Hisashi Satoh

List of Publications by Year
in descending order

88 papers	5,575 citations	81900 39 h-index	79698 73 g-index
88 all docs	88 docs citations	88 times ranked	4328 citing authors

#	Article	IF	Citations
1	In Situ Analysis of Nitrifying Biofilms as Determined by In Situ Hybridization and the Use of Microelectrodes. Applied and Environmental Microbiology, 1999, 65, 3182-3191.	3.1	440
2	Development of high-rate anaerobic ammonium-oxidizing (anammox) biofilm reactors. Water Research, 2007, 41, 1623-1634.	11.3	339
3	Ecology and physiology of anaerobic ammonium oxidizing bacteria. Environmental Microbiology, 2016, 18, 2784-2796.	3.8	316
4	Succession of Sulfur-Oxidizing Bacteria in the Microbial Community on Corroding Concrete in Sewer Systems. Applied and Environmental Microbiology, 2007, 73, 971-980.	3.1	277
5	Physiological characteristics of the anaerobic ammonium-oxidizing bacterium â€˜Candidatus Brocadia sinicaâ€™. Microbiology (United Kingdom), 2011, 157, 1706-1713.	1.8	264
6	Physiological characterization of anaerobic ammonium oxidizing bacterium â€˜<scp><i>C</i></scp><i>andidatus</i>â€…<scp>J</scp>ettenia caeniâ€™. Environmental Microbiology, 2015, 17, 2172-2189.	3.8	203
7	N2O emission from a partial nitrificationâ€“anammox process and identification of a key biological process of N2O emission from anammox granules. Water Research, 2011, 45, 6461-6470.	11.3	179
8	Analyses of Spatial Distributions of Sulfate-Reducing Bacteria and Their Activity in Aerobic Wastewater Biofilms. Applied and Environmental Microbiology, 1999, 65, 5107-5116.	3.1	162
9	Nitrate-Dependent Ferrous Iron Oxidation by Anaerobic Ammonium Oxidation (Anammox) Bacteria. Applied and Environmental Microbiology, 2013, 79, 4087-4093.	3.1	160
10	Nitrogen removal performance and microbial community analysis of an anaerobic up-flow granular bed anammox reactor. Chemosphere, 2010, 78, 1129-1135.	8.2	153
11	Rapid and successful start-up of anammox process by immobilizing the minimal quantity of biomass in PVA-SA gel beads. Water Research, 2015, 79, 147-157.	11.3	152
12	Removal of residual dissolved methane gas in an upflow anaerobic sludge blanket reactor treating low-strength wastewater at low temperature with degassing membrane. Water Research, 2011, 45, 3533-3540.	11.3	148
13	In Situ Activity and Spatial Organization of Anaerobic Ammonium-Oxidizing (Anammox) Bacteria in Biofilms. Applied and Environmental Microbiology, 2007, 73, 4931-4939.	3.1	144
14	Microbial community structures and in situ sulfate-reducing and sulfur-oxidizing activities in biofilms developed on mortar specimens in a corroded sewer system. Water Research, 2009, 43, 4729-4739.	11.3	124
15	Macroscale and microscale analyses of nitrification and denitrification in biofilms attached on membrane aerated biofilm reactors. Water Research, 2004, 38, 1633-1641.	11.3	123
16	Anaerobic treatment of municipal wastewater at ambient temperature: Analysis of archaeal community structure and recovery of dissolved methane. Water Research, 2012, 46, 5756-5764.	11.3	121
17	Hydroxylamineâ€dependent anaerobic ammonium oxidation (anammox) by â€œ<i>Candidatus</i> Brocadia sinicaâ€. Environmental Microbiology, 2016, 18, 3133-3143.	3.8	112
18	Source identification of nitrous oxide emission pathways from a single-stage nitritation-anammox granular reactor. Water Research, 2016, 102, 147-157.	11.3	106

