



Contents
Volume 178

A spatial decision support system for optimally locating treatment plants for safe wastewater reuse: an application to Saudi Arabia
F. Zagonari, C. Rossi (Italy) 1

Performance of MVR desalination system with variable operating conditions for wastewater treatment
Guangbin Liu, Xiaoyan Zhao, Qichao Yang, Yuanyang Zhao, Bin Tang,
Liansheng Li, Le Wang (China) 21

Investigation of hybrid solar-driven desalination system employing reverse osmosis process
A. Ghafoor, A. Munir, T. Ahmed, M. Nauman, W. Amjad, A. Zahid (Pakistan) 32

Evolutionary prediction of multiple vertical buoyant jets in stationary ambient water
Xiaohui Yan, A. Mohammadian (Canada) 41

Remediation and disinfection capabilities assessment of some local materials to be applied in multi-soil-layering (MSL) ecotechnology
J. Khalifa, N. Ouazzani, A. Hejjaj, L. Mandi (Morocco) 53

Treatment of domestic sewage using electrocoagulation followed by ion exchange – parametric and kinetic studies
N. Acharya, G. Jyoti, C. Thakur, P.K. Chaudhari (India) 65

Technical and economical comparison study between operation costs of beach well intake and open intake for seawater reverse osmosis desalination in Persian Gulf
S.M.H. Fayaz, R. Mafigholami, F. Razavian, K. Ghasemipanah (Iran) 74

Characterization and application of activated carbon regenerated by the combination of sulfuric acid pretreatment and thermal regeneration
Wei Liu, Hong Yuan (China) 83

Electrochemical impedance spectroscopy study on polysulfone/g-C₃N₄ composite membrane during the separation process
Jieyu Liu, Qing Huang, Zhe Chen, Lei Yao, Long Huang, Changji Dong,
Lihui Niu, Yong Zhang (China) 94

Adsorption of phosphate on Ca-carbon foam: batch experiments and model evaluation
Juryeon Oh, Chuntak Phark, SeungHo Jung, Jechan Lee, Kwon-Young Choi,
Chang-Gu Lee, Seong-Jik Park, Sang-Hyup Lee (Korea) 101

Denitrification performance and kinetics of an attapulgite lightweight ceramsite biofilter
Zijie Wang, Zheng Wang, Kai Xu, Lei Chen, ZiZeng Lin, YaLi Liu (China) 110

Study on nano-chitosan grafting quaternary ammonium salt modified polyacrylamide for flocculation and sterilization
Zheng Zhong, Fengjiao Zhang, Wei Chen, Xianguo Wei, Yiwen Zhang,
Yanbo Lu, Hongbin Luo, Liangqian Fan (China) 123

Key influencing factors of nitrate removal from pumped groundwater with liquor as the carbon source
Y. Jiang, Y. Xia, Q. Tong, Y. Chen (China) 136

Ammonia removal from aqueous solution by sodium functionalized graphene oxide: isotherm, kinetics, and thermodynamics
A. Mirahsani, J.B. Giorgi, M. Sartaj (Canada) 143

Biological denitrification using microbial electrochemical technology: a perspective of materials, arrangement of electrodes and energy consumption
S. Dehghani, A. Rezaee (Iran) 155

Sludge stabilization using ozonation: a pre-treatment method for composting waste activated sludge
Z. Asadgol, M.M. Emamjomeh, A. Esrafiy, M. Gholami, M. Farzadkia (Iran) 163

Regeneration of a chemically improved peat moss for the removal and recovery of Cu(II) and Pb(II) from aqueous solution
C. Sutherland, C. Venkobachar (Trinidad and Tobago) 172

