



Contents
Volume 151

CFD study on the influence of turbulence promoter configurations on flow patterns in tubular membrane channel Yuanfa Liu, Yanfen Li, Jun Zhang, Gaohong He, Chao Huang, Shugang Xu (China)	1
Reverse osmosis membrane performance for desalination of Algerian brackish water A. Bouchareb, M. Metaiche, H. Lounici, H.D. Khoudja, A. Lefkir, N. Drouiche (Algeria)	9
Study on the performance of CaSO ₄ scale for phosphorus-free modified PEG scale inhibitor in cooling water system Huchuan Wang, Jianjun Yang, Chuanrun Li, Mengjie Zhu, Qingyun Wu, Mingyuan Wu, Jianan Zhang (China)	20
Computational thermal analysis of a double slope solar still using Energy2D J.A.A. Navarro, M.C. Téllez, M.A.R. Martínez, G.P. Silvar, F.C.M. Tejada (Mexico)	26
Energy management of nuclear desalination plant by efficient coupling a pressurized water reactor and a multi effect distillation system – thermodynamic evaluation A. Naserbegi, A. Rezaei, Gh. Alahyarizadeh, M. Aghaie (Iran)	34
Study on heat and mass transfer characteristics of AGDD Ping Wang, Bingchen Yu, Shiming Xu, Lin Xu, Shuping Zhang, Lei Li (China)	47
Synthesis of Bi ₂ O ₃ /Bi ₂ WO ₆ composites using single-step solvothermal method: determinations of surface characteristics and photocatalytic activity Chung-Hsin Wu, Chao-Yin Kuo, Cheng-Di Dong, Chiu-Wen Chen, Yi-Li Lin, Chuan-Yu Liu (Taiwan)	56
Application of potassium permanganate and diatomite in enhanced coagulation treatment of a black-odour water body Kaiqing Fan, Yanhua Xu, Yong Wang, Tao Huang (China)	66
Coagulation of greywater from a small household A. Bielski, A. Giermek (Poland)	74
Development of a new photocatalytic reactor built from recyclable material for the treatment of textile industry effluents A.A. Barbosa, R.V.S. de Aquino, A.F.B. Oliveira, R.F. Dantas, J.P. Silva, M.M.M.B. Duarte, O.R.S. da Rocha (Brazil)	82
Global trends of coagulation for water and wastewater treatment by utilizing bibliometrics analysis Yue Fang, Tianlong Zheng, Yi-nan Wu, Ying Wang, Fengting Li (China)	93
Multi-response optimisation of the solar photo-Fenton process for landfill leachate post-treatment L.G. Lucena, E.M.R. Rocha, C.A. Porto, N.A. de Carvalho, F.L.H. da Silva (Brazil)	106
Fenton-type processes triggered by titanomagnetite for the degradation of phenol as model pollutant S. Bertinetti (Italy), K. Hanna (France), M. Minella, C. Minero, D. Vione (Italy)	117
Effects of dissolved oxygen concentration on the performance of sponge membrane bioreactor treating hospital wastewater Hoang Nhat Phong Vo, Xuan-Thanh Bui, Hong-Hai Nguyen, Thanh-Dai Tran (Vietnam), Kwang-Jin Lee (Korea), Thi-Thach-Thao Nguyen, Bao-Trong Dang, Manh-Ha Bui (Vietnam), Dinh Duc Nguyen (Korea), Thi-Tra-My Ngo (Vietnam)	128
Application of nanoporous material MCM-41 in a membrane adsorption reactor (MAR) as a hybrid process for removal of methyl orange T.M. Albayati (Iraq)	138
A novel crosslinked amphoteric adsorbent thiourea formaldehyde calcium alginate: preparation, characterization and adsorption behaviors of removing color from acidic and basic dyes A.A. El-Bindary, H.A. Kiwaan, A.G.F. Shoair, A.R. Hawas (Egypt)	145

