Seokhwan Hwang

List of Publications by Year
in descending order

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Version: 2024-02-01

116 papers	5,751 citations	117453 34 h-index	79541 73 g-index
116 all docs	116 docs citations	116 times ranked	6247 citing authors

#	Article	IF	Citations
1	Group-specific primer and probe sets to detect methanogenic communities using quantitative real-time polymerase chain reaction. Biotechnology and Bioengineering, 2005, 89, 670-679.	1.7	1,321
2	Absolute and relative QPCR quantification of plasmid copy number in Escherichia coli. Journal of Biotechnology, 2006, 123, 273-280.	1.9	590
3	A comprehensive microbial insight into two-stage anaerobic digestion of food waste-recycling wastewater. Water Research, 2010, 44, 4838-4849.	5.3	195
4	Qualitative and quantitative assessment of microbial community in batch anaerobic digestion of secondary sludge. Bioresource Technology, 2010, 101, 9461-9470.	4.8	144
5	Quantitative analysis of methanogenic community dynamics in three anaerobic batch digesters treating different wastewaters. Water Research, 2009, 43, 157-165.	5.3	141
6	Magnetite as an enhancer in methanogenic degradation of volatile fatty acids under ammonia-stressed condition. Journal of Environmental Management, 2019, 241, 418-426.	3.8	137
7	The effect of calcium on the anaerobic digestion treating swine wastewater. Biochemical Engineering Journal, 2006, 30, 33-38.	1.8	135
8	Use of real-time PCR for group-specific quantification of aceticlastic methanogens in anaerobic processes: Population dynamics and community structures. Biotechnology and Bioengineering, 2006, 93, 424-433.	1.7	132
9	Comprehensive analysis of microbial communities in full-scale mesophilic and thermophilic anaerobic digesters treating food waste-recycling wastewater. Bioresource Technology, 2018, 259, 442-450.	4.8	127
10	Methanogenic population dynamics assessed by real-time quantitative PCR in sludge granule in upflow anaerobic sludge blanket treating swine wastewater. Bioresource Technology, 2010, 101, S23-S28.	4.8	125
11	Real-time PCR determination of rRNA gene copy number: absolute and relative quantification assays with Escherichia coli. Applied Microbiology and Biotechnology, 2008, 78, 371-376.	1.7	114
12	Selective optimization in thermophilic acidogenesis of cheese-whey wastewater to acetic and butyric acids: partial acidification and methanation. Water Research, 2003, 37, 2467-2477.	5.3	102
13	Effect of microwave irradiation on the disintegration and acidogenesis of municipal secondary sludge. Chemical Engineering Journal, 2009, 153, 145-150.	6.6	91
14	Monitoring bacterial and archaeal community shifts in a mesophilic anaerobic batch reactor treating a high-strength organic wastewater. FEMS Microbiology Ecology, 2008, 65, 544-554.	1.3	90
15	Optimizing bioconversion of deproteinated cheese whey to mycelia of Ganoderma lucidum. Process Biochemistry, 2003, 38, 1685-1693.	1.8	86
16	Seasonal monitoring of bacteria and archaea in a full-scale thermophilic anaerobic digester treating food waste-recycling wastewater: Correlations between microbial community characteristics and process variables. Chemical Engineering Journal, 2016, 300, 291-299.	6.6	84
17	Continuous fermentation of food waste leachate for the production of volatile fatty acids and potential as a denitrification carbon source. Bioresource Technology, 2016, 207, 440-445.	4.8	83
18	Effect of output power, target temperature, and solid concentration on the solubilization of waste activated sludge using microwave irradiation. Bioresource Technology, 2010, 101, S13-S16.	4.8	82

