
HIDENARI YASUI,

PhD

Born 12 May 1961 (Japan) – Japanese – Married
Professor, Faculty of Environmental Engineering,
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RESEARCH INTERESTS

My research interests are in biological wastewater and sludge treatments (Activated sludge, Anaerobic digestion), various processes for minimisation of sludge production, Enhanced energy recovery processes from anaerobic system, mathematical modelling (Activated Sludge Models, Anaerobic digestion models) and Life cycle assessment for water/wastewater facilities. I am also interested in developing emerging processes for industrial wastewater treatment field.

I have been actively involved in planning research proposals to development of innovative treatment processes for water and wastewater. I find myself capable of identifying technical challenges at water and wastewater treatment industries, and conducting research to find out the solutions.

EDUCATIONAL QUALIFICATIONS

Ph.D. (Environmental Engineering), **Tohoku University**, Sendai, Japan, 1998
Doctoral dissertation: Sludge minimisation from activated sludge process with partial ozonation, (Supervisor: **Prof. Tatsuya Noike**)

B.S. (Biology), **Tohoku University**, Sendai, Japan, 1985

PROFESSIONAL EXPERIENCE

Professor, Faculty of Environmental Engineering, The University of Kitakyushu (2008-present)

Director, Centre of International Relations, Institute of Environmental Technology, The University of Kitakyushu (2013-2014)

Course Director, Environmental Resource Systems course, Graduate school of Environmental Engineering, The University of Kitakyushu (2013-2014)

Chief Researcher, Kurita Water Industries, Tokyo, (1985 -2007)

- Development of mathematical model for aerobic and anaerobic process (modification of ASM and ADM1).
- Development and full-scale verification of improved anaerobic digestion system with biogas recovery.
- Application of Life cycle assessment for various sludge disposal routes for local community.
- Development of Anammox process and reactor using UASB granules as a start-up carrier.
- Research of sludge settling properties and its mathematical expression in settling tank.
- Application of activated sludge models (ASM) in wet-weather flows at municipal wastewater treatment plants.
- Research of removing Trihalomethane precursors in drinking water.
- Research of biofilter to remove malodorous compounds from human waste.

Lecturer, Vietnam Japan University, Hanoi, Vietnam (2017-present)

- Application of Environmental technology in Asian countries.

Lecturer, Japan International Cooperation Agency (JICA) (1999-2013)

- Various topics about biological treatments for the overseas young professionals.

Schooling lecturer, The Open University of Japan (OUJ) (2012)

- Various topics about wastewater treatment processes.

Associate professor, Technical University Nagaoka (2001-2003)

- Anaerobic digestion process and its improvements.

TEACHING ACTIVITIES

- Graduate programme: Advanced Recycling Engineering, Recycling Engineering, and Sustainable Sanitary Engineering.
- Undergraduate programme: Sustainable Resource Engineering, Statistics for Environmental Research, Laboratory for Physical Chemistry, Recycling System Science, Frontiers for Global Sustainability and Engineering Ethics.

PEER-REVIEWED ARTICLES

1. Takahiro Fujioka, My Thi Tra Ngo, Tanki Mochochoko, Sandrine Boivin, Naoki Ohkuma, Hidenari Yasui, Mitsuharu Terashima (2020) Biofouling Control of a

