Analysis of the impact of changes in surface water quality on the dynamics of treatment processes in drinking water treatment technological systems
I. Wiewiórska, M. Lobur, M. Vovk, A. Makara, Z. Kowalski (Poland) ................................................................. 1

Study for mechanical vapor compression desalination carried out at ambient pressure in several concentration steps which shows a very high efficiency thanks to a specific condensing pipe/chamber and a heat exchanger with fluids in laminar flow
M. Vismara (Italy) .......................................................................................................................................................... 13

Performance analysis of a cooling tower system used for cooling hot thermal distillate from a desalination system under severe climatic conditions
A.S. Al Ghamdi, A.M. Mahmoud, S. Ahmed, B.A. Al Rajhi (Saudi Arabia) ............................................................... 24

In-situ construction of Bi2S3/BiOI heterojunctions with boosted photocatalytic activity
Chengxu Lai, Junbo Zhong, Shengtian Huang, Minjiao Li (China) ............................................................................. 32

Evaluation of pressure-assisted forward osmosis for concentrating desalination brine: a feasibility study
G. Bhadrachari, M. Ahmed, R.K. Alambi, J.P. Thomas (Kuwait) ............................................................................. 40

Adsorptive methylene blue removal using modified agricultural waste
Y. İşlek Coşkun (Turkey) .......................................................................................................................................... 49

Fouling in membrane bioreactors (MBRs): the influence of some parameters and the effectiveness of some control strategies
L.I. Qrenawi, F.K.J. Rabah (Palestinian Authority) ........................................................................................................ 62

Remove organic matter and iron substances in water: the combination of egg shells using stirring and heating methods
Narwati, H. Suryono, Setiawan, S. Wardoyo (Indonesia) ................................................................................................. 88

Study of acid treatment effect of a natural red clay onto physico-chemical and adsorption properties

Comparison of the removal efficiencies of Basic Red 46 from aqueous solutions using Aşkale lignite with and without ultrasound-assisted processes
C. Karaca, M. Karaca, M. Kıranşan, S. Karaca, Ö. Açılış, A. Gürses (Turkey) .............................................................. 111

Performance evaluation of a polyethersulfone composite ultrafiltration membrane for oily wastewater purification
Yong Chen, Tao Wan, Yanjun Huang, Yi Wang, Guozhi Fan, Lei Zhang, Shengxuan Fan, Xueling Liu (China) ................................................................................................................................. 122

Multiple functions of liquid ferrate in the pretreatment of flue gas desulfurization wastewater
Ruiyuan Zhang, Yunpeng Li, Qiuqing Wang, Yu Song, XuHui Sun, Mingyue Chen (China) ........................................... 131

Comparison of oxytetracycline adsorption on semi-carbonized acrylic fibers under different orthogonal modifications
Wen-bin Li, Chu-tong Yu, Hong-yun Deng (China), T. Abbas (USA), Li-na Wen, Xue-fei Xiong (China) .......................................................... 139

Use of an economical cellulose material for dye removal
Wei Li, Liya Zhu, Chunrui Liu, Zitong Zhao, Haoran Ma, Shiyou Wang, Ruyi Zhou, Binbin Zhang, Yingjie Dai (China) ................................................................................................................................. 150

Boron adsorption from water using titanium dioxide nanoparticles and modified titanium dioxide by cationic surfactant (CTAB): kinetics, isotherms, and thermodynamics
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kinetics, isothermal and thermodynamic studies of the adsorption of Acid blue 113 dye</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synthesis of silver nanoparticles using Pongamia pinnata leaf extract</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influence of artificial infiltration on the removal of surfactants from surface waters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysis of the impact of domestic distribution systems on the dynamics of changes in tap water quality as a necessary element of risk management in the Warsaw Water Supply System — a case study, Poland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bioremediation of herbicide diquat dibromide from aqueous solution with white rot fungus Phanerochaete chrysosporium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adsorption of Rhodamine B dye onto iodo-polyurethane foam: kinetics and thermodynamic study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Removal of organic contaminants from the water used to wash the tanks of trucks transporting diesel: electrocoagulation in batch mode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Box-Behnken experimental design method application in pretreatment of olive oil mill wastewater by ultrafiltration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A comprehensive review on catalytic ozonation: emerging trends and future perspectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modeling slow sand filtration for sustainable safe wastewater reuse in agriculture in Draa Sfar mine region (Marrakech, Morocco)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investigation and optimization of design parameters for the thermal performance of a flat-plate solar air heater with sensible heat storage medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparation and photocatalytic degradation of nickel/carbon microspheres for methylene blue removal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparation and characterization of activated carbon from Balanites aegyptiaca seed shell for the removal of 2,4-dichlorophenoxyacetic acid herbicide from aqueous solution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Containment of ciprofloxacin and copper in groundwater using nanocomposite prepared by the use of pomegranate peel extract: characterization, kinetic, and modeling study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A bibliometric review of sludge dewatering research from 1993 to 2022</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Synthesis of silver nanoparticles using Pongamia pinnata leaf extract for efficient removal of acid brilliant red 3BN dye under solar irradiation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinetics, isothermal and thermodynamic studies of the adsorption of Acid blue 113 dye from aqueous solution onto dried tea waste as natural adsorbent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Delineation of groundwater potential zones with Analytic Hierarchy Process based geospatial modelling approach in metropolitan expanse
M. Khushi (Saudi Arabia), D. Raza (China), M. Kamran (Saudi Arabia), M. Nazeer (China), A. Ahmad (USA, Pakistan), S.U. Khan, I. Younas (Pakistan) ................................................................. 399

