

# Seokhwan Hwang

## List of Publications by Citations

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113  
papers

4,493  
citations

31  
h-index

65  
g-index

116  
ext. papers

5,195  
ext. citations

6.7  
avg, IF

5.63  
L-index

#	Paper	IF	Citations
113	Group-specific primer and probe sets to detect methanogenic communities using quantitative real-time polymerase chain reaction. <i>Biotechnology and Bioengineering</i> , <b>2005</b> , 89, 670-9	4.9	995
112	Absolute and relative QPCR quantification of plasmid copy number in <i>Escherichia coli</i> . <i>Journal of Biotechnology</i> , <b>2006</b> , 123, 273-80	3.7	441
111	A comprehensive microbial insight into two-stage anaerobic digestion of food waste-recycling wastewater. <i>Water Research</i> , <b>2010</b> , 44, 4838-49	12.5	166
110	Qualitative and quantitative assessment of microbial community in batch anaerobic digestion of secondary sludge. <i>Bioresource Technology</i> , <b>2010</b> , 101, 9461-70	11	131
109	Quantitative analysis of methanogenic community dynamics in three anaerobic batch digesters treating different wastewaters. <i>Water Research</i> , <b>2009</b> , 43, 157-65	12.5	125
108	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> , <b>2006</b> , 93, 424-33	4.9	121
107	The effect of calcium on the anaerobic digestion treating swine wastewater. <i>Biochemical Engineering Journal</i> , <b>2006</b> , 30, 33-38	4.2	111
106	Methanogenic population dynamics assessed by real-time quantitative PCR in sludge granule in upflow anaerobic sludge blanket treating swine wastewater. <i>Bioresource Technology</i> , <b>2010</b> , 101 Suppl 1, S23-8	11	107
105	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> , <b>2008</b> , 78, 371-6	5.7	104
104	Selective optimization in thermophilic acidogenesis of cheese-whey wastewater to acetic and butyric acids: partial acidification and methanation. <i>Water Research</i> , <b>2003</b> , 37, 2467-77	12.5	91
103	Effect of microwave irradiation on the disintegration and acidogenesis of municipal secondary sludge. <i>Chemical Engineering Journal</i> , <b>2009</b> , 153, 145-150	14.7	84
102	Comprehensive analysis of microbial communities in full-scale mesophilic and thermophilic anaerobic digesters treating food waste-recycling wastewater. <i>Bioresource Technology</i> , <b>2018</b> , 259, 442-450	11	82
101	Monitoring bacterial and archaeal community shifts in a mesophilic anaerobic batch reactor treating a high-strength organic wastewater. <i>FEMS Microbiology Ecology</i> , <b>2008</b> , 65, 544-54	4.3	80
100	Optimizing bioconversion of deproteinated cheese whey to mycelia of <i>Ganoderma lucidum</i> . <i>Process Biochemistry</i> , <b>2003</b> , 38, 1685-1693	4.8	77
99	Effect of output power, target temperature, and solid concentration on the solubilization of waste activated sludge using microwave irradiation. <i>Bioresource Technology</i> , <b>2010</b> , 101 Suppl 1, S13-6	11	69
98	Continuous fermentation of food waste leachate for the production of volatile fatty acids and potential as a denitrification carbon source. <i>Bioresource Technology</i> , <b>2016</b> , 207, 440-5	11	64
97	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> , <b>2016</b> , 300, 291-299	14.7	59