- Forward Osmosis Membrane during Single pass Pre-concentration of Wastewater. *Chemosphere* (in press), doi.org/10.1016/j.chemosphere.2020.127263.
2. Meng Sun, Bing Liu, Katsunori Yanagawa, Nguyen Thi Ha, Rajeev Goel, Mitsuharu Terashima, Hidenari Yasui (2020) Effects of low pH conditions on decay of methanogenic biomass. *Wat. Res.* (in press), /doi.org/10.1016/j.watres.2020.115883.
 3. Bing Liu, Yifan Li, Jinzhu Wu, Yuanyuan Shao, Feiyong Chen, Jer-Horng Wu, Rajeev Goel, Mitsuharu Terashima and Hidenari Yasui (2020) Evaluating Nitrite Oxidizing Organism Survival under Different Nitrite Concentrations. *Wat. Sci. Tech.* (in press), doi.org/10.2166/wst.2020.138.
 4. Nguyet Thi-Minh Dao, The-Anh Nguyen, Viet-Anh Nguyen, Mitsuharu Terashima, Rajeev Goel, Hidenari Yasui (2019) A mathematical model of a nitrifying expanded-bed reactor for the pretreatment of drinking water. *Biochemical Engineering Journal*, Volume 158, 15 June 2020, 107561, doi.org/10.1016/j.bej.2020.107561.
 5. Ryuichi Watanabe, Hidenori Harada, Hidenari Yasui, Le van Tuan, Shigeo Fujii (2019) Exfiltration and Infiltration Effect on Sewage Flow and Quality: A Case Study of Hue, Vietnam. *Environmental Technology*, 28 Oct 2019 (open access), doi.org/10.1080/09593330.2019.1680739.
 6. Ryuichi Watanabe, Hidenori Harada, Shigeo Fujii, Hidenari Yasui (2019) Effects of sampling frequency in sewage quality survey on estimation accuracy of sewage concentration: A case study of Hue. *J.JSCE, Ser.G (Environ.Res.)*, Vol.75, No.7, III_245-III_253, (in Japanese) doi.org/10.2208/jscej.75.7_III_245.
 7. Hidenori Harada, Ryuichi Watanabe, Shigeo Fujii, Hidenari Yasui (2019) Future change in sewage flow and concentration in southeast Asia where sewer networks are under development. *J.JSCE, Ser.G (Environ.Res.)*, Vol.75, No.7, III_237-III_244, (in Japanese) doi.org/10.2208/jscej.75.7_III_237.
 8. The-Anh Nguyen, Nguyet Thi-Minh Dao, Bing Liu, Mitsuharu Terashima, Hidenari Yasui (2019) Computational Fluid Dynamics Study on Attainable Flow Rate in a Lamella Settler by Increasing Inclined Plates. *Journal of Water and Environment Technology*, Vol.17, No.2, pp.76–88.
 9. Hong Chen, Jiang Wu, Bing Liu, Yu-You Li, Hidenari Yasui (2019) Competitive Dynamics of Anaerobes during Long-term Biological Sulfate Reduction Process in a UASB Reactor. *Bioresource Technology*, Vol.280, pp.173–182.
 10. Mitsuharu Terashima, Magnus So, Bing Liu, Hidenari Yasui (2018) Measurement of Critical Tractive Force of Sponge Carrier Media in a Moving Bed Biofilm Reactor and the Application of Computational Fluid Dynamics / Discrete Element Method model simulation. *Desalination and Water Treatment*, Vol.145, pp.1–10.
 11. Zhiming Han, Mitsuharu Terashima, Bing Liu and Hidenari Yasui (2018) Impact of Modified Spacer on Flow Pattern in Narrow Spacer-Filled Channels for Spiral-Wound Membrane Modules. *Environments*, (open access) Vol. 5, No. 116, pp.1-17.
 12. Zhiming Han, Mitsuharu Terashima, Bing Liu and Hidenari Yasui (2018) CFD Investigation of the Effect of the Feed Spacer on Hydrodynamics in Spiral Wound Membrane Modules. *Math. Comput. Appl.* (open access) 2018, 23, 80.
 13. Takahiro Fujioka, Kha H. Nguyen, Anh Tram Hoang, Tetsuro Ueyama, Hidenari Yasui, Mitsuharu Terashima and Long D. Nghiem (2018) Biofouling Mitigation by Chloramination during Forward Osmosis Filtration of Wastewater. *Int. J. Environ. Res. Public Health* (open access), 15, 2124.

14. Bing Liu, Mitsuharu Terashima, Nguyen Truong Quan, Nguyen Thi Ha, Le Van Chieu, Rajeev Goel and Hidenari Yasui (2018) Determination of Optimal Dose of Allylthiourea (ATU) for the Batch Respirometric Test of Activated Sludge. *Wat.Sci.Tech.*, Vol.77, No.12, pp.2876-2885
15. Bing Liu, Mitsuharu Terashima, Nguyen Truong Quan, Nguyen Thi Ha, Le Van Chieu, Rajeev Goel and Hidenari Yasui (2018) High Nitrite Concentration Accelerates Nitrite Oxidising Organism's Death. *Wat.Sci.Tech.*, Vol.77, No.12, pp.2812-2822.
16. Wei-Yu Chen, Lucia Kraková, Jer-Horng Wu, Domenico Pangallo, Lenka Jeszeová, Bing Liu, and Hidenari Yasui (2017) Community and Proteomic Analysis of Anaerobic Consortia Converting Tetramethylammonium to Methane. *Archaea*, Volume 2017, pp.1-14
17. Nguyen Duong Quang Chanh, Mitsuharu Terashima, Hidenari Yasui, Le Van Tuan, Nguyen Thi Ha, Le Van Chieu (2017) Estimation of Biodegradable Material Concentrations in the Sewage using IWA Activated Sludge Model. *Vietnam Journal of Science and Technology*, Vol. 55, No.4C, pp.284-290.
18. Hong Ren, Bing Liu, Mitsuharu Terashima, Rajeev Goel and Hidenari Yasui (2017) Poisoning and Growth Inhibition of Nitrite Oxidising Organisms. The IWA 2017 Conference on Sustainable Wastewater Treatment and Resource Recovery: Research, Planning, Design and Operation. 7/Nov-10/Nov/2017, Chongqing, China.
19. Mohamed Yaakoubi, Shoutarou Kinoshita, Bing Liu, Nguyen Thi Ha, Le Van Chieu, Mitsuharu Terashima, Hidenari Yasui (2017) Modelling Multiple Minerals Precipitation in Anaerobic Digestion Process. 7th IWA-ASPIRE Conference 2017 & Water Malaysia Exhibition 2017, 11/Sep-14/Sep/2017, Kuala Lumpur, Malaysia.
20. Hong Ren, Bing Liu, Mitsuharu Terashima, Nguyen Thi Ha, Le Van Chieu and Hidenari Yasui (2017) Biological Decomposition of Allylthiourea during Batch Respirometry Test. 7th IWA-ASPIRE Conference 2017 & Water Malaysia Exhibition 2017, 11/Sep-14/Sep/2017, Kuala Lumpur, Malaysia.
21. Nguyen Duong Quang Chanh, Mitsuharu Terashima, Hidenari Yasui, Le Van Tuan, Nguyen Thi Ha, Le Van Chieu (2017) Estimation of Biodegradable Material Concentrations in the Sewage using IWA Activated Sludge Model. 7th International Forum on Green Technology and Management (IFGTM 2017) - New Approaches and Solutions in Environmental Protection Towards Sustainable Development. 25/Oct-26/Oct/2017, Institute of Environmental Technology (IET), Hanoi, Vietnam
22. Nguyen Duong Quang Chanh, Le Van Tuan, Tran Van Quang, Bing Liu, Mitsuharu Terashima, Nguyen Thi Ha, Le Van Chieu, Hidenori Harada, Hidenari Yasui (2017) An Alternative Method to Estimate Influent Concentration using On-site Lab-scale Activated Sludge Reactors. *Journal of Water and Environment Technology*, Vol. 15, No. 6, pp.220-232."
23. Liu, B., Ngo, V.A., Terashima, M., Yasui, H. (2017) Anaerobic treatment of hydrothermally solubilised sugarcane bagasse and its kinetic modelling. *Biores. Tech.*, Vol.234, pp.253-263.
24. Liu, B., Yoshinaga, K., Wu, J-H., Chen, W-Y., Terashima, M., Goel, M., Pangallo, P., Yasui, H. (2016) Kinetic Analysis of Biological Degradation for Tetramethylammonium Hydroxide (TMAH) in the Anaerobic Activated Sludge System at Ambient Temperature. *Biochem. Eng.*, Vol.114, pp.42-49.

