

Contents

Volume 174

Solar desalination system integrated to use waste heat of air conditioners for continuous output:
suitable for coastal areas

T. Sachdev, V.K. Gaba, A.K. Tiwari (India) 1

Performance evaluation and economic assessment of a gas power plant
with solar and desalination integrated systems

S. Hoseinzadeh (Iran, South Africa), R. Ghasemiasl, M.A. Javadi (Iran), P.S. Heyns (South Africa) 11

Guaranteeing the thermal and drinking water stations to operate under low Nile levels condition

N.M. Eshra (Egypt) 26

An energy efficient vertical-shaft seawater desalination plant

Tzu-Chin Lin, Falin Chen (Taiwan) 38

Quality of product water by three full-scale seawater reverse osmosis desalination in China

Xiao-Nan Wang, Ming-Yuan Ma, Xian-Hui Pan, Jun Hao, Chuang-Nian Zhang (China) 46

Low energy cost high electrodialysis performance anion-exchange membranes for desalination

Shixi Zhong, Haonan Tie, Shijun Liao, Xiuhua Li (China) 53

Optimization of the evaporation step in cellulose acetate membranes preparation

by dry-wet phase inversion technique for water desalination applications

A.S. Mohammed Ali, E.A. Fadl, M.M. Soliman, S.H. Kandil (Egypt) 63

Performance comparison of three different reactors (MBBR, MBR and MBBMR)

for municipal wastewater treatment

N. Sohail, S. Ahmed, S. Chung (Pakistan), M.S. Nawaz (Saudi Arabia) 71

Desalination membrane selection using group fuzzy analytical hierarchy process

O. Al-Araidadh, M.T. Hayajneh, R.A. Al-Rwabdah (Jordan) 79

Influence of N/COD ratios and nitrogen forms on aerobic granulation in sequencing batch airlift reactor

Hoang Nhat Phong Vo, Gia-Ky Le (Vietnam), Thi Minh Hong Nguyen (Taiwan), Thanh-Tin Nguyen,
Thanh-Binh Nguyen, Van-Tung Tra, Xuan-Thanh Bui (Vietnam) 90

Decomposition of humic acid by ozone: oxidation properties and water-matrix constituents

Peng Wen, Dan Liu, Weiming Chen, Guobin Jiang, Qibin Li (China) 98

Removal efficiency and adsorption kinetics of perfluorohexanoic acid

by MgAl-carbonate layered double hydroxide and its calcined products

Yuechao Wu, Yulin Wang, Jiangguang Li, Jiale Dai, Wangjia Lu, Mingping He,
Zhengqiang Dong, Wanli Xu, Liang Lv (China) 106

Fiber and carbon materials for wastewater purification from petroleum products

N. Politaeva, Y. Smyatskaya, A. Fedyukhin (Russia) 116

Selective removal of calcium ions from seawater or desalination brine

using a modified sodium carbonate method

Yongzhen Wang, Yingjie Qin, Bin Wang, Junbao Jin, Ben Wang, Dongsheng Cui (China) 123

Treatment performance of palm oil mill effluent by utilizing chitosan and ferric chloride

coupled with activated carbon and ultrasound bath

Man Djun Lee, Pui San Lee, Kok Hing Chong (Malaysia) 136

Analysis of groundwater quality for drinking purposes

using combined artificial neural networks and fuzzy logic approaches

E.D. Güner, Y. Kuvvetli (Turkey) 143

Physical hydrogel based on alginate and poly(2-hydroxyethyl methacrylate) for water treatment

M.W. Sabaa, Aya Mohamed Ali, S.M.A. Soliman (Egypt) 152

Treatment of irrigation water infested with nematodes using a solar photoreactor

J. Inga López, V. Meza Contreras, A. Rodríguez Delfín, S. Ponce Álvarez, F. Paredes Larroca,
R. Eyzaguirre Pérez, J. Quino Favero, E. Saettone Olschewski (Peru) 161

