



Contents

Volume 100

Performance of an anaerobic baffled reactor with an aerobic chamber treating low-strength wastewater J.A. da Silva, A. Sarti, S.I. Maintinguer, I.M. Kaiser, G.H. Ribeiro da Silva (Brazil)	1
Hydrodynamic characteristics and flow regime investigation of an anaerobic baffled reactor (ABR) M. Hassanvand Jamadi, A. Alighardashi (Iran)	11
Treatment of oil–water emulsions by adsorption onto resin and activated carbon M.À. Tejero, E. Jové, P. Carmona, V. Gomez, V. García-Molina, J. Villa, S. Das (Spain)	21
Influence of macromolecular additives on mechanical properties of polyether sulfone and polysulfone ultrafiltration membranes A. Khalaf, I.M.A. ElSherbiny, M. Abdelazeem (Egypt), F.E. Kühn (Germany), G. Bassioni (Egypt)	29
Phenol degradation using adsorption methods, advanced oxidative process (H ₂ O ₂ /UV) and H ₂ O ₂ /UV/activated carbon coupling: influence of homogeneous and heterogeneous phase M.F. de Moraes, T.F. de Oliveira (Brazil), J. Cuellar (Spain), G.L. Castiglioni (Brazil)	38
Optimization of demulsification–coagulation–adsorption parameters for the treatment of wastewater with fluorescent permeating agent from a Chinese machinery plant Xiaowen Zhang, Beibei Wang, Xiao yan Wu, Mi Li, Wenfa Tan (China)	46
Removal of lead ions from wastewater using multi walled carbon nanotubes modified with sodium lauryl sulfate M.M. Suliman, T.H. Ibrahim, F. Jumean, M.I. Khamis, M.A. Sabri (UAE)	55
Adsorption of fluoride from aqueous solution on supported Fe/γ-Al ₂ O ₃ adsorbent prepared by ultrasonic-assisted technique Yong Liu, Shixiang Wang, Qin Fan, Yanlan Liu, Wenhui Zhou (China)	67
Sulfate removal from chlor-alkali brine using nanofiltration: Parameters investigation and optimization via Taguchi design method S.E. Mousavi, S.M.A. Moosavian, M. Jalali, P. Zahedi, E. Karimi (Iran)	75
Nutrient cycling in meat processing industry by microalgae-based processes Alberto Meireles dos Santos, Aline Meireles dos Santos, R.B. Sartori, L. Zepka Queiroz, J.S. Barin, E. Jacob-Lopes (Brazil)	91
Comparison of the efficiency of graphene oxide, activated graphene oxide, dendrimer-graphene oxide and activated dendrimer-graphene oxide for nitrate removal from aqueous solutions A. Alighardashi, Z. Kashitarash Esfahani, A. Afkhami, F. Najafi, N. Hassani (Iran)	100
Humic acid removal efficiency from aqueous solutions using graphene and graphene oxide nanoparticles A. Naghizadeh, F. Momeni, E. Derakhshani, M. Kamranifar (Iran)	116
Synthesis of ureido-functionalized Cr(VI) imprinted polymer: adsorption kinetics and thermodynamics studies Fang Zhu, Yanhong Lu, Tengfei Ren, Siying He, Yaqin Gao (China)	126
Equilibrium, kinetics, and thermodynamics studies of Cr(VI) adsorption from aqueous solutions on organoclay using ionic liquid-type imidazolium surfactants Yaqin Liang, Yan Li, Shuping Zhang, Hui Li, Xiaoming Mao, Lihua Zhou, Wenzhuo Yang (China)	135
Surface properties of Moroccan natural phosphate and its converted hydroxyapatite for adsorption of Cr ³⁺ /Cr ₂ O ₇ ²⁻ ions: Kinetics and isotherms K. Fanidi, K. Bouiahya, A. Gouza, A. Saoiabi, A. Laghzizil (Morocco)	145
Cu ²⁺ adsorption onto sulfonated polyimide membrane: an experimental study Sensen Xuan, Shuang Zhu, Yongjie Zhu, Yuqin Zhou, Pan Yang, Yang Pu, Hongping Zhang, Yaping Zhang (China)	151
Structural study and photocatalytic performance of ZnO thin films prepared by electrochemical deposition S.A. Taha, A.M. Abd-Elnaiem, M. Mohamed, S. Mostafa, M.S. Mostafa (Egypt)	160