25. Terashima, M., So, M., Goel, R., Yasui, H. (2016) Determination of diffuser bubble size in computational fluid dynamics models to predict oxygen transfer in spiral roll aeration tanks. *Journal of Water Process Engineering*, Vol.12, pp.120–126.
26. Nguyen D.Q.C, Tran V.Q, Terashima, M., Goel, R., Yasui, H. (2016) Modelling a Trickling Filter Process with Hydraulic Operational Parameters. *Journal of Water and Environment Technology*, Vol.14, No.5, pp.398-410.
27. Liu, B., Jarvis, I., Ren, H., Nguyen, D.Q.C, Terashima, M., Yasui, H (2016) Biofilm Modelling and Kinetics in a Trickling Filter Process. *Journal of Water and Environment Technology*, Vol. 14, No. 3 pp. 200-210.
28. Ngo, V. A., Vuong, T.H., Le, V.C., Nguyen, T.H., Terashima, T. and Yasui, H. (2016) A Dynamic Simulation of Methane Fermentation Process Receiving Heterogeneous Food Wastes and Modelling Acidic Failure. *J. Mater. Cycles Waste Management*. Vol.18, No.2, pp.239-247.
29. Liu, B., Yoshinaga, K., Wu, J-H, Chen, W-Y, Terashima, M., Goel, M, Pangallo, D. Yasui, H. (2016) Kinetic Analysis of Biological Degradation for Tetramethylammonium Hydroxide (TMAH) in the Anaerobic Activated Sludge System at Ambient Temperature. *Biochemical Engineering Journal*, Vol.114, pp.42-49.
30. Terashima, M., So., M, Goel, R., Yasui, H. (2016) Determination of diffuser bubble size in computational fluid dynamics models to predict oxygen transfer in spiral roll aeration tanks. *Journal of Water Process Engineering*, Vol.12, pp.120–126
31. So, M., D., Goel, R., Terashima, M., Yasui, H. (2015) Modelling the Bio-Clogging of Multispecies Biofilms in Sponge Carrier Media. *Journal of Water and Environment Technology*, Vol.13, No.3, pp.263-278.
32. So, M., Naka, D., Goel, Terashima, M., Yasui, H. (2015) Modelling the Effect of Biofilm Morphology on Detachment. *Journal of Water and Environment Technology*, Vol. 13, No. 1 pp. 49-62.
33. Matsui, S., Terashima, M., Yasui, H., Toderich, K., Akinshina, N. (2014), A Kinetic Model for the Anaerobic Fermentation of Salt-accumulating Plants Including Sulfate Reduction, *The 2nd International Conference on Arid Land Studies (ICAL2) on Food Security and Innovations in Arid and Semiarid Agro-ecosystems*, 9-13/September/2014, Samarkand, Uzbekistan. (poster).
34. Ngo, V. A., Vuong, T.H., Le, V.C., Terashima, T. and Yasui, H. (2014) High-Rate Moving-bed Biofilm Anaerobic Digestion for Waste Activated Sludge Treatment. *Journal of Water and Environment Technology*, Vol.12, No.6, pp.501-509.
35. Nguyen, M.H., Sakamoto, S., Le, V.C., Kim, H.S., Goel, R., Terashima, M., Yasui, H. (2014) A Modified Anaerobic Digestion Process with Chemical Sludge Pre-treatment and its Modelling. *Wat.Sci.Tech*. Vol.69, No.11, pp.2350-2356.
36. So, M., Naka, D., Goel, R., Terashima, M. and Yasui, H. (2014) Modelling Clogging and Biofilm Detachment in Sponge Carrier Media. *Wat.Sci.Tech*. Vol.69, No.6, pp.1298-1303.
37. Liu, B., Goel, R., Terashima, M. and Yasui, H. (2013) Models for Reversible and Non-reversible Inhibitions of Biological Nitrite Oxidation. *J.JSCE, Ser.G (Environ.Res.)*, Vol.69, No.7, III_303-III_310. (in Japanese).
38. Usmanov, S., Terashima, M., Mitani, Y., Yasui, H., and Kusuda, T. (2013) Estimation of Evapotranspiration in Arid and Semiarid Environments using

