



Contents

Volume 227

How feedwater characterization changes effect brackish-water reverse osmosis plant operation:
the town of Jupiter, Florida
D. Schroeder, A. Danley-Thomson, T.M. Missimer (USA) 1

Evaluation of the possibility of utilization of sewage sludge from a wastewater treatment plant – case study
A. Hurynovich (Belarus, Poland), M. Kwietniewski (Poland), V. Romanovski (Belarus, Russia) 16

Wastewater treatment plants’ contribution in microplastics’ contamination of surface water.
Effluent concentration and detection techniques review
A. Gkatzoura, A. Zafirakou (Greece), A.A. Zorpas (Cyprus) 26

Agricultural drainage water characterization to determine the desalination possibilities for irrigation
in a semi-arid environment
G.M. Dos Santos, J. Navarro-Pedreño, I. Meléndez Pastor, I. Gómez Lucas,
M.B. Almendro Candell (Spain), A.A. Zorpas (Cyprus) 34

A novel synthesis of quaternary nanocomposite as a potential adsorbent for removal organic pollutants
(benzene and toluene) from produced water
H.R. Ali, R.S. Mohamed, M.F. Mubarak, A. El Shahawy (Egypt) 42

Textile water treatment via adsorption of basic brown 1 dye on ZnO/PVC nanocomposite membrane
through membrane adsorption process
S. Naeim, A.A. Emam, M.F. Mobarak, R. Hosny (Egypt) 58

Performance evaluation for the improved PCF filter to apply to the water treatment plant (WTP)
C. Yun, S. Choi, Y. Lee, Y. Ji, S. Kim, S. Lee (Korea) 68

Prediction of ultrafiltration membrane fouling using statistical models in pilot and full-scale operations
Nayoung Park, Hyungsoo Kim, Yongsoo Lee, Yongjun Choi, Sangyoun Lee (Korea) 86

Development of computational algorithms for daily water leak detection in district metered areas
based on the principal component analysis
Suwan Park, Jae-Hong Ha (Korea) 93

Integrated water suspension risk assessment using fault tree analysis and genetic algorithm
in water supply systems
Taehyeon Kim, Kibum Kim, Jinseok Hyung, Jayong Koo (Korea) 104

Leak detection through wavelet analysis of pressure measurement for injected pressure
for a simple pipeline system
Jeongseop Lee, Dongwon Ko, Eunhyung Lee, Sanghyun Kim, Jinwon Kim,
Dooyong Choi (Korea) 116

Improved mixing of hydrogen peroxide injection in advanced oxidation process treatment
using computational fluid dynamics
Pyonghwa Jang, Hyunjun Kim, Gyusun Kyung, Heekyong Oh (Korea) 124

Development of polyelectrolyte sulphonated chitosan-alginate
as an alternative methanol fuel cell membrane
T.M. Tamer, A.M. Omer, M.M. Sabet, M. Elsayed Youssef, A.I. Hashem, M.S. Mohy Eldin (Egypt) 132

Study on the intention to choose recycled water based on consumption value theory
Xukuo Gao, Meng Sun, Yuxuan Liu, Hanliang Fu (China) 149

Evaluation of binary surfactants on the flotation performance of incinerator fly ash
Guo-Xia Wei, Zi-man Xia, Han-Qiao Liu, Hailong Zhao, Yongyue Gong,
Siming Li, Yong Yang (China) 157

Electrocoagulation-flotation treatment followed by sedimentation of carpet cleaning wastewater:
optimization of key operating parameters via RSM-CCD
E. Shakeri, M. Mousazadeh, H. Ahmadpari (Iran), I. Kabdaşlı (Turkey), H.A. Jamali (Iran),
N.S. Graça (Portugal), M.M. Emamjomeh (Iran) 163

