



Contents

Volume 166

Investigating the effect of inhomogeneous fixed charge distribution on dielectric exclusion in nanofiltration membranes
Yunjie Zhu, Haochen Zhu, Aihua Li, Guangming Li, Zhaohuan Mai, Yuliang Gu (China) 1

PES/PVDF blend membrane and its composite with graphene nanoplates: preparation, characterization, and water desalination via membrane distillation
M.S. Salem, A.H. El-Shazly, N. Nady, M.R. Elmarghany, M.N. Sabry (Egypt) 9

Efficient removal of copper and lead from aqueous solution by magnetic biochar: magnetization, adsorption, separation and desorption
Zhifang Zhou, Baiping Zhao, Youxian Zhang, Hanxue Sun, Jixiang Chen, Tao Huang (China) 24

Activation of persulfate by Fe²⁺ for saline recalcitrant petrochemical wastewater treatment: Intermediates identification and kinetic study
Z.G. Rahmat, M. Ahmadi (Iran) 35

Adsorption of heavy metal lead using *Citrus grandis* (Pomelo) leaves as low-cost adsorbent
L.B.L. Lim (Brunei), N. Priyantha (Sri Lanka), YieChen Lu, N.A.H.M. Zaidi (Brunei) 44

Detoxification of lead(II) ions in aqueous solutions using chemically modified *Ziziphus jojoba* and *Eriobotrya japonica* leaves: thermodynamic and kinetics considerations
S.M. Salman, M. Zahoor, S. Muhammad (Pakistan), A. Ali (China) 53

Removal of lead from aqueous solutions using cantaloupe peels as a biosorbent vs. cement kiln dust as an industrial by-product
A.A. El-Refaey, S.G. Mohammad (Egypt) 62

Adsorptive removal of new methylene blue from water by treated *Malus domestica* sawdust as a low cost biosorbent – equilibrium, kinetics and thermodynamic studies
S. Naz, S. Alam (Pakistan), K. Rehan (China), S. Sultana (Pakistan) 72

Treatment of Reactive Red 241 dye by electrocoagulation/biosorption coupled process in a new hybrid reactor
F. Javed, N. Feroze, N. Ramzan, A. Ikhtlaq, M. Kazmi, H.M.S. Munir (Pakistan) 83

A brief study on the boosted photocatalytic activity of AgI/WO₃/ZnO in the degradation of Methylene Blue under visible light irradiation
S. Ghattavi, A. Nezamzadeh-Ejhih (Iran) 92

High performance degradation of phenol from aqueous media using ozonation process and zinc oxide nanoparticles as a semiconductor photocatalyst in the presence of ultraviolet radiation
M.H. Dehghani, Y. Karamitabar, F. Changani, Z. Heidarinejad (Iran) 105

Degradation of Bisphenol A from aqueous solutions using Fe₃O₄ as a persulfate activator
T. Safabakhsh, H. Daraei (Iran), N. Saha (Australia), S. Khodakarim (Iran) 115

Optimization and mechanism pathways of *p*-cresol decomposition over Cu-Fe/NaP1 catalyst by Fenton-like process
K. Wantala, W. Chansiriwat, R. Khunphonoi, C. Kaewbuddee, T. Suwannaruang, N. Chanlek, N. Grisdanurak (Thailand) 122

Employing Fenton-like process for the remediation of petrochemical wastewater through Box–Behnken design method
A. Shokri, A. Bayat, K. Mahanpoor (Iran) 135

S-N codoping TiO₂/SiO₂ and TiO₂/SiO₂/Fe₃O₄ core-shell nanocomposites as a novel purple LED light driven photocatalyst for degradation of paracetamol: optimization and different scavenger agents study
Z. Amini, M.H. Givianrad, S.W. Husain, P. Aberoomand Azar, M. Saber-Tehrani (Iran) 144

Heterogeneous oxidation of sulfacetamide in aquatic environment using ultrasonic and nano-Fenton: kinetics intermediates and bioassay test
T. Abdili, A. Rahmani, H. Rahmani, M. Alighadri, K. Rahmani (Iran) 158

