



Contents
Volume 123

Theoretical and experimental study of current-voltage characteristics of asymmetric bipolar membranes S.S. Melnikov, N.V. Sheldeshov, V.I. Zabolotskii (Russia)	1
Effect of catalytic ozonation on the TOC removal and anions separation treating coal chemical brine by nanofiltration membranes Haifeng Zhuang, Hongjun Han, Shengdao Shan, Chengran Fang, Yali Song, Wenfang Zhu (China)	14
A multivariate matrix model of analysing mine water bursting and its application Qingliang Chang, Xikui Sun, Huaqiang Zhou, Xianyuan Shi (China)	20
Electrochemical desorption of high-iron manganese ore Zhuoyu Xie, Yongbing Huang, Yang Cao, Lili Lin, Min Huang (China)	27
A geostatistical approach to groundwater pollution source identification considering first order reaction Yu-qiao Long, Ting-ting Cui, Wei Li, Yong-wei Gai (China)	35
The inactivation of fecal coliform using Fe ₃ O ₄ @Cu nanocomposite in real wastewater: emphasizing on synergic effect and inactivation mechanisms M. Moradi, A. Esrafil, M. Pirsaeheb (Iran), V.K. Gupta (South Africa), H. Sharafi, H. Arfaeinia, R.R. Kalantary (Iran)	41
A rapid method based on computer vision for the analysis of hardness and eutrophication levels in water bodies G. Sivaranjani, P. Senthil Kumar, K.P. Gopinath (India)	52
Production of sludge-based activated carbon: optimization and characterization M.H. Al-Malack, M. Dauda (Saudi Arabia)	59
Extraction of DMAC from the pharmaceutical wastewater by a multistage countercurrent model Jing Li, Chunlai Liu, Zhenheng Diao, Chengxue Wang (China)	74
Reactor configuration on the nitrifier community and kinetics of activated sludge process Lifang Yu, Ren Li, Sisi Hua, Xiuling Yang, Qian Yao, Dangcong Peng (China)	82
Adsorption studies on treatment of textile wastewater using low-cost adsorbent K. Senthilkumar, V. Chitra Devi, S. Mothil, M. Naveen Kumar (India)	90
Assessment of groundwater quality in West Sohag, Egypt E. Ismail, M. El-Rawy (Egypt)	101
Silver-modified clinoptilolite-heulandite-rich tuff as microbicide agent in a column system for specific microorganisms and consortium from a deionized water suspension V.E. Gonzaga-Galeana, I. De-La-Rosa-Gómez, M.T. Olguin (Mexico)	109
Effective benzalkonium chloride degradation by Fenton oxidation with iron-carbon-bentonite-alginate beads Zhengyu Dong, Qian Zhang, Junming Hong (China)	119
Rapid synthesis of multifunction composite adsorbent by microwave and evaluate with multiple value integration Yanlong Sun, Tong Zheng, Guangshan Zhang, Bei Liu, Peng Wang (China), A.U. Khan (Pakistan)	129
The role of synthesis method on ZnO nanoparticles: implications for zinc dissolution and arsenite adsorption in water M.A. Amrani (Yemen), A.S. Gadhav, N.K. Labhassetwar (India), A.S. Al-Fatesh, S. Haider (Saudi Arabia)	138
Adsorption behavior of poly(methacrylic acid)/iron-oxide-coated zeolite for the removal of Mn(II), Fe(II), and As(III) from aqueous solution Seo-Hyun Pak, Seung-Min Park, Jusuk An, Chan-gyu Park (Korea)	150
Synthesis of Ag@AgI plasmonic photocatalyst with enhanced visible-light photocatalytic activity Xiaoyang Yue, Lirong Kong, Xiang Xu, Xiaoping Shen, Xuli Miao, Zhenyuan Ji, Jun Zhu (China)	156

