



Contents

Volume 130

Heat carrier nanofluids in solar still – A review
T. Arunkumar, K. Raj (India), D. Denkenberger (USA), R. Velraj (India) 1

Fouling of reverse osmosis membrane applied to membrane bioreactor effluent
treating landfill leachate treatment under various pH conditions
S. Sanguanpak, W. Rukapan, W. Chiemchaisri, C. Chiemchaisri (Thailand) 17

Deminerzalization of underground water by a nanofiltration plant
coupled with a photovoltaic and wind energy system
S. El-Ghazel, H. Jalté, B. Bachiri, A. Zdeg, F. Tiyal, M. Hafsi, M. Taky, A. Elmidaoui (Morocco) 28

Counter-current/co-current dissolved air flotation (CCDAF) system for algae-laden surface water treatment
Yong Lei Wang, Baozhen Liu, Ruibao Jia, Kefeng Zhang, Wuchang Song, Junqi Jia (China) 37

Effects of low-toxicity solvent and binary mixed additives on the microstructure and performance
of cellulose triacetate (CTA) membranes for forward osmosis
Chunxia Li, Jianfeng Song, Pengjia Dou, Yong Yin, Tao He, Weina He (China) 44

Novel method for the removal of organic halogens from process wastewaters enabling water reuse
A.J. Toth, E. Haaz, T. Nagy, A.J. Tarjani, D. Fozzer, A. Andre, N. Valentinyi, P. Mizsey (Hungary) 54

Preparation of controlled porosity activated carbon from walnut shell for phenol adsorption
A. Akbarzadeh, M. Arbabi, S. Hemati (Iran) 63

Rare earth elements removal techniques from water/wastewater: a review
O. Pereao (South Africa, Nigeria), C. Bode-Aluko, O. Fatoba (South Africa),
K. Laatikaine (Finland), L. Petrik (South Africa) 71

Degradation of isopropyl ethylthionocarbamate from aqueous solution by Fenton oxidation:
RSM optimization, mechanisms, and kinetic analysis
Donghui Liu, Guohua Gu, Bichao Wu, Chongqing Wang, Xiong Chen (China) 87

Tyrosinase biosensor based on multiwall carbon nanotubes – titanium oxide nanocomposite
for catechol determination
S.A. Fathy, F.F. Abdel Hamid, A. El Nemr, A. El-Maghraby, E. Serag (Egypt) 98

Freezing process – a new approach for nitrate removal from drinking water
S.S. Hosseini, A.H. Mahvi (Iran) 109

Performance and community structure change of immobilized marine petroleum-degrading bacteria
in the degradation process
Zhixiu Liu, Jianliang Xue, Ke Shi, Yanan Wu, Yu Gao, Xinfeng Xiao,
Huachun Xu, Hongli Zhuang (China) 117

Novel green synthesis of a reduced graphene oxide/zinc oxide hybrid nanocomposite adsorbent
of *Prunus × yedoensis* leaf extract: its catalytic potential to remove phosphate
V. Manikandan (Korea), P. Velmurugan (Korea, India), Sung-Chul Hong, Pyong-In Yi, Seong-Ho Jang,
Jeong-Min Suh, Eun-Sang Jung (Korea), M. Russel (China), S. Sivakumar (Korea) 124

Adsorption of cationic dye using novel O-amine functionalized chitosan Schiff base derivatives:
isotherm and kinetic studies
A. Shebl, A.M. Omer, T.M. Tamer (Egypt) 132

Evaluation of sodium ferrate as an efficient coagulant for total suspended solids
and nematode removal from water
H. Momtazpour, S. Jorfi, A.A. Azimi, T. Tabatabaie, A. Pazira (Iran) 142

Adsorptive removal of Cr(VI) from aqueous solution using rice husk and rice husk ash
G.C. Ghosh, S. Zaman, T.K. Chakraborty (Bangladesh) 151

Effect of solution chemistry on the removal of Co(II) on rice straw-derived biochar
Lijia Dong, Wensheng Linghu, Donglin Zhao, Yinyan Mou, Baowei Hu (China),
A.M. Asiri, K.A. Alamry (Saudi Arabia), Di Xu, Jin Wang (China) 161

Selective removal of cadmium ions from water samples by using Br-PADAP functionalized SBA-15 particles Z. Khanjari, A. Mirabi, A. Shokuhi Rad, M. Moradian (Iran)	172
Removal of lead from aqueous solution using low-cost adsorbents from Apiaceae family W. Boontham, S. Babel (Thailand)	182
Radon and heavy metal risk assessments of drinking water sources A. Kurnaz, M. Aydin (Turkey)	194
Application of rice husk as an adsorbent for the simultaneous removal of a multicomponent system of dyes: evaluation of the equilibrium and kinetics of the process F. Amaringo, A. Hormaza (Colombia)	200
Reductive photocatalytic decolourization of an azo dye Reactive Black 5 using TiO ₂ : mechanism and role of reductive species B.R. Shah, U.D. Patel (India)	214
New approach for the biodecolorization of Remazol Black-B (RB-B) by <i>Streptomyces hygrosopicus</i> strain PTCC1132 T. Tahamtan (Iran), V. Alvani (Australia), A. Bhatnagar (Finland), M. Leili, E. Gharehchahi, M. Ansarizadeh (Iran)	226
UV-assisted photo-catalytic degradation of anionic dye (Congo red) using biosynthesized silver nanoparticles: a green catalysis W.A. Shaikh, S. Chakraborty, R. Ul Islam (India)	232
Removal of tetracycline antibiotic using cerium oxide nanoparticles and determination by HPLC B. Zargar, N. Pourreza, M. Samadifar (Iran)	243
Author Index	250