

Seokhwan Hwang

List of Publications by Year in descending order

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116
papers

5,751
citations

117571

34
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79644

73
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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. <i>Biotechnology and Bioengineering</i> , 2005, 89, 670-679.	1.7	1,321
2	Absolute and relative QPCR quantification of plasmid copy number in <i>Escherichia coli</i> . <i>Journal of Biotechnology</i> , 2006, 123, 273-280.	1.9	590
3	A comprehensive microbial insight into two-stage anaerobic digestion of food waste-recycling wastewater. <i>Water Research</i> , 2010, 44, 4838-4849.	5.3	195
4	Qualitative and quantitative assessment of microbial community in batch anaerobic digestion of secondary sludge. <i>Bioresource Technology</i> , 2010, 101, 9461-9470.	4.8	144
5	Quantitative analysis of methanogenic community dynamics in three anaerobic batch digesters treating different wastewaters. <i>Water Research</i> , 2009, 43, 157-165.	5.3	141
6	Magnetite as an enhancer in methanogenic degradation of volatile fatty acids under ammonia-stressed condition. <i>Journal of Environmental Management</i> , 2019, 241, 418-426.	3.8	137
7	The effect of calcium on the anaerobic digestion treating swine wastewater. <i>Biochemical Engineering Journal</i> , 2006, 30, 33-38.	1.8	135
8	Use of real-time PCR for group-specific quantification of acetoclastic methanogens in anaerobic processes: Population dynamics and community structures. <i>Biotechnology and Bioengineering</i> , 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. <i>Bioresource Technology</i> , 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. <i>Bioresource Technology</i> , 2010, 101, S23-S28.	4.8	125
11	Real-time PCR determination of rRNA gene copy number: absolute and relative quantification assays with <i>Escherichia coli</i> . <i>Applied Microbiology and Biotechnology</i> , 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. <i>Water Research</i> , 2003, 37, 2467-2477.	5.3	102
13	Effect of microwave irradiation on the disintegration and acidogenesis of municipal secondary sludge. <i>Chemical Engineering Journal</i> , 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. <i>FEMS Microbiology Ecology</i> , 2008, 65, 544-554.	1.3	90
15	Optimizing bioconversion of deproteinated cheese whey to mycelia of <i>Ganoderma lucidum</i> . <i>Process Biochemistry</i> , 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. <i>Chemical Engineering Journal</i> , 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. <i>Bioresource Technology</i> , 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. <i>Bioresource Technology</i> , 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. <i>Bioresource Technology</i> , 2017, 245, 1016-1021.	4.8	69
20	Maximization of acetic acid production in partial acidogenesis of swine wastewater. <i>Biotechnology and Bioengineering</i> , 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. <i>Bioresource Technology</i> , 2017, 245, 689-697.	4.8	60
22	Microbial communities underpinning mesophilic anaerobic digesters treating food wastewater or sewage sludge: A full-scale study. <i>Bioresource Technology</i> , 2018, 259, 388-397.	4.8	59
23	Effect of high temperature on bacterial community dynamics in anaerobic acidogenesis using mesophilic sludge inoculum. <i>Bioresource Technology</i> , 2010, 101, S17-S22.	4.8	55
24	Primer and probe sets for group-specific quantification of the genera <i>Nitrosomonas</i> and <i>Nitrospira</i> using real-time PCR. <i>Biotechnology and Bioengineering</i> , 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. <i>Applied Microbiology and Biotechnology</i> , 2010, 87, 1963-1973.	1.7	51
26	Effect of microwave irradiation on cellular disintegration of Gram positive and negative cells. <i>Applied Microbiology and Biotechnology</i> , 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. <i>Bioresource Technology</i> , 2017, 228, 368-373.	4.8	46
28	Methanogenic community shift in anaerobic batch digesters treating swine wastewater. <i>Water Research</i> , 2010, 44, 4900-4907.	5.3	41
29	Effects of prolonged starvation on methanogenic population dynamics in anaerobic digestion of swine wastewater. <i>Bioresource Technology</i> , 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. <i>Bioresource Technology</i> , 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. <i>Bioresource Technology</i> , 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. <i>Bioresource Technology</i> , 2011, 102, 4196-4203.	4.8	36
33	Correlations between bacterial populations and process parameters in four full-scale anaerobic digesters treating sewage sludge. <i>Bioresource Technology</i> , 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. <i>Bioresource Technology</i> , 2019, 282, 439-446.	4.8	35
35	Monitoring microbial community structure and variations in a full-scale petroleum refinery wastewater treatment plant. <i>Bioresource Technology</i> , 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. <i>Water Research</i> , 2008, 42, 1254-1262.	5.3	34