- Minimum Climate Dataset. *Proc. of 5th IWA-ASPIRE Conference & Exhibition*, 8-12/September/2013, Daejeong, Korea, 10G2-5 (in CD-ROM).
39. Naka, D., Terashima, M., Goel, R., and Yasui, H. (2013) Anaerobic Digestion of Halophyte Biomass for Salinized Soil Cleaning. *Proc. of 5th IWA-ASPIRE Conference & Exhibition*, 8-12/September/2013, Daejeong, Korea, 10F2-2 (in CD-ROM).
 40. Hai, N.M, Sakamoto, S., Kim, H.S., Goe, R., Terashima, M. and Yasui, H. (2013) Improvement of Biogas Conversion Efficiency based on a Modification of the Anaerobic Digestion Process. *Proc. of 5th IWA-ASPIRE Conference & Exhibition*, 8-12/September/2013, Daejeong, Korea, 10B4-5 (in CD-ROM).
 41. Tsunoda, K., Yoshinaga, K., Terashima, M., Goel, R. and Yasui, H. (2013) A Kinetic Model for Anaerobic biodegradation of tetramethylammonium hydroxide (TMAH). *Proc. of 5th IWA-ASPIRE Conference & Exhibition*, 8-12/September/2013, Daejeong, Korea, 11E1-5 (in CD-ROM).
 42. So, M., Naka, D., Goel, Terashima, M., and Yasui, H. (2013) Modelling biofilm formation in sponge carrier media. *Proc. of 5th IWA-ASPIRE Conference & Exhibition*, 8-12/September/2013, Daejeong, Korea, 09F3-2 (in CD-ROM). (published through WST)
 43. Liu, B., Naka, D., Javis, I., Goel, R. and Yasui, H. (2013) A Benchmark Simulation to Verify an Inhibition Model on Decay Stage for Nitrification. *Wat.Sci.Tech.* Vol.68, No.6, pp.1242-1250.
 44. Terashima, M., Iwasaki, M., Yasui, H., Goel, R., Suto, K. and Inoue, C. (2013) Tracer Experiment and RTD Analysis of DAF Separator with Bar-Type Baffles. *Wat.Sci.Tech.* Vol.63 , No.5, pp.942-947.
 45. Terashima, M., Yasui, H. Sudo, K., Inoue, C. and Noike, T. (2012) The Particle Removal Deterioration by Influent Temperature Rising in as Settling Tank and the Effect of New Baffle -A Computational Fluid Dynamics Study-. *J.JSCE, Ser.G (Environ.Res.)*, Vol.68, No.7, III_387-III_394. (in Japanese).
 46. Kobayashi, T., Yasui, H., Li, Y-Y. (2012) Comparison of Self-degradation Characteristics of Waste Activated Sludge between Aerobic and Anaerobic Conditions. *J. of Japan Sewage Works Association*, Vol.49, No.600, pp.107-114. (in Japanese).
 47. Akinshna, N., Naka, D., Toderich, K., Azizov, A. and Yasui, H. (2012) Anaerobic Degradation of Halophyte Biomass for Biogas Production. *Journal of Arid Land Studies*, Vol.22-1, 227-230.
 48. Kaori Matsuo, Hidenari Yasui (2012), Anaerobic digestion for halophyte biomass utilization for remediating saline agricultural land, *The 15th Symposium of Japan Society on Water Environment*, 10-11/Sept/2012, Saga, Japan. (poster).
 49. Liu, B., Naka, D., Javis, I., Goel, R. and Yasui, H. (2012) A Benchmark Simulation to Verify an Inhibition Model on Decay Stage for Nitrification. *Proc. of IWA Nutrient Removal and recovery 2012*, 23-25/September/2012, Harbin, China, pp.95-97, 14-17-2 (in CD-ROM). (published through WST).
 50. Terashima, M., Yasui, H. Sudo, K. and Inoue, C. (2012) Tank Depth Reduction by Introduction of Ring-Type Baffles in the Central Feed Circular DAF (Dissolved Air Flotation). *EICA*, Vol.17, No.2/3, pp.73-80.

