

Contents

Volume 307

Multi-action internal curve piston pump with energy recovery function for desalination system Wenlei Li, Rui Guo, Guogang Wang, Jingyi Zhao, Qian Zhang, Lin Yu, Qisheng Zhang (China)	1
A pilot study on recycling cooling tower blowdown water through ultrafiltration and reverse osmosis J. Ahmed, A. Younas, Y. Jamal, M. Shujaatullah (Pakistan)	8
MOF and GO containing interpenetrated polymers for high throughput desalination M. Jafarian, A. Malekpour, G.A. Koohmarez (Iran)	18
Numerical and experimental study of heat and mass transfer in the humidifier of the closed air open water humidification-dehumidification desalination systems Kien Quoc Vo, Chi Hiep Le (Vietnam)	30
Effect of aeration rate on membrane fouling alleviation in conventional and internal circulation membrane-coupled moving bed biofilm reactors Ping Yang, Li-ping Wei, Hui-qiang Li (China)	43
Reliable treatment approach for levofloxacin and ciprofloxacin removal from aqueous medium: process modelling, kinetic and isotherm studies S.J. Mohammed, M.J. M-Ridha, Q.A. Ali (Iraq), K.M. Abed (Iraq, Malaysia), S. Ahmadzadeh (Iran)	50
Enhanced adsorption of phthalic acid from aqueous solution by LDH@ZIF-8 composites Yingwei Wang, Yingli Yang, Xinlong Yan (China)	63
The uptake efficiency of phosphate ions using Jordanian calcinated bentonite H.M. Baker, M. Al-Mutairy, H.M. Abdel-Halim (Jordan)	72
Adsorption of naphthalene from vehicle-wash wastewater using eucalyptus wood waste derived biochar Yu Shuang Ren (China), M. Ilyas, M. Ahmad, J. Muhammad, M. Subhanullah, I.A. Mian (Pakistan)	82
Moringa oleifera (seed husk, seed cake and water-soluble protein) as a natural adsorbent for the removal of multi-class pharmaceuticals from water B. Tegegne (South Africa, Ethiopia), B.S. Chandravanshi, F. Zewge (Ethiopia), L. Chimuka (South Africa)	92
Removal of nitrate ion from aqueous solutions by functionalization of nano clay: preparation, characterization and mechanistic performance H. Maleki, G. Kashi, N. Nourieh, R. Mahmoudkhani (Iran)	105
Preparation of nZVI/MCM-41/rGO for efficient adsorption of cadmium ions from aqueous solution Mingyue Piao, Xue Peng, Huishi Du, Hongxue Du, Wei Zhang, Yuwei Sun, Honghui Teng (China)	120
Adsorption separation-in situ synthesis of MIL-101(Cr)/AC composite and its cycling adsorption for Cr(VI) from aqueous solution Zhuannian Liu, Yue Li, Yingying Teng (China)	130
Modeling isotherm and mechanism adsorption of heavy metals from water using brut keratin powder prepared from Algerian sheep horns F. Sidiali, R. Souag, N. Seddiki (Algeria)	140
Efficient adsorption of fluoride ions by polyethyleneimine modified diatomite under different conditions in a fixed bed column Yanzhuo Zhang, Haiqin Zhang, Jing Zhao, Xiaozhuan Zhang, Zhiguo Cao, Binbin Jiang (China)	153
Treatment of actual radioactive wastewater containing Cs-137 using kaolinite clay minerals as eco-friendly adsorbents W.A. Muslim, S.K. Al-Nasri, T.M. Albayati, H.Sh. Majdi (Iraq)	162

Adsorption difference between Cu ²⁺ and Zn ²⁺ on sodium dodecyl sulfonate/chitosan-modified semi-carbonized fibers Wen-bin Li, Ru-yi Li, Hong-yan Deng, Li-na Wen, Bixia Wang, A. Touqeer, Hong Yang (China)	171
Sequestration of a cationic dye using graphene oxide as adsorbent N. Rai, S. Soni, A. Verma, A. Mittal (India), R. Baker, S.A.A. Shah (UK), C. Arora (India)	180
Investigation the efficiency of emulsion liquid membrane process for malachite green dye separation from water M.A. Mohammed, I.S. Al-Bayati, A.A. Aloabaidy, B.I. Waisi, N. Majeed (Iraq)	190
Facilitating the removal of Reactive Blue 194 dye from wastewater under optimized conditions T.H. Bokhari, A. Noreen, M.K. Khosa, M. Usman, Mazhar Iqbal (Pakistan), M. Al Huwayz, N. Alwadai (Saudi Arabia), S. Iqbal, Munawar Iqbal, A. Nazir (Pakistan)	196
Efficient removal of neutral red dye using microporous materials: synthesis, isotherms, and kinetics studies A. Tabti, A.B. Ahmed, F. Boudahri (Algeria)	202
Decontamination of methylene blue and Congo red by SCB/CuO nanocomposites: isotherms and kinetic studies S. Mubarik, S. Ali, S. Manzoor, M. Imran, S. Ehsan (Pakistan)	212
On-site algae harvesting system using tailored bubble flotation Ju Young Lee, Tschung-Il Kim, Mooyoung Han, Hyunju Park (Korea)	222
Hydrodynamics and heat transfer characteristics of bio-synthesized SiC-alkaline water and ZnO-alkaline water nanofluids in an aluminum plate pin-fin heat sink V. Rajangam, N. Anbucchezhan, R. Ashok Kumar, P. Renugadevi, M. Anish (India)	232
Treatment of household waste leachates of the city of Mostaganem using the up-flow anaerobic sludge blanket technique N. Guermoud, H. Bouzid, N. Benderdouche (Algeria)	251
Author Index	258