Synthesis of an amphoteric chitosan-based flocculant and its flocculation performance in the treatment of dissolved organic matter from drinking water	
Xiaomin Tang, Ting Huang, Shixin Zhang, Jie Zheng, Huaili Zheng (China)	171
Ciprofloxacin removal from aqueous solutions by ozonation with calcium peroxide	
N. Javid, Z. Honarmandrad, M. Malakootian (Iran)	178
Study on parameters optimization of silver nanoparticles biosynthesized using aqueous extract of <i>Imperata cylindrica</i>	
N.N. Bonnia, M.A.A. Rani, A.A. Fairuzi (Malaysia)	186
A column design for groundwater hardness removal using cashew nut shells activated carbon with potential application in low-income communities	
E.C. Mwakabole, M.J. Rwiza, K.N. Njau (Tanzania)	196
Investigating sensitivity of flow parameters and uncertainty analysis of nutrient transport and dispersion model in shallow water (Case study: Peer-Bazar River and Anzali wetland)	
M. Homami, S.A. Mirbagheri, S.M. Borghei, M. Abbaspour (Iran)	204
Catalytic ozonation assisted by rGO/C-MgO in the degradation of humic acid from aqueous solution: modeling and optimization by response surface methodology, kinetic study	
G. Asgari, A. Seidmohammadi, M. Salari, B. Ramavandi, J. Faradmal (Iran)	215
Effective removal of trace antimony(III) from aqueous solution by phosphonic acid-functionalized hollow mesoporous silica spheres as a novel adsorbent	
Yao Yan, Jing-song Wang, Si-li Chen, Yong-xin Bing, Qing-wei Guo, Zhi-yong Duan, Lei Xie, Ke-chang Han (China)	230
Activation of ultrasound enhanced persulfate oxidation by biogenic nanosilvers for degradation of 4-nitroaniline	
M. Malakootian, M. Ahmadian, M. Khatami (Iran)	240
Advanced oxidative process by heterogeneous photocatalysis for chemical laboratories effluents treatment	
C.A.P. de Lima, B.A. Araujo, K.S. da Silva, C.B. Silva, G.G.C. de Lima, F.F. Vieira, K.M. de Medeiros (Brazil)	248
Temporal variations and influencing factors of river runoff and sediment regimes in the Yangtze River, China	
Wenxian Guo, Yue Li, Hongxiang Wang, Hufei Cha (China)	258
Removal behaviour of Pb(II) from wastewater by composites of different sodium alginate: <i>Zea mays</i> rachis ratios	
M.C. Carreño de León, N. Flores-Alamo, M.J. Solache-Ríos, M.C. Hernandez-Berriel (Mexico)	271
Preparation of sodium-substituted xonotlite from eggshell and its adsorption behavior for cadmium(II)	
Wenqing Tang, Youzhi Dai, Rongying Zeng, Biao Gu, Zhimin Zhang, Huiyan He (China)	279
Selective adsorption of Pb(II) by a silica gel-immobilized Schiff base	
Long Li, Yi Qian, Haiming Zhang, Haoyue Han, Peng Qiao (China)	291
Functionalized SBA-15 by amine group for removal of Ni(II) heavy metal ion in the batch adsorption system	
T.M. Albayati, A.A. Sabri, D.B. Abed (Iraq)	301
Chromium (VI) removal efficacy from aqueous solution by modified tea wastes-polyvinyl alcohol (TW-PVA) composite adsorbent	
M.M. Kabir, F. Sultana, M.M. Rahman, M.K. Uddin (Bangladesh)	311
Removal of Cu(II), Co(II) and Pb(II) from synthetic and real wastewater using calcified Solamen Vaillanti snail shell	
H. Esmaeili, S. Tamjidi, M. Abed (Iran)	324
Biosorption of Ca(II), Cu(II), Pb(II) from aqueous solution by a novel adsorbent of ferric hydroxide-loaded sugar beet pulp	
Qiang Liu, Ziyuan Gao, Na Li, Siming Zhu (China)	336
In ₂ O ₃ catalyst supported on carbonaceous nanohybrid for enhancing the removal of methyl orange dye from aqueous solutions	
S.M. El-Khouly, N.A. Fathy, H.K. Farag, R.M.M. Aboelenin (Egypt)	344
Sono-photo-Fenton degradation of Reactive Black 5 from aqueous solutions: performance and kinetics	
Y. Yosofi, S.A. Mousavi (Iran)	354
Uptake of crystal violet from water by modified Khalas dates residues	
M.A. Alfrhan, H.H. Hammud, M.A. Al-Omair (Saudi Arabia), M.A. El-Sonbati (Egypt)	361

Zinc oxide nanoparticles development using phosphorylated alginate template matrix for water treatment applications: I. Removal of methylene blue dye A.M. Omer, T.M. Tamer, W.M. Abou-Taleb, G.D. Roston, A.M. Hafez, E.F. Shehata, R.E. Khalifa, M.S. Mohyeldin (Egypt)	376
Removal of TURQUOISE GN from aqueous solution using graphene oxide D.M. Mahmudunnabi, M.Z. Alam, M. Nurnabi (Bangladesh)	389
Application of NFO-GO composite for the removal of Acid Blue 25 toxic dye from aqueous solution T. Ahmed, Abdul Matin Ali, S. Sen Gupta (India)	400
Removal of cationic dyes from aqueous solutions using adsorbents based on GO/APTG nanocomposites Hui Xu, Yajuan Zhang, Jin Tang, Weiguo Tian, Zeting Zhao, Yong Cheng (China)	414
Author Index	428