



Contents

Volume 159

Selected papers presented at NAXOS 2018 – 6th International Conference on Sustainable Solid Waste Management Naxos Island, Greece, 13–16 June 2018

Editorial

K. Moustakas, M. Loizidou (Greece)	1
Water quality assessment based on the phytoplankton composition of Buyukcekmece Dam Lake and its influent streams (Istanbul), Turkey N. Yilmaz (Turkey)	3
Energy savings and reduced emissions in combined natural and engineered systems for wastewater treatment and reuse: the WWTP of Antiparos Island, Greece P.-M. Stathatou, P. Dedousis, G. Arampatzis, H. Grigoropoulou, D. Assimacopoulos (Greece)	13
Variations in the properties of leachate according to landfill age M. Gómez, F. Corona, M.D. Hidalgo (Spain)	24
Phenolics decontamination of olive mill wastewater using onion solid by-products homogenate A.A. Reheem (Egypt), N. Yilmaz (Turkey), M. Elhag (Saudi Arabia)	32
Rhizomicrobial-augmented mature vetiver root system rapidly degrades phenol in illegally dumped industrial wastewater P. Teerattitayangkul, C. Phutthasimma, S. Wichai, T. Phenrat (Thailand)	40
Coagulation/flocculation as a pretreatment of landfill leachate for minimizing fouling in membrane processes R.G.S.M. Alfaia, M.M.P. Nascimento, D.M. Bila, J.C. Campos (Brazil)	53
Copper(II) adsorption by <i>Opuntia ficus-indica</i> biochar fiber-MnO ₂ composites P. Hadjiyiannis, I. Pashalidis (Cyprus)	60
Efficiency of immobilized cyanobacteria in heavy metals removal from industrial effluents E. El Bestawy (Egypt)	66
Heavy metal fixation in biochar after microwave pyrolysis of sewage sludge J. Racek, J. Sevcik, R. Komendova, J. Kucerik, P. Hlavinek (Czech Republic)	79
The removal of fluoride from aqueous solutions using biomass ash derived from power industry A. Zdunek, D. Kołodyńska, K. Borowik, P. Rusek (Poland)	93
Removal of pharmaceutical residues from wastewater by woodchip-derived biochar O. Muter, I. Pērkonis, V. Bartkevičs (Latvia)	110
A novel Fe-containing clinoptilolite for wastewater remediation: degradation of azo-dyes acid orange 7 by H ₂ O ₂ and ascorbic acid M. Dosa, M. Piumetti, C. Galletti, N. Russo, D. Fino, S. Bensaid, G. Mancini, F.S. Freyria, G. Saracco (Italy)	121
Effects of feed solution pretreatment on pressure-retarded osmosis: changes in dissolved organic matter according to fluorescence excitation-emission matrix spectroscopy coupled with parallel factor analysis and liquid chromatography-organic carbon detection Sookhyun Nam, Jae-Wuk Koo, Eunju Kim, Seong-Nam Nam, Tae-Mun Hwang (Korea)	130
Co-disposal of sludge generated during landfill leachate treatment with household solid waste M. de Lima Elias, L. Ferreira da Silva, L. Sobral Maia dos Santos Lima, V. Ramiro Amorim, M.A. Geovannini Hinojosa, A.L. Ferreira Menescal Conde, B. Ramalho Quintaes, J.C. Campos (Brazil)	141