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19	Layered Structure of Bacterial and Archaeal Communities and Their In Situ Activities in Anaerobic Granules. Applied and Environmental Microbiology, 2007, 73, 7300-7307.	3.1	105
20	Successional Development of Sulfate-Reducing Bacterial Populations and Their Activities in a Wastewater Biofilm Growing under Microaerophilic Conditions. Applied and Environmental Microbiology, 2002, 68, 1392-1402.	3.1	98
21	Effect of oxygen concentration on nitrification and denitrification in single activated sludge flocs. Biotechnology and Bioengineering, 2003, 83, 604-607.	3.3	92
22	Draft Genome Sequence of an Anaerobic Ammonium-Oxidizing Bacterium, â€œ <i>Candidatus</i> Brocadia sinicaâ€• Genome Announcements, 2015, 3, .	0.8	87
23	Population dynamics and in situ kinetics of nitrifying bacteria in autotrophic nitrifying biofilms as determined by real-time quantitative PCR. Biotechnology and Bioengineering, 2006, 94, 1111-1121.	3.3	76
24	Effects of hydroxylamine on microbial community structure and function of autotrophic nitrifying biofilms determined by in situ hybridization and the use of microelectrodes. Water Science and Technology, 2004, 49, 61-68.	2.5	75
25	Significance of substrate C/N ratio on structure and activity of nitrifying biofilms determined by in situ hybridization and the use of microelectrodes. Water Science and Technology, 2000, 41, 317-321.	2.5	74
26	Development of long-term stable partial nitrification and subsequent anammox process. Bioresource Technology, 2011, 102, 6801-6807.	9.6	73
27	Effects of dissolved oxygen and pH on nitrous oxide production rates in autotrophic partial nitrification granules. Bioresource Technology, 2015, 197, 15-22.	9.6	72
28	Succession of Internal Sulfur Cycles and Sulfur-Oxidizing Bacterial Communities in Microaerophilic Wastewater Biofilms. Applied and Environmental Microbiology, 2005, 71, 2520-2529.	3.1	71
29	Effect of feeding regimens on polyhydroxybutyrate production from food wastes by Cupriavidus necator. Bioresource Technology, 2011, 102, 3551-3553.	9.6	64
30	Analysis of size distribution and areal cell density of ammonia-oxidizing bacterial microcolonies in relation to substrate microprofiles in biofilms. Biotechnology and Bioengineering, 2004, 85, 86-95.	3.3	62
31	Source identification of nitrous oxide on autotrophic partial nitrification in a granular sludge reactor. Water Research, 2013, 47, 7078-7086.	11.3	62
32	Cultivation of Planktonic Anaerobic Ammonium Oxidation (Anammox) Bacteria Using Membrane Bioreactor. Microbes and Environments, 2013, 28, 436-443.	1.6	59
33	Evaluation of the impact of bioaugmentation and biostimulation by in situ hybridization and microelectrode. Water Research, 2003, 37, 2206-2216.	11.3	58
34	Influences of Infaunal Burrows on the Community Structure and Activity of Ammonia-Oxidizing Bacteria in Intertidal Sediments. Applied and Environmental Microbiology, 2007, 73, 1341-1348.	3.1	56
35	Sulfate-reducing bacterial community structure and their contribution to carbon mineralization in a wastewater biofilm growing under microaerophilic conditions. Applied Microbiology and Biotechnology, 2003, 63, 322-334.	3.6	50
36	Community structures and activities of nitrifying and denitrifying bacteria in industrial wastewater-treating biofilms. Biotechnology and Bioengineering, 2006, 94, 762-772.	3.3	49

