



Contents

Volume 238

Thermo-economic assessment of reverse osmosis desalination system driven by the organic Rankine cycle Z. Hajabdollahi, Kyung Chun Kim (Korea)	1
Wastewater treatment and reuse in Jordan, 10 years of development N.M. Al-Kharabsheh, K.K. Al-Zboon (Jordan)	15
Membrane degasification for desalination industries: a literature review B. Garudachari, A. Al-Odwani, R. Kumar, M. Al-Tabtabaei, M. Al-Rughaib (Kuwait)	28
Spatio-temporal variability and water quality assessment of the Mudan River Watershed, Northern China: PCA and WQI Liang Liu, Ting-ting Cao, Xiao-dong Wang, Zhou Dandan, Chong-wei Cui (China)	38
The impact of Covid-19 on energy consumption in Algeria – study and outlook M. Zighed, B. Benotmane (Algeria)	49
Characteristics of dissolved organic matter in surface water and fouling mechanisms during the ultrafiltration Guizhen Feng, Lin Huang, Yin Yang (China)	53
Mechanical trajectory control of water mineral impurities in the electrochemical-magnetic reactor M. Naderi, S. Nasser, A.H. Mahvi, A. Mesdaghinia, K. Naddafi (Iran)	67
Comparative study of dye adsorption onto CNT/PVDF and reduced rGO/PVDF membranes post-treated by a swelling and freeze-drying process Nianci Sui, Guanglin Wang, Yangyang Huan, Guangfen Li, Chaoqun Hao, Wei Chen (China)	82
Surface modified of water-soluble graphitic carbon nitride nanosheets to improve the anti-fouling performance of poly(vinylidene fluoride) membranes Huiya Wang, Keqiang Ding (China)	96
A design of experiment approach of cattle slaughterhouse wastewater treatment by electrocoagulation method K. Eryürük, Ş. Eryürük, U. Tezcan Un, U.B. Ogutveren (Turkey)	105
Optimization and modeling of the three-dimensional electrochemical process in the removal of ciprofloxacin from aqueous media with a central composite design R. Shokoohi, M.R. Samarghandi, J. Faredmal, A. Moradi Behgoo (Iran)	117
The implementation of the preference selection index approach in ranking water desalination technologies M.S. Obeidat, T. Qasim, H. Traini (Jordan)	125
Modeling and analysis of the groundwater hardness variations process using machine learning procedure M. Yousefi, A. Esrafil, M. Gholami, A.A. Mohammadi, N.A. Khan, M. Baziar, V. Oskoei (Iran)	135
Frictional interpretation of Peusner resistance coefficients of the polymeric membranes for binary solutions of non-electrolytes A. Ślęzak, J. Jasik-Ślęzak, K.M. Batko, W.M. Bajdur, M. Włodarczyk-Makuła (Poland)	142
The use of activated sludge and dried sludge for the removal of Cd(II) ions from aqueous solutions M. Kuczajowska-Zadrożna, U. Filipkowska, T. Józwiak (Poland)	151
Synthesis of <i>Gallus gallus domesticus</i> eggshells and magnetite bio-composite for Cr(VI) removal: adsorption kinetics, equilibrium isotherms and thermodynamics H. Ajab, M. Khatoon, A. Yaqub, M. Gulfaraz, S. Nawazish, F.A. Khan (Pakistan), J.O. Dennis (Malaysia), M. Junaid (Pakistan)	161
High efficiency of the bioremoval process of Cu(II) ions with blackberry (<i>Rubus L.</i>) residues generated in the food industry T. Kalak (Poland)	174
Removal of heavy metals from groundwater using silica/activated carbon composite M.S. Alshammari (Saudi Arabia), W. Derafa (Saudi Arabia, Algeria), E.A.A. Elshaygi (Saudi Arabia)	198

Effective removal of heavy metals from water by apatitic tricalcium phosphate subjected to different thermal treatments S. Jebri (Tunisia), J.M.F. Ferreira (Portugal), I. Khattech (Tunisia)	207
Extraction of cerium(III) ions from dilute aqueous solutions by emulsion liquid membrane: effects of operating conditions, salts and natural water matrices A. Taamallah (Algeria), O. Hamdaoui (Algeria, Saudi Arabia), K. Kerboua (Algeria), A. Alghyamah (Saudi Arabia)	218
Fenton-microwave pretreatment of activated sludge for efficient biogas generation R. Mannai, N. Barrak, S. Fredj, M. Zaag, L. Achour, B. Selmi (Tunisia)	231
Evaluation of the efficiency of different materials to remove specific pollutants from landfill leachate T. Rachiq, Y. Abrouki, J. Mabrouki, N. Samghouli (Morocco), C. Fersi (Tunisia), S. Rahal, S. El Hajjaji (Morocco)	240
Enhanced adsorptive removal of phosphate on calcined Zr-modified layered double oxide Yiping Guo (China, USA), Weisheng Chen, Yong Cao, Guoting Li (China)	251
Two-stage synergistic oxidation treatment of neomycin sulfate wastewater by potassium ferrate and hydrogen peroxide Wenrui Shi, Meng Li, Pengyuan Zhang, Chaoyi Qian, Zhengyong Liang (China)	260
The efficient conversion of K_2SO_4 from Na_2SO_4 by continuous electro dialysis metathesis process Jie Liu, Dandan Li, Fan Xu, Junsheng Yuan, Zhiyong Ji, Yingying Zhao, Fei Li, Xiaofu Guo, Shizhao Wang (China)	267
Development and application of high-efficiency filler with pinewood chip biochar in bioretention system Jiake Li, Mengmeng Zhai, Zhouli Liu, Yajiao Li (China)	277
Removal of Congo red using the chlorinated Ca-Al layered double hydroxide produced from the desulfurization circulating wastewater Xiuqin Kong, Nini Zhang, Yiming Lian, Qianjun Tang (China)	294
Treatment of wet coffee processing plant wastewater by aeration with constructed wetland/ <i>Cyperus ustulatus</i> and <i>Typha latifolia</i> plants process Z.A. Samuel (Ethiopia)	306
Author Index	313