

2009 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) Mohammed Abed Hossain, Hiroaki Furumai and Fumiyuki Nakajima (2009) Competitive adsorption of heavy metals in soil underlying an infiltration facility installed in an urban area, *Water Science & Technology* Vol.59, No.2, pp.308-310.
- (2) Michio Murakami, Makoto Fujita, Hiroaki Furumai, Ikuro Kasuga, and Futoshi Kurisu (2009) Sorption behavior of heavy metal species by soakway sediment receiving urban road runoff from residential and heavily trafficked areas, *Journal of Hazardous Materials*, Vol.164, No.2-3, pp.707-712.
- (3) Yoshiko Sakata, Futoshi Kurisu, Osami Yagi and Hiroaki Furumai (2009) Effects of sewage effluent recharge on the microbial community in a soil column model, *Japanese Journal of Water Treatment Biology*, Vol.45, No.2, pp.63-74.
- (4) Kouji Tsuji, Masashi Fujita, and Hiroaki Furumai (2009) Acetate uptake efficiency of polyphosphate-accumulating organisms under exposure to surfactants, *Water Science & Technology*, Vol.60, No.11, pp.2775-2780.
- (5) Weon Jae Kim, Satoshi Managaki, Hiroaki Furumai, and Fumiyuki Nakajima (2009) Diurnal fluctuation of indicator microorganisms and intestinal viruses in combined sewer system, *Water Science & Technology*, Vol.60, No.11, pp.2791-2801.
- (6) Shoko Iwai, Futoshi Kurisu, Hidetoshi Urakawa, Osami Yagi, and Hiroaki Furumai (2009) Characterization of monooxygenase gene diversity in benzene-amended soils, *Letters in Applied Microbiology*, Vol.50, Issue 2, pp.138-145.
- (7) Kumar M, Furumai H, Kurisu F and Kasuga I (2009) Understanding the partitioning processes of mobile lead in soakaway sediments using sequential extraction and isotope analysis. *Water Science and Technology*, Vol.60, No.8, 2085-2091.
- (8) Kumar M, Furumai H, Kurisu F, Kasuga I (2009) Evaluating the Mobile Heavy Metal Pool in Soakaway Sediment, Road Dust and Soil through Sequential Extraction and Isotopic Exchange. *Water Science and Technology*, Vol.64, No.4, pp.920-928.
- (9) Tomoaki Miyanoshita, Naoki Oda, No Hayashi, Masahiro Fujiwara, and Hiroaki Furumai(2009) Economic evaluation of combined treatment for sludge from drinking water and sewage treatment plants in Japan, *Journal of Water Supply, Research and Technology AQUA*, Vol.58, No.3, pp. 221-227.

* 和文雑誌

- (1) 辻幸志, 藤田昌史, 赤司昭, 福島寿和, 古米弘明(2009)嫌気好気活性汚泥のリン放出活性の上昇過程における *Candidatus 'Accumulibacter phosphatis'* の Real-time PCR 解析, *水環境学会誌*, Vol.32, No.2, pp.87-91.
- (2) 渡部春奈, 村上道夫, 小林拓也, 諸泉利嗣, 古米弘明(2009)国内主要都市における水収支構造と水利用ストレスの評価, *用水と廃水*, Vol.51, No.2, pp.137-148.

