## Contents

1159 Managed aquifer recharge: the widening gap between law and policy in India  
P. Sakthivel, L. Elango, S. Amirthalingam, C. E. Pratap, N. Brunner, M. Starkl and M. Thirunavukkarasu

1166 Baseline groundwater quality in unconventional oil and gas fields  
Audrey D. Levine and Mark J. Benotti

1179 Efficient generation of mixed oxidant disinfectants: parametric study on electrode materials and operating conditions  
Longnan Li and Daejoong Kim

1187 The effect of length of free-surface gated circular conduit on air-demand ratio and aeration efficiency  
Fahri Ozkan, Ibrahim Halil Demirel, Muhammed Cihat Tuna and Ahmet Baylar

1193 Classification of water supply systems based on energy efficiency  
Gustavo Meirelles Lima, Augusto Nelson Carvalho Viana, Renato Swerts Carneiro Dias Junior and Edevar Luvizotto Junior

1200 Disinfection byproduct formation kinetics of a water treatment plant on Kinmen Island  
Hsien-chun Ke and Hsin-hsin Tung

1207 Affinity adsorption for the removal of organic micropollutants in drinking water sources; proof of principle  

1220 Design and technical evaluation of improved rainwater harvesting system on a university building in Ethiopia  
Tatek Temesgen, Mooyoung Han, Hyunju Park and Tschung-il Kim

1228 Evaluation of emerging waterborne contaminants in Ireland  
Jenny Pender, Carolyn Read, John Egan and Theo De Waal

1236 Evaluation of groundwater qualities in a paddy-dominated alluvial fan  

1244 Levels and distribution of organochlorine pesticides in surface sediment after flood season from the old Yellow River Estuary, China  
Chunnian Da, Guijian Liu and Zijiao Yuan

1253 Water distribution network robust design based on energy surplus index maximization  
E. Creaco, A. Fortunato, M. Franchini and M. R. Mazzola

1259 Evaluation of urban water resource security under urban expansion using a system dynamics model  
Yu-Ting Chang, Hai-Long Liu, An-Ming Bao, Xi Chen and Ling Wang

1275 Study on veterinary and human antibiotics in raw and treated water from a French basin  
A. Guillon, N. Noyon, C. Gogot, S. Robert, A. Bruchet and M. Esperanza
1285 ANN-based approach for the estimation of aquifer pollutant source behaviour
Maria Laura Foddis, Philippe Ackerer, Augusto Montisci and Gabriele Uras

1295 Evaluation of alternative DNA extraction processes and real-time PCR for detecting Cryptosporidium parvum in drinking water
Gina H. Kimble, Vincent R. Hill and James E. Amburgey

1304 Water consumption in a public swimming pool
Marco Maglionico and Irena Stojkov

1312 3D model evolution of a leak based on GPR image interpretation
Silvia J. Ocaña-Levario, David Ayala-Cabrera, Joaquin Izquierdo and Rafael Perez-Garcia

1320 Electrolytic denitrification with an ion-exchange membrane in groundwater
Yoo Jin Kim, Kwanyong Lee, Ho Young Cha, Kyung Min Yoo, Chil Sung Jeon, Hee Jun Kim, Daegi Kim and Ki Young Park

1326 Corn starch-based treatment improves rainwater quality
Liane Yuri Kondo Nakada and Rodrigo Braga Moruzzi

1334 Securing safe drinking water supply under climate change conditions
N. Staben, A. Nahrstedt and W. Merkel

1343 Enhancing resilience in urban water systems for future cities
Seith N. Mugume, Kegong Dao, Maryam Astaraie-Imani, Guangtao Fu, Raziyeh Farmani and David Butler

1353 Calibration of a passive, in situ, integrative sampler for monitoring of microbial biotoxins in aquatic environments
Hlengilizwe Nyoni, Bhekie B. Mamba and Titus A. M. Msagati

1368 Detecting leaks through AMR data analysis
K. Claudio, V. Couallier, C. Leclerc, Y. Le Gat, X. Litrico and J. Saracco

1373 Characterising the pressure-leakage response of pipe networks using the FAVAD equation
J. Schwaller, J. E. van Zyl and A. M. Kabaasha

1383 Comparison of \( \text{O}_3 + \text{GAC}, \text{O}_3 + \text{H}_2\text{O}_2 + \text{GAC}, \) and GAC unit operation on natural organic matter and taste and odor causing compounds removal using a pilot plant study
Hanbai Park, Tae-Yul Kim, Dalsik Woo and Yong-Sik Cho

1396 Linking water consumption smart metering with census data to improve demand management
D. Loureiro, M. Rebelo, A. Mamade, P. Vieira and R. Ribeiro

1405 Prospective environmental and economic assessment for biotreatment of micropollutants in drinking water resources in Denmark
Ivan Muñoz, Erik de Vries, Janneke Wittebol and Jens Aamand

1414 Automated determination and evaluation of water losses in water distribution systems
Philipp Klingel and Axel Knobloch

1425 Assessment of the impact of water parameters on the flow rate of ceramic pot filters in a long-term experiment
C. Salvinelli and A. C. Elmore