Poly (methacrylic acid) grafted regenerated cellulose ions exchangers membranes for Cu (II) ion adsorption: kinetic, isotherm, and thermodynamic studies G.F. El Fawal, R.E. Khalifa, S. Abdel Rahman, M.S. Mohy Eldin (Egypt)	182
Adsorption of Pb(II) from aqueous solutions onto MgFeAl-CO ₃ LDH: thermodynamic and kinetic studies A.A. Ichou, R. Benhiti, M. Abali, A. Dabagh, M. Chiban, M. Zerbet (Morocco), G. Carja (Romania), F. Sinan (Morocco)	193
Adsorption difference of Cu ²⁺ on the compositely modified amphipathic maifanites Yifang Zhang, Hongyan Deng, Lang Zhu, Jia Xie, Le Kang, Wenbin Li, Wei Liu, Zhaofu Meng (China)	203
Possibility of using granular iron slag by-product as permeable reactive barrier for remediation of simulated water contaminated with lead ions S.S. Alqzweeni, A.A.H. Faisal (Iraq)	211
Structural and surface modification of highly ordered alumina for enhanced removal of Pb ²⁺ , Cd ²⁺ and Ni ²⁺ from aqueous solution D.L. Milošević, N.Z. Tomić, V.R. Đokić, M.M. Vidović, Z.S. Veličković, R. Jančić-Heinemann, A.D. Marinković (Serbia)	220
Combined influence of some cations on arsenic removal by an air-injection EC reactor using aluminium ball electrodes A.Y. Gören, M. Kobya, E. Şık, E. Demirbas, M.S. Oncel (Turkey)	240
Metal removal from chromium containing synthetic effluents by <i>Saccharomyces cerevisiae</i> I. Zinicovscaia (Russia, Romania), D. Grozdov, N. Yushin, D. Abdusamadzoda, S. Gundorina, E. Rodlovskaya, O. Kristavchuk (Russia)	254
Heavy metal pollution in well water and ecological risk assessment for the surrounding soil I.A.A. Almohisen (Saudi Arabia), S.M. Abdel Azeem, M.D. Madbouly (Egypt, Saudi Arabia)	271
Adsorption performance of expanded graphite and its binary composite microbeads toward oil and dyes Yayu Tian, Ning Zhang, Yue Liu, Wenjuan Chen, Renjie Lv, Hongzhu Ma (China)	283
Application of artificial neural networks and response surface methodology for analysis of malachite green removal from aqueous solution using phosphoric acid-modified pumice powder: kinetic and isotherm studies N. Osouledдини, M. Heydari, M. Darvishmotevalli, T. Khosravi (Iran)	296
Adsorption of Reactive Red 195 dye from industrial wastewater by dried soybean leaves modified with acetic acid H. Mahanna, M. Azab (Egypt)	312
Methylene blue removal by nano-poly acrylonitrile particles: modelling and formulation studies M.S. Mohy Eldin, S.A. El-Sakka, M.M. El-Masry, I.I. Abdel-Gawad, S.S. Garybe (Egypt)	322
Dye removal and disinfection in one reactor by non-pulsed high voltage current using iron, aluminum and copper electrodes E.S. Shahid, S.H. Afzali, N. Talebbeydokhti, M. Rastegar (Iran)	337
Enhanced methylene blue removal from aqueous solution using modified rubber seed (<i>Hevea brasiliensis</i>) M.A. Zulfikar, T. Alexandria, D. Wahyuningrum, N. Handayani (Indonesia)	347
Degradation pathways of 1,4-dioxane in biological and advanced oxidation processes A. Tawfik (Egypt)	360
A novel and facile antibacterial sponge for effective demulsification and oil/water emulsions separation Jeng-Yi Wu, Chao-Wei Huang, Ping-Szu Tsai (Taiwan)	387
Runoff quality and quantity after usage of layered or mixed substrate green roofs: a laboratory study Wei Zhang, Jinwen Dai, Wu Che, Huichao Sun (China)	396
Removal of aliphatic organic acids from the wastewater by using adsorbents obtained from buffalo droppings S. Alam, S. Khan, M.S. Khan, N. ur Rahman, M. Zahoor (Pakistan)	405
Author Index	415