Fusion rules and image enhancement of unmanned aerial vehicle remote sensing imagery for ecological canal data extraction Zichao Zhang, Yu Han, Jian Chen, Yi Cao, Shubo Wang, Guangqi Wang, Nannan Du (China)	168
Evaluation of water quality and stability in the drinking water distribution network: A case study in the Kermanshah city, Iran D. Nayeri, S.A. Mousavi, P. Darvishi, A. Mahmoudi, E. Noori, S. Delavari (Iran)	180
Adsorption of thorium(IV) ions from aqueous solution by citric acid modified <i>Lemna minor</i> Sikun Yang, Jiaojiao Huang, Kaixiang Xiang, Weilin Wu, Xiaojuan Hou (China)	186
Reclaimed water and irrigation: a cost-benefit analysis for desalination of WWTPs effluents A. Bellver-Domingo, R. Fuentes, F. Hernández-Sancho (Spain)	193
Activated carbon adsorption for removal of the nitrogenous disinfection byproduct phenylacetone from drinking water Yulong Yang, Jiao Feng, Shicui Zhu, Jinshu Zhou, Kejia Zhang, Xiaoyan Ma (China), D. Gallagher, A.M. Dietrich (USA)	202
Facile one-pot synthesis of porous N-doped graphene based NiO composite for parabens removal from wastewater and its reusability D.Z. Husein (Egypt)	211
Experimental study on characteristics of gas field mercury-containing sludge and the sludge reduction Hong Jiang, HongYu Pu, Cong Zhu (China)	222
The removal of humic substances by nano zero-valent iron supported on activated carbon and implementation of response surface methodology K. Ulucan-Altuntas (Turkey)	230
Adsorption of cesium on polyaniline montmorillonite nanotube-based composite from aqueous solution R. Saberi, A. Nilchi, E.M. Ghasemi, A.T. Ardeshtir (Iran), A. Mozaffari (Italy)	237
Enhanced performance of poly(m-phenylene isophthalamide) (PMIA) composite hollow fibre ultrafiltration membranes by O-MoS ₂ nanosheets modification Qinliang Jiang, Huali Tian, Kaisong Zhang (China)	245
Activated carbon from <i>Thapsia transtagana</i> stems: central composite design (CCD) optimization of the preparation conditions and efficient dyes removal A. Machrouhi, M. Farnane, H. Tounsadi, Y. Kadmi (Morocco), L. Favier (France), S. Qourzal, M. Abdennouri, N. Barka (Morocco)	259
Current and future opportunities for renewable integrated desalination systems in the Brazilian semiarid region G.M. Haguenaer, G.D.P. da Silva, M.H. Sharqawy, S.A. Neto, D.B. Viana, M.A.V. de Freitas (Brazil)	279
Review on CFD analysis of horizontal falling film evaporators in multi effect desalination plants F. Tahir, A. Mabrouk, M. Koc (Qatar)	296
Adsorption mechanism of Cu(II) and Pb(II) from aqueous solutions using citric acid modified beet pulp fiber (CDSBP) and Fe-modified CDSBP Ziyuan Gao, Qiang Liu, Huan Wang, Na Xia, Siming Zhu (China)	321
Removal efficiency and mechanisms of dissolved Cr(VI) using oak wood biochar Na Liu, Yuting Zhang, Peng Liu, Jing Lv (China), YingYing Liu (Canada), Longzhen Ding, Yadong Yang (China)	334
Performance and mechanism of Cr(VI) removal by resin-supported nanoscale zero-valent iron (nZVI): role of nZVI distribution Yuan Wang, Yaqin Song, Chenfei Shi, Jingge Shang, Jianqiu Chen, Qiong Du (China)	344
Removal of copper(II) ions from wastewater using HAP-coated-limestone Dan Li, Wenjin Chen, Guigen Zhou, Feigao Xu (China)	353
In-situ synthesis of layered TiO ₂ NS/UiO-66/GO with improved adsorption and photocatalytic performance toward Congo red dye Sheng Feng, Guiliang Zhu, Lili Cao, Runbai Wang, Shuguang Liu (China)	365
Adsorption and mechanism study for methyl orange dye by cross-linked chitosan-ethylene glycol diglycidyl ether beads A.H. Jawad (Malaysia)	377
Removal of basic and acid dyes from aqueous solutions using cone powder from Moroccan cypress <i>Cupressus sempervirens</i> as a natural adsorbent Z. Bencheqroun, I. El Mrabet, M. Kachabi, M. Nawdali (Morocco), H. Valdés (Chile), I. Neves (Portugal), H. Zaitan (Morocco)	387

Mesoscopic assessment of water droplet collision with a single stainless steel fiber in oil Bingbing Li, Feng Xin, Wei Tan, Guorui Zhu (China)	399
Author Index	409