- (3) 細見暁彦, 春日郁朗, 古米弘明, 吉村千洋, 中島典之, 加賀谷隆, 栗栖太(2009)河川の粒状有機物動態と底生動物の群集構造に及ぼす下水処理水の影響, 水環境学会誌, Vol.32, No.7, pp.375-381.
- (4) 飛野智宏, 栗栖太, 春日郁朗, 古米弘明(2009)微生物叢ゲノム断片をプローブとするアイソトープアレイによる基質特異的微生物検出手法の開発, 水環境学会誌, Vol.32, No.11, pp.595-601.
- (5) 小島啓輔, 春日郁朗, 栗栖太, 古米弘明(2009)XAFS 法及び逐次抽出法を用いた合流式下水道管渠内堆積物中の亜鉛の存在形態の推定, 環境工学研究論文集, Vol.46, pp.187-195. (土木学会論文奨励賞)
- (6) 長岩明弘, 中島典之, 古米弘明, 斗成聡一(2009)有効降雨を考慮したシステム同定手法によるオンライン線形分散予測モデルの精度向上, 下水道協会誌, Vo. 46, No. 556, pp.95-106.
- (7) 古米弘明, 村上道夫, 中田典秀, 高田秀重(2009)下水処理水および道路排水の土壤浸透処理による水質変化とそのリスク評価, 土壤の物理性, Vol.111, pp.17-24.

○ 国際学会発表/Presentations at International Conferences

- (1) Ikuro Kasuga, Hiroyuki Saito, Futoshi Kurisu, and Hiroaki Furumai (2009) Characterization of bacterial community responding to lower carboxylic acids in biological activated carbon treatment for biologically stable drinking water, Philippines-Japan International Symposium on Urban-Rural Environmental Sustainability and Socio-economic Development 2009, pp.73-81. (27-28 Mar, Laoag, Phillipines) [Oral]
- (2) Futoshi Kurisu (2009), Bioremediation of soil and groundwater contaminated by volatile organic compounds, Philippines-Japan International Symposium on Urban-Rural Environmental Sustainability and Socio-economic Development 2009, pp.65-72. (27-28 Mar, Laoag, Phillipines) [Oral]
- (3) Tomohiro Tobino, Futoshi Kurisu, Ikuro Kasuga, and Hiroaki Furumai (2009) Specificity and sensitivity of new isotope array method using random genomic fragment probes derived from a microbial community, Proceedings of the MSK's 50th Anniversary International Symposium on Microbiology, B112. (28-30 May, Jeju, Korea) [Poster]
- (4) G.G. Tushara Chaminda, Fumiyuki Nakajima, Hiroaki Furumai, Ikuro Kasuga, and Futoshi Kurisu (2009) Zn and Cu complexation with DOM in wastewater treatment plant effluent, Proceeding of SETAC Europe 19th Annual Meeting, pp.40-41. (31 May – 4 June, Göteborg, Sweden) [Oral]
- (5) Haruna Watanabe, Fumiyuki Nakajima, Ikuro Kasuga, Futoshi Kurisu, and Hiroaki Furumai (2009) Application and modification of whole-sediment toxicity identification evaluation procedure to urban river sediments in Tokyo, Abstract Book of SETAC Europe 19th Annual Meeting, TU288 on p.210. (31 May – 4 June, Göteborg, Sweden) [Poster]
- (6) Pham Van Quan, Hiroaki Furumai, Futoshi Kurisu, and Ikuro Kasuga (2009) Characterization of urban flood mapping with pathogenic pollution in downtown of Hanoi by inundation simulation and water quality monitoring, The 8th International Conference on Urban Drainage Modelling, pp.168-170. (7-11 Sep, Tokyo, Japan) [Oral]
- (7) Pham Van Quan, Hiroaki Furumai, Futoshi Kurisu, and Ikuro Kasuga (2009) Comparative assessment of potential mobility of zinc, lead and nitrate from soil and soakaway sediments, 13th International Conference on Integrated Diffuse Pollution Management (IWA DIPCON 2009), PIN No.93. (12-15 October, Seoul, Korea)
- (8) Manish Kumar, Hiroaki Furumai, Futoshi Kurisu, and Ikuro Kasuga (2009) Comparative