Visualizing hydraulic zones of a vertical circulation well in presence of ambient flow Qiang Xia (China, USA), Qiang Zhang, Mo Xu, Yi-ge Tang, Hao-wen Teng (China)	151
Emulsion-templated, polymerization-free, ultralight sponges for oil spills reclamation Haiyan Zhang, Yuanpeng Wu, Fan Hu, Yongtao Ma, Peng Jing (China), Tao Zhang (Israel, China), Shaohua Gou (China), Qipeng Guo (Australia)	161
Removal of cephalixin from artificial wastewater by mesoporous silica materials using Box-Behnken response surface methodology A.H. Panahi, S.D. Ashrafi, H. Kamani, M. Khodadadi (Iran), E.Cl. Lima (Brazil), F.K. Mostafapour, A.H. Mahvi (Iran)	169
Insight into the removal of Acid Blue 93 by cationic <i>Eucalyptus</i> cellulose with different alkyl chain lengths: properties and mechanisms Fucai Yan, Dongying Hu (China)	181
Crosslinked amino starch prepared via a dry process and its decoloration performance of Congo Red Lei Guo, Kaijin Jin, Yuanchao Cao, Guiying Li, Junshen Liu (China)	193
Computational fluid dynamic as a tool for solar still performance analysis and design development: a review A.E. Kabeel, E.M.S. El-Said (Egypt), M. Abdulaziz (Germany)	200
Membrane fouling in reverse-osmosis filters during real drinking water purification: Impact of operation modes and pretreatment Bifeng Zhang, Yijuan Jiang, Fang Fang, Kaisong Zhang (China)	214
Evaluating the anti-fouling property of the hydrophilically modified porous PTFE membrane Yingying Zhao, Zhenping Qin, Yao Zhao, Suping Cui, Hongxia Guo (China)	224
Techno-economic analysis of combined gas turbine, MED and RO desalination systems to produce electricity and drinkable water A. Javadpour, E. Jahanshahi Javaran, K. Lari, I. Baniasad Askari (Iran)	232
Synthesis, characterization, and photo-catalytic activity of Ag/ZnO/SBA-15 composite Yao Zhou (China)	250
Corrosion inhibition of mild steel by an effective imidazoline derivative based on waste oil in hydrochloric acid H.H. Zhang, Y. Chen, C.K. Qin, Z. Zhang (China)	257
Efficient eco-friendly crude oil adsorptive chitosan derivatives: kinetics, equilibrium and thermodynamic studies R.E. Khalifa, A.M. Omer, T.M. Tamer, A.A. Ali, Y.A. Ammar, M.S. Mohy Eldin (Egypt)	269
Effect of surface modification on quinoline adsorption onto coking coal Hongxiang Xu, Penghui Wang, Qizheng Qin, Rong Zhao, Gen Huang (China)	282
Synthesis and characterization of polymer microspheres and its application for phenol adsorption İ. Özdemir, A. Kara, N. Tekin, A. Olgun (Turkey)	290
Combined ozonation and adsorption system for the removal of heavy metals from municipal wastewater: effect of COD removal A. Ikhlaq, T. Aslam, A.M. Zafar, F. Javed, H.M.S. Munir (Pakistan)	304
Influences of cetyltrimethyl ammonium bromide template on photocatalytic degradation of ofloxacin on porous La ₂ Ti ₂ O ₇ Hong Wang, Yue Zhang, Zheng Ma, Wenjie Zhang (China)	310
Modelling and verification of an automatic controller for a water treatment mixing tank Tim Chen (China), C.Y.J. Cheng (China, USA, Bangladesh)	318
Potentially toxic elements contamination in water and evaluation for risk assessment in the Rawalpindi, Pakistan S.A. Khan, N. Abeer, S.Z. Hussain, S. Muhammad, F. Jawad, T. Khan (Pakistan)	327
Detection and removing of lead from wastewater using chemical treatment of polyurethane foam waste: Batch and column experiments E.A. Moawed, M.A. El-Hagrasy, M. Kamal (Egypt)	338
Comparative assessment of the decolorization of aqueous bromophenol blue using Fe nanoparticles and Fe-Ni bimetallic nanoparticles R. Naser, T. Shahwan (Palestinian Authority)	346
Photocatalytic degradation of methylene blue in aqueous solution using TiO ₂ supported on bovine bone powder by-product A. Salhi, S. Tahiri, L. Khamliche, A. Aarfane, A. Jouali, M. Bensitel, M. El Krati (Morocco)	356

Adsorption of methyl blue from solution by carboxylic multi-walled carbon nanotubes in batch mode Mengmeng Yang, Xiaoyu Li, Weili Wang, Shusheng Zhang, Runping Han (China)	365
The Cd(II) adsorption capacities of activated carbons optimized by RSM: preparation and adsorption optimization Wenjun Yin, Congcong Zhao, Jingtao Xu, Jian Zhang (China)	377
Study of tetracycline and metronidazole adsorption on biochar prepared from rice bran kinetics, isotherms and mechanisms A. Fatemeh, M. Gholami, A. Jonidi, M. Kermani, H Asgharnia, R. Rezaeikalantari (Iran)	390
Impacts of urbanization and land cover dynamics on underground water in Islamabad, Pakistan M.T. Sohail (China), Y. Mahfooz (Pakistan), K. Azam, Yen Yat, Liao Genfu, S. Fahad (China)	402
Author Index	412