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19	Use of food waste-recycling wastewater as an alternative carbon source for denitrification process: A full-scale study. Bioresource Technology, 2017, 245, 1016-1021.	4.8	69
20	Maximization of acetic acid production in partial acidogenesis of swine wastewater. Biotechnology and Bioengineering, 2001, 75, 521-529.	1.7	61
21	Bacteria and archaea communities in full-scale thermophilic and mesophilic anaerobic digesters treating food wastewater: Key process parameters and microbial indicators of process instability. Bioresource Technology, 2017, 245, 689-697.	4.8	60
22	Microbial communities underpinning mesophilic anaerobic digesters treating food wastewater or sewage sludge: A full-scale study. Bioresource Technology, 2018, 259, 388-397.	4.8	59
23	Effect of high temperature on bacterial community dynamics in anaerobic acidogenesis using mesophilic sludge inoculum. Bioresource Technology, 2010, 101, S17-S22.	4.8	55
24	Primer and probe sets for groupâ€specific quantification of the genera Nitrosomonas and Nitrosospira using realâ€time PCR. Biotechnology and Bioengineering, 2008, 99, 1374-1383.	1.7	51
25	Quantitative and qualitative transitions of methanogen community structure during the batch anaerobic digestion of cheese-processing wastewater. Applied Microbiology and Biotechnology, 2010, 87, 1963-1973.	1.7	51
26	Effect of microwave irradiation on cellular disintegration of Gram positive and negative cells. Applied Microbiology and Biotechnology, 2010, 87, 765-770.	1.7	47
27	Identifying methanogen community structures and their correlations with performance parameters in four full-scale anaerobic sludge digesters. Bioresource Technology, 2017, 228, 368-373.	4.8	46
28	Methanogenic community shift in anaerobic batch digesters treating swine wastewater. Water Research, 2010, 44, 4900-4907.	5.3	41
29	Effects of prolonged starvation on methanogenic population dynamics in anaerobic digestion of swine wastewater. Bioresource Technology, 2010, 101, S2-S6.	4.8	39
30	Temporal variation in methanogen communities of four different full-scale anaerobic digesters treating food waste-recycling wastewater. Bioresource Technology, 2014, 168, 59-63.	4.8	37
31	A comparative study on the process efficiencies and microbial community structures of six full-scale wet and semi-dry anaerobic digesters treating food wastes. Bioresource Technology, 2017, 245, 869-875.	4.8	37
32	Acclimation and activity of ammonia-oxidizing bacteria with respect to variations in zinc concentration, temperature, and microbial population. Bioresource Technology, 2011, 102, 4196-4203.	4.8	36
33	Correlations between bacterial populations and process parameters in four full-scale anaerobic digesters treating sewage sludge. Bioresource Technology, 2016, 214, 711-721.	4.8	35
34	Microbial community structure in full scale anaerobic mono-and co-digesters treating food waste and animal waste. Bioresource Technology, 2019, 282, 439-446.	4.8	35
35	Monitoring microbial community structure and variations in a full-scale petroleum refinery wastewater treatment plant. Bioresource Technology, 2020, 306, 123178.	4.8	35
36	Monitoring thiocyanate-degrading microbial community in relation to changes in process performance in mixed culture systems near washout. Water Research, 2008, 42, 1254-1262.	5.3	34

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37	Characterization of food waste-recycling wastewater as biogas feedstock. Bioresource Technology, 2015, 196, 200-208.	4.8	34
38	Biosorption of 1,2,3,4-tetrachlorodibenzo-p-dioxin and polychlorinated dibenzofurans by Bacillus pumilus. Water Research, 2000, 34, 349-353.	5.3	33
39	Biokinetics in acidogenesis of highly suspended organic wastewater by adenosine 5? triphosphate analysis. Biotechnology and Bioengineering, 2002, 78, 147-156.	1.7	32
40	Production of Ganoderma lucidum mycelium using cheese whey as an alternative substrate: response surface analysis and biokinetics. Biochemical Engineering Journal, 2003, 15, 93-99.	1.8	32
41	Nitrification resilience and community dynamics of ammonia-oxidizing bacteria with respect to ammonia loading shock in a nitrification reactor treating steel wastewater. Journal of Bioscience and Bioengineering, 2016, 122, 196-202.	1.1	32
42	Microbial community shifts in a farm-scale anaerobic digester treating swine waste: Correlations between bacteria communities associated with hydrogenotrophic methanogens and environmental conditions. Science of the Total Environment, 2017, 601-602, 167-176.	3.9	32
43	Comparison of methanogenic community structure and anaerobic process performance treating swine wastewater between pilot and optimized lab scale bioreactors. Bioresource Technology, 2013, 145, 48-56.	4.8	31
44	Anaerobic treatment of rice winery wastewater in an upflow filter packed with steel slag under different hydraulic loading conditions. Bioresource Technology, 2015, 193, 53-61.	4.8	31
45	Co-digestion of lignocellulosics with glucose using thermophilic acidogens. Biochemical Engineering Journal, 2004, 18, 225-229.	1.8	30
46	Growth condition and bacterial community for maximum hydrolysis of suspended organic materials in anaerobic digestion of food waste-recycling wastewater. Applied Microbiology and Biotechnology, 2010, 85, 1611-1618.	1.7	30
47	Performance of methanogenic reactors in temperature phased two-stage anaerobic digestion of swine wastewater. Journal of Bioscience and Bioengineering, 2012, 114, 635-639.	1.1	29
48	Single and combined inhibition of Methanosaeta concilii by ammonia, sodium ion and hydrogen sulfide. Bioresource Technology, 2019, 281, 401-411.	4.8	29
49	Methanogenic profiles by denaturing gradient gel electrophoresis using order-specific primers in anaerobic sludge digestion. Applied Microbiology and Biotechnology, 2008, 80, 269-276.	1.7	27
50	Common key acidogen populations in anaerobic reactors treating different wastewaters: Molecular identification and quantitative monitoring. Water Research, 2011, 45, 2539-2549.	5.3	27
51	Treatment of fish-processing wastewater by co-culture of Candida rugopelliculosa and Brachionus plicatilis. Water Research, 2003, 37, 2228-2232.	5.3	26
52	Effect of temperature and hydraulic retention time on volatile fatty acid production based on bacterial community structure in anaerobic acidogenesis using swine wastewater. Bioprocess and Biosystems Engineering, 2013, 36, 791-798.	1.7	26
53	Use of Whey Permeate for Cultivating Ganoderma lucidum Mycelia. Journal of Dairy Science, 2007, 90, 2141-2146.	1.4	25
54	Variations in methanogenic population structure under overloading of pre-acidified high-strength organic wastewaters. Process Biochemistry, 2011, 46, 1035-1038.	1.8	25

