

**Contents**

**Volume 57 Issue 20**

Removal of natural organic matter at the Gunbower water treatment plant in northern Victoria, Australia Sanghyun Jeong, T.V. Nguyen, S. Vigneswaran, J. Kandasamy (Sydney) and D. Dharmabalan (Hobart, Australia).....	9061
Using adsorbent made from sewage sludge to enhance wastewater treatment and control fouling in a membrane bioreactor Zhihui Pan, Chaosheng Zhang and Bin Huang (Guangzhou, China) .....	9070
Pilot-scale treatment of textile wastewater by combined biological-adsorption process S.A. Mirbagheri and A. Charkhestani (Tehran, Iran) .....	9082
Evaluation of operational parameters for semi-continuous anaerobic digester treating pretreated waste activated sludge S. Gopikumar (Tirunelveli, India), P. Arulazhagan (Jeddah, Saudi Arabia), S. Kavitha, S. Adish Kumar and J. Rajesh Banu (Tirunelveli, India) .....	9093
Comparison of Fe-Mn enhanced coagulation and O <sub>3</sub> -BAC for removing natural organic matter from source waters: a case study Chuan Tian, Feng Liu, Yaohui Bai, Ruiping Liu (Beijing), Hu Chen, Bin Wang (Lianyungang) and Jiuuhui Qu (Beijing, China).....	9101
Synthesis of titania- $\gamma$ -alumina multilayer nanomembranes on performance-improved alumina supports for wastewater treatment M. Shayesteh, A. Samimi, M. Shafiee Afarani and M. Khorram (Zahedan, Iran) .....	9115
Effects of PES support layer structure on pervaporation performances of PDMS/PES hollow fiber composite membranes De Sun, Qing-Chun Yang, Hua-Long Sun, Jia-Ming Liu (Changchun), Zi-Long Xing (Qianguo) and Bing-Bing Li (Changchun, China) .....	9123
Photocatalysis of THM precursors in reclaimed water: the application of TiO <sub>2</sub> in UV irradiation Qi Han, Yan Wang, Han Yan, Baoyu Gao, Defang Ma, Shenglei Sun, Jianya Ling (Jinan) and Yongbao Chu (Qingdao, China).....	9136
CCD Series No. 13: illustrating low-energy SWRO-CCD of 60% recovery and BWRO-CCD of 92% recovery with single element modules without energy recovery means—a theoretical extreme case study A. Efraty (Har Adar, Israel) .....	9148
CCD Series No. 15: simple design batch SWRO-CCD units of high recovery and low energy without ERD for wide range flux operation of high cost-effectiveness A. Efraty (Har Adar, Israel) .....	9166
CCD Series No. 18: record low energy in closed-circuit desalination of ocean seawater with nanoH <sub>2</sub> O elements without ERD Z. Gal and A. Efraty (Har Adar, Israel) .....	9180
Investigation on the effects of heat capacity on the theoretical analysis of single slope passive solar still V. Sivakumar, E. Ganapathy Sundaram (Chennai) and M. Sakthivel (Coimbatore, India) .....	9190
Textile wastewater treatment by application of combined chemical coagulation, electrocoagulation, and adsorption processes E. Bazrafshan, M.R. Alipour (Zahedan) and A.H. Mahvi (Tehran, Iran) .....	9203
Performance evaluation of a single household anaerobic packaged system for onsite domestic wastewater treatment M.K. Sharma and A.A. Kazmi (Roorkee, India) .....	9216
Synthesis and characterization of $\gamma$ -Fe <sub>2</sub> O <sub>3</sub> /C nanocomposite as an efficient catalyst for the degradation of methylene blue Gui-Yun Mao, Fan-Xing Bu, Wei Wang, Dong-Mei Jiang, Zhen-Jie Zhao, Qing-Hong Zhang and Ji-Sen Jiang (Shanghai, China) .....	9226