Application of optimal mixture design in aluminum-dolomite composite for Cr(VI) removal from aqueous solution Yuming Peng, Bin Sun, Zhengyuan Feng, Nan Chen, Jianguo Wang, Minghui Lv (China)	168
Electrochemical oxidation of wastewater generated from a dyeing and stamping process of a textile factory in chloride-containing aqueous media T. Zayas, A. Moreno, L. Salgado (Mexico)	179
A Box-Behnken design (BBD) optimization of the photocatalytic degradation of 2,4-dichlorophenoxyacetic acid (2,4-D) using TiO ₂ /H ₂ O ₂ G. Dođdu Okçu, N. Baldan Pakdil, H.E. Ökten, A. Yalçuk (Turkey)	188
Investigating the effects of Fe dopant on structural, optical, and photocatalytic properties of ZnO nanoflowers L. Torkian, R. Azimirad, S. Safa (Iran)	196
Mesoporosity development in zeolite beta by using desilication and CTAB assembly for removal of Mn ²⁺ Seo-Hyun Pak, Chan-Gyu Park, Gwang Nam Kang, Young-hee Kim (Korea)	203
Evaluating the hydrothermal synthesis of quasi-one-dimensional TiO ₂ nanomaterials for the photocatalysis of selected organic chemicals Tao Peng (Canada, France), Jian Zhang (China), S. Ray (India), H. Fakhouri (France), S. Sevilimedu Veeravalli (USA), F. Arefi-Khonsari (France), J.A. Lalman (Canada)	211
A novel strategy for tailoring Ag-ZnO nanowires for photocatalytic mercury removal K.S. Al-Namshah (Saudi Arabia)	224
Ultrasonically induced adsorption of nitrate from aqueous solution using Fe ₃ O ₄ @activated carbon nanocomposite A. Takdastan, S. Pourfadakari, S. Jorfi (Iran)	230
Kinetic, equilibrium, and thermodynamic study on atrazine adsorption in organophilic clay F.M. de Souza, A.M. Lazarin, M.G.A. Vieira, O.A.A. dos Santos (Brazil)	240
Equilibrium and kinetic studies about sorption of uranium(VI) using the cross-linking chitosan submicron particles modified by ammonium fluotitanate Zi Xin You, Yang Wang, Min Zhao, Jia Ying Zhang, Yong Heng Xing, Feng Ying Bai (China)	253
Studies of Cr(VI) adsorption on novel jute cellulose-kaolinite clay biocomposite Md.M. Islam, S. Biswas, M.M. Hasan, P. Haque, S.H. Rimu, M.M. Rahman (Bangladesh)	265
Adsorptive removal of Cr ³⁺ , Cu ²⁺ and Ni ²⁺ ions by magnetic Fe ₃ O ₄ @alkali-treated coal fly ash Ya-Na Zhang, Yang-Xin Yu (China)	277
Hydrothermally produced activated carbons from zero-cost green sources for cobalt ions removal G.Z. Kyzas, E.A. Deliyanni, A.C. Mitropoulos, K.A. Matis (Greece)	288
Biosynthesis, characterization and enhanced photocatalytic and antibacterial activity of <i>Paspalidium flavidum</i> mediated ZnO nanoparticles Priyanka, H. Kaur, A. Thakur (India), Mu. Naushad (Saudi Arabia)	300
Removing patulin from apple washing water by UV radiation Enjie Diao, Xuan Chu, Haizhou Dong, Hanxue Hou, Dongsheng Gao (China)	309
Removal of penicillin in aqueous solution using <i>Chlorella vulgaris</i> and <i>Spirulina plantensis</i> from hospital wastewater M. Yazdi, M.H. Sayadi, F. Farsad (Iran)	315
Determination of residue levels of imazamox herbicide ((2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-(methoxymethyl)-3-pyridinecarboxylic acid) in soil and drainage water U. Kamburođlu Çebi (Turkey)	321
Aqueous biphasic separation of thallium from aqueous solution using alcohols and salts Huosheng Li, Jianyou Long, Xiuwan Li, Keke Li, Lulu Xu, Jianpeng Lai, Yongheng Chen, Ping Zhang (China)	330
Biodegradation and decolorization of two different azo dyes, Reactive Blue 221, Direct Black 38, and assessment of the degraded dye metabolites H. Shyla, P. Saha, K.V.B. Rao (India)	338
The iron modification effect on performance of natural adsorbent scoria for malachite green dye removal from aquatic environments: modeling, optimization, isotherms, and kinetic evaluation N. Osouledini, M. Moradi, T. Khosravi, R. Khamotian, H. Sharafi (Iran)	348
Author Index	358