



Contents

Volume 215

Two strategies for freeze desalination of seawater by progressive and block techniques
E. Hernández, A. Santos, N. Pazmiño, M. Raventós, M. Blanco (Spain),
F.L. Moreno, Y. Ruiz (Colombia), A. Rich (Morocco), S. Samsuri (Malaysia) 1

Pilot study on urban sewage treatment with micro-pressure double-cycle reactor
Shengshu Ai, Shuangshi Dong, Zebing Nie, Fan Wang, Xuejian Sun, Linzhu Du,
Suiyi Zhu, Dejun Bian (China) 10

Relationship between denitrification performance and microbial community structure
in a PHBV-supported denitrification reactor
Shusong Zhang, Yueting Fan, Nan Zhang, Xuming Wang (China) 23

Purification of nitrogen-rich digester supernatant by activated sludge from a membrane bioreactor
M. Zielińska, A. Cydzik-Kwiatkowska, M. Chybalska, W. Mikucka (Poland) 31

Preparation of polydimethylsiloxane/polypropylene composite membranes
for degassing of water with high running stability
Yan Chen (China, UK), Zhiqian Jia (China) 43

Evaluation of polyethersulfone microfiltration membranes embedded with MCM-41
and SBA-15 particles for turbidity removal
M.H. Al-Furaiji, K.R. Kalash, M.A. Kadhom, Q.F. Alsally (Iraq) 50

Membrane filtration for valorization of digestate from the anaerobic treatment of distillery stillage
M. Zielińska, W. Mikucka (Poland) 60

Design and synthesis of two novel carbon aerogels using citric and tartaric acids as catalysts
for continuous water desalination
M. Alipour, M. Massoudinejad, D. Sanaei, H. Rasoulzadeh, M. Hadei (Iran) 69

Characteristics, distribution, sources, and ecological risk of persistent organic pollutants (PAHs, PCBs)
in the bottom sediments of a potamic ecosystem, in conditions of urban-industrial anthropopressure
A. Pohl, M. Kostecki (Poland) 80

Simulation and optimization of mineralization of urine by electrooxidation process
using artificial neural network and genetic algorithm
V.R.S. Nascimento, A.M.G. dos Santos, J.C. de Figueiredo Filho,
E.B. Cavalcanti, M.S. Leite (Brazil) 90

Removal of Cr(VI) from aqueous solutions using montmorillonite-biochar composites
Xiwei Cao, Xin Zhou, Mengya Hao (China), Xue Mei (UK) 98

Elimination of cadmium (II) in aqueous solution using bamboo waste (*Bambusa vulgaris*)
C. Tejada-Tovar (Colombia), H. Bonilla-Mancilla, J. Cáceres-López (Peru),
A. Villabona-Ortíz, R. Ortega-Toro (Colombia) 108

Adsorption of lanthanum (III), samarium (III), europium (III) and gadolinium (III)
on raw and modified diatomaceous earth: equilibrium, kinetic and thermodynamic study
I. Hamadneh, N.W. Al-Jundub, A.A. Al-Bshaish, A.H. Al-Dujali (Jordan) 119

Structural, morphological, magnetic and adsorption properties of Fe₃O₄
for copper removal from aqueous solution
S. Sulaiman, R.S. Azis, I. Ismail, A.H. Shaari, H.C. Man, N.A.A. Nazri, A. Azuan (Malaysia) 136

Electrokinetics coupling with microbially-induced calcite precipitation
that strengthens the chromate removal in the bio-electrochemical system
Tao Huang, Longfei Liu, Shuwen Zhang (China) 147

UV-irradiated fly ash-catalyzed Fenton-type process for the removal of paracetamol in wastewater:
nickel, copper, and manganese as active sites
A. Akram, A. Ikhtlaq, F. Javed, M. Kazmi (Pakistan), Fei Qi (China) 160

