



Contents
Volume 223

Evaluation of productivity enhancement of a solar still coupled with flat solar collector and parabolic trough under Medina climate H.M.A. Al-Ahmadi, O.O. Badran, K.S. AlQdah, R.A.H. Anani (Saudi Arabia), M.A.A. Nawar (Egypt)	1
Performance analysis of a double-slope solar still with elevated basin – comprehensive study W.H. Alawee, S.A. Mohammed, H.A. Dhahad (Iraq), F.A. Essa, Z.M. Omara (Egypt), A.S. Abdullah (Saudi Arabia, Egypt)	13
Assessment of water quality of River Ganga during COVID-19 lockdown M.B. Roy, M. Ghosh, P.K. Roy (India)	26
A brief review on operation of flow-electrode capacitive deionization cells for water desalination K. Dehghan, S.A. Mirbagheri, M. Alam (Iran)	34
Optimization of hydrodynamic vortex separator for removal of sand particles from storm water by computational fluid dynamics Mahaveer, Xue-yi You (China)	54
Evaluation of FO membranes performance using a modelling approach I. Chaoui, I. Ndiaye, S. Abderafi, S. Vaudreuil, T. Bounahmidi (Morocco)	71
Synthesis of goethite-polyacrylate composite as a cationic and anionic adsorbent D. Kharisma, Z. Abidin, C. Kusmana, H. Suhardiyanto (Indonesia)	99
Performance evaluation of ultraviolet radiation and ozone disinfection for municipal secondary effluent reuse (Case study in Isfahan North wastewater treatment plant) M. Jamalinezhad, A.H. Hassani, M. Borghei, M.M. Amin (Iran)	105
Optimization and modeling of p-nitroaniline removal from aqueous solutions in heterogeneous catalytic ozonation process using MgAl-layered double hydroxides (MgAl-LDH COP) M. Malakootian, Y. Dadban Shahamat, H. Mahdizadeh (Iran)	114
Effects of different influent C/N ratios on microbial community and selected estrogens removal in a sequencing batch reactor Bingchen Zhao, Jie Lan, Dong Chen, Linlin Li (China)	128
Application of in situ chemical oxidation to remediate sulfolane-contaminated groundwater: batch and pilot-scale studies Zong-Han Yang, Ya-Lei Chen (Taiwan), F. Verpoort (China, Korea), Cheng-Di Dong, Chiu-Wen Chen, Chih-Ming Kao (Taiwan)	136
How does the operation time affect the performance and metabolomics of the subsurface wastewater infiltration bed? Yinghua Li, Lei Yang, Linlin Peng, Deze Liu, Haibo Li (China)	146
Speeding up the successive clarification and bioremediation processes of anthracene-containing water using graphite/bacteria integrated columns T.H. Taha, A.E. Mansy, A.M. Youssif (Egypt), S. Alamri (Saudi Arabia), M. Moustafa (Saudi Arabia, Egypt)	154
Utilization of biobed for the efficient treatment of olive oil mill wastewater V. Kinigopoulou, E. Hatzigiannakis, A. Guitonas, E.K. Oikonomou, P. Samaras (Greece)	167
Bio-adsorption of phenol from wastewater applying local Jordanian eucalyptus leaves: parametric, kinetics, adsorption isotherms, and surface analysis N.M. Al-Ananzeh (Jordan)	180
Adsorption of 4-chlorophenol from aqueous solutions with nanoparticles decorated on Fe ₃ O ₄ @SiO ₂ -APTMS-SALAL as an efficient magnetically recoverable nanocomposite N. Amirmahani, N.O. Mahmoodi, M. Malakootian, A. Pardakhty, H. Mahdizadeh (Iran)	188