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37	Characterization of food waste-recycling wastewater as biogas feedstock. <i>Bioresource Technology</i> , 2015, 196, 200-208.	4.8	34
38	Biosorption of 1,2,3,4-tetrachlorodibenzo-p-dioxin and polychlorinated dibenzofurans by <i>Bacillus pumilus</i> . <i>Water Research</i> , 2000, 34, 349-353.	5.3	33
39	Biokinetics in acidogenesis of highly suspended organic wastewater by adenosine 5' triphosphate analysis. <i>Biotechnology and Bioengineering</i> , 2002, 78, 147-156.	1.7	32
40	Production of <i>Ganoderma lucidum</i> mycelium using cheese whey as an alternative substrate: response surface analysis and biokinetics. <i>Biochemical Engineering Journal</i> , 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. <i>Journal of Bioscience and Bioengineering</i> , 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. <i>Science of the Total Environment</i> , 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. <i>Bioresource Technology</i> , 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. <i>Bioresource Technology</i> , 2015, 193, 53-61.	4.8	31
45	Co-digestion of lignocellulosics with glucose using thermophilic acidogens. <i>Biochemical Engineering Journal</i> , 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. <i>Applied Microbiology and Biotechnology</i> , 2010, 85, 1611-1618.	1.7	30
47	Performance of methanogenic reactors in temperature phased two-stage anaerobic digestion of swine wastewater. <i>Journal of Bioscience and Bioengineering</i> , 2012, 114, 635-639.	1.1	29
48	Single and combined inhibition of <i>Methanosaeta concilii</i> by ammonia, sodium ion and hydrogen sulfide. <i>Bioresource Technology</i> , 2019, 281, 401-411.	4.8	29
49	Methanogenic profiles by denaturing gradient gel electrophoresis using order-specific primers in anaerobic sludge digestion. <i>Applied Microbiology and Biotechnology</i> , 2008, 80, 269-276.	1.7	27
50	Common key acidogen populations in anaerobic reactors treating different wastewaters: Molecular identification and quantitative monitoring. <i>Water Research</i> , 2011, 45, 2539-2549.	5.3	27
51	Treatment of fish-processing wastewater by co-culture of <i>Candida rugopelliculosa</i> and <i>Brachionus plicatilis</i> . <i>Water Research</i> , 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. <i>Bioprocess and Biosystems Engineering</i> , 2013, 36, 791-798.	1.7	26
53	Use of Whey Permeate for Cultivating <i>Ganoderma lucidum</i> Mycelia. <i>Journal of Dairy Science</i> , 2007, 90, 2141-2146.	1.4	25
54	Variations in methanogenic population structure under overloading of pre-acidified high-strength organic wastewaters. <i>Process Biochemistry</i> , 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. <i>Process Biochemistry</i> , 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. <i>Applied Biochemistry and Biotechnology</i> , 2016, 180, 980-999.	1.4	23
58	Simultaneous effect of temperature, cyanide and ammonia-oxidizing bacteria concentrations on ammonia oxidation. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2008, 35, 1331-1338.	1.4	22
59	Isolation and identification of thiocyanate utilizing chemolithotrophs from gold mine soils. <i>Biodegradation</i> , 2003, 14, 183-188.	1.5	21
60	Use of order-specific primers to investigate the methanogenic diversity in acetate enrichment system. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2008, 35, 1345-1352.	1.4	20
61	Biokinetic evaluation and modeling of continuous thiocyanate biodegradation by <i>Klebsiella</i> sp. <i>Biotechnology Progress</i> , 2004, 20, 1069-1075.	1.3	19
62	Effects of temperature and pH on the biokinetic properties of thiocyanate biodegradation under autotrophic conditions. <i>Water Research</i> , 2013, 47, 251-258.	5.3	19
63	Long-term enrichment of anaerobic propionate-oxidizing consortia: Syntrophic culture development and growth optimization. <i>Journal of Hazardous Materials</i> , 2021, 401, 123230.	6.5	19