Photolysis of bromophenol blue in aqueous solution under UV-irradiation: optimization of the parameters influencing the kinetics of degradation M. Abbas (Algeria)	167
High efficiency electrochemical adsorption enhanced reduction of low concentration triiodomethane Wenke Niu, Zihao Guo, Qingwei Wang, Xiaojun Hu, Guohua Zhao, Fuxiang Tian, Jingxian Jiang, Jibo Liu, Hongbo Zhang (China)	174
Adsorption kinetics and thermodynamics and equilibrium of ibuprofen from aqueous solutions by activated carbon prepared from <i>Lemna minor</i> D. Balarak, Z. Taheri (Iran), Moo Joon Shim, Seung-Mok Lee, Choong Jeon (Korea)	183
Enhancing adsorption of crystal violet dye through simple base modification of leaf adsorbent: isotherm, kinetics, and regeneration N. Priyantha (Sri Lanka), A.A. Romzi, C.M. Chan, L.B.L. Lim (Brunei)	194
Polyethyleneimine modified tiger nut residue for removal of Congo red from solution A.N. Kani, E. Dovi, A.A. Aryee, F.M. Mpatani, Runping Han, Zhaohui Li, Lingbo Qu (China)	209
Photocatalytic degradation of Congo Red by using the $Cu_2O/\alpha-Fe_2O_3$ composite catalyst Zhuohao Li, Xiuting Chen, Miao Wang, Xia Zhang (China), Lixia Liao, Tao Fang (China, USA), Bin Li (China)	222
Color removal from dye-containing aqueous solutions by electrooxidation S. El Aggadi, Z. El Abbassi, A. El Hourch (Morocco)	232
The removal optimization of Reactive Red X-3B through UV photocatalysis based on the response surface methodology Shuqin Li, Sinuo Lin, Di Zhang, Fan Bu (China)	237
Diversity comparison of water quality between the Mopanshan Reservoir and Songhuajiang Reservoir – northeast China Xiaodong Wang, Xindong Wei (China), Jinming Jiang (Japan), Chongwei Cui (China), Weijun Gao (China, Japan)	250

***Selected papers presented at the 2nd International Conference on the
Environment Survival and Sustainability (ESS 2019)
7–11 October 2019, Nicosia, North Cyprus***

Anatomy of sequencing batch process for organic carbon removal from sewage with seasonal flow variations H. Gökçekuş, D. Orhon, S. Duba, A. K. Kakil, F. Aslanova, S. Sözen (Turkey)	259
Effect of Fenton oxidation on the toxicity of carpet manufacturing effluents A.S. Ciggin, O.O. Ozcan, H. Gökçekuş, D. Orhon (Turkey)	268
Generation and fate of volatile organic sulfur compounds during anaerobic digestion of waste activated sludge P. Khanthongthip (Thailand), N. Yagci, D. Orhon (Turkey), J. Novak (USA)	279
Do quadratic and Poisson regression models help to predict monthly rainfall? Y. Kassem, H. Gökçekuş (Turkey)	288
Potential of auto-thermal mesophilic aerobic stabilization for sludge reduction and organic carbon removal A.S. Cıggin, D. Orhon (Turkey)	319
Application of artificial neural network, multiple linear regression, and response surface regression models in the estimation of monthly rainfall in Northern Cyprus Y. Kassem, H. Gökçekuş, H. Çamur, E. Esenel (Turkey)	328
Statistical analysis and determination of best-fit probability distribution for monthly rainfall in Northern Cyprus Y. Kassem, H. Gökçekuş, H. Çamur, E. Esenel (Turkey)	347
Evaluating and selecting the best domestic water standards H. Gökçekuş (Turkey), D. Uzun Ozsahin (Turkey, USA), N. Eini, B. Uzun (Turkey)	380
Polyhydroxyalkanoate production using enriched biomass and acidogenic fermentation products of dairy wastewater and organic food waste S. Karaca, N. Yagci (Turkey), C.W. Randall (USA)	388

Water quality evaluation of some boreholes and dug-wells in Dorayi, Kano-Nigeria M.N. Yahya, I.K. Umar (Turkey, Nigeria), A. Ibrahim (Nigeria), H. Gokcekus (Turkey)	398
Modeling the impact of membrane filtration on organic carbon removal by the activated sludge process for tannery wastewater S. Sözen, A. Begüm Yücel, G. İnsel, D. Orhon (Turkey)	405
Improving novel extreme learning machine using PCA algorithms for multi-parametric modelling of municipal wastewater treatment plant S.I. Abba (Nigeria), G. Elkiran (Turkey), V. Nourani (Iran)	414
Identification of the most suitable probability distribution models for monthly and annual rainfall series in Güzelyurt Region, Northern Cyprus Y. Kassem, H. Gökçekuş, R. Gökçekuş (Turkey)	427
Author Index	452