Efficient removal of phosphate from aqueous solution by burnt brick clay: static conditions T.P.K. Kulasooriya, N. Priyantha, A.N. Navaratne, A. Bandaranayake (Sri Lanka), L.B.L. Lim (Brunei)	177
Effect of the presence of metals on the adsorption and desorption of phenol on activated mangrove charcoal M.F. Sabbagh, M.H. Al-Malack (Saudi Arabia)	188
Reduction of oil and COD from produced water by activated carbon, zeolite, and mixed adsorbents in a fixed-bed column E.H. Khader, T.J. Mohammed, S.W. Adnan (Iraq)	216
Construction of AgBiO ₃ /g-C ₃ N ₄ nanocomposites with enhanced photocatalytic activity and their application in the degradation of bisphenol A Zehua Zhao, Yi Wang, Qiang Yu, Xiaochen Lin, Xiaowei Xu, Jun Zhang, Haijun Lu, Xiaoxi Chen, Dapeng Zhang (China)	228
New insights into bisphenol A removal from water applying experimental and theoretical studies R.A. Konzen, P.R. Batista, L.C. Ducati, T.E.A. Souza, L.C. Cavalcante, C.E. Santos, F.J. Bassetti, P.C. Rodrigues, L.A. Coral (Brazil)	238
Removal of cadmium ions from aqueous solutions using nickel metal-organic framework: isotherm, kinetic studies, optimization, and modeling by response surface methodology (RSM) L. Azizi Fard, L. Salimi, G. Nabi-Bidhendi, H. Gafourian, M. Baghdadi (Iran)	250
Study of Cu ²⁺ , Ni ²⁺ , and Zn ²⁺ competitive adsorption on synthetic zeolite: an experimental and theoretical approach A.M.M. França, F.W. Sousa, A.R. Loiola, F.M.T. de Luna, C.B. Vidal, R.F. do Nascimento (Brazil)	263
Modelling of packed bed column studies for the removal of Cu(II) using polypyrrole alumina iron oxide nanocomposite P.N. Mary Lissy, G. Madhu, R.M. Thomas (India)	278
Kinetic, equilibrium, and thermodynamic studies of untreated watermelon peels for removal of copper(II) from aqueous solution N.I. Taib, N.A. Rosli, N.I. Saharrudin, N.M. Rozi, N.A.A. Kasdiehram, N.N.T. Abu Nazri (Malaysia)	289
Removal of Cu(II), Ni(II) and Co(II) ions from aqueous solutions by hazelnut husks carbon activated with phosphoric acid S. Usanmaz, Ç. Özer, M. İmamoğlu (Turkey)	300
Application of a three-dimensional electrochemical process catalyzed by MWCNTs-OH as particle electrode for ciprofloxacin removal from aqueous solutions E. Rahimifarzan, A.H. Mahvi, N. Mengelizadeh (Iran)	309
Oxidization and biodegradation of sulfur black by a newly isolated strain <i>Acinetobacter</i> sp. DS-9 Yiming Gu, Xiaolin Zhu, Wenjia Yu, Wenya Zhong, Jing Guo, Zhiqiang Cai (China)	321
Enhanced photodegradation activity of cuprous oxide nanoparticles towards Congo red for water purification S. Rasheed, Z. Batool, A. Intisar, S. Riaz, M. Shaheen, R. Kousar (Pakistan)	330
Adsorption of toxic crystal violet dye using rice husk: equilibrium, kinetic, and thermodynamic study F. Yasin, T. Javed, M.I. Jilani, S. Zafar, M.I. Din (Pakistan)	338
Decolorization and mineralization efficiency of the hetero-functional reactive dyes using advanced oxidation processes U.H. Siddiqua, S. Ali, S. Jabeen, S. Noor, A. Tabassum, N. Masood, M. Iqbal, A. Nazir (Pakistan)	350
Chromium-based covalent coordination nano-polymer: a promising dye elimination compound for water purification M. Jafari Pirouz, M.H. Amini, M. Hossein Beyki (Iran)	360
Adsorptive removal of methylene blue onto MFe ₂ O ₄ : kinetics and isotherm modeling R. Ramadan, N. Shehata (Egypt)	370
Adsorption of methylene blue onto Al-pillared montmorillonite Chun-Yan Cao, Min Wang, Zhi-Guo Song, Shuang Zhao, Xin Wan (China)	384
Eco-friendly cost-effective approach for synthesis of ZnO nanoparticles and loaded on worn tire powdered activated carbon as a novel adsorbent to remove organic dyes from aqueous solutions: equilibrium, kinetic, regeneration and thermodynamic study S. Afshin, Y. Poureshgh, Y. Rashtbari, M. Fazlzadeh, F. Bahrami Asl, A. Hamzezhadeh, S.M. Pormazar (Iran)	391

Kahwa tea (<i>Camellia sinensis</i>) carbon — a novel and green low-cost adsorbent for the sequestration of titan yellow dye from its aqueous solutions J. Mittal, R. Ahmad, A. Mittal (India)	404
Evaluation of olive pomace for the separation of anionic dyes from aqueous solutions: kinetic, thermodynamic, and isotherm studies K. Ali, H. Zeidan, M.E. Martı (Turkey)	412
Optimization of the adsorption of methyl green dye on almond shells using central composite design M.K. Tanaydin, A. Goksu (Turkey)	425
The impact of anthropopressure on lead content in grasses, soils and leachates from a pot experiment M.J. Małuszyński, I. Małuszyńska (Poland)	440
Author Index	445