64	Biochemical indication of microbial mass changes using ATP and DNA measurement in biological treatment of thiocyanate. <i>Applied Microbiology and Biotechnology</i> , 2008, 80, 525-530.	1.7	18
65	Optimization of Growth Conditions of <i>Lentinus edodes</i> Mycelium on Corn Processing Waste Using Response Surface Analysis. <i>Journal of Bioscience and Bioengineering</i> , 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. <i>Journal of Biotechnology</i> , 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. <i>Bioresource Technology</i> , 2021, 334, 125202.	4.8	16
68	Fermentation and growth kinetic study of <i>Aeromonas caviae</i> under anaerobic conditions. <i>Applied Microbiology and Biotechnology</i> , 2009, 83, 767-773.	1.7	15
69	Development of an interspecies interaction model: An experiment on <i>Clostridium cadaveris</i> and <i>Clostridium sporogenes</i> under anaerobic condition. <i>Journal of Environmental Management</i> , 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. <i>Bioresource Technology</i> , 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. <i>Journal of Microbiology and Biotechnology</i> , 2009, 19, 346-350.	0.9	15
72	Mycelial cultivation of <i>Phellinus linteus</i> using cheese-processing waste and optimization of bioconversion conditions. <i>Biodegradation</i> , 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. <i>Bioprocess and Biosystems Engineering</i> , 2015, 38, 2349-2360.	1.7	14
74	Response Surface Analysis of Solid State Growth of <i>Pleurotus ostreatus</i> Mycelia utilizing Whey Permeate. <i>Biotechnology Letters</i> , 2005, 27, 1537-1541.	1.1	13
75	Correlation of microbial mass with ATP and DNA concentrations in acidogenesis of whey permeate. <i>Biodegradation</i> , 2008, 19, 187-195.	1.5	13
76	Dynamics of transitional acidogenic community along with methanogenic population during anaerobic digestion of swine wastewater. <i>Process Biochemistry</i> , 2011, 46, 1607-1613.	1.8	13
77	Temporal variation in bacterial and methanogenic communities of three full-scale anaerobic digesters treating swine wastewater. <i>Environmental Science and Pollution Research</i> , 2019, 26, 1217-1226.	2.7	13
78	Design and use of group-specific primers and probes for real-time quantitative PCR. <i>Frontiers of Environmental Science and Engineering in China</i> , 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. <i>Biotechnology and Bioprocess Engineering</i> , 2020, 25, 132-140.	1.4	12
80	Effect of different microbial seeds on batch anaerobic digestion of fish waste. <i>Bioresource Technology</i> , 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. <i>Process Biochemistry</i> , 2004, 39, 1131-1135.	1.8	11
82	Optimization of adenosine 5â€²-triphosphate extraction for the measurement of acidogenic biomass utilizing whey wastewater. <i>Biodegradation</i> , 2006, 17, 347-355.	1.5	11
83	Bioconversion of starch processing waste to <i>Phellinus linteus</i> mycelium in solid-state cultivation. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2008, 35, 859-865.	1.4	10
84	Biokinetic parameters and behavior of <i>Aeromonas hydrophila</i> during anaerobic growth. <i>Biotechnology Letters</i> , 2008, 30, 1011-1016.	1.1	10
85	Unusual bacterial populations observed in a full-scale municipal sludge digester affected by intermittent seawater inputs. <i>Journal of Industrial Microbiology and Biotechnology</i> , 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. <i>Journal of Industrial Microbiology and Biotechnology</i> , 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. <i>Bioprocess and Biosystems Engineering</i> , 2014, 37, 977-981.	1.7	8
88	Biomethanation potential of marine macroalgal <i>Ulva</i> biomass in sequencing batch mode: Changes in process performance and microbial community structure over five cycles. <i>Biomass and Bioenergy</i> , 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. <i>Energies</i> , 2019, 12, 3644.	1.6	8