Adsorption of heavy metal ions from wastewater: a critical review
Y.D. Reta, T.D. Desissa, Y.M. Desalegn (Ethiopia) ........................................................................... 413

Water hyacinth (Eichhornia crassipes and Epipremnum aureum) — a potent tool for the removal of cadmium and chromium from industrial discharges
H. Singh, V. Tripathi, Alka, H.C. Joshi, G. Kumar, G. Pant, K. Hussain, A. Ahmad (India), M.B. Alshammari (Saudi Arabia) ......................................................................................... 432

Alkylphenols and bisphenol A in the aquatic environment and their leaching from plastic products – a review
A. Pohl, M. Bodzek (Poland) ..................................................................................................... 446

Application of membrane filtration and adsorption processes in the removal of micropollutants released from microplastics

Utilization of probiotic bacteria Pediococcus acidilactici to enhance water quality, growth performance, body composition, hematological indices, biochemical parameters, histopathology and resistance of red tilapia (Oreochromis sp.) against Aeromonas sobria
D.A. Abuljadayel, D.A.A. Bukhari (Saudi Arabia), M.E.H. Eissa (Egypt), M.B. Munir, A.J.K. Chowdhury (Brunei), E.-S. H. Eissa (Egypt) ................................................................. 469

Water treatment and aquaculture products towards halal value chain in ASEAN countries: a retrospective review on Brunei Darussalam
A.J.K. Chowdhury, N. Hashim, C.J. Marsal (Brunei), M.H. Jamaludin (Malaysia) ............................... 479

Heavy metal contamination during processing of canned fish: a review on food health and food safety
Md.M. Rana (Malaysia, Bangladesh), R. Asdari, A.J.K. Chowdhury, M.B. Munir (Brunei) ................. 492

Eco-biology of tinfoil barb Barbonymus schwanenfeldii in tropical lake Kenyir, east coast Malaysia
Nadirah Musa, R. Mamat, Naimah Musa, R.M. Piah, A.-H.M. Kamal, Najiah Musa (Malaysia), L.A. Sari (Indonesia), A.J.K. Chowdhury (Brunei) ........................................................ 500

Marine water aquaculture and an IoT-based smart fish dryer of the future: a sustainable environmental approach
Md.M. Rana (Malaysia, Bangladesh), R. Asdari, S. Mahmud, A.F. Irfan (Bangladesh), A.J.K. Chowdhury, M.B. Munir (Brunei) ................................................................. 515

Contamination prevention in ASEAN aquaculture: a review of prospective challenges and mitigations
W. Diah, C.J. Marsal, W. Tamat, A.J.K. Chowdhury (Brunei) .......................................................... 523

Virulence factors and mechanisms of Aeromonas hydrophila infection in catfish Siluriformes: a review and bibliometric analysis
H.I. Sheikh, B. Nordin, N. Paharuddin, H.J. Liew, A. Fadhilina, L.A. Abdulrazzak (Malaysia), Jalal K.C.A. (Brunei), Najiah Musa (Malaysia) ................................................................. 538

Application of green design concept to control pollution in coastal landscape ecotourism planning
Wenwen Li (China) .................................................................................................................... 548

Design of intelligent collection system for marine pollution information based on broadband internet of things
Xiaoyan Huang (China) ................................................................................................................ 558

Restriction factors and improvement paths of ecological environment and water resources protection in Qinghai Section of the Yellow River basin
Shenzhou Luan (China) ................................................................................................................ 565

Daily variations in radial growth of Pinus massoniana trunk and its response to precipitation
Jing Cui, Zhenhua Li, Yaqiong Sun, Shicheng Zhao, Qingsong Zhu, Jiapeng Shen (China) ................. 572

Optimal allocation of system dynamics models for urban water management
Chenxi Zhu (France) ...................................................................................................................... 580

Economic value evaluation of water resources based on big data
Jingchao Cui (China) ...................................................................................................................... 590

Financial management optimization of agricultural wastewater treatment enterprises based on fuzzy control
Ying Luo, Liangcai Xiong (China) .................................................................................................. 600
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact and optimization strategy of cross-border e-commerce on aquatic product supply chain under the background of big data</td>
<td>Ruiyan Yan (China)</td>
<td>612</td>
</tr>
<tr>
<td>Improving plunger motion law based on multi-objective optimization algorithm</td>
<td>Derong Lei, Pengfei Cheng, Jie Li, Jinhang Yao, Hui Zhang, Haoyuan Chu, Changhua Yang (China)</td>
<td>621</td>
</tr>
<tr>
<td>Monitoring and control of algal growth in the Shuangxikou Reservoir and drinking water source for possible management measures</td>
<td>Ailan Yan, Yongfei Chen, Donghui Hu, Yiting Qi, Ningyu Li (China), P. Dev (Israel), Dong Xu (China)</td>
<td>627</td>
</tr>
<tr>
<td>Improvement of water pollution detection method based on convolution neural network</td>
<td>Weihua Liu, Tingting Shi, Xuetian Xu (China)</td>
<td>637</td>
</tr>
<tr>
<td>Characterization and analysis of biochar derived nano materials for application of Cd(II) removal</td>
<td>Zhaoyang Luo, Ping Zhang, Jun Duan (China)</td>
<td>641</td>
</tr>
<tr>
<td>Hazard assessment of debris flow by using FLOD-2D and hazard matrix: a case study of Qingshui Gully in the southern Gansu Province, China</td>
<td>Peng Zhang, Xingrong Liu, Heping Shu (China)</td>
<td>650</td>
</tr>
<tr>
<td>Author Index</td>
<td></td>
<td>663</td>
</tr>
</tbody>
</table>