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55	Behavior of methanogens during start-up of farm-scale anaerobic digester treating swine wastewater. Process Biochemistry, 2013, 48, 1441-1445.	1.8	24
56	Modeling and optimization in anaerobic bioconversion of complex substrates to acetic and butyric acids. , 1997, 54, 451-460.		23
57	Mesophilic Acidogenesis of Food Waste-Recycling Wastewater: Effects of Hydraulic Retention Time, pH, and Temperature. Applied Biochemistry and Biotechnology, 2016, 180, 980-999.	1.4	23
58	Simultaneous effect of temperature, cyanide and ammonia-oxidizing bacteria concentrations on ammonia oxidation. Journal of Industrial Microbiology and Biotechnology, 2008, 35, 1331-1338.	1.4	22
59	Isolation and identification of thiocyanate utilizing chemolithotrophs from gold mine soils. Biodegradation, 2003, 14, 183-188.	1.5	21
60	Use of order-specific primers to investigate the methanogenic diversity in acetate enrichment system. Journal of Industrial Microbiology and Biotechnology, 2008, 35, 1345-1352.	1.4	20
61	Biokinetic evaluation and modeling of continuous thiocyanate biodegradation by Klebsiella sp. Biotechnology Progress, 2004, 20, 1069-1075.	1.3	19
62	Effects of temperature and pH on the biokinetic properties of thiocyanate biodegradation under autotrophic conditions. Water Research, 2013, 47, 251-258.	5.3	19
63	Long-term enrichment of anaerobic propionate-oxidizing consortia: Syntrophic culture development and growth optimization. Journal of Hazardous Materials, 2021, 401, 123230.	6.5	19
64	Biochemical indication of microbial mass changes using ATP and DNA measurement in biological treatment of thiocyanate. Applied Microbiology and Biotechnology, 2008, 80, 525-530.	1.7	18
65	Optimization of Growth Conditions of Lentinus edodes Mycelium on Corn Processing Waste Using Response Surface Analysis. Journal of Bioscience and Bioengineering, 2008, 105, 161-163.	1.1	17
66	Structures of microbial communities found in anaerobic batch runs that produce methane from propionic acidâ€"Seeded from full-scale anaerobic digesters above a certain threshold. Journal of Biotechnology, 2015, 214, 192-198.	1.9	17
67	Effects of inhibitions by sodium ion and ammonia and different inocula on acetate-utilizing methanogenesis: Methanogenic activity and succession of methanogens. Bioresource Technology, 2021, 334, 125202.	4.8	16
68	Fermentation and growth kinetic study of Aeromonas caviae under anaerobic conditions. Applied Microbiology and Biotechnology, 2009, 83, 767-773.	1.7	15
69	Development of an interspecies interaction model: An experiment on Clostridium cadaveris and Clostridium sporogenes under anaerobic condition. Journal of Environmental Management, 2019, 237, 247-254.	3.8	15
70	Tracking microbial community shifts during recovery process in overloaded anaerobic digesters under biological and non-biological supplementation strategies. Bioresource Technology, 2021, 340, 125614.	4.8	15
71	Redundancy Analysis Demonstration of the Relevance of Temperature to Ammonia-Oxidizing Bacterial Community Compositions in a Full-Scale Nitrifying Bioreactor Treating Saline Wastewater. Journal of Microbiology and Biotechnology, 2009, 19, 346-350.	0.9	15
72	Mycelial cultivation of Phellinus linteus using cheese-processing waste and optimization of bioconversion conditions. Biodegradation, 2011, 22, 103-110.	1.5	14