Preparation, characterization and photocatalytic degradation kinetics of Reactive Red dye using N, Fe codoped TiO <sub>2</sub> nanoparticles under visible light N. Kaur (Chandigarh), S. Kaur (Chandigarh, Roper) and V. Singh (Chandigarh, India) .....	9237
Comparative study of chitin and chitosan beads for the adsorption of hazardous anionic azo dye Congo Red from wastewater N.P. Raval, P.U. Shah, D.G. Ladha, P.M. Wadhwani and N.K. Shah (Ahmedabad, India).....	9247
Direct dye biosorption by immobilized barley husk M. ud Din, H.N. Bhatti, M. Yasir and A. Ashraf (Faisalabad, Pakistan) .....	9263
A random forest approach for predicting the removal of Congo Red from aqueous solutions by adsorption onto tin sulfide nanoparticles loaded on activated carbon N. Dehghanian (Fars), M. Ghaedi (Yasouj), A. Ansari (Fars), A. Ghaedi, A. Vafaei (Gachsaran, Iran), M. Asif (Riyadh, Saudi Arabia), S. Agarwal, I. Tyagi (Roorkee, India) and V.K. Gupta (Roorkee, India and Dhahran, Saudi Arabia) .....	9272
Ultrasonic-assisted adsorption of methylene blue on sumac leaves J. Gülen (İstanbul), B. Akin (Çankırı) and M. Özgür (İstanbul, Turkey) .....	9286
Optimization of photocatalytic degradation of neutral red dye using TiO <sub>2</sub> nanocatalyst via Box-Behnken design N. Chaibakhsh, N. Ahmadi and M.A. Zanjanchi (Rasht, Iran).....	9296
Adsorption of Victoria Blue R (VBR) dye on magnetic microparticles containing Fe(II)–Co(II) double salt K. Erol, K. Köse, D.A. Köse, Ü. Sızır, İ. Tosun Satır (Çorum) and L. Uzun (Ankara, Turkey) .....	9307
Decolorization of Direct Blue 71 using UV irradiation and ultrasound in the presence of TiO <sub>2</sub> catalyst N. Ertugay (Erzincan) and F.N. Acar (Erzurum, Turkey).....	9318
Bi-metal biosorption using <i>Pleurotus ostreatus</i> spent mushroom substrate (PSMS) as a biosorbent: isotherm, kinetic, thermodynamic studies and mechanism C.-C. Tay, H.-H. Liew, S. Abdul-Talib (Shah Alam) and G. Redzwan (Kuala Lumpur, Malaysia) .....	9325
Concentration of heavy metals in surface water and sediments of Chah Nimeh water reservoir in Sistan and Baluchestan province, Iran E. Bazrafshan, F.K. Mostafapour (Zahedan), M. Esmaelnejad (Birjand), G.R. Ebrahimzadeh (Zabol) and A.H. Mahvi (Tehran, Iran) .....	9332
Adsorption characterizations of biosorbent extracted from waste activated sludge for Pb(II) and Zn(II) Yun Zhou, Siqing Xia, Jiao Zhang, Zhiqiang Zhang (Shanghai, China) and S.W. Hermanowicz (Berkeley, CA, USA) .....	9343
Biosorption of Cd(II) from aqueous solutions using <i>Crataegus oxyacantha</i> stone and <i>Punica granatum</i> seed A. Ebrahimi, M. Ehteshami (Tehran) and B. Dahrazma (Shahrood, Iran) .....	9354
Adsorption of metal ions from aqueous solution by recycled aggregate: estimation of pretreatment effect Woo-Seok Shin, Kyu-Ri Na and Young-Kee Kim (Anseong, Korea) .....	9366
Optimization of lead removal by electrocoagulation from aqueous solution using response surface methodology A. Assadi, M.M. Fazli (Zanjan), M.M. Emamjomeh (Qazvin) and M. Ghasemi (Zanjan, Iran) .....	9375
Lead(II) removal from aqueous solutions by organic thiourea derivatives intercalated magadiite S. Benkhatou (Mascara and Oran), A. Djelad, M. Sassi (Oran), M. Bouchekara (Mascara) and A. Bengueddach (Oran, Algeria) .....	9383
Kinetics of desorption of heavy metals and their mixtures from immobilized activated sludge M. Kuczajowska-Zadrożna and U. Filipkowska (Olsztyn, Poland) .....	9396
Synthesis of titanate nanoparticles in low temperature hydrolysis and adsorption of arsenate (V) and fluoride Hui Deng, Kezheng Zhang and Xiaoning Wang (Fushun, China) .....	9409
Adsorption of arsenic (V) ions onto cellulosic-ferric oxide system: kinetics and isotherm studies S. Sharma, K. Balasubramanian (Pune) and R. Arora (Varanasi, India) .....	9420
Calcium–zirconium–polyvinyl alcohol polymer composite film as a promising adsorbent for removal of fluoride from aqueous solution R. Bhandari and C. Janardhana (Ananthapuramu, India) .....	9437
A study of low temperature inactivation of fecal coliforms in electrolyte solutions using hot air bubbles Xinkai Xue and R.M. Pashley (Canberra, Australia).....	9444
Application of enhanced nZnO photocatalytic process with ultrasonic wave in formaldehyde degradation from aqueous solution M.M. Amin, F. Teimouri, M. Sadani and M.A. Karami (Isfahan, Iran) .....	9455

COD and nitrogen removal from sugarcane vinasse by heterotrophic green algae <i>Desmodesmus</i> sp. L.F.A. de Mattos and R.G. Bastos (Araras, Brazil) .....	9465
Characterization and adsorption kinetic study of surfactant treated oil palm ( <i>Elaeis guineensis</i> ) empty fruit bunches M. Danish (Penang, Malaysia), T. Ahmad (Bale-Robe, Ethiopia), R. Hashim, M.R. Hafiz, A. Ghazali, O. Sulaiman (Penang, Malaysia) and S. Hizioglu (Stillwater, OK, USA) .....	9474
Fabrication and characterization of Ag-doped titania: impact of dye-sensitization, phenol decomposition kinetics and biodegradability index A.K. Behera, C.V. Rao, R.K. Das, A.S. Giri and A.K. Golder (Assam, India) .....	9488
Adsorption of polycyclic aromatic hydrocarbons on banana peel activated carbon H. Gupta and B. Gupta (Roorkee, India) .....	9498
Facile synthesis of three-dimensional graphene–soy protein aerogel composites for tetracycline adsorption Yuan Zhuang, Fei Yu, Jie Ma (Shanghai, China) and Junhong Chen (Shanghai, China and Milwaukee, WI, USA) .....	9510
Carbothermal synthesis of activated carbon-supported nano zero valent iron: effects of temperature, characterization, and reactivity Wei-fang Chen, Chang-cheng Yan, Qiong Wang, Ling Pan (Shanghai, China) and Li-fang Chen (Tianjin, China) .....	9520
Author Index .....	9530