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37	High efficiency removal of phosphate from water by zirconium sulfate-surfactant micelle mesostructure immobilized on polymer matrix. Water Research, 2013, 47, 3583-3590.	11.3	49
38	Identification of key nitrous oxide production pathways in aerobic partial nitrifying granules. Environmental Microbiology, 2014, 16, 3168-3180.	3.8	49
39	Structure and function of nitrifying biofilms as determined by molecular techniques and the use of microelectrodes. Water Science and Technology, 2002, 46, 233-241.	2.5	45
40	Development and characterization of the partial nitrification aerobic granules in a sequencing batch airlift reactor. Bioresource Technology, 2013, 139, 285-291.	9.6	39
41	Community Structure, Abundance, and in Situ Activity of Nitrifying Bacteria in River Sediments as Determined by the Combined Use of Molecular Techniques and Microelectrodes. Environmental Science & Technology, 2006, 40, 1532-1539.	10.0	33
42	Development of novel polysulfone membranes with embedded zirconium sulfate-surfactant micelle mesostructure for phosphate recovery from water through membrane filtration. Water Research, 2017, 124, 521-526.	11.3	33
43	Effect of nitrite and nitrate on biogenic sulfide production in sewer biofilms determined by the use of microelectrodes. Water Science and Technology, 2003, 47, 281-288.	2.5	32
44	Effects of organic matter in livestock manure digester liquid on microbial community structure and in situ activity of anammox granules. Chemosphere, 2016, 159, 300-307.	8.2	29
45	Genetic diversity of marine anaerobic ammoniumâ€oxidizing bacteria as revealed by genomic and proteomic analyses of â€˜<i>Candidatus</i> Scalindua japonicaâ€™. Environmental Microbiology Reports, 2017, 9, 550-561.	2.4	29
46	Development of a simple analytical method to determine arsenite using a DNA aptamer and gold nanoparticles. Chemosphere, 2019, 224, 538-543.	8.2	26
47	Digestion performance and contributions of organic and inorganic fouling in an anaerobic membrane bioreactor treating waste activated sludge. Bioresource Technology, 2019, 272, 63-69.	9.6	26
48	Use of microelectrodes to investigate the effects of 2-chlorophenol on microbial activities in biofilms. Biotechnology and Bioengineering, 2005, 91, 133-138.	3.3	24
49	Sulfate reduction and sulfide oxidation in aerobic mixed population biofilms. Water Science and Technology, 1998, 37, 131-138.	2.5	23
50	Community Structure and In Situ Activity of Nitrifying Bacteria in <i>Phragmites</i> Root-Associated Biofilms. Microbes and Environments, 2012, 27, 242-249.	1.6	21
51	Photosynthesis in sediments determined at high spatial resolution by the use of microelectrodes. Water Research, 2004, 38, 2440-2448.	11.3	20
52	Explicit temperature-based model for anaerobic digestion: Application in domestic wastewater treatment in a UASB reactor. Bioresource Technology, 2013, 133, 437-442.	9.6	20
53	Spatial and Temporal Oxygen Dynamics in Macrofaunal Burrows in Sediments: A Review of Analytical Tools and Observational Evidence. Microbes and Environments, 2013, 28, 166-179.	1.6	19
54	Experimental Evidence for in Situ Nitric Oxide Production in Anaerobic Ammonia-Oxidizing Bacterial Granules. Environmental Science & Technology, 2018, 52, 5744-5752.	10.0	19

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55	Redox stratification within cryoconite granules influences the nitrogen cycle on glaciers. FEMS Microbiology Ecology, 2020, 96, .	2.7	19
56	Performance of anaerobic membrane bioreactor during digestion and thickening of aerobic membrane bioreactor excess sludge. Bioresource Technology, 2016, 218, 476-479.	9.6	17
57	Improvement of a Phosphate Ion-selective Microsensor Using Bis(dibromophenylstannyl)methane as a Carrier. Analytical Sciences, 2017, 33, 825-830.	1.6	16
58	Determination of Cadmium in Brown Rice Samples by Fluorescence Spectroscopy Using a Fluoroionophore after Purification of Cadmium by Anion Exchange Resin. Sensors, 2017, 17, 2291.	3.8	16
59	Simple and reliable enumeration of Escherichia coli concentrations in wastewater samples by measuring Î^{2}-d-glucuronidase (GUS) activities via a microplate reader. Science of the Total Environment, 2020, 715, 136928.	8.0	15
60	Sulfate reduction and sulfide oxidation in aerobic mixed population biofilms. Water Science and Technology, 1998, 37, 131.	2.5	11
61	BODIPY-Based Ratiometric Fluoroionophores with Bidirectional Spectral Shifts for the Selective Recognition of Heavy Metal Ions. Bulletin of the Chemical Society of Japan, 2013, 86, 37-44.	3.2	11
62	Substituent Effects at the 5-Position of 3-[Bis(pyridine-2-ylmethyl)amino]-BODIPY Cation Sensor Used for Ratiometric Quantification of Cu2+. Bulletin of the Chemical Society of Japan, 2015, 88, 447-454.	3.2	11
63	Enhancement of organic matter degradation and methane gas production of anaerobic granular sludge by degasification of dissolved hydrogen gas. Bioresource Technology, 2017, 244, 768-775.	9.6	10
64	Introduction of a Degassing Membrane Technology into Anaerobic Wastewater Treatment. Water Environment Research, 2013, 85, 387-390.	2.7	9
65	A Polyphasic Approach to Study Ecophysiology of Complex Multispecies Nitrifying Biofilms. Methods in Enzymology, 2011, 496, 163-184.	1.0	8
66	Application of fluorescence spectroscopy using a novel fluoroionophore for quantification of zinc in urban runoff. Water Research, 2014, 54, 12-20.	11.3	8
67	Deep learning-based morphology classification of activated sludge flocs in wastewater treatment plants. Environmental Science: Water Research and Technology, 2021, 7, 298-305.	2.4	8
68	Microbial ecology of sulfatereducing bacteria in wastewater biofilms analyzed by microelectrodes and fish (fluorescent hybridization) technique. Water Science and Technology, 1999, 39, 41.	2.5	7
69	Characterization of microbial community structures and their activities in single anaerobic granules by beta imaging, microsensors and fluorescence in situ hybridization. Water Science and Technology, 2012, 65, 2125-2131.	2.5	7
70	Nitrification in Wastewater Treatment. , 0, , 405-433.		7
71	Interactions of dissolved humic substances with oppositely charged fluorescent dyes for tracer techniques. Water Research, 2015, 85, 193-198.	11.3	7
72	Cell Density-dependent Anammox Activity of <i>Candidatus</i> Brocadia sinica Regulated by <i>N</i>-acyl Homoserine Lactone-mediated Quorum Sensing. Microbes and Environments, 2020, 35, n/a.	1.6	7

