



## Contents Volume 305

### *Special Issue on the 3th International Conference Strategies toward Green Deal Implementation – Water, Raw Materials and Energy (ICGreenDeal2022), 5–7 December 2022, Cracow, Poland*

Preface	
M. Smol (Poland) .....	1
Recent advances in water and wastewater disinfection by nano-photocatalysis	
M. Bodzek, K. Konieczny, A. Kwiecińska-Mydlak (Poland) .....	2
Wastewater treatment in coke plants in the aspect of a circular economy	
M. Smol, M. Włodarczyk-Makuła, J. Kozak (Poland) .....	17
Decomposition of selected organic micropollutants under solar radiation	
E. Kudlek (Poland) .....	30
Removal of polycyclic aromatic hydrocarbons from leachates after autothermal thermophilic aerobic digestion using effective microorganisms	
A. Wojciula, D. Boruszko, P. Malinowski (Poland) .....	43
The use of reclaimed water in the local urban cycle - a case study	
K. Ramm, M. Sielska (Poland) .....	52
Kinetic study of high-solids anaerobic co-digestion of pre-treated organic waste in terms of methane production	
G. Smetana, A. Grosser (Poland) .....	60
Changes in the microplastic content depending on the changes in the river catchment development structure – preliminary studies	
W.K. Nocoń, K. Moraczewska-Majkut, W.J. Nocoń, Z. Wielgus, N. Ziętarska, K. Krasoń, M. Pasternak, D. Szopińska, P. Grodzicki (Poland) .....	81
Elimination of bacterial contamination from domestic sewage using vertical flow constructed wetland	
P. Malinowski, W. Dąbrowski, S. Bagińska, B. Karolinczak (Poland) .....	88
The study of optimal ozone dose for industrial ozone installation in textile wastewater reuse	
M. Bilińska, L. Bilińska, M. Gmurek (Poland) .....	95
Impact of biochar on sorption of polycyclic aromatic hydrocarbons in water	
A. Rosińska (Poland) .....	103
Advanced oxidation processes for removal of organic micropollutants from wastewater	
A. Wypart-Pawul, E. Neczaj, A. Grobelak (Poland) .....	114
Pharmaceutical contamination in wastewater treatment plants: occurrence, challenges in detection and insights on high-performance liquid chromatography as an effective analytical tool in environmental matrices – a review	
K. Całus-Makowska, A. Grosser, A. Grobelak (Poland) .....	129
SPIONs doped with cobalt from the Li-ion battery acid leaching waste as a photocatalyst for tetracycline degradation – synthesis, characterization, DFT studies, and antibiotic treatment	
P. Pietrzyk-Thel, M. Osial, A. Pregowska, M. Abramowicz (Poland), T.P. Nguyen (Vietnam), W. Urbańska, M. Giersig (Poland) .....	155
Filtration properties of conditioned sewage sludge	
P. Wolski (Poland) .....	174
The using of response surface methodology to optimize methyl orange removal from textile dyeing wastewater	
N.F. Abdel Salam, S. Alhosary, M. Abadir (Egypt), M. Zabochnicka (Poland) .....	182

Sustainability between trees A.M. Pruss, J. Karolczak, P. Pruss, B. Mądrecka-Witkowska, M. Komorowska-Kaufman, A. Pruss (Poland) .....	192
Kinetics and adsorption isotherm studies of Methylene Blue and Direct Red 81 onto post-coagulation sludge B. Pieczykolan, B. Solecka (Poland) .....	201
Analysis of organic and inorganic compounds in rainwater from the highway and its treatment in membrane processes A. Marszałek, M. Dudziak, E. Kudlek (Poland) .....	217
Strategy towards the use of ultrafiltration and reverse osmosis for industrial water recovery and reuse as part of the Green Deal Implementation J. Drewnowski, J. Marjanowski, M. Sadaj, B. Szelaż, J. Szulżyk-Cieplak, G. Łagód (Poland) .....	227
Comparative tests of the wall thickness effect of a glass-reinforced thermosetting plastic coating with a non-circular cross section in a soil-coating object for economic aspect R. Gut, W. Jasiński, A. Duszyński, A. Czapla (Poland), M. Ganesapillai (India), J. Drewnowski (Poland) .....	236
Author Index .....	244