



**Contents**

**Volume 184**

Removal of COD and color from textile industrial effluents using different carbonaceous materials modified with acids, salts, and hydrogen peroxide  
J. Díaz de León Chiquito, R. Tovar Gómez, M.R. Moreno Virgen, C.J. Durán Valle, M.A. Pérez Cruz (Mexico) ..... 1

Effect of current density on COD removal efficiency for wastewater using the electrocoagulation process  
W. Reátegui-Romero, S.E. Morales-Quevedo, K.W. Huanca-Colos, N.M. Figueroa-Gómez, M.E. King-Santos, W.F. Zaldivar-Alvarez, L.V. Flores-Del Pino, R.A. Yuli-Posadas, W. Bulege-Gutiérrez (Peru) ..... 15

Blocking saline fluids using bentonite clay liners: an approach to reduce corrosion  
M. Dafalla, A. Almajed, M. Al-Shamrani (Saudi Arabia) ..... 30

Effect of shape of condensing cover on yield of passive and fully covered PVT active solar still  
A.K. Mishra, Md. Meraj, G.N. Tiwari, A. Ahmad, M.E. Khan (India) ..... 39

Comparative study of nanoparticles with saline water for effective PV/T and buried UPVC water distribution system  
R. Nirmala, R. Rajkumar, S. Manigandan (India) ..... 51

Thermodynamic analysis of multi effect desalination unit with thermal vapor compression feed by different motive steam pressures  
I. Baniasad Askari, M. Ameri (Iran) ..... 57

Effects of polycyclic aromatic hydrocarbons(PAHs) on the embryonic hatching rate and development of *Oryzias latipes*  
Hongjoo Ha, Chunsang Hong, Jinkyung Hong, Eunhea Jho, Joohwan Lim, Changkyoo Choi, Sungjong Lee (Korea) ..... 72

Effects of water hardness on the toxicity of heavy metals to *Daphnia magna*  
Hongjoo Ha, Chunsang Hong, Jinkyung Hong, Eunhea Jho, Hwansoo Hwang, Joohwan Lim, Changkyoo Choi, Sungjong Lee (Korea) ..... 80

Experimental study on the structure of spacer in a flow-electrode capacitive deionization  
M. Nikfar, A.A. Alemrajabi (Iran), KoYeon Choo, Youngjik Youn, Dong Kook Kim (Korea) ..... 86

Progress of fitting models describing transport phenomena within nanofiltration membranes: a review  
B. Abderrezak, M. Mehdi, N. Drouiche (Algeria), I.G. Wenten (Indonesia), L. Hakim (Algeria) ..... 94

Comparison of different activated carbon fibers for natural organic matter removal from lake water  
M. Yaqub, Wontae Lee (Korea) ..... 130

PEI-modified chromium-based metal organic framework for Cr(VI) removal from aqueous solution  
Zhuan-nian Liu, A-ping Fan, Xiao-gang Han, Habiba Shapour, Qing-yun Zhang (China) ..... 139

Cr(VI) and phenol simultaneous removal using attapulgite-supported nanoscale zero-valent iron in the presence of persulfate  
Hui Xu, Shuhua Yang, Yajuan Zhang, Jing Tang, Lei Tian, Yong Chen (China) ..... 150

Novel three-dimensional chitosan-carbon nanotube-PVA nanocomposite hydrogel for removal of Cr<sup>6+</sup> from wastewater  
T.M. Eldeeb, A. El Nemr, M.H. Khedr, S.I. El-Dek (Egypt), N.G. Imam (Egypt, Sweden) ..... 163

Heavy metal adsorption efficiency magnetic porous composites Fe<sub>3</sub>O<sub>4</sub>-SiO<sub>2</sub>-APTES  
L. Karimi Takanlou, M. Farzadkia, A.H. Mahvi, A. Esrafil (Iran) ..... 178

Unrevealing the biosorption capacity of freshwater algae biomasses for toxic heavy metals in aqueous solutions  
I. Shamshad, S. Khan, S. Muhammad, M. Waqas (Pakistan) ..... 189

Lignin/alginate/hydroxyapatite composite beads for the efficient removal of copper and nickel ions from aqueous solutions  
A. Naseer, A. Hamid, M. Ghauri (Pakistan), A. Nasrullah (Malaysia), J. Iqbal (UAE), N.S. Shah, S. Rafiq, M. Irfan, N. Muhammad (Pakistan) ..... 199

