

2015 水環境制御研究室 研究業績一覧

○ 学術雑誌論文/Peer-reviewed papers

* 英文雑誌

- (1) Hao, Xiaodi, Furumai, Hiroaki, Chen, Guanghao (2015) Resource recovery: Efficient approaches to sustainable water and wastewater treatment, WATER RESEARCH, 86, pp.83-84.
- (2) An, Kyoung Jin, Lam, Yun Fat, Hao, Song, Morakinyo, Tobi Eniolu, Furumai, Hiroaki (2015) Multi-purpose rainwater harvesting for water resource recovery and the cooling effect, WATER RESEARCH, 86, pp.116-121.
- (3) Rajendra Khanal, Hiroaki Furumai, and Fumiyuki Nakajima (2015) Characterization of toxicants in urban road dust by Toxicity Identification Evaluation using ostracod *Heterocypris incongruens* direct contact test, Science of the Total Environment, 530–531, pp.96–102.
- (4) Hata Akihiko, Katayama Hiroyuki, Kitajima Masaaki, Furumai Hiroaki (2015) Wastewater analysis indicates that genetically diverse astroviruses, including strains belonging to novel clades MLB and VA, are circulating within Japanese populations, Applied and Environmental Microbiology, 81(15), pp.4932-4939.
- (5) Futoshi Kurisu, Kaisai Zang, Ikuro Kasuga, Hiroaki Furumai and Osami Yagi (2015) Identification of estrone-degrading Betaproteobacteria in activated sludge by microautoradiography fluorescent *in situ* hybridization, Letters in Applied Microbiology, 61, 28-35.
- (6) Aryal Rupak, Furumai Hiroaki, Nakajima Fumiyuki, Beecham Simon, Kandasamy Jaya (2015) Characterisation of Prolonged Deposits of Organic Matter in Infiltration System Inlets and Their Binding with Heavy Metals, Water, Air, and Soil Pollution, 226(6).
- (7) Akihiko Hata, Hiroyuki Katayama, and Hiroaki Furumai (2015) Organic substances interfere with reverse transcription-quantitative PCR-based virus detection in water samples, Applied and Environmental Microbiology, 81(5), 1585-1593.

○ 国際学会発表/Presentations at International Conferences

- (1) Ikuro Kasuga (2015) Unveiling Functional Microorganisms Associated with Biological Activated Carbon for Advanced Water Purification, Advanced Water Management Workshop, AWM-03. the 2015 International Environmental Engineering Conference (IEEC2015) (29 October), [Busan, Korea] [Oral]
- (2) Ikuro Kasuga, Yukihiro Osaka, Futoshi Kurisu and Hiroaki Furumai (2015) Application of flow cytometry to evaluate the effects of free chlorine on membrane integrity of bacteria in drinking water, 2015 International Environmental Engineering Conference and Annual Meeting of the Korean Society of Environmental Engineers, ORS5-08. (28-30 October, Busan, Korea) [Oral]
- (3) Futoshi Kurisu, Kizuku Kanaya, Ikuro Kasuga and Hiroaki Furumai (2015) Characterization of biodegradable organic matters in reclaimed water by bacterial growth and Orbitrap mass spectrometry, 2015 International Environmental Engineering Conference and Annual Meeting of the Korean Society of Environmental Engineers, ORS6-24. (28-30 October, Busan, Korea) [Oral]
- (4) Phanwatt Phungsai, Futoshi Kurisu, Ikuro Kasuga and Hiroaki Furumai (2015) Unknown

