi Arabia, Yemen), M.A. Mahmoud (Saudi Arabia) .....	182
Ecotoxicological effects of disinfection of treated wastewater K. Affek, A. Muszyński, N. Doskocz, M. Załęska-Radziwiłł (Poland) .....	190

High temperature composting suppresses humification: process rate and humic substances content D. Kulikowska (Poland) .....	199
Modifying the initial rates of disinfection by-product formation potentials A.B. Rodriguez, S.J. Duranceau (USA) .....	207
Bioremediation of paper and cardboard recycling industry wastewater by native yeasts A.A. Ebrahimi, M.T. Ghaneian, M. Ghafourzadeh, M. Gholami (Iran) .....	217
Flash carbonization route to magnetic carbon fiber sheet derived from cellulose paper for the bidirectional removal of dye pollutant from wastewater Cong Han, Zhigang Jia, Rui Chang, Mingxin Qin, Min Li, Jingjing Fang, Daqin Zhang (China) .....	226
Treatment of food industry wastewater by $\cdot\text{OH}$ -based electrochemical-Fenton (EF) method and toxicity evaluation F. Karaer Özmen, E.E. Gerek, A.S. Koparal (Turkey) .....	239
Combined treatment of olive mill wastewater by multi-soil-layering ecotechnology and adsorption on activated carbon/lime A. Ait-Hmane, L. Mandi, N. Ouazzani, H. Ait Hammou, A. Hejjaj, S. Alahiane, A. Assabane (Morocco) .....	253
Co-biosorption potential of <i>Acacia nilotica</i> bark in removing Ni and aminoazobenzene from contaminated wastewater G. Murtaza (China), A. Ditta (Pakistan, Australia), Z. Ahmed, M. Usman, M. Faheem, A. Tariq (China) .....	261
Removal of nitrates from water by Amberlite IR-400 and economic Duolite A-378 ion exchange resins Z.H. Al-Agili (Iraq) .....	271
Fluoride removal performance and mechanism of superparamagnetic $\text{Fe}_3\text{O}_4$ nanoparticles Kaisheng Zhang, Baisheng Zhu, Wu Yang, Yong Jia, Peijuan Jiang, Qiang Zhang, Lingtao Kong, Jinhuai Liu (China) .....	281
Feasibility of using calcined <i>Patinopecten yessoensis</i> shells for fluoride removal and investigation of the fluoride removal mechanism Moon-Yeong Choi, Jae-In Lee, Chang-Gu Lee, Seong-Jik Park (Korea) .....	292
Sol-gel synthesis of porous gadolinium titanate photocatalyst for improved activity Wenjie Zhang, Shuyuan Li, Jiaying Zhang, Jiao Yang (China) .....	303
Application of photo-Fenton dye removal with $\gamma\text{-Fe}_2\text{O}_3$ /bentonite nanocomposites prepared by solid-state reaction in wastewater treatment N. Hajipour, M. Ghorbanpour, A. Feizi (Iran) .....	311
Photocatalytic degradation of Remazol Red B and Rhodamine B dyes using $\text{TiO}_2$ nanomaterial: estimation of the effective operating parameters F.I. El-Dossoki, T.M. Atwee, A.M. Hamada, A.A. El-Bindary (Egypt) .....	319
Employing synthesized Zn-based photocatalysts for degradation of Rhodamine B in aqueous environment M. Zargaran, M. Abdouss, H. Abdouss, A. Shokri (Iran) .....	331
One-step synthesis of magnetic biosorbent for the removal of methylene blue Dingning Chen, Jialei Chen, Zhiqiang Hu, Yan Zhu, Haoyu Shen (China) .....	341
Methylene blue adsorption on <i>Parinari excelsa</i> biochar in aqueous solution J.M. Koroma, Kaibo Pu, He Zhang, Jirui Bai, M.S. Almouctar, Yunhai Wang (China) .....	351
Swelling properties and basic dye adsorption studies of polyacrylamide hydrogel I. Lebkiri, B. Abbou, L. Kadiri, A. Ouass, A. Elamri, H. Ouaddari, O. Elkhatabi, A. Lebkiri, E.H. Rifi (Morocco) .....	361
Biosorption of Levafix brilliant blue dye using dried <i>Saccharomyces cerevisiae</i> : kinetics, equilibrium and thermodynamic assessment H.A. Erkurt, J.T. Olaifa (Turkey) .....	377
Adsorption of Crystal Violet dye by using a low-cost adsorbent – peanut husk S. Abbas, T. Javed, S. Zafar, M.B. Taj, A.R. Ashraf, M.I. Din (Pakistan) .....	387
Open three-dimensionally ordered macroporous composite $\text{Ag}/\text{TiO}_2$ : synthesis and multi-modes photocatalytic degradation malachite green Shuhua Li, Yuting Hao, Yiwen Zhu, Li Li (China) .....	399
Author Index .....	408