Isotherm, kinetic and thermodynamic parameters study of arsenic (III) and copper (II) adsorption onto <i>Limonia acidissima</i> shell carbon V. Yadav, D.P. Tiwari, M. Bhagat (India) .....	214
On the electrocatalytic reduction of CO <sub>2</sub> using Cu-nanoparticles decorating Au electrode I.H. Alsohaimi (Saudi Arabia), M.I. Awad (Saudi Arabia, Egypt), M.S. Alshammari (Saudi Arabia), M.A. Kassem (Saudi Arabia, Egypt) .....	225
Catalytic ozonation process using MgO-PAC to degrade bisphenol A from aqueous solutions B. Kamarehie, S.M. Seifi Tizabi, R. Heydari, S. Sadeghi, M. Ghaderpoori, A. Ghaderpoury, A. Alinejad (Iran) .....	232
Photocatalytic degradation of cefazolin over TiO <sub>2</sub> coated on the fixed bed under UV <sub>c</sub> and solar light M. Masihpour, H. Nassehinia, A. Rahmani (Iran) .....	243
Biogenic compound removal from municipal wastewater — modeling and optimization M. Pirsahab, F. Azizi, M. Moradi, Y. Vasseghian (Iran), E.-N. Dragoi (Romania), N. Ghaemi (Iran) .....	252
Selective adsorption of lanthanum ions with recyclable materials and experimental design using response surface methodology Zhiguo Xiao, Yue Cheng, Hongwei Yu, Jianyu Li (China) .....	267
Phosphorous removal by nanoscale zero-valent iron (nZVI) and chitosan-coated nZVI (CS-nZVI) A. Shanableh, N. Darwish, S. Bhattacharjee, G. Al-Khayyat, M. Khalil, M. Mousa, A. Tayara, M. Al-Samarai (UAE) .....	282
Performance assessment of stabilization ponds receiving wastewater of high organic load and feasibility of treatment using actinobacteria A. El-Shahawy, S.M.A. El Moaty, S.A. El-Shatoury (Egypt), A. Nafady (Saudi Arabia) .....	292
The sedimentation characteristics of low-rank coal slurry with saline wastewater as a coagulant Gen Huang (China, Canada), Xuan Guo, Zhijiao Zheng, Hongxiang Xu, Qizheng Qin (China) .....	306
Photocatalytic decomposition of aqueous diazinon using reduced graphene/ZnO nanocomposite doped with manganese M. Mohammadi, A. Maleki, S. Zandi, E. Mohammadi, E. Ghahremani (Iran), Jae-Kyu Yang, Seung-Mok Lee (Korea) .....	315
Biomass-derived magnetically tuned carbon modified sepiolite for effective removal of Congo red from aqueous solution S. Vahidhabanu, I. Swathika (India), A.I. Adeogun (India, Nigeria), R. Roshni, B.R. Babu (India) .....	326
Experimental and chemometric analysis of bioremediation of remazol dyes using biochar derived from green seaweeds R. Gokulan, G. Ganesh Prabhu, A. Avinash, J. Jegan (India) .....	340
High photocatalytic performance of coated TiO <sub>2</sub> layers assisted by H <sub>2</sub> O <sub>2</sub> oxidizing agent to remove an azo dye from water via the synergistic effect of optimum conditions A. Bouarioua (Algeria) .....	354
Methylene blue removal from aqueous solutions by sulfonated polymeric porous sorbents M. Yam-Cervantes, M. Aguilar-Vega, J.L. Santiago-García (Mexico), G. del C. Pizarro, M. Godoy, J. Sánchez (Chile) .....	367
Occurrence of pharmaceuticals in aquatic environment — a review B. Gworek, M. Kijeńska, M. Zaborowska, J. Wrzosek, L. Tokarz, J. Chmielewski (Poland) .....	375
Sulfamethoxazole antibiotic removal from aqueous solution and hospital wastewater using photo-Fenton process F. Rostami, B. Ramavandi, H. Arfaeinia, F. Nasrzadeh, S. Hashemi (Iran) .....	388
Safety guarantee technologies of water pressure and water quality: a case study in secondary water supply for high-rise buildings Dongsheng Wang, Fuchun Jiang, Hongbin Liu, Hao Xiang (China) .....	395
Author Index .....	408