- assessment of potential mobility of zinc, lead and nitrate from soil and soakaway sediments, 13th International Conference on Integrated Diffuse Pollution Management (IWA DIPCON 2009), PIN No.253. (12-15 October, Seoul, Korea)
- (9) Ikuro Kasuga, Hiroataka Nakagaki, Futoshi Kurisu, and Hiroaki Furumai (2009) Abundance and diversity of ammonia-oxidizing archaea and bacteria on biological activated carbon in a pilot-scale drinking water treatment plant with different placements of sand filtration, The 3rd IWA-ASPIRE conference Abstracts, p.6. (18-22 Oct, Taipei, Taiwan) [Oral]
 - (10) Manish Kumar, Hiroaki Furumai, Futoshi Kurisu, and Ikuro Kasuga (2009) A comparative evaluation of mobile heavy metal pool in the soakway sediment, road dust and soil through sequential extraction and isotopic dilution techniques, The 3rd IWA-ASPIRE conference Abstracts, pp.177-178. (18-22 Oct, Taipei, Taiwan) [Oral]
 - (11) Keisuke Kojima, Ikuro Kasuga, Futoshi Kurisu, and Hiroaki Furumai (2009) Heavy metal speciation of size-fractionated sediments collected from combined sewer system using sequential extraction method, The 3rd IWA-ASPIRE conference Abstracts, pp.49-50. (18-22 Oct, Taipei, Taiwan) [Oral]
 - (12) G. G. Tushara Chaminda, Fumiyuki Nakajima, Hiroaki Furumai, Ikuro Kasuga, and Futoshi Kurisu (2009) Comparison of metal (Zn and Cu) complexation characteristics of DOM in different urban wastewaters, The 3rd IWA-ASPIRE conference Abstracts, pp.132-133. (18-22 Oct, Taipei, Taiwan) [Oral]
 - (13) Suwat Soonglerdsongpha, Ikuro Kasuga, Futoshi Kurisu, and Hiroaki Furumai (2009) Comparison of assimilable organic carbon removal by biological activated carbon in different advanced drinking water treatment plants, The 3rd IWA-ASPIRE conference Abstracts, pp.67-68. (18-22 Oct, Taipei, Taiwan) [Oral] (Best Student Presentation Award)
 - (14) Parinda Thayanukul, Kaisai Zang, Futoshi Kurisu, Ikuro Kasuga, and Hiroaki Furumai (2009) MAR-FISH analysis of estrone-degrading bacterial community in activated sludge of sewage treatment plants at low E1 concentration, 7SEAWA symposium, pp.233-240. (28-30 Oct, Bangkok, Thailand) [Oral]
 - (15) Pham Van Quan Hiroaki Furumai, Futoshi Kurisu, and Ikuro Kasuga (2009) Pathogenic pollution of surface water under dry and wet weather condition in Hanoi downtown, 7SEAWA symposium, pp.233-240. (28-30 Oct, Bangkok, Thailand) [Oral]
 - (16) Akihiko Hata, Hiroyuki Katayama, Suraphong Wattanachira, Sour Sathy, Yoshifumi Masago, Ryo Honda, Yasuhiro Matsui. 2009. Removal of microbes from highly turbid surface water in Southeast Asia using ceramic membrane filters. The 7th International Symposium on Southeast Asian Water Environment (2009.10) [Oral]
 - (17) Futoshi Kurisu (2009) Population of ammonia-oxidizing microorganisms in activated sludge, International workshop on water and wastewater treatment, International Workshop on water and Wastewater Treatment. (23-25 Oct, National Cheng Kung University, Tainan, Taipei) [Oral]
 - (18) Ikuro Kasuga (2009) Characterization of ammonia-oxidizing archaea associated with biological activated carbon used for advanced drinking water treatment, International Workshop on water and Wastewater Treatment. (23-25 Oct, National Cheng Kung University, Tainan, Taipei) [Oral]
 - (19) Akihiko Hata, Masaaki Kitajima, Hiroyuki Katayama, Shinichiro Ohgaki. 2009. Removal characteristics of enteric viruses and genotyped F-specific RNA coliphages at a full-scale wastewater treatment plant. 15th International Symposium on Health-Related Water Microbiology (June, 2009) [Poster]

