Contents

621 Development of the modified activated sludge model describing nitrite inhibition of aerobic phosphate uptake
Y. Yoshida, Y. Kim, T. Saito and K. Tanaka

631 Kinetic parameters for modelling two-step nitrification and denitrification: a case study
Ron J. Latimer, Paul Pitt, Peter Dold, Imre Takacs and T. J. Lynch

639 Photocatalytic water disinfection of Cryptosporidium parvum and Giardia lamblia using a fibrous ceramic
TiO$_2$, photocatalyst
Sergio Navalon, Mercedes Alvaro, Hermenegildo Garcia, Daniel Escrig and Victor Costa

647 Assessment on the performance of a series of two UASB reactors compared against one of the same
total volume using Anaerobic Digestion Model No 1 (ADM1)
Iván López, Mauricio Passeggi, Alejandro Pedezert and Liliana Borzacconi

653 Challenges ahead: social and institutional factors influencing sustainable urban stormwater management in Australia
R. R. Brown and M. A. Farrelly

661 Modelling using rRNA-structured biomass models
B. Lavallée, D. Frigon, P. Lessard, P. A. Vanrolleghem, Z. Yuan and M. C. M. van Loosdrecht

673 Lime treatment of stabilized leachates

687 Building ‘learning catchments’ for integrated catchment managing: designing learning systems based on
experiences in the UK and South Africa
Kevin Collins, John Colvin and Ray Ison

695 Wastewater treatment modelling in practice: a collaborative discussion of the state of the art
H. M. Phillips, K. E. Sahlstedt, K. Frank, J. Bratby, W. Brennan, S. Rogowski,
D. Pier, W. Anderson, M. Mulas, J. B. Copp and N. Shirodkar

705 Effect of temperature on anoxic sulfide oxidation and denitrification in the bulk wastewater phase of sewer networks
V. L. Mathioudakis and A. Aivasidis

713 Treatment of dairy wastewater by water hyacinth
G. R. Munavalli and P. S. Saler

723 Biological degradation of a mixture of municipal wastewater and organic garbage leachate in expanded bed
anaerobic reactors and a zeolite filter
P. Castilla, L. Aguilar, M. Escamilla, B. Silva, Z. Milán, O. Monroy and M. Meraz
729 Development of a coarse membrane bioreactor for two-stage anaerobic digestion of biodegradable municipal solid waste
M. Walker, C. J. Banks and S. Heaven

737 Hexachlorobenzene removal from a model sediment by using ultrasonic irradiation
N. Hayashi, J. Liang, H. Choshi and E. Kasai

745 Wastewater treatment models in teaching and training: the mismatch between education and requirements for jobs
Thomas Hug, Lorenzo Benedetti, Eric R. Hall, Bruce R. Johnson, Eberhard Morgenroth, Ingmar Nopens, Leiv Rieger, Andrew Shaw and Peter A. Vanrolleghem

755 Multiphase models for simulating hot and slightly miscible DNAPL (dense non-aqueous phase fluids) in a saturated rock fracture under deformation
Shibani Jha and M. S. Mohan Kumar

763 A balancing act: the consulting engineers' pragmatic view of process modelling
J. B. Copp, B. R. Johnson, A. Shaw, M. S. Burbano, B. Narayanan, K. Frank, D. Kinnear, H. Melcer and K. Brischke

771 Application of combined physicochemical and biological processes for enhanced treatment of avermectin fermentation wastewater
Anfeng Yu, PengYu Huang, Dawei Gui, Haisheng Wang, Quan Feng, Libing Chu and Xin-Hui Xing

779 Occurrence and elimination of antibiotics at four sewage treatment plants in Japan and their effects on bacterial ammonia oxidation
Gopal Chandra Ghosh, Takashi Okuda, Naoyuki Yamashita and Hiroaki Tanaka

787 Applying real-time control for realization and stabilization of shortcut nitrification-denitrification in domestic water treatment
Tao Ma, Chaocheng Zhao, Yongzhen Peng, Xiuhong Liu and Li Zhou

797 Identification of inhibitory effects of industrial effluents on nitrification
A. Žgajnar Gotvajn and J. Zagorc-Končan

805 Simultaneous determination of 8 fluoroquinolone antibiotics in sewage treatment plants by solid-phase extraction and liquid chromatography with fluorescence detection
L. Shi, X. F. Zhou, Y. L. Zhang and G. W. Gu

815 Effect of speciation transformation on the coagulation behavior of Al_{13} and Al_{13} aggregates
Xiaohong Wu, Changqing Ye, Dongsheng Wang, Xiaopeng Ge and Hongxiao Tang

823 Modified ferron assay for speciation characterization of hydrolyzed Al(III): a precise $k$ value based judgment
Ye Changqing, Wang Dongsheng, Wu Xiaohong, Qu Jiuhui and John Gregory

833 Optimal process pattern for simultaneous sulfur, nitrogen and carbon removal
Chuan Chen, Aijie Wang, Nanqi Ren, Xuliang Deng and Duu-Jong Lee