- screening of chlorinated disinfection by-products and their precursors through a series of reclamation process by Orbitrap mass spectrometry, 2015 International Environmental Engineering Conference and Annual Meeting of the Korean Society of Environmental Engineers, ORS6-21. (28-30 October, Busan, Korea) [Oral]
- (5) Sung Ae Lee and Hiroaki Furumai (2015) Comprehensive evaluation of source water quality for selection of drinking water purification system in Japan, 2015 International Environmental Engineering Conference and Annual Meeting of the Korean Society of Environmental Engineers, ORS5-03. (28-30 October, Busan, Korea) [Oral]
 - (6) Hiroyuki Katayama, Tran Huong, Orawan Kansawat, Manami Inaba and Hiroaki Furumai (2015) A rapid coagulation treatment to reduce viruses in discharged primary effluent during wet weather period, 2015 International Environmental Engineering Conference and Annual Meeting of the Korean Society of Environmental Engineers, ARW-02. (28-30 October, Busan, Korea) [Oral]
 - (7) Hiroyuki Katayama, Waitou Ng, Manami Inaba and Hiroaki Furumai (2015) Limited contribution from grey water to the presence of OMMoV in the Arakawa River, Japan, 2015 International Environmental Engineering Conference and Annual Meeting of the Korean Society of Environmental Engineers, ORS4-08. (28-30 October, Busan, Korea) [Oral]
 - (8) Sung Ae Lee and Hiroaki Furumai (2015) Comprehensive evaluation of source water quality for selection of drinking water purification system in Japan, 2015 International Environmental Engineering Conference and Annual Meeting of the Korean Society of Environmental Engineers, ORS5-03. (28-30 October, Busan, Korea) [Oral]
 - (9) Rajendra Khanal, Hiroaki Furumai and Fumiyuki Nakajima (2015) Application of high resolution fourier transform mass spectrometry to the non-targeted analysis of organic toxicants in urban road dust, 2015 International Environmental Engineering Conference and Annual Meeting of the Korean Society of Environmental Engineers, ORS9-13. (28-30 October, Busan, Korea) [Oral]
 - (10) Ikuro Kasuga (2015) Unknown screening analysis of DOM in river water using Orbitrap mass spectrometry, The 2nd International Forum on Asian Water Environment Technology, (27 October), [Busan, Korea] [Oral]
 - (11) Hiroyuki Katayama (2015) Virus detection and monitoring in environment, The 2nd International Forum on Asian Water Environment Technology. (27 October), [Busan, Korea] [Oral]
 - (12) Misaki Nakajima, Rajendra Khanal, Tomoyo Shibata, SungAe Lee and Hiroaki Furumai (2015) Influence of tidal level and rainfall characteristics on inflow dynamics of CSO load to the waterfront area of Tokyo Bay, The 6th IWA-ASPIRE conference and exhibition, (20-24, September, Beijing, China) [Oral]
 - (13) Rajendra Khanal, Futoshi Kurisu and Hiroaki Furumai. Characterization of influent pollutant loads dynamics during wet weather by continuous sensing of turbidity, EC and ammonia. 6th IWA-ASPIRE Conference and Exhibition, Beijing, China, 20-24 September 2015 (Session 7-4: Water Resource and Water Quality Monitoring-4) [Oral].
 - (14) Phanwatt Phungsai, Futoshi Kurisu, Ikuro Kasuga and Hiroaki Furumai (2015) Characterization of low molecular weight dissolved organic matter (NOM) in drinking water treatment process using Orbitrap mass spectrometry, IWA Specialist Conference on Natural Organic Matter in Water (NOM6), 2A-07, p.21. (7-10 September, Malmö, Sweden) [Oral]
 - (15) Ikuro Kasuga, Futoshi Kurisu and Hiroaki Furumai (2015) Identification of bacteria assimilating formaldehyde in biological activated carbon filter by means of DNA stable isotope probing and next-generation sequencing, IWA specialist conference: Biofilms in drinking water systems, From treatment to tap, pp.84-90. (23-26 August, Arosa, Switzerland) [Oral]