○ 国内学会発表/Presentations at Domestic Conferences

- (1) 小島啓輔, 春日郁朗, 栗栖太, 古米弘明(2009)下水道管渠内堆積物中重金属の存在形態評価への蛍光 XAFS の適用, PF 研究会 蛍光 XAFS 研究の現状と進展, pp.27-28. (3.10-11, つくば) [口頭]
- (2) 栗栖太, Kaisai Zang, Tansiphorn Janhom, 春日郁朗, 古米弘明(2009)活性汚泥に与えるエストロジェンの濃度レベルと分解微生物種, 第 43 回日本水環境学会年会講演集, p.258. (3.16-18, 山口) [口頭]
- (3) G.G. Tushara Chaminda, Fumiyuki Nakajima, Hiroaki Furumai, Ikuro Kasuga, and Futoshi Kurisu (2009) Characterization of Zn and Cu complexation with DOM in wastewater effluent, Proceedings of the 43rd Annual Conference of JSWE, p.392. (3.16-18, Yamaguchi) [Oral]
- (4) Parinda Thayanukle, Futoshi Kurisu, Ikuro Kasuga, and Hiroaki Furumai (2009) MAR-FISH analysis of estrone degrading community in different activated sludge processes at low estrone concentration, Proceedings of the 43rd Annual Conference on JSWE, p.262. (3.16-18, Yamaguchi) [Oral]
- (5) 飛野智宏, 栗栖太, 春日郁朗, 古米弘明(2009)微生物叢ゲノム断片を用いたアイソトープアレイにおける特異性および検出感度の検討, 第43回日本水環境学会年会講演集, p.102. (3.16-18, 山口) [口頭]
- (6) 舛本弘毅, 栗栖太, 春日郁朗, 古米弘明(2009)複数土壌からの嫌気ベンゼン分解系の集積と分解活性に及ぼす温度の影響, 第 43 回日本水環境学会年会講演集, p.281. (3.16-18, 山口) [口頭]
- (7) 中垣宏隆, 春日郁朗, 栗栖太, 古米弘明(2009)高度浄水用生物活性炭へのアンモニア酸化細菌及び古細菌の定着過程, 第 43 回日本水環境学会年会講演集, p.289. (3.16-18, 山口) [口頭]
- (8) 小島啓輔, 春日郁朗, 古米弘明, 栗栖太(2009)X 線吸収微細構造解析を用いた下水道管渠内堆積物及び道路塵埃中の亜鉛の存在形態評価, 第 43 回日本水環境学会年会講演集, p.198. (3.16-18, 山口) [口頭]
- (9) 渡部春奈, 中島典之, 春日郁朗, 古米弘明, 栗栖太(2009)カシミジンコ底質毒性試験における毒性要因推定のための吸着剤添加法の適用と課題, 第 43 回日本水環境学会年会講演集, p.391. (3.16-18, 山口) [口頭]
- (10) 綿貫健文, 栗栖太, 春日郁朗, 古米弘明(2009)クロロエチレン類の還元的脱塩素における塩化ビニルの蓄積と脱塩素促進因子の検討, 第 43 回日本水環境学会年会講演集, p.282. (3.16-18, 山口) [口頭]
- (11) 小島啓輔, 春日郁朗, 栗栖太, 古米弘明(2009)都市活動に由来する亜鉛の存在形態評価, 第 26 回 PF シンポジウム, p.246. (3.25, 筑波) [ポスター]
- (12) 春日郁朗, 中垣宏隆, 栗栖太, 古米弘明, 関哲雄(2009)生物活性炭立ち上げ時の微生物定着に及ぼす前塩素処理の影響, 第 60 回全国水道研究発表会講演集, pp.164-165.(5.20-22, さいたま)
- (13) 前田裕太, 春日郁朗, 栗栖太, 古米弘明(2009)培養法と分子生物学的手法を用いた給水末端における細菌群の多様性評価, 第 60 回全国水道研究発表会講演集, pp.462-463.(5.20-22, さいたま)
- (14) 春日郁朗, 中垣宏隆, 栗栖太, 古米弘明(2009)生物活性炭における硝化微生物の付着過程と硝化能との関係, 第 9 回日中水道技術交流会論文集(第 8 回水道技術国際シンポジウム 特別セッション), pp.15-18.(6.11, 神戸)
- (15) 渡部春奈, 中島典之, 春日郁朗, 古米弘明, 栗栖太(2009)カシミジンコ底質毒性試験における毒性要因推定のための吸着剤添加法の適用と課題, 第 12 回日本水環境学会シンポジウム, pp.285-290. (9.14-15, 東京)(平成 21 年度日本水環境学会オルガノ賞受賞)
- (16) 片山浩之, 端昭彦, 坂井田健司, Chanetta Phanowan, 原本英司. 2009. 東京湾における病原微生物の挙動. 第 12 回日本水環境学会シンポジウム(2009.9)【口頭】
- (17) 端昭彦, 北島正章, 山下照夫, 皆川洋子, 片山浩之, 大垣眞一郎. 2009. Real-time RT-PCRによるアイ