96	Magnetite as an enhancer in methanogenic degradation of volatile fatty acids under ammonia-stressed condition. <i>Journal of Environmental Management</i> , <b>2019</b> , 241, 418-426	7.9	54
95	Maximization of acetic acid production in partial acidogenesis of swine wastewater. <i>Biotechnology and Bioengineering</i> , <b>2001</b> , 75, 521-9	4.9	51
94	Microbial communities underpinning mesophilic anaerobic digesters treating food wastewater or sewage sludge: A full-scale study. <i>Bioresource Technology</i> , <b>2018</b> , 259, 388-397	11	49
93	Quantitative and qualitative transitions of methanogen community structure during the batch anaerobic digestion of cheese-processing wastewater. <i>Applied Microbiology and Biotechnology</i> , <b>2010</b> , 87, 1963-73	5.7	48
92	Effect of high temperature on bacterial community dynamics in anaerobic acidogenesis using mesophilic sludge inoculum. <i>Bioresource Technology</i> , <b>2010</b> , 101 Suppl 1, S17-22	11	46
91	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> , <b>2017</b> , 245, 689-697	11	44
90	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> , <b>2008</b> , 99, 1374-83	4.9	42
89	Use of food waste-recycling wastewater as an alternative carbon source for denitrification process: A full-scale study. <i>Bioresource Technology</i> , <b>2017</b> , 245, 1016-1021	11	40
88	Methanogenic community shift in anaerobic batch digesters treating swine wastewater. <i>Water Research</i> , <b>2010</b> , 44, 4900-7	12.5	38
87	Effect of microwave irradiation on cellular disintegration of Gram positive and negative cells. <i>Applied Microbiology and Biotechnology</i> , <b>2010</b> , 87, 765-70	5.7	38
86	Identifying methanogen community structures and their correlations with performance parameters in four full-scale anaerobic sludge digesters. <i>Bioresource Technology</i> , <b>2017</b> , 228, 368-373	11	36
85	Effects of prolonged starvation on methanogenic population dynamics in anaerobic digestion of swine wastewater. <i>Bioresource Technology</i> , <b>2010</b> , 101 Suppl 1, S2-6	11	32
84	Biosorption of 1,2,3,4-tetrachlorodibenzo-p-dioxin and polychlorinated dibenzofurans by <i>Bacillus pumilus</i> . <i>Water Research</i> , <b>2000</b> , 34, 349-353	12.5	32
83	Temporal variation in methanogen communities of four different full-scale anaerobic digesters treating food waste-recycling wastewater. <i>Bioresource Technology</i> , <b>2014</b> , 168, 59-63	11	31
82	Biokinetics in acidogenesis of highly suspended organic wastewater by adenosine 5triphosphate analysis. <i>Biotechnology and Bioengineering</i> , <b>2002</b> , 78, 147-56	4.9	31
81	Production of <i>Ganoderma lucidum</i> mycelium using cheese whey as an alternative substrate: response surface analysis and biokinetics. <i>Biochemical Engineering Journal</i> , <b>2003</b> , 15, 93-99	4.2	31
80	Acclimation and activity of ammonia-oxidizing bacteria with respect to variations in zinc concentration, temperature, and microbial population. <i>Bioresource Technology</i> , <b>2011</b> , 102, 4196-203	11	30
79	Characterization of food waste-recycling wastewater as biogas feedstock. <i>Bioresource Technology</i> , <b>2015</b> , 196, 200-8	11	29

78	Monitoring thiocyanate-degrading microbial community in relation to changes in process performance in mixed culture systems near washout. <i>Water Research</i> , <b>2008</b> , 42, 1254-62	12.5	29
77	Correlations between bacterial populations and process parameters in four full-scale anaerobic digesters treating sewage sludge. <i>Bioresource Technology</i> , <b>2016</b> , 214, 711-721	11	29
76	Comparison of methanogenic community structure and anaerobic process performance treating swine wastewater between pilot and optimized lab scale bioreactors. <i>Bioresource Technology</i> , <b>2013</b> , 145, 48-56	11	28
75	Common key acidogen populations in anaerobic reactors treating different wastewaters: molecular identification and quantitative monitoring. <i>Water Research</i> , <b>2011</b> , 45, 2539-49	12.5	27
74	Co-digestion of lignocellulosics with glucose using thermophilic acidogens. <i>Biochemical Engineering Journal</i> , <b>2004</b> , 18, 225-229	4.2	27
73	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> , <b>2017</b> , 245, 869-875	11	26
72	Anaerobic treatment of rice winery wastewater in an upflow filter packed with steel slag under different hydraulic loading conditions. <i>Bioresource Technology</i> , <b>2015</b> , 193, 53-61	11	26
71	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> , <b>2017</b> , 601-602, 167-176	10.2	25
70	Performance of methanogenic reactors in temperature phased two-stage anaerobic digestion of swine wastewater. <i>Journal of Bioscience and Bioengineering</i> , <b>2012</b> , 114, 635-9	3.3	25
69	Microbial community structure in full scale anaerobic mono-and co-digesters treating food waste and animal waste. <i>Bioresource Technology</i> , <b>2019</b> , 282, 439-446	11	24
68	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> , <b>2010</b> , 85, 1611-8	5.7	24
67	Methanogenic profiles by denaturing gradient gel electrophoresis using order-specific primers in anaerobic sludge digestion. <i>Applied Microbiology and Biotechnology</i> , <b>2008</b> , 80, 269-76	5.7	24
66	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> , <b>2013</b> , 36, 791-8	3.7	22
65	Variations in methanogenic population structure under overloading of pre-acidified high-strength organic wastewaters. <i>Process Biochemistry</i> , <b>2011</b> , 46, 1035-1038	4.8	22
64	Single and combined inhibition of <i>Methanosaeta concilii</i> by ammonia, sodium ion and hydrogen sulfide. <i>Bioresource Technology</i> , <b>2019</b> , 281, 401-411	11	21
63	Mesophilic Acidogenesis of Food Waste-Recycling Wastewater: Effects of Hydraulic Retention Time, pH, and Temperature. <i>Applied Biochemistry and Biotechnology</i> , <b>2016</b> , 180, 980-999	3.2	21
62	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> , <b>2016</b> , 122, 196-202	3.3	21
61	Behavior of methanogens during start-up of farm-scale anaerobic digester treating swine wastewater. <i>Process Biochemistry</i> , <b>2013</b> , 48, 1441-1445	4.8	21