51. Liu, B., Naka, D., Javis, I., Goel, R. and Yasui, H. (2012) A Kinetic Expression for the Growth and Decay of Nitrite Oxidising Bacteria. *Japanese Journal of Water Treatment Biology*, vol.48, No.3, pp.89-98.
52. Naka, D., Goel, R. and Yasui, H. (2012) Thermodynamic Prediction Model for Inorganic Composition of Anaerobically Digested Sludge. *Japanese Journal of Water Treatment Biology*, vol.48, No.3, pp.81-88.
53. Nguyen, V.A., Duong, T.H., Thai, M.H., Nguyen, P.T., Zeig, C., Wagner, M. and Yasui, H. (2012) Anaerobic Co-Digestion of Organic Waste and Septic Tank Sludge at Thermophilic Condition (55°C). *Journal of Science and Technology, VAST*, Vol.50, No.1C, pp.9-17. (in Vietnamese).
54. So, M., Naka, D., Goel, R. and Yasui, H. (2012) Model Development of a Sponge Carrier Process using CFD-DEM with Permeable Particles. *Journal of Water and Environment Technology*, Vol.10, No.2, pp.193-204.
55. Terashima, M., Yasui, H. and Takahashi, H. (2012) Critical Tractive Velocity and deposition of Sponge Media in Fluidized-bed Biofilm Reactor. *Japanese Journal of Water Treatment Biology*, Vol.48, No.2, p.45-53. (in Japanese).
56. Nguyen, P.T., Nguyen V.A. and yasui, H. (2012) Simulation of anaerobic digestion process of municipal sludge using GPX-S software. *Magazine of Vietnam Water Supply and Sewerage Association (VWSA)*, June/2012, pp.30-36. (in Vietnamese)
57. Akinshina N., Azizov A., Toderich K. and Yasui H. (2011), Anaerobic Degradation of Halophyte Biomass for Biogas Production, *Proc. of 17th International Energy and Environment Fair and Conference*, pp.215-219, 15-17/June/2011, Istanbul, Turkey.
58. Terashima, M., Goel, R., Yasui, H., Sudo, K and Inoue, C. (2011) Hydraulic Optimization of Outlet-Structure in Low Depth Rectangular Dissolved Air Flotation Tank using CFD., *J.JSCE, Ser.G (Environ. Res.)*, Vol.68, No.7, III pp.705-714 (in Japanese).
59. Naka,D., Goel,R. and Yasui,H. (2011) Thermodynamic-kinetic Approach to Simulation on Inorganic Solid Precipitation in Thermophilic Anaerobic Digestion. *J.JSCE, Ser.G (Environ. Res.)*, Vol.68, No.7, III pp.303-310 (in Japanese).
60. Naka,D., Goel,R. and Yasui,H. (2011) A Novel Approach to Estimate Precipitable Inorganic Species in the Anaerobic Digestion Tank. *Proc. of 4th IWA-ASPIRE*, in CD-ROM, 2-6/October/2011, Tokyo, Japan.
61. Ishizaki,Y., Naka,D., Goel,R. and Yasui,H. (2011) A Metabolic Model for Aerobic Biological Degradation of Long-chain Fatty Acids. *Proc. of 4th IWA-ASPIRE*, in CD-ROM, 2-6/October/2011, Tokyo, Japan.
62. Liu,B., Naka,D., Javis,I., Goel,R. and Yasui,H. (2011) A Kinetic Expression for the Growth and Decay of Nitrite Oxidising Bacteria. *Proc. of 4th IWA-ASPIRE*, in CD-ROM, 2-6/October/2011, Tokyo, Japan.
63. Magnus,S., Naka,D., Goel,R. and Yasui,H. (2011) Towards Optimization of a Sponge Carrier Process using Biofilm Modelling and CFD. *Proc. of 4th IWA-ASPIRE*, in CD-ROM, 2-6/October/2011, Tokyo, Japan.
64. Komatsu, K., Yasui, H., Goel, R., Li, Y.Y. and Noike, T. (2011) Novel Anaerobic Digestion Process with Sludge Ozonation for Economically Feasible Power Production from Biogas, *Wat.Sci.Tech.*, Vol.63, No.7, pp.1467-1475.
65. Yasui H., Komatsu K, Goel R., Li Y.Y. and Noike T. (2011), Power Production from Municipal Sludge using Improved Anaerobic Digestion System. *J. Ozone: Science & Engineering*, Vol.3, No.2, pp.164-170.

66. Terashima M., Komatsu K., Yasui H., Goel R. Inoue C., Sudo K., Li Y.Y. and Noike T. (2010) Study of Homogenization Time of Mixing in High Sludge Concentrated Anaerobic Digester *J of Environ. Sys. & Eng.*, Vol.64, No.2, pp.132-143 (in Japanese).
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68. Kobayashi T., Li Y.Y., Harada H., Yasui H. and Noike T. (2009) Upgrading of the Anaerobic Digestion of Waste Activated Sludge by Combining Temperature-phased Anaerobic Digestion and Intermediate Ozonation, *Wat.Sci.Tech.* Vol.59, No.1, pp.185-193.
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70. Komatsu K., Yasui H., Li Y.Y. and Noike T. (2008) Modeling of Dissolution/Precipitation of Inorganic Compounds in Anaerobic Digestion of Municipal Sludge, *Proc. of Environmental Engineering Research*, Vol.45, pp.341-348 (in Japanese).
71. Yasui H., Komatsu K., Goel R., Li Y.Y. and Noike T. (2008) Modelling of Hydrolysis of Municipal Primary Sludge in Anaerobic Digestion, *J of Environ. Sys. & Eng.*, Vol.64, No.2, pp.132-143 (in Japanese).
72. Yasui H., Komatsu K., Goel R., Li Y.Y. and Noike T. (2008) Evaluation of state variable interface between ASM and ADM1, *Wat.Sci.Tech.*, Vol.57, No.6, pp 901-907.
73. Yasui H., Goel R., Li Y.Y. and Noike T. (2008) Modified ADM1 Structure for Modelling Municipal Primary Sludge Hydrolysis, *Wat.Res.*, Vol.42, No.1-2, pp.249-259.
74. Teepyobon S., Li Y.Y., Noike T. and Yasui H. (2007) Comparison between Mesophilic and Thermophilic Anaerobic Digestion of Waste Activated Sludge, *J. of Japan Sewage Works Association*, Vol.44, No.542, pp.124-134 (in Japanese).
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77. Yasui H., Komatsu K., Goel R., Li Y.Y. and Noike T. (2007) ASM State Variables as Interface for Modelling of Anaerobic Digestion of Activated Municipal Sludge, *Proc. of Environmental Engineering Research*, Vol.44, pp.217-228 (in Japanese).
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89. Goel R., Terashima M. and Yasui H. (2004) Application of CFD to Study the Effects of Feed-well Configuration on Suspended Solid Concentration Profile in Settling Tank, 6th International Conference on Hydroinformatics Vol.1, pp.316-323, Liang S.Y., Phon K.K. and Babovic V., eds., *World scientific publishing company*, Singapore, ISBN 9812387870.
90. Komatsu K., Yasui H. Ohashi A. and Harada H. (2004) High Performance Anaerobic Digestion Treatment of Municipal Sludge with Ozonation, *J. of Japan Sewage Works Association*, Vol.41, No.505, pp.111-118 (in Japanese).
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92. Goel R., Komatsu K., Yasui H. and Harada H. (2004) Process Performance and Change in Sludge Characteristics during Anaerobic Digestion of Sewage Sludge with Ozonation, *Wat.Sci.Tech.*, Vol.49, No.10, pp.105-113.