- (16) Hitomi Nakamura, Ikuro Kasuga, Futoshi Kurisu, Hiroaki Furumai, Dai Shimazaki and Michihiro Akiba (2015) Microbial regrowth potential and dynamics of community structure of biofilm in dechlorinated drinking water, IWA specialist conference: Biofilms in drinking water systems, From treatment to tap, pp.238-239. (23-26 August, Arosa, Switzerland) [Oral]
- (17) Phanwatt Phungsai, Futoshi Kurisu, Ikuro Kasuga and Hiroaki Furumai (2015) Unknown screening of chlorinated disinfection by-products and their precursors in drinking water by Orbitrap mass spectrometry, Water Environment Technology Conference 2015 (Wet2015), 2A-07, p.21. (5-6 August, Tokyo) [Poster] **[Best presentation award]**
- (18) Shwetha Acharya, Futoshi Kurisu, Ikuro Kasuga and Hiroaki Furumai (2015) Chlorine dose determines bacterial community structure and regrowth in reclaimed water, Water Environment Technology Conference 2015 (Wet2015), 3B-13, p.49. (5-6 August, Tokyo) [Poster]
- (19) Shwetha Acharya, Futoshi Kurisu, Ikuro Kasuga and Hiroaki Furumai (2015) Modelling microbial regrowth in tertiary reclaimed water after chlorine disinfection, IWA 3rd Water Research Conference, (11-14 January, Shenzhen, China)

○ 国内学会発表/Presentations at Domestic Conferences

- (1) 藤原直也, 栗栖太, 春日郁朗, 古米弘明(2015)クエン酸添加によるメタン生成ベンゼン分解の促進に関する検討, 第 52 回環境工学研究フォーラム講演集, pp.69-71. (11.27-29, 郡山)【ポスター】
- (2) 中村仁美, 春日郁朗, 栗栖太, 古米弘明, 吉岡克英, 高橋和彦(2015)高度浄水処理工程水の微生物増殖ポテンシャルの特性評価, 平成 27 年度水道研究発表会, pp.634-635. (10.21-23, 埼玉)【口頭】
- (3) 春日郁朗, 木戸佑樹, 栗栖太, 古米弘明(2015)ラン藻由来の溶存有機物を起点とする湖沼微生物ループ構造の解明, 日本微生物生態学会第 30 回大会, JS15-4. (10.17-20 土浦)【口頭】
- (4) 中村仁美, 春日郁朗, 栗栖太, 古米弘明(2015)高度浄水工程において変化する潜在的な微生物増殖特性の評価, 日本微生物生態学会第 30 回大会, PL-210. (10.17-20 土浦)【ポスター】
- (5) 三角恭平, 春日郁朗, 栗栖太, 古米弘明(2015)印旛沼における湖沼微生物ループを構成する細菌および原生動物の推定, 日本微生物生態学会第 30 回大会, PA-022. (10.17-20 土浦)【ポスター】
- (6) Pokchat Chutivisut, Wiboonluk Pungrasmi, Ikuro Kasuga, and Futoshi Kurisu (2015) Detection of Fermentative-Dissimilatory Nitrate Reduction to Ammonium (F-DNRA) Bacteria in Municipal Wastewater Treatment Plants, 2015 JSME annual meeting, PD-063. (17-20 Oct, Tsuchiura) [Poster]
- (7) 三角恭平, 春日郁朗, 栗栖太, 古米弘明(2015)湖沼微生物ループを駆動する溶存有機物の起源推定の試み, 日本陸水学会第 80 回大会, p.64. (9.28-29, 函館)【口頭】
- (8) 春日郁朗(2015)静中に動あり—微生物群集構造に対峙する視点—, 第 18 回日本水環境学会シンポジウム ポピュレーションダイナミクス研究委員会企画 “ポピュレーションダイナミクス研究のフィロソフィー”, p.246. (9.14-16, 長野)【口頭】
- (9) 中島美咲, 柴田智世, 李星愛, 古米弘明(2015)潮位変化を考慮した神田川流域由来の雨天時汚濁負荷量の変動解析, 第 49 回日本水環境学会年会講演集, p.659.(3.16-18, 金沢)【ポスター】 **(ライオン賞受賞)**
- (10) 三角恭平, 春日郁朗, 栗栖太, 古米弘明(2015)印旛沼微生物ループを構成する細菌群の増殖ポテンシャルと群集組成の評価, 第 49 回日本水環境学会年会講演集, p.655.(3.16-18, 金沢)【ポスター】 **(ライオン賞受賞)**
- (11) Phanwatt Phungsai, Futoshi Kurisu, Ikuro Kasuga, Hiroaki Furumai (2015) Analysis of low molecular weight dissolved organic matter in water reclamation processes by Orbitrap Mass