90	Shift in bacterial diversity in acidogenesis of gelatin and gluten seeded with various anaerobic digester inocula. <i>Bioresource Technology</i> , 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. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2008, 35, 1339-1344.	1.4	7
92	Growth kinetic parameter estimation of <i>Klebsiella</i> sp. utilizing thiocyanate. <i>Process Biochemistry</i> , 2005, 40, 1363-1366.	1.8	6
93	Short Communication: Cultivation of <i>Lentinus edodes</i> Mycelia Using Whey Permeate as an Alternative Growth Substrate. <i>Journal of Dairy Science</i> , 2006, 89, 1113-1115.	1.4	6
94	Shift in methanogenic community in protein degradation using different inocula. <i>Bioresource Technology</i> , 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. <i>Waste and Biomass Valorization</i> , 2023, 14, 593-608.	1.8	6
96	Augmentation of secondary organics for enhanced pretreatment of thermomechanical pulping wastewater in biological acidogenesis. <i>Process Biochemistry</i> , 2003, 38, 1489-1495.	1.8	5
97	Feasibility assay in phase-separated anaerobic treatment of cheese industry wastewater. <i>Biotechnology and Bioprocess Engineering</i> , 1997, 2, 53-58.	1.4	4
98	Growth kinetic parameter estimation of <i>Candida rugopelliculosa</i> using a fish manufacturing effluent. <i>Biotechnology Letters</i> , 2001, 23, 2041-2045.	1.1	4
99	Modeling and Biokinetics in Anaerobic Acidogenesis of Starch-Processing Wastewater to Acetic Acid. <i>Biotechnology Progress</i> , 2008, 20, 636-638.	1.3	4
100	Resource recovery using whey permeate to cultivate <i>Phellinus linteus</i> mycelium: Solid-state and submerged liquid fermentation. <i>Journal of Dairy Science</i> , 2015, 98, 6739-6748.	1.4	4
101	Nutrient Recovery of Starch Processing Waste to <i>Cordyceps militaris</i> : Solid State Cultivation and Submerged Liquid Cultivation. <i>Applied Biochemistry and Biotechnology</i> , 2016, 180, 274-288.	1.4	4
102	A snapshot of microbial community structures in 20 different field-scale anaerobic bioreactors treating food waste. <i>Journal of Environmental Management</i> , 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. <i>Energies</i> , 2019, 12, 3394.	1.6	4
104	Simultaneous effect of cathode potentials and magnetite concentrations on methanogenesis of acetic acid under different ammonia conditions. <i>Environmental Engineering Research</i> , 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. <i>Applied Biochemistry and Biotechnology</i> , 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. <i>Energies</i> , 2022, 15, 3471.	1.6	3
108	Enhancement of Voting Regressor Algorithm on Predicting Total Ammonia Nitrogen Concentration in Fish Waste Anaerobiosis. <i>Waste and Biomass Valorization</i> , 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. <i>Biotechnology and Bioengineering</i> , 1997, 54, 451-460.	1.7	2
110	Effect of initial bacterial diversity on anaerobic degradation of long-chain fatty acids. <i>Biomass and Bioenergy</i> , 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. <i>Journal of Environmental Engineering, ASCE</i> , 2011, 137, 740-745.	0.7	1
113	Startup of Demo-Scale Anaerobic Digestion Plant Treating Food Waste Leachate: Process Instability and Recovery. <i>International Journal of Environmental Research and Public Health</i> , 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. <i>Waste and Biomass Valorization</i> , 2023, 14, 523-535.	1.8	1
115	Characteristics of Food Waste Leachate Derived from Feed Supplement- and Compost-Producing Facilities. <i>Journal of the Korea Organic Resource Recycling Association</i> , 2015, 23, 68-77.	0.1	0
116	Biokinetics of protein degrading <i>Clostridium cadaveris</i> and <i>Clostridium sporogenes</i> in batch and continuous mode of operations. <i>Journal of Microbiology and Biotechnology</i> , 2020, 30, 533-539.	0.9	0