Removal of bromide from raw water in drinking industry by electrochemical method with horizontal rotating anode reactor A. Mukimin, N. Zen, H. Vistanty, Nilawati (Indonesia)	200
Spatial distribution characteristics and enrichment factors of high-fluorine groundwater in the Kuitun River basin of Xinjiang Uygur Autonomous Region in China Qiao Li, Hongfei Tao, M. Aihemaiti, Youwei Jiang, Yanpeng Su, Wenxin Yang (China)	208
Reduction of COD and ammoniacal nitrogen from landfill leachate using granular activated carbon and green mussel adsorbent A. Detho (Pakistan), Z. Daud, M.A. Rosli (Malaysia), M.B. Bin Ridzuan (Pakistan), H. Awang (Malaysia)	218
Removal of total organic carbon and color from slaughterhouse wastewaters using electrocoagulation process: central composite design optimization M. Tanyol, S. Tevcur (Turkey)	227
Comparative study between electrocoagulation used separately and coupled with adsorption for dairy wastewater treatment using response surface methodology design M. Cherifi, S. Guenfoud, M. Bendaia, S. Hazourli (Algeria), D.F. Laefer (USA), J.P. Leclerc (France), W. Mecibah (Algeria)	235
Study on the phosphorus desorption of sediment from the Three Gorges Reservoir in turbulence state Wang Li, Bo Zu, Qingwei Yang, Jun Wang, Jiawen Li (China)	246
Effects of coexisting species on the selenate sorption using magnesium oxide Jingchao Li, Jingwei Chen, Yujie Zhao, Peining Shi, Yi Zhang, Yinfei Liao (China)	257
Impacts of seasonal variations on water quality, waterborne diseases and related health risks T. Ahmad, A. Naz, M. Khursheed, U. Bin Nisar, F. Zafar, A. Hasnain (Pakistan)	264
Cultivation of aerobic granular sludge by modification of seeding condition L.D.A. Purba, A. Yuzir (Malaysia), A. Zamyadi (Australia), M.H.A. Halim (Malaysia), E.D. Zeca (Romania), N. Abdullah (Malaysia)	280
Fabrication of natural ball clay ceramic membrane using pore former and additive agents based on modified slip casting technique F. Azaman, M.A.A.M. Nor, W.R.W. Abdullah, M.H. Razali, N.A.I. Adnen, R.C. Zulkifli, A. Ali (Malaysia)	290
Monolayer sorption capacity of copper(II), cadmium(II), and lead(II) from aqueous solution onto the surface of activated carbon prepared from <i>Terminalia catappa</i> leaf samples with reference to the calculation of thermodynamic parameters from Langmuir isotherm constant B.R.M. Alsehli (Saudi Arabia)	299
A biodegradable based composite for wastewater treatment from cadmium and nickel ions A.H. Abdulghany, M.A. Abdel Khalek, G.A. Mahmoud, H.M. Ahmed (Egypt), Y.H.F. Al-Qudah (Jordan)	316
Experimental study of the application of date palm trunk fiber as biosorbent for removal cadmium using a fixed bed column: investigation of the influence of particle size A.F. Al-Shawabkeh, W. Omar (Jordan), A. Hasseine (Algeria), M. Al-Amayreh (Jordan)	328
Novel magnetically separable Ag@AgCl-Fe ₃ O ₄ /RGO nanocomposites for enhanced dielectric barrier discharge plasma reaction for high-performance water decontamination Yongjun Shen, Yi Wang, Shuaikang Fang (China), Jae Kwang Park (USA), Chao Pan, Yin Chen, Na Zhu, Huifang Wu (China)	335
<i>Diplazium esculentum</i> (Paku Pakis) adsorption characteristics toward toxic Brilliant green dye L.B.L. Lim, C.M. Chan, A.A. Romzi (Brunei), N. Priyantha (Sri Lanka)	350
Removal of reactive blue and disperse red dyes from synthetic textile effluent by electrocoagulation process using Al-Al and Fe-Fe electrodes: parametric optimization by response surface methodology N.S. Houssini, A. Essadki, E. Elqars (Morocco)	363
Removal of Yellow HE4G dye from aqueous solutions using synthesized Mn-doped PbS (PbS:Mn) nanoparticles S. Bouroumand, F. Marahel, F. Khazali (Iran)	380
Removal of Congo Red dye from its aqueous solutions using NiFe-LDH and GO/NiFe-LDH composite materials as adsorbent You Wu, Zhuannian Liu (China)	393

TiO ₂ subsidized periodic mesoporous organosilicate (TiO ₂ @PMOS) for facile photodegradation of methyl orange dye K. Shahzad (Pakistan), M.I. Khan (UAE), S. Shahida (Pakistan), A. Shanableh (UAE), N. Elboughdiri (Saudi Arabia, Tunisia), S. Jabeen, S. Manzoor, S. Zafar (Pakistan), H. Ali (China), A.W. Rabbani (Pakistan), J. Fernandez-Garcia (UK), A. ur Rehman (Pakistan)	403
Removal of Congo red dye from simulated wastewater using vertical subsurface flow constructed wetland packed with sewage sludge bed A.A.H. Faisal, B.J. Badah (Iraq)	414
Adsorption behaviour of Chrysoidine R dye on a metal/halide-free variant of ordered mesoporous carbon A. Mariyam, J. Mittal (India), F. Sakina, R.T. Baker (UK), A.K. Sharma (India)	425
Optimization of Naphthol Green B adsorption and degradation by nZVI/CS/APT using Plackett-Burman designs and response surface methodology Yajuan Zhang, Hui Xu, Lei Tian, Minzhang Chen, Xu Dong Jiang, Guojun Gou, Yong Chen (China)	434
Performance of self-cleaning cotton textiles coated with TiO ₂ , TiO ₂ -SiO ₂ and TiO ₂ -SiO ₂ -HY in removing Rhodamine B and Reactive Red 120 dyes from aqueous solutions S. Landi, Jr. (Portugal, Brazil), J. Carneiro, P. Parpot, O.S.G.P. Soares, M.F.R. Pereira, A.M. Fonseca, I.C. Neves (Portugal)	447
Author Index	456