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73	[14] Analysis of microbial structure and function of nitrifying biofilms. Methods in Enzymology, 2001, 337, 213-IN3.	1.0	6
74	Simple assay for colorimetric quantification of unamplified bacterial 16S rRNA in activated sludge using gold nanoprobes. Chemosphere, 2021, 263, 128331.	8.2	5
75	3-[Bis(pyridin-2-ylmethyl)amino]-5-(4-carboxyphenyl)-BODIPY as Ratiometric Fluorescent Sensor for Cu2+. Materials, 2018, 11, 814.	2.9	4
76	Bubble drag in electrolytically generated microbubble swarms with bubble-vortex interactions. International Journal of Multiphase Flow, 2021, 136, 103541.	3.4	4
77	Response of NIPAAm-Ch gel to temperature changes and its effectiveness on nitrification as medium for immobilization. Journal of Applied Polymer Science, 2007, 103, 681-686.	2.6	3
78	Synthesis of a Fluorescent Solvatochromic Resin Using Suzukiâ€"Miyaura Cross-Coupling and Its Optical Waveguide Spectra to Measure the Solvent Polarity on the Surface. Materials, 2020, 13, 4483.	2.9	3
79	Simple enumeration of <i>Escherichia coli</i> concentrations in river water samples by measuring <i>Î²</i>-<scp>d</scp>-glucuronidase activities in a microplate reader. Water Science and Technology, 2021, 83, 1399-1406.	2.5	3
80	ANALYSIS OF MICROBIAL COMMUNITY STRUCTURE AND IN SITU ACTIVITY OF NITRIFYING BIOFILMS. Journal of Water and Environment Technology, 2004, 2, 65-74.	0.7	2
81	Control of algal production in a high rate algal pond: investigation through batch and continuous experiments. Water Science and Technology, 2014, 69, 2519-2525.	2.5	2
82	High spatial resolution analysis of the distribution of sulfate reduction and sulfide oxidation in hypoxic sediment in a eutrophic estuary. Water Science and Technology, 2017, 75, 418-426.	2.5	2
83	Development of the simple analytical method for determination of arsenate(V) ion using fluorescence-labeled DNA and cerium oxide nanoparticles. Water Science and Technology: Water Supply, 2022, 22, 5524-5534.	2.1	2
84	Screening Antibiotic-Resistant <i>Escherichia coli</i> in Wastewater and River Water Using a Novel Simple Phenotypic Antibiotic-Susceptibility Testing Method. ACS ES&T Water, 2022, 2, 1301-1308.	4.6	2
85	Significance of Substrate C/N Ratio on Structure and Activity of Nitrifying Biofilms Determined by <i>In situ</i> Hybridization and the Use of Microelectrodes. Journal of Japan Society on Water Environment, 1999, 22, 763-769.	0.4	1
86	Determination of Zn2+ in industrial wastewater by fluorescence spectroscopy with fluoroionophore. Journal of Japan Society of Civil Engineers Ser G (Environmental Research), 2013, 69, III_275-III_280.	0.1	0
87	Kinetic analysis of nitrifying biofilm growing on the rotating membrane disk. Water Science and Technology: Water Supply, 2001, 1, 111-118.	2.1	0
88	Development of a Paper-based Analytical Chip for the Detection of Bacterial 16S rRNA in Wastewater Samples. Bunseki Kagaku, 2020, 69, 715-722.	0.2	0