93. Terashima M, Yasui H., Goel R. and Kubota H. (2003) Hydrodynamic Model Based K_La Estimation in Aeration Tank Equipped with Diffused Aeration System, *Proc. of Environmental Engineering Research*, Vol.40, , pp.29-39 (in Japanese).
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95. Goel R., Tokutomi T., and Yasui H. (2003) Anaerobic Digestion of Excess Activated Sludge with Ozone Pretreatment, *Wat.Sci.Tech.*, Vol.47, No.12, pp.207-214.
96. Goel R., Yasui H. and Shibayama C. (2003) High-performance Closed Loop Anaerobic Digestion using Pre/Post Sludge Ozonation, *Wat.Sci.Tech.*, Vol.47, No.12, pp.261-267.
97. Yasui H., Fujishima S., Komatsu K. Igarashi H. Ohashi A. and Harada H. (2003) Respirometric Identification of Hydrolysis Kinetics for the Modelling of Anaerobic Municipal Sludge Digestion Process, *Proc. of Environmental Engineering Research*, Vol.40, pp.291-302 (in Japanese).
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100. Yasui H., Shibata M. and Fukase T. (1997) Acidic Conditions Minimize Ozone Dose on an Activated Sludge Process without Excess Sludge Production, *Proc. of Environmental Engineering Research*, Vol.34, pp.211-220 (in Japanese).
101. Yasui H., Sakuma S. and Shibata M. (1996) A Full-scale Verification of an Excess-sludgeless Operation using Ozone and Activated Sludge Treatment, *Proc. of Environmental Engineering Research*, Vol.33, pp.19-30, Vol.33, pp.19-30 (in Japanese).
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103. Yasui H. and Shibata M. (1994) An Innovative Approach to Reduce Excess Sludge Production in the Activated Sludge Process, *Wat.Sci.Tech.*, Vol.30, No.9, pp.11-20.
104. Yasui H. and Miyaji Y. (1992) A Novel Approach to Removing Refractory Organic Compounds in Drinking Water, *Wat.Sci.Tech.*, Vol.26, No.7/8, pp.1503-1512.

INVITED SPEAKERS

1. Industrial wastewater pollution control (2019), The Kurita Water and Environment Foundation Business matching workshop, 28/Sep/2019, National University of Civil Engineering, Hanoi, Vietnam.
2. Application of Environmental Technology in Asian Countries (2018) Hidenari Yasui, The KMUTNB and Khon Kaen University Annual ChE Graduate Symposium 2019, 30/April/2019, Bangkok, Thailand.
3. Biogas Production from Halophytes towards Phytoremediation of Salinised area (2007) Hidenari Yasui, Nataliya Akinishina, Azmat Azizov and Kristina Toderich,