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73	Anaerobic digestion of cattle offal: protein and lipid-rich substrate degradation and population dynamics of acidogens and methanogens. Bioprocess and Biosystems Engineering, 2015, 38, 2349-2360.	1.7	14
74	Response Surface Analysis of Solid State Growth of Pleurotus ostreatus Mycelia utilizing Whey Permeate. Biotechnology Letters, 2005, 27, 1537-1541.	1.1	13
75	Correlation of microbial mass with ATP and DNA concentrations in acidogenesis of whey permeate. Biodegradation, 2008, 19, 187-195.	1.5	13
76	Dynamics of transitional acidogenic community along with methanogenic population during anaerobic digestion of swine wastewater. Process Biochemistry, 2011, 46, 1607-1613.	1.8	13
77	Temporal variation in bacterial and methanogenic communities of three full-scale anaerobic digesters treating swine wastewater. Environmental Science and Pollution Research, 2019, 26, 1217-1226.	2.7	13
78	Design and use of group-specific primers and probes for real-time quantitative PCR. Frontiers of Environmental Science and Engineering in China, 2011, 5, 28-39.	0.8	12
79	Enhancement of Hydrolysis and Biogas Production of Primary Sludge by Use of Mixtures of Protease and Lipase. Biotechnology and Bioprocess Engineering, 2020, 25, 132-140.	1.4	12
80	Effect of different microbial seeds on batch anaerobic digestion of fish waste. Bioresource Technology, 2022, 349, 126834.	4.8	12
81	Use of response surface analysis in selective bioconversion of starch wastewater to acetic acid using a mixed culture of anaerobes. Process Biochemistry, 2004, 39, 1131-1135.	1.8	11
82	Optimization of adenosine 5â€²-triphosphate extraction for the measurement ofâ£acidogenic biomass utilizing whey wastewater. Biodegradation, 2006, 17, 347-355.	1.5	11
83	Bioconversion of starch processing waste to Phellinus linteus mycelium in solid-state cultivation. Journal of Industrial Microbiology and Biotechnology, 2008, 35, 859-865.	1.4	10
84	Biokinetic parameters and behavior of Aeromonas hydrophila during anaerobic growth. Biotechnology Letters, 2008, 30, 1011-1016.	1.1	10
85	Unusual bacterial populations observed in a full-scale municipal sludge digester affected by intermittent seawater inputs. Journal of Industrial Microbiology and Biotechnology, 2009, 36, 769-773.	1.4	8
86	Use of real-time QPCR in biokinetics and modeling of two different ammonia-oxidizing bacteria growing simultaneously. Journal of Industrial Microbiology and Biotechnology, 2013, 40, 1015-1022.	1.4	8
87	Population dynamics of methanogens and methane formation associated with different loading rates of organic acids along with ammonia: redundancy analysis. Bioprocess and Biosystems Engineering, 2014, 37, 977-981.	1.7	8
88	Biomethanation potential of marine macroalgal Ulva biomass in sequencing batch mode: Changes in process performance and microbial community structure over five cycles. Biomass and Bioenergy, 2016, 91, 143-149.	2.9	8
89	Evaluation of Feasibility of Using the Bacteriophage T4 Lysozyme to Improve the Hydrolysis and Biochemical Methane Potential of Secondary Sludge. Energies, 2019, 12, 3644.	1.6	8
90	Shift in bacterial diversity in acidogenesis of gelatin and gluten seeded with various anaerobic digester inocula. Bioresource Technology, 2020, 306, 123158.	4.8	8