60	Modeling and optimization in anaerobic bioconversion of complex substrates to acetic and butyric acids. <i>Biotechnology and Bioengineering</i> , <b>1997</b> , 54, 451-60	4.9	19
59	Effects of temperature and pH on the biokinetic properties of thiocyanate biodegradation under autotrophic conditions. <i>Water Research</i> , <b>2013</b> , 47, 251-8	12.5	18
58	Simultaneous effect of temperature, cyanide and ammonia-oxidizing bacteria concentrations on ammonia oxidation. <i>Journal of Industrial Microbiology and Biotechnology</i> , <b>2008</b> , 35, 1331-8	4.2	18
57	Biokinetic evaluation and modeling of continuous thiocyanate biodegradation by <i>Klebsiella</i> sp. <i>Biotechnology Progress</i> , <b>2004</b> , 20, 1069-75	2.8	18
56	Isolation and identification of thiocyanate utilizing chemolithotrophs from gold mine soils. <i>Biodegradation</i> , <b>2003</b> , 14, 183-8	4.1	18
55	Use of order-specific primers to investigate the methanogenic diversity in acetate enrichment system. <i>Journal of Industrial Microbiology and Biotechnology</i> , <b>2008</b> , 35, 1345-52	4.2	17
54	Use of whey permeate for cultivating <i>Ganoderma lucidum</i> mycelia. <i>Journal of Dairy Science</i> , <b>2007</b> , 90, 2141-6	4	17
53	Treatment of fish-processing wastewater by co-culture of <i>Candida rugopelliculosa</i> and <i>Brachionus plicatilis</i> . <i>Water Research</i> , <b>2003</b> , 37, 2228-32	12.5	17
52	Structures of microbial communities found in anaerobic batch runs that produce methane from propionic acid--Seeded from full-scale anaerobic digesters above a certain threshold. <i>Journal of Biotechnology</i> , <b>2015</b> , 214, 192-8	3.7	14
51	Monitoring microbial community structure and variations in a full-scale petroleum refinery wastewater treatment plant. <i>Bioresource Technology</i> , <b>2020</b> , 306, 123178	11	14
50	Biochemical indication of microbial mass changes using ATP and DNA measurement in biological treatment of thiocyanate. <i>Applied Microbiology and Biotechnology</i> , <b>2008</b> , 80, 525-30	5.7	14
49	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> , <b>2009</b> , 19, 346-50	3.3	13
48	Mycelial cultivation of <i>Phellinus linteus</i> using cheese-processing waste and optimization of bioconversion conditions. <i>Biodegradation</i> , <b>2011</b> , 22, 103-10	4.1	12
47	Dynamics of transitional acidogenic community along with methanogenic population during anaerobic digestion of swine wastewater. <i>Process Biochemistry</i> , <b>2011</b> , 46, 1607-1613	4.8	12
46	Design and use of group-specific primers and probes for real-time quantitative PCR. <i>Frontiers of Environmental Science and Engineering in China</i> , <b>2011</b> , 5, 28-39		12
45	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> , <b>2008</b> , 105, 161-3	3.3	12
44	Response surface analysis of solid state growth of <i>Pleurotus ostreatus</i> mycelia utilizing whey permeate. <i>Biotechnology Letters</i> , <b>2005</b> , 27, 1537-41	3	12
43	Anaerobic digestion of cattle offal: protein and lipid-rich substrate degradation and population dynamics of acidogens and methanogens. <i>Bioprocess and Biosystems Engineering</i> , <b>2015</b> , 38, 2349-60	3.7	11

