

Changsoo Lee

List of Publications by Year in descending order

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93
papers

6,214
citations

101384

36
h-index

69108

77
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94
all docs

94
docs citations

94
times ranked

6901
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	Role and Potential of Direct Interspecies Electron Transfer in Anaerobic Digestion. <i>Energies</i> , 2018, 11, 107.	1.6	238
4	Disintegration of Waste Activated Sludge by Thermally-Activated Persulfates for Enhanced Dewaterability. <i>Environmental Science & Technology</i> , 2016, 50, 7106-7115.	4.6	223
5	A critical review of pretreatment technologies to enhance anaerobic digestion and energy recovery. <i>Fuel</i> , 2020, 270, 117494.	3.4	216
6	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
7	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
8	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
9	The biostimulation of anaerobic digestion with (semi)conductive ferric oxides: their potential for enhanced biomethanation. <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 10355-10366.	1.7	128
10	Development of anaerobic osmotic membrane bioreactor for low-strength wastewater treatment at mesophilic condition. <i>Journal of Membrane Science</i> , 2015, 490, 197-208.	4.1	116
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	Quantitative real-time PCR approaches for microbial community studies in wastewater treatment systems: Applications and considerations. <i>Biotechnology Advances</i> , 2013, 31, 1358-1373.	6.0	112
13	A long-term study on the effect of magnetite supplementation in continuous anaerobic digestion of dairy effluent – Enhancement in process performance and stability. <i>Bioresource Technology</i> , 2016, 222, 344-354.	4.8	103
14	Anaerobic co-digestion of spent coffee grounds with different waste feedstocks for biogas production. <i>Waste Management</i> , 2017, 60, 322-328.	3.7	101
15	A long-term study on the effect of magnetite supplementation in continuous anaerobic digestion of dairy effluent – Magnetic separation and recycling of magnetite. <i>Bioresource Technology</i> , 2017, 241, 830-840.	4.8	100
16	Psychrophilic methanogenic community development during long-term cultivation of anaerobic granular biofilms. <i>ISME Journal</i> , 2009, 3, 1231-1242.	4.4	96
17	Thermo-alkaline pretreatment of waste activated sludge at low-temperatures: Effects on sludge disintegration, methane production, and methanogen community structure. <i>Bioresource Technology</i> , 2013, 144, 194-201.	4.8	96
18	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

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19	Quantitative and qualitative analyses of methanogenic community development in high-rate anaerobic bioreactors. <i>Water Research</i> , 2011, 45, 1298-1308.	5.3	87
20	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
21	A review of the effects of iron compounds on methanogenesis in anaerobic environments. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 113, 109282.	8.2	83
22	Enrichment of ANAMMOX bacteria from conventional activated sludge entrapped in poly(vinyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	6.6	77
23	Quantitative and qualitative analysis of methanogenic communities in mesophilically and psychrophilically cultivated anaerobic granular biofilms. <i>Water Research</i> , 2009, 43, 3365-3374.	5.3	74
24	Influence of ferric oxyhydroxide addition on biomethanation of waste activated sludge in a continuous reactor. <i>Bioresource Technology</i> , 2014, 166, 596-601.	4.8	60
25	Anaerobic co-digestion of food waste, human feces, and toilet paper: Methane potential and synergistic effect. <i>Fuel</i> , 2019, 248, 189-195.	3.4	59
26	Development of biocathode during repeated cycles of bioelectrochemical conversion of carbon dioxide to methane. <i>Bioresource Technology</i> , 2017, 241, 1201-1207.	4.8	53
27	Absolute dominance of hydrogenotrophic methanogens in full-scale anaerobic sewage sludge digesters. <i>Journal of Environmental Sciences</i> , 2013, 25, 2272-2280.	3.2	52
28	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
29	Response of a continuous anaerobic digester to temperature transitions: A critical range for restructuring the microbial community structure and function. <i>Water Research</i> , 2016, 89, 241-251.	5.3	48
30	Comparative study of changes in reaction profile and microbial community structure in two anaerobic repeated-batch reactors started up with different seed sludges. <i>Bioresource Technology</i> , 2013, 129, 495-505.	4.8	45
31	Bioaugmentation of anaerobic sludge digestion with iron-reducing bacteria: process and microbial responses to variations in hydraulic retention time. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 927-937.	1.7	45
32	Energy production from different organic wastes by anaerobic co-digestion: Maximizing methane yield versus maximizing synergistic effect. <i>Renewable Energy</i> , 2019, 136, 683-690.	4.3	42
33	Anaerobic co-digestion of oil-extracted spent coffee grounds with various wastes: Experimental and kinetic modeling studies. <i>Bioresource Technology</i> , 2021, 322, 124470.	4.8	42
34	Methanogenic community shift in anaerobic batch digesters treating swine wastewater. <i>Water Research</i> , 2010, 44, 4900-4907.	5.3	41
35	Human urine as a forward osmosis draw solution for the application of microalgae dewatering. <i>Journal of Hazardous Materials</i> , 2019, 378, 120724.	6.5	41
36	A comparative study of single- and two-phase anaerobic digestion of food waste under uncontrolled pH conditions. <i>Waste Management</i> , 2018, 78, 509-520.	3.7	40

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37	Nutrient removal and microalgal biomass production from different anaerobic digestion effluents with <i>Chlorella</i> species. <i>Scientific Reports</i> , 2019, 9, 6123.	1.6	40
38	Treatment of Cattle Manure by Anaerobic Co-Digestion with Food Waste and Pig Manure: Methane Yield and Synergistic Effect. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 4737.	1.2	40
39	Individual and combined effects of magnetite addition and external voltage application on anaerobic digestion of dairy wastewater. <i>Bioresource Technology</i> , 2020, 297, 122443.	4.8	39
40	Microbial community dynamics associated with biomass granulation in low-temperature (15Å°C) anaerobic wastewater treatment bioreactors. <i>Bioresource Technology</i> , 2010, 