



Contents Volume 231

Desalination in Morocco: status and prospects S. El-Ghizel, M. Tahaikt, D. Dhiba, A. Elmidaoui, M. Taky (Morocco)	1
Effect of aeration intensity and aeration pattern on a compact biofilm reactor for rural domestic sewage treatment in China: pollutant removal performance and hydrodynamic behavior Weiyi Wang, Du Guo, Tingting Du, Ming Zeng, Chang Wang, Nan Wu, Zongpeng Zhang (China)	16
Study on effect of dissimilarity of mass flow rate on energy metrics of solar energy-based double slope water purifier by incorporating N alike PVT compound parabolic concentrator collectors D.B. Singh, R.K. Yadav, Y. Chaturbedi, M. Kumar, G.K. Sharma, N. Kumar (India)	27
Determination of chemical oxygen demand for phenolic compounds from oil refinery wastewater implementing different methods S.T. Kadhum, G.Y. Alkindi, T.M. Albayati (Iraq)	44
Advantages of continuous Fenton reaction over the traditional batch process in wastewater treatment in a single and two-step mode A. Fijałkowska, R. Kurowski, K. Rajczykowski, A. Chmielarz (Poland)	54
Use of reverse osmosis for the removal of coliform bacteria from brackish water in the dairy industry H. Bouzid, M.R. Ghezzar (Algeria)	67
Investigation on a submarine reverse osmosis system assisted with the ocean thermal energy Jiansheng Wang, Dingfan Zhang, Xueling Liu (China)	81
Experimental analysis of hybrid electro dialysis (ED)-reverse electro dialysis (RED) process for the desalination of brackish waters and generation of renewable energy in a pilot scale M. Setodeh, S. Osfouri, M. Abbasi, R. Azin (Iran)	101
Three-dimensional numerical analysis on a new design of hydraulic structure for water treatment Wenrong Tu, Zhilin Sun, Shibiao Fang (China)	113
Adsorption of toluene from aqueous solutions onto polyethylene glycol (PEG) modified bentonite: kinetic, isotherm studies and artificial neural network modeling N. Bougdah, N. Messikh, S. Bousba, F. Djazi, P. Magri, M. Rogalski (Algeria)	131
Prediction of brine evaporation rate based on response surface methodology and artificial neural network Zhiwei Li, Zhenhai Fu, Chengbao Li, Dongmei Zhao, Yongming Zhang, Yanfang Ma, Zhihong Zhang (China)	143
A facile approach to fabricate metal coordinated carboxylated alginic acid-based adsorbent for efficient removal of chromium (VI) K.A. Alamry, R.H. Althomali, A. Khan, A.M. Alosaimi (Saudi Arabia), M.A. Hussein (Saudi Arabia, Egypt)	152
Utilizing Faujasite-type zeolites prepared from waste aluminium foil for competitive ion-exchange to remove heavy metals from simulated wastewater S.M. Al-Jubouri (Iraq), S.I. Al-Batty (Saudi Arabia), S. Senthilnathan (UK), N. Sihanonth (UK, India), L. Sanglura, Hongjin Shan, S.M. Holmes (UK)	166
Adsorptive removal of Ni(II) and Co(II) from aqueous solution using succinate-bonded polysaccharide isolated from <i>Artemisia vulgaris</i> seed mucilage M.A. Hussain, A. Abbas, M.G. Habib, A. Ali, M. Farid-ul-Haq, M. Hussain, Z. Shafiq, M.I. Irfan (Pakistan)	182
Preparation and characterization of blended membrane for copper removal application A. Bahader, S. Chan, M. Nawaz, F.S. Gul (Pakistan)	196