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91	Use of quantitative real-time PCR to monitor population dynamics of ammonia-oxidizing bacteria in batch process. Journal of Industrial Microbiology and Biotechnology, 2008, 35, 1339-1344.	1.4	7
92	Growth kinetic parameter estimation of Klebsiella sp. utilizing thiocyanate. Process Biochemistry, 2005, 40, 1363-1366.	1.8	6
93	Short Communication: Cultivation of Lentinus edodes Mycelia Using Whey Permeate as an Alternative Growth Substrate. Journal of Dairy Science, 2006, 89, 1113-1115.	1.4	6
94	Shift in methanogenic community in protein degradation using different inocula. Bioresource Technology, 2021, 333, 125145.	4.8	6
95	Proactive Prediction of Total Volatile Fatty Acids Concentration in Multiple Full-Scale Food Waste Anaerobic Digestion Systems Using Substrate Characteristics with Machine Learning and Feature Analysis. Waste and Biomass Valorization, 2023, 14, 593-608.	1.8	6
96	Augmentation of secondary organics for enhanced pretreatment of thermomechanical pulping wastewater in biological acidogenesis. Process Biochemistry, 2003, 38, 1489-1495.	1.8	5
97	Feasibility assay in phase-separated anaerobic treatment of cheese industry wastewater. Biotechnology and Bioprocess Engineering, 1997, 2, 53-58.	1.4	4
98	Growth kinetic parameter estimation of Candida rugopelliculosa using a fish manufacturing effluent. Biotechnology Letters, 2001, 23, 2041-2045.	1.1	4
99	Modeling and Biokinetics in Anaerobic Acidogenesis of Starch-Processing Wastewater to Acetic Acid. Biotechnology Progress, 2008, 20, 636-638.	1.3	4
100	Resource recovery using whey permeate to cultivate Phellinus linteus mycelium: Solid-state and submerged liquid fermentation. Journal of Dairy Science, 2015, 98, 6739-6748.	1.4	4
101	Nutrient Recovery of Starch Processing Waste to Cordyceps militaris: Solid State Cultivation and Submerged Liquid Cultivation. Applied Biochemistry and Biotechnology, 2016, 180, 274-288.	1.4	4
102	A snapshot of microbial community structures in 20 different field-scale anaerobic bioreactors treating food waste. Journal of Environmental Management, 2019, 248, 109297.	3.8	4
103	Application of Response Surface Analysis to Evaluate the Effect of Concentrations of Ammonia and Propionic Acid on Acetate-Utilizing Methanogenesis. Energies, 2019, 12, 3394.	1.6	4
104	Simultaneous effect of cathode potentials and magnetite concentrations on methanogenesis of acetic acid under different ammonia conditions. Environmental Engineering Research, 2022, 27, 210317-0.	1.5	4
105	Effect of Substrate-to-Inoculum Ratio and Temperatures During the Start-up of Anaerobic Digestion of Fish Waste. , 2022, 2, 17-29.		4
106	Use of Swine Wastewater as Alternative Substrate for Mycelial Bioconversion of White Rot Fungi. Applied Biochemistry and Biotechnology, 2017, 181, 844-859.	1.4	3
107	Substrate Characteristics Fluctuations in Full-Scale Anaerobic Digesters Treating Food Waste at Marginal Organic Loading Rates: A Case Study. Energies, 2022, 15, 3471.	1.6	3
108	Enhancement of Voting Regressor Algorithm on Predicting Total Ammonia Nitrogen Concentration in Fish Waste Anaerobiosis. Waste and Biomass Valorization, 2023, 14, 461-478.	1.8	3

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109	Modeling and optimization in anaerobic bioconversion of complex substrates to acetic and butyric acids. , 1997, 54, 451.		2
110	Effect of initial bacterial diversity on anaerobic degradation of long-chain fatty acids. Biomass and Bioenergy, 2022, 162, 106498.	2.9	2
111	Anaerobic Digestion of Food Waste-recycling Wastewater. , 2010, , .		1
112	Comparison of Municipal and Coke Wastewater Sludges in Disintegration and Acidogenesis by Microwave. Journal of Environmental Engineering, ASCE, 2011, 137, 740-745.	0.7	1
113	Startup of Demo-Scale Anaerobic Digestion Plant Treating Food Waste Leachate: Process Instability and Recovery. International Journal of Environmental Research and Public Health, 2022, 19, 6903.	1.2	1
114	Influence of Stepwise Increased Organic Loading on Anaerobic Mono-digestion of Dead Fish in Sequencing Batch Reactor Process. Waste and Biomass Valorization, 2023, 14, 523-535.	1.8	1
115	Characteristics of Food Waste Leachate Derived from Feed Supplement- and Compost-Producing Facilities. Journal of the Korea Organic Resource Recycling Association, 2015, 23, 68-77.	0.1	0
116	Biokinetics of protein degrading Clostridium cadaveris and Clostridium sporogenes in batch and continuous mode of operations. Journal of Microbiology and Biotechnology, 2020, 30, 533-539.	0.9	0