42	Optimization of adenosine 5atriphosphate extraction for the measurement of acidogenic biomass utilizing whey wastewater. <i>Biodegradation</i> , <b>2006</b> , 17, 347-55	4.1	11
41	Use of response surface analysis in selective bioconversion of starch wastewater to acetic acid using a mixed culture of anaerobes. <i>Process Biochemistry</i> , <b>2004</b> , 39, 1131-1135	4.8	11
40	Fermentation and growth kinetic study of <i>Aeromonas caviae</i> under anaerobic conditions. <i>Applied Microbiology and Biotechnology</i> , <b>2009</b> , 83, 767-73	5.7	10
39	Correlation of microbial mass with ATP and DNA concentrations in acidogenesis of whey permeate. <i>Biodegradation</i> , <b>2008</b> , 19, 187-95	4.1	10
38	Temporal variation in bacterial and methanogenic communities of three full-scale anaerobic digesters treating swine wastewater. <i>Environmental Science and Pollution Research</i> , <b>2019</b> , 26, 1217-1226 <sup>5.1</sup>	5.1	10
37	Biokinetic parameters and behavior of <i>Aeromonas hydrophila</i> during anaerobic growth. <i>Biotechnology Letters</i> , <b>2008</b> , 30, 1011-6	3	9
36	Long-term enrichment of anaerobic propionate-oxidizing consortia: Syntrophic culture development and growth optimization. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 401, 123230	12.8	9
35	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> , <b>2016</b> , 91, 143-149	5.3	8
34	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> , <b>2014</b> , 37, 977-81	3.7	8
33	Bioconversion of starch processing waste to <i>Phellinus linteus</i> mycelium in solid-state cultivation. <i>Journal of Industrial Microbiology and Biotechnology</i> , <b>2008</b> , 35, 859-65	4.2	8
32	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> , <b>2019</b> , 237, 247-254	7.9	7
31	Unusual bacterial populations observed in a full-scale municipal sludge digester affected by intermittent seawater inputs. <i>Journal of Industrial Microbiology and Biotechnology</i> , <b>2009</b> , 36, 769-73	4.2	7
30	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> , <b>2008</b> , 35, 1339-44	4.2	7
29	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> , <b>2013</b> , 40, 1015-22	4.2	6
28	Short communication: Cultivation of <i>Lentinus edodes</i> mycelia using whey permeate as an alternative growth substrate. <i>Journal of Dairy Science</i> , <b>2006</b> , 89, 1113-5	4	6
27	Augmentation of secondary organics for enhanced pretreatment of thermomechanical pulping wastewater in biological acidogenesis. <i>Process Biochemistry</i> , <b>2003</b> , 38, 1489-1495	4.8	5
26	Enhancement of Hydrolysis and Biogas Production of Primary Sludge by Use of Mixtures of Protease and Lipase. <i>Biotechnology and Bioprocess Engineering</i> , <b>2020</b> , 25, 132-140	3.1	4
25	Feasibility assay in phase-separated anaerobic treatment of cheese industry wastewater. <i>Biotechnology and Bioprocess Engineering</i> , <b>1997</b> , 2, 53-58	3.1	4