- Spectrometry, 第 49 回日本水環境学会年会講演集, p.88. (3.16-18, 金沢)[口頭]
- (12) 浅見達也, 片山浩之, 古米弘明, 橋本温, 原本英司(2015)トウガラシ微斑ウイルスの定量による浄水処理工程中のウイルス除去効率の評価, 第 49 回日本水環境学会年会講演集, p.377. (3.16-18, 金沢)[口頭]
- (13) 堤絵菜, 片山浩之, 古米弘明(2015)バンコクの運河および近傍の大気中からの腸管系ウイルスの測定, 第 49 回日本水環境学会年会講演集, p.314. (3.16-18, 金沢)[口頭] **(クリタ賞受賞)**
- (14) 柴田智世, 李星愛, 小島啓輔, 片山浩之, 古米弘明(2015)都市河川経由の雨天時越流水の流入に伴う台場周辺海域における糞便汚染のモデル評価, 第 49 回日本水環境学会年会講演集, p.417. (3.16-18, 金沢)[口頭] **(クリタ賞受賞)**
- (15) 小沼晋, 滝本麻理奈, 古米弘明, Phan Khac Lieu, Tran Anh Tuan, 齋藤利晃(2015)ベトナム国フエ大学において実施した水辺のすこやかさ指標と糞便汚染指標に関する試行調査, 第 49 回日本水環境学会年会講演集, p.267. (3.16-18, 金沢)[口頭]

○ 招待講演/Invited Speech

- (1) Hiroaki Furumai (2015) Modelling of faecal contamination in urban coastal area affected by combined sewer overflows, 2015 International Environmental Engineering Conference and Annual Meeting of the Korean Society of Environmental Engineers, PL-03. (29 October, Busan, Korea) [Oral]
- (2) Ikuro Kasuga (2015) Unveiling Functional Microorganisms Associated with Biological Activated Carbon for Advanced Water Purification, Advanced Water Management Workshop, the 2015 International Environmental Engineering Conference (IEEC2015) (29 October), AWM-03. [Busan, Korea] [Oral]
- (3) 春日郁朗(2015)静中に動ありー微生物群集構造に対峙する視点ー, 第 18 回日本水環境学会シンポジウム ポピュレーションダイナミクス研究委員会「ポピュレーションダイナミクス研究のフィロソフィー」, p.246. (9.14-16, 長野)[口頭]

○ 総説・解説/Reviews & Commentaries

- (1) 古米弘明 (2015) 海外における雨水管理の動向と今後の方向性 (特集 流域の雨水管理に係る最近の海外動向), 水循環:貯留と浸透, 97, pp.5-10.
- (2) 古米弘明 (2015) 激甚化する雨水災害とこれからの雨水対策, 月刊下水道, 38(1), pp.36-40.

○ その他記事/Other Articles

- (1) 古米弘明 (2015) [一家一言] 持続可能な水利用システムの姿, 日立評論 (特集:社会インフラの持続的発展に貢献する水環境ソリューション), 97(8), p.8.
- (2) 古米弘明 (2015) [インタビュー] 表紙の人に聞く 雨と上手につきあう視点が重要: 社会全体でまちづくりを考える契機に, 水道公論, 51(5), pp.18-23.

○ マスコミ/Other Media

- (1) 片山浩之(2015)水中ウイルス高精度検出, 日本産業新聞 第 11033 号, 2015 年 2 月 6 日

- (2) 春日郁朗(2015)北千葉高度浄水処理への期待, 水道産業新聞 第 4969 号, 2015 年 2 月 2 日

○ 受賞/Award

- (1) Niu Jia: 中華人民共和国駐大阪総領事賞 「Jia Niu, Ikuro Kasuga, Futoshi Kurisu, Hiroaki Furumai, Takaaki Shigeeda (2013) Evaluation of autotrophic growth of ammonia-oxidizers associated with granular activated carbon used for drinking water purification by DNA-stable isotope probing, Water Research, Vol.47, Issue 19, pp.7053-7065.」(2015.11.1、大阪、20th Association of Chinese alumni in Japan 優秀論文授賞式)