Kaolin-nano scale zero-valent iron composite (K-nZVI): synthesis, characterization and application for heavy metal removal L. Sivarama Krishna (Thailand, Malaysia), K. Soontarapa (Thailand), A. Yuzir (Malaysia), V. Ashok Kumar (Thailand), W.Y. Wan Zuhairi (Malaysia)	168
Removal of heavy metals from industrial waste solutions by a rotating fixed bed of ion exchange resin M.A. Hagag, D.A. El-Gayar, S.A. Nosier, A.A. Mubark (Egypt)	178
Study on the removal mechanism of Mg ²⁺ by ion exchange resin from wet-process phosphoric acid Yi Qiu, Cong Tang, Zhiye Zhang, Xinlong Wang, Lin Yang (China)	185
Removal of Cd by humic acid modified TiO ₂ nanoparticles from aqueous solution S. Khan, Zhang Dan, Yang Mengling, He Haiyan, Jiang Hao (China)	193
Enhanced adsorptive removal of cationic dyes from aqueous solution by chemically treated carob shells M. Farnane, A. Elhalil, A. Machrouhi, F.Z. Mahjoubi, M. Sadiq, M. Abdennouri, S. Qourzal, H. Tounsadi, N. Barka (Morocco)	204
Adsorptive removal of acid red 88 on cypress-sawdust-based activated carbon by microwave-assisted H ₃ PO ₄ mixed with Fe/Mn/Zn activation Jin Yuan, Lu Yao, Ruzhen Xie, Pengchen Wang, Juan Mo, Wenju Jiang (China)	214
Arsenic treatment from wells water by galvanostatic electrocoagulation method A.T.V. Nguyen, T.T.T. Mai, T.C. Le, X.T. Mai, B.T. Phan (Vietnam)	223
Preparation of a cationic polyacrylamide (CPAM) and its flocculation performance in the environmental estrogen removal and separation Jiaoxia Sun, Xiqin Ma, Xiang Li, Jianxin Fan, Qingkong Chen, Xuelian Liu, Jin Pan (China)	231

Selected papers presented at the Fifth International Conference on Water, Energy and Environment (ICWEE 2017) February 28 – March 2 2017, Sharjah, UAE

Improving the yield of fresh water from conventional and stepped solar still with different nanofluids B. Madhu, E. Balasubramanian, P.K. Nagarajan, R. Sathyamurthy (India), A.E. Kabeel (Egypt), T. Arunkumar, D. Mageshbabu (India)	243
Modeling a hybrid system for electrical generation and wastewater treatment using photovoltaic and fuel cells M.M. Al-Maghalseh (Palestinian Authority, UK), A.K. Abutemeha, M. Iyadyyeh (Palestinian Authority)	250
Direct contact membrane distillation: the role of membrane porosity I. Janajreh, K. El Kadi, N. Al Hammadie, R. Hashaikeh (UAE)	258
A theoretical analysis of an air stripper–biofilter system (ASBF) for industrial wastewater treatment Z. Shareefdeen, S. Janjani (UAE)	268
Determination of overall microbial activity in sewage treatment plants using FDA hydrolysis assay R.S. Sutar, D. Kumar, K.A. Kamble, A. Singh, S.R. Asolekar (India)	275
Mixed silver–zinc encapsulated zeolite-Y powders toward the photodegradation of aqueous fenoxycarb solutions S.M. Kanan (UAE), A. Malkawi (USA)	281
Modelling impact of precipitation of magnesium using lime on removal of select wastewater contaminants A. Shanableh (UAE)	287
Removal of benzo (a) anthracene from water using a novel UAE sludge-based activated adsorbent F. Samara, M. Khamis, Z. Sara, Y. Elsayed (UAE)	295
Characterization of hydroxyl radical generation for AOP's treatment on graphite pencil and its NP-modified surfaces M.A. Morsy (Saudi Arabia)	303
Preparation and use of solvent impregnated clay containing amine for the removal of copper ion D. Datta, A. Gaikwad, D. Srivastava, S. Garg (India)	311
Response surface modeling and optimization of sludge activated carbon production conditions for phenolic compounds removal from water N. Jarrah (Saudi Arabia, Jordan), N.D. Mu'azu, M.H. Essa, M. Zubair (Saudi Arabia)	320

Effects of combined calcium hypochlorite and chlorine dioxide on drinking water quality in Qatar and disinfection by-products formation E.H. Mohamed (Sudan), H.I. Nimir (Qatar), J.A. Cotruvo (USA), M.M. Osman (Sudan)	333
Assessment of disinfection of water containing high concentration of ammonia by chlorination S. Paul, M.A.I. Khan, M. Hossain, M.A. Ali (Bangladesh)	340
Removal of arsenic from groundwater using iron-coated jute-mesh structure S.S. Ramim, H. Sultana, T. Akter, M.A. Ali (Bangladesh)	347
Author Index	354