- International workshop 'Innovations in Marginal Water resource Use for resilient Agriculture and Food Security', 11-13/Dec/2017, Tashkent, Uzbekistan.
4. Approaches to Reduce Power consumption in Membrane Bioreactor Systems (2017), Hidenari Yasui International workshop 'Reuse of recovered wastewater treated by membrane separation methods in process water production, cultivation of energy plant and landscape activities', Ege university & ITOB-OSB, 17-18/Oct/2017, Izmir, Turkey.
 5. Hydrogen production from Biogas in the municipal wastewater treatment plants (2016), Hidenari Yasui Biogas showcase and business matching in Thailand, Ministry of energy, Thailand, session I: Biogas Technology in Japan, 9-10/February/2017, Bangkok, Thailand.
 6. Beneficial Use of Biomass in Japan (2016) Hidenari Yasui the 11th Asian Biohydrogen & Biogas Symposium (ABBS), 5-8/Oct/2016, Jeju Island, Korea.
 7. High-Rate Moving-bed Biofilm Anaerobic Digestion for Waste Activated Sludge Treatment (2015) Hidenari Yasui The Water and Environment Technology Conference 2015 (WET2015), keynote speech, 5-6/August, Tokyo, Japan.
 8. Sludge Minimisation using Improved Anaerobic Digestion System (2013) Nguyen M.H., Sakamoto, S., Kim, H.S. and Yasui, H. 2013 International Environmental Engineering Conference and Annual Meeting of the Korea Society of Environmental Engineers (IEEC2013), 11-13/Jun/2013, Seoul, Korea.
 9. Improvement of the Anaerobic Digestion Efficiency for Municipal Sludge using Partial Oxidation Process (2012) Yasui, H. 3rd International Conference on Environmental Aspects of Bangladesh (ICEAB 2012), Bangladesh Environment Network Japan (BENJapan), 13/Oct/2012, Kitakyushu, Japan.
 10. Simulation Tools for Sludge Treatment (2011) Yasui, H., Workshop Waste Treatment and Resource Recovery -a Sustainable Solution for Vietnamese Cities, 2/Dec/2011, Hanoi, Vietnam.
 11. Advanced Anaerobic Digestion process with Feasible Power Production from Biogas. (2010) Yasui H., Komatsu K, Goel R., Li Y.Y. and Noike T., 7th IWA Leading-Edge on Water and Wastewater Treatment Technologies, LET 2010, 2-4/June/2010, Phoenix, Arizona, USA.
 12. Power Production from Municipal Sludge using Improved Anaerobic Digestion System. (2009) Yasui H., Komatsu K, Goel R., Li Y.Y. and Noike T., 19th IOA World Congress 2009, 21/Aug-2/Sep/2009, Tokyo, Japan.
 13. Biolader[®], an Activated Sludge Process Minimizing Excess Sludge Production. (2003) Yasui H., Goel R., Fukase T., Matsushashi R., Wakayama M., Sakai Y. and Noike T., *1st IWA Leading-Edge on Water and Wastewater Treatment Technologies*, pp.101-103, 26-28/May/2003, Nordwijk/Amsterdam, The Netherlands.
 14. Process Performance and Change in Sludge Characteristics during Anaerobic Digestion of Sewage Sludge with Ozonation. (2003) Goel R., Komatsu K., Yasui H. and Harada H., *Proc. of IWA Specialist Conference, Biosolids 2003 Wastewater Sludge as a Resource*, pp.153-160, 23-25/June/2003, NTNU, Trondheim, Norway. *edt. Ødegaard H.*, ISBN 8275980569.

AWARDS AND HONORS

1. Medal for distinguished foreign professionals in 2016 (2016). *Vietnam sanitation and sewage association, Vietnam*
2. Best Paper Award, Environmental Engineering Research (2009). *Committee of Environmental Engineering, Japan Society of Civil Engineering*
3. Best Paper Award for Young Professionals (2008). *Committee of Japan Sewage Works Association*
4. Best Paper Award, Environmental Engineering Research (2006) *Committee of Environmental Engineering, Japan Society of Civil Engineering*
5. Best Technology Award (2000) *Japan Ozone Association*
6. Award of Ministry of International Trade and Industry, Japan (2000) *The Japan Society of Industrial Machinery Manufactures*
7. Iwai Award (2000). *Research Institute of Environmental Technology*
8. Best Paper Award for Young Professionals, Environmental Engineering Research (1997) *Committee of Environmental Engineering, Japan Society of Civil Engineering*
9. Environmental Technology/Project Award, Environmental Engineering Forum (1995) *Committee of Environmental Engineering, Japan Society of Civil Engineering*

PROFESSIONAL AFFILIATION AND CONTRIBUTION

1. Member of Japan society of water environment (since 2005)
2. Member of Japan Sewage works association (since 2008)
3. Member of the society of chemical engineers (since 2007)
4. Member IWA (since 2005)
5. Member of Japan society of civil engineering (since 2005)
6. Board member of Japan society of civil engineering (2019-present)
7. Board member of Japan society of water environment (2019-present)
8. Chairman of Kyushu branch, Japan society of water environment (2019-present)
9. Vice chairman of Kyushu branch, Japan society of water environment (2018)
10. Scientific committee member of Fukuoka city, a new framework for Fukuoka municipal wastewater treatment systems (2015-2017)
11. Scientific committee member of Tagawa town, Integrated installation of municipal wastewater treatment systems (2014-2017)
12. Scientific committee member of IWA international conference on nutrient removal and recovery 2014, Gdansk, Poland (2014-2015)
13. Scientific committee member of Fukuoka Prefecture, Environ. Monitoring for Shin-Seibu wwtp. (2011-present)
14. Scientific committee member of Japan Sewage Works Agency, Anaerobic digestion process (2011)
15. Scientific committee member of NEDO, (2010, 2012)
16. Reviewer for BEJ, BITE, CATTOD, CEJ, HAZNAT, JBIOSC, JEMA, WR and WST.
17. Reviewer for scientific papers for Journal of Japan Society on Water Environment.
18. Reviewer for scientific papers for Journal of Japan Sewage Works Association.

19. Project leader for “development of highly efficient anaerobic digestion process for enhanced biogas production” (2003-2005)

PATENTS

Filed over 95 patent applications in Japan and 14 international patent applications.