24	Growth kinetic parameter estimation of <i>Klebsiella</i> sp. utilizing thiocyanate. <i>Process Biochemistry</i> , <b>2005</b> , 40, 1363-1366	4.8	4
23	Shift in bacterial diversity in acidogenesis of gelatin and gluten seeded with various anaerobic digester inocula. <i>Bioresource Technology</i> , <b>2020</b> , 306, 123158	11	3
22	A snapshot of microbial community structures in 20 different field-scale anaerobic bioreactors treating food waste. <i>Journal of Environmental Management</i> , <b>2019</b> , 248, 109297	7.9	3
21	Growth kinetic parameter estimation of <i>Candida rugopelliculosa</i> using a fish manufacturing effluent. <i>Biotechnology Letters</i> , <b>2001</b> , 23, 2041-2045	3	3
20	Tracking microbial community shifts during recovery process in overloaded anaerobic digesters under biological and non-biological supplementation strategies. <i>Bioresource Technology</i> , <b>2021</b> , 340, 125614	11	3
19	Resource recovery using whey permeate to cultivate <i>Phellinus linteus</i> mycelium: Solid-state and submerged liquid fermentation. <i>Journal of Dairy Science</i> , <b>2015</b> , 98, 6739-48	4	2
18	Use of Swine Wastewater as Alternative Substrate for Mycelial Bioconversion of White Rot Fungi. <i>Applied Biochemistry and Biotechnology</i> , <b>2017</b> , 181, 844-859	3.2	2
17	Modeling and biokinetics in anaerobic acidogenesis of starch-processing wastewater to acetic acid. <i>Biotechnology Progress</i> , <b>2004</b> , 20, 636-8	2.8	2
16	Nutrient Recovery of Starch Processing Waste to <i>Cordyceps militaris</i> : Solid State Cultivation and Submerged Liquid Cultivation. <i>Applied Biochemistry and Biotechnology</i> , <b>2016</b> , 180, 274-88	3.2	2
15	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> , <b>2021</b> , 334, 125202	11	2
14	Modeling and optimization in anaerobic bioconversion of complex substrates to acetic and butyric acids <b>1997</b> , 54, 451		2
13	Application of Response Surface Analysis to Evaluate the Effect of Concentrations of Ammonia and Propionic Acid on Acetate-Utilizing Methanogenesis. <i>Energies</i> , <b>2019</b> , 12, 3394	3.1	1
12	Evaluation of Feasibility of Using the Bacteriophage T4 Lysozyme to Improve the Hydrolysis and Biochemical Methane Potential of Secondary Sludge. <i>Energies</i> , <b>2019</b> , 12, 3644	3.1	1
11	Anaerobic Digestion of Food Waste-recycling Wastewater <b>2010</b> ,		1
10	Effect of different microbial seeds on batch anaerobic digestion of fish waste.. <i>Bioresource Technology</i> , <b>2022</b> , 349, 126834	11	1
9	Shift in methanogenic community in protein degradation using different inocula. <i>Bioresource Technology</i> , <b>2021</b> , 333, 125145	11	1
8	Comparison of Municipal and Coke Wastewater Sludges in Disintegration and Acidogenesis by Microwave. <i>Journal of Environmental Engineering, ASCE</i> , <b>2011</b> , 137, 740-745	2	0
7	Simultaneous effect of cathode potentials and magnetite concentrations on methanogenesis of acetic acid under different ammonia conditions. <i>Environmental Engineering Research</i> , <b>2022</b> , 27, 210317-0 <sup>3.6</sup>		0

6	Effect of Substrate-to-Inoculum Ratio and Temperatures During the Start-up of Anaerobic Digestion of Fish Waste <b>2022</b> , 2, 17-29		o
5	Substrate Characteristics Fluctuations in Full-Scale Anaerobic Digesters Treating Food Waste at Marginal Organic Loading Rates: A Case Study. <i>Energies</i> , <b>2022</b> , 15, 3471	3.1	o
4	Biokinetics of protein degrading and in batch and continuous mode of operations. <i>Journal of Microbiology and Biotechnology</i> , <b>2020</b> , 30, 533-539	3.3	
3	Characteristics of Food Waste Leachate Derived from Feed Supplement- and Compost-Producing Facilities. <i>Journal of the Korea Organic Resource Recycling Association</i> , <b>2015</b> , 23, 68-77		
2	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> , <b>2022</b> , 19, 6903	4.6	
1	Effect of initial bacterial diversity on anaerobic degradation of long-chain fatty acids. <i>Biomass and Bioenergy</i> , <b>2022</b> , 162, 106498	5.3	