Visible light irradiated photocatalytic activity of copper substituted CoMn_2O_4 nanoparticles N. Bashir, H. Sabeeh (Pakistan), S. Zulfiqar (Egypt), A.A. Shad, M. Suleman (Pakistan), P.O. Agboola, I. Shakir, N.F. Al-Khali (Saudi Arabia), M.F. Warsi (Pakistan)	205
Evaluating the effects of salinity on flocculation and purification mechanism of heavy metals in estuaries A. Valikhani Samani, M. Ardestani, M. Sadrinasab (Iran)	217
Removal of Hg(II) ions with CD/DVD waste-derived aminated polycarbonate: adsorption and optimization studies S.A. Abdallah (Malaysia, Nigeria), Kheng Soo Tay, Kah Hin Low (Malaysia)	229
Novel Fe_3O_4 @PPy/TCPP nanocomposite as a superior adsorbent for elimination of toxic Hg(II) and dye pollutants J. Shokraiyani (USA), M. Asadi (Iran), V. Jahed, T. Sahraeian (USA), M. Rabbani (Iran)	244
Enhanced degradation of sulfamethoxazole by peroxydisulfate activation with Mg-doped CuO Jiajia Hao, Lan Xie, Yaxin Zhang, Shengtao Xing (China)	254
Optimal concentration of high thermal conductivity sensible storage materials (graphite) for performance enhancement of hemispherical distillers M.E.H. Attia (Algeria), A.E. Kabeel, M. Abdelgaied, A. Bellila, M.M. Abdel-Aziz (Egypt)	263
Optimization of a dispersive liquid–liquid microextraction followed by liquid chromatography–diode array detection method for the determination of parabens in surface waters M.S.P. da Silva, C.E.P. da Silva, F.L.F. da Silva, D. de S. Raulino, R.F. Nascimento, H. Becker, C.B. Vidal (Brazil)	273
Synthesis and photoelectrochemical properties of visible-light response g- C_3N_4 @CdS heterojunctions photocatalyst Jinhuan Ma, Zhiqiang Wei, Ling Li, Long Ma, Chao Li, Shangpan Huang (China)	287
Advances in the removal of precursors of disinfection by-products by ultraviolet-coupled advanced oxidation processes Lan Ma, Jianguang Liu (China)	297
Evaluation of efficiency of membrane submerged reactor (MSR) in water treatment using ferric chloride (FeCl_3) coagulant with flocculation agents of polyelectrolyte and lime (CaO) F. Hashemzadeh, A.H. Hassani, A. Torabian, M. Borghei, A. Hemmasi (Iran)	315
Isolation and identification of amino acids secreted by <i>Bacillus amyloliquefaciens</i> T1 with anti-cyanobacterial effect against cyanobacterium <i>Microcystis aeruginosa</i> Bo Xu, Lihong Miao, Jing Yu, Lipeng Ji, Hao Lu, Jiangke Yang, Suqin Gao, Yun Kong (China)	329
Antibacterial effects of iron oxide and silver nanoparticles synthesized by <i>Bacillus subtilis</i> : a comparative study M. Sasani, E. Fataei, R. Safari, F. Nasehi, M. Mosayebi (Iran)	340
Evaluation of orange peel (<i>Citrus sinensis</i>) as a source of bioactive components and its use as a bioadsorbent J.A. Hernández Maldonado, C.E. Ceballos Aguilera, M.M. Salazar Hernández (Mexico), A.N. Ardilla Arias (Colombia), R. Hernández Soto (Mexico)	348
Removal of high-concentration sulfate ions from industrial wastewater using low-cost modified Jordanian kaolin B. Hudaib, A.F. Al-Shawabkeh, W. Omar, H. Al-Zoubi, R. Abu-Zurayk (Jordan)	359
Adsorption of 4-chloro-2,5-dimethoxyaniline from solution in batch mode using chemical activated pyrolytic char Haojiang Wang, Qiong Liu, Zhiqiang Wang, Runping Han (China)	367
Preparation of spherical $\alpha\text{-Fe}_2\text{O}_3$ nanoparticles and its photocatalytic degradation of MO and MB Wenning Mu, Xueqing Xu, Haixia Xin, Tengfei Xiao, Xuefei Lei, Shaohua Luo (China)	377
Batch biosorption of the dye methylene blue from its aqueous solutions by Palm spathe: kinetic, isotherm and thermodynamic studies C. Djelloul (Algeria), O. Hamdaoui, A. Alghyamah (Saudi Arabia)	389
Preparation of magnetic carboxymethyl starch/graphene oxide hydrogel for adsorption of methylene blue Xiaodong Jiang, Jiankun Wang, Jing Guo (China)	398

Preparation and characterization of catalysts and its application in microwave-assisted degradation of Acid Orange-8 M. Sadiq, I. Ullah, Zahoor Iqbal, A. Wahid, A. Umar, Zafar Iqbal, K. Saeed (Pakistan)	407
Conversion of eggshells to layered double hydroxides and their applications in Congo red removal Songnan Li, Yuli Lu (China)	415
Solid state dispersion and hydrothermal synthesis, characterization and evaluations of TiO ₂ /ZnO nanostructures for degradation of Rhodamine B S. Dolatabadi, M. Fattahi, M. Nabati (Iran)	425
Removal of Malachite Green and cadmium ions using nifty combination of metal functionalized graphene based composites from refuse dry cell batteries S. Laraib, S. Zulfiqar (Pakistan)	436
Author Index	452