PUBLICATIONS

1. Environmental Anaerobic Technology, Applications and New Developments (2010) *Edit. Fang H.P., , Imperial College Press, ISBN: 1-84816-542-7 (Joint work)*
2. Methane Fermentation (2009) *Edits. Yasui H., Li Y.Y., Sato K. and Noike T., Giho-do publishing, ISBN: 978 4 7655 3440 6.*
3. Process Control of Activated Sludge Plants by Microscopic Investigation (2006) Yasui H., Fukase T. and Kono T., *Giho-do publishing, CD-ROM, (Translation)*
4. Ozone Handbook (2004) *Edit. Somiya Y., Japan Ozone Association, (part: contributor)*
5. Mathematical Expression, Modelling Data for Environmental Engineering. (2004) *Japan Society of Civil Engineering, edit. Fukushima T., ISBN : 4810604217, (part: contributor)*
6. Activated Sludge Bulking and Foaming Control (2000) Kono T., Shibata M., Fukase T. and Yasui H., *Giho-do publishing, ISBN : 4765531694, (Joint translation)*

GRANTS

- JP government and local municipalities
- Phytoremediation using halophytes for the salinised farmland in Uzbekistan (2019-2021) Grant-in-Aid for Scientific Research (B), Japan Society for the Promotion of Science (JSPS), JPY13,000,000.
- Biogas recovery from the concentrate of FO membrane system on municipal water treatment plants. (2019-2020), Applied Research Project, Ministry of Land, Infrastructure, Transport and Tourism (MILT), JPY20,000,000.
- Influent Characterisation based on the back-calculation using Activated sludge models for mathematical design and operation of wastewater treatment plants in Asian developing countries (2018-2019), Applied Research Project, Ministry of Land, Infrastructure, Transport and Tourism (MILT), JPY3,600,000.
- Upgrading drinking water treatment in Vietnam using biological filter (2015-2018), the city of Kitakyushu, JPY4,000,000.
- 4th Workshop with UKK and VNU Hanoi university of science (2016) Japan-Asia youth exchange programme in science, Japan Science and Technology Agency (JST), JPY2,630,000.

- 3rd Workshop with UKK and VNU Hanoi university of science (2016) Japan-Asia youth exchange programme in science, Japan Science and Technology Agency (JST), JPY2,560,000.
- 2nd Workshop with UKK and VNU Hanoi university of science (2015) Japan-Asia youth exchange programme in science, Japan Science and Technology Agency (JST), JPY2,362,000.
- Maximisation of anaerobic digestion with side-stream Fenton reaction (2015-2016), Japan Society for the Promotion of Science (JSPS), JPY3,500,000.
- Partial oxidation of lignocellulosic material to produce methane in anaerobic treatment (2016-2018), Japan Society for the Promotion of Science (JSPS), JPY15,000,000.
- Modelling anaerobic biological wastewater treatments for appropriate technology selection, Joint Research Project with MOST (2016-2017), JSPS bilateral programmes, Japan Society for the Promotion of Science (JSPS), JPY4,200,000.
- Back-calculation using Activated sludge models to identify Vietnamese wastewater constituents (2015-2018), Gesuido Academic Incubation to Advanced Project (GAIA), Ministry of Land, Infrastructure, Transport and Tourism (MILT), JPY15,000,000.
- Strategic incubation of environmental leaders to build regional Green-cities in Asian developing countries (2014-2016), The Ministry of Education, Culture, Sports, Science and Technology (MEXT), JPY33,000,000.
- Strategic incubation of environmental leaders to engage Japan with Asian developing countries (2009-2013), Japan Science and Technology Agency (JST), JPY240,000,000.
- Biological treatment for bioethanol processing (2013-) New Energy and Industrial Development Organization (NEDO), JPY35,200,000.
- Methane fermentation of heterogeneous food wastes in the solid waste processing factory (2014-) Fukuoka research commercialization center for recycling systems, JPY6,265,000.
- 1st Workshop with UKK and VNU Hanoi university of science (2014) Japan-Asia youth exchange programme in science Japan Science and Technology Agency (JST), JPY1,889,900.
- Anaerobic digestion of halophytes and its kinetic model using a modified ADM1 equipping biological sulphate reduction (2013-2014) Japan Society for the Promotion of Science (JSPS), JPY2,900,000.
- Anaerobic biological treatment for specified chemical substances in wastewater from liquid-crystal manufacturing factories (2011-2013) Grant-in-Aid for Scientific Research (B), Japan Society for the Promotion of Science (JSPS), JPY16,380,000.
- Phytoremediation of salinised soil in Asian arid area using halophytes and simultaneous biogas recovery (2011-2012) Japan Society for the Promotion of Science (JSPS), JPY3,770,000.
- Biological resource recovery from organic wastes in Vietnam (2010-2012) Grant-in-Aid for Scientific Research (B), Japan Society for the Promotion of Science (JSPS), JPY11,440,000.
- International Leader Training Program for sustainable use of water and resource (2008-2013) Strategic Funds for the Promotion of Science and Technology, The

Ministry of Education, Culture, Sports, Science and Technology (MEXT), JPY259,000,000.

- Development of highly efficient anaerobic digestion process for enhanced biogas production, High efficiency bioenergy conversion project, (2003-2005) New Energy and Industrial Development Organization (NEDO), JPY712, 000,000.
- Private sectors
- More than 30 MOUs for joint research projects and consulting, *total approx.* JPY50,000,000 (since 2008).

PRESENT ADDRESS

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