チウイルスの核酸検出および遺伝子型識別法の開発. 第 57 回日本ウイルス学会学術集会(2009.9)
【口頭】

- (18) 徳永朋祥, 片山浩之, 福士謙介, 知花武佳, 原口強, 多部田茂, 茂木勝郎, 浅井和見, 秋山知宏, 端昭彦, 松岡達郎, 甲斐荘秀生. 国際観光都市アンコール地域の持続可能な流域水管理のための地下水調査—計画と概査結果の報告—. 2009. 日本地下水学会 2009 年秋季講演会(2009.10)【口頭】
- (19) 舛本弘毅, 栗栖太, 春日郁朗, 古米弘明(2009)嫌気集積培養系によるベンゼンからのメタン生成の同位体トレーサーを用いた確認, 第 25 回日本微生物生態学会定期大会講演要旨集, p.18, (11.21-23, 広島)
- (20) 小島啓輔, 春日郁朗, 栗栖太, 古米弘明(2009)XAFS 法及び逐次抽出法を用いた合流式下水道管渠内堆積物中の亜鉛の存在形態の推定, 第 46 回環境工学研究フォーラム, pp.187-195. (11.27-11.29, 高崎)

○ 著書/Books

- (1) Futoshi Kurisu, Seigen Kawashima, Ikuro Kasuga, and Hiroaki Furumai (2009) Analysis of urban water problems in Medan City, Indonesia. pp.45-50,(In) Southeast Asian Water Environment 3, (Ed) Takizawa S, Kurisu F and Satoh H, IWA publishing.
- (2) Hiroaki Furumai, Futaba Kazama, Hiroshi Nagaoka, and Jun Nakajima (2009) 11.Collaborative Development of Water Environment Quality Index in Japan, pp.165-179, (In) cSUR-UT Series, Library for Sustainable Urban Regeneration Volume 6, Springer.
- (3) 古米弘明(2009) 日本の水環境行政 改訂版, ぎょうせい, 日本水環境学会 (編集代表).
- (4)

○ 受賞/Award

- (1) 日本水環境学会 オルガノ賞: 渡部春奈、中島典之、春日郁朗、古米弘明、栗栖太(2009)カシミジンコ底質毒性試験における毒性要因推定のための吸着剤添加法の適用と課題、第 12 回日本水環境学会シンポジウム講演集, pp.285-289.(東京、2009.9-13-14)
- (2) 日本水環境学会 年間優秀論文賞(メタウォーター賞): 渡部春奈、中島典之、春日郁朗、古米弘明(2008)カシミジンコを用いたバイオアッセイによる都市河川底泥の毒性要因の推定、水環境学会誌、Vol.31、No.11、pp.671-676.