N-doped titanium dioxide nanoparticles activated under visible light achieve the photocatalytic degradation of textile azo dye remazol brilliant blue R M.C. Yeber, T. Zamora, R. Álvarez, P. Medina (Chile)	161
Efficient removal of hazardous malachite green dye from aqueous solutions using H ₂ O ₂ modified activated carbon as potential low-cost adsorbent: kinetic, equilibrium, and thermodynamic studies R. Ali, T. Mahmood, S. Ud Din, A. Naeem, M. Aslam, M. Farooq (Pakistan)	167
Treatment of ink production wastewater by chemical precipitation coupled with <i>Cyperus alternifolius</i> : pigments, organic compounds and ammonium removal R. Dolphen, P. Thiravetyan (Thailand)	183
Elaboration and characterization of chitosan/banana peel biocomposite for the removal of dyes from wastewater C. Djilani, R. Zaghdoudi (Algeria), P. Magri (France), F. Djazi (Algeria), A. Lallam (France), B. Bouchekima (Algeria)	189
Adsorption, kinetic and thermodynamic studies of safranin and methylene blue on a novel adsorbent based on phosphorylated sawdust M.S. Alhumaimess (Saudi Arabia)	199
Sorption of phosphate from innovative composite material focusing on physicochemical interactions M. Zamparas (Greece), M. Drosos (China), I.K. Kalavrouziotis (Greece)	212
Preparation of formaldehyde-free persimmon tannin-based rigid foam as an adsorbent for selective recovery of Au(III) ions Ruiyi Fan, Xingxing Hong, Huiyu Min, Qingping Yi, Qinglin Zhang, Zhengrong Luo (China)	219
Adsorption-desorption behavior of silver ions on stainless steel as a proxy for disinfection of domestic hot water Na Li, Xing Li, Yanling Yang, Yongwang Liu, Li Zhao, Zhiwei Zhou (China)	230
Removal of As(V) and As(III) species from wastewater by adsorption on coal fly ash Yulong Wang, Shaofeng Wang, Guoqing Zhang, Xin Wang, Shuyan Zang, Yongfeng Jia (China)	242
Efficient removal of Pb ²⁺ from water using Fe ₃ O ₄ @UiO-66-NH ₂ core/shell nanocomposite Sheng Feng, Shuguang Liu, Shanshan Feng, Runbai Wang (China)	251
Foam separation based Cr ³⁺ collection optimization using cocamidopropyl betaine Hanjun Ma, Wenyao Shao, Ke Wang, Mengwen Yan (China)	264
Removal of hexavalent chromium from aqueous solutions using <i>Argania spinosa</i> leaves F. Ennoukh, L. Brini, D. Chafik, A. Bouhaouss, R. Bchitou (Morocco)	273
Sorption of Pb(II), Cd(II) and Zn(II) ions from aqueous solution using Jordanian kaolinite modified by the amino acids methionine or cysteine F.I. Khalili, M.S. Al-Kakah, M.M. Ayoub, L.S. Ismail (Jordan)	280
Synergistic effect of a magnetic field and carbon nanotubes on the adsorption performance of metal ions and phenols Lili Jiang, Zhikai Cui, Haitao Yu, Xingang Hou (China)	295
Removal of Ag(I) from aqueous solution by thiourea-functionalized silica gel: experimental and theoretical study Zhendong Zhang, Xingrong Liu, Ke Wang, Yuzhong Niu, Hou Chen, Liangjiu Bai, Zhongxin Xue (China)	307
Adsorption of binary and multi heavy metals ions from aqueous solution by amine functionalized SBA-15 mesoporous adsorbent in a batch system T.M. Albayati, A.A. Sabri, D.B. Abed (Iraq)	315
Capture and adsorption behavior of iodine by edible γ -CD-MOFs Haiyang Yu, Xinchun Lin, Xiyuan Yang, Yifan He, Heda Guan, Donglei Zou, Yangxue Li (China)	322
Two-stage cubature Kalman filter and its application in water pollution modeling Lu Zhang, Yongfei Miao, Hailun Wang, Jianwen Fang (China)	332
A novel way of dealing with waste sludge from poly-aluminum chloride (PAC) production Tingting Chen, Xingqin Fu, Yuejun Zhang, Cheng Liu, Xuepeng Zhong (China)	342
Optimization of clobetasol propionate removal by calcium peroxide using the response surface methodology Ai Zhang, Yuye Shen, Xueyan Yin, A.C. Miruka, Yuyi Gu, Yanan Liu (China)	350
A strategy for starting and controlling nitritation-denitrification in an SBR with DO and ORP online monitoring signals Zhenjun Wu, Jiannan Mu, Xiaokai Li, Runtao Shan, Ke Li, Mingxue Liu, Mingjian Yu (China)	365

Optimization of 4-chlorophenol regeneration from powdered activated carbon using response surface methodology Tingting Zhang, Yanling Yang, Xing Li, Nan Wang, Hang Li, Peng Du, Haikuan Yu, Siyang Ji, Zhiwei Zhou (China)	372
Adsorption characteristics of tetracycline on biochar from agricultural wastes Yingjie Dai, Mei Liu, Yue Sun, Jingjing Li, Yue Jiang, Shanshan Li, Wu Yue, Zhihua Liu (China)	384
Potentially toxic elements in drinking water and associated health risk assessment in Abbottabad city, northern Pakistan S. Jadoon, Z. Hilal, M. Ali, S. Muhammad (Pakistan)	392
Gum Arabic dialdehyde thiosemicarbazone chelating resins for removal mercury (II) from aqueous solutions A.A. El-Zahhar, S. Bondock (Saudi Arabia, Egypt), M. Abu Haija (UAE), S.M.A.S. Keshk (Saudi Arabia, Egypt)	403
Prediction of groundwater level fluctuations in steady and unsteady state conditions using PMWIN in Rayen Aquifer, Iran F. Amiri, G.-A. Barani, M.R. Hessami Kermani, A. Tayebiyani, R. Sabahi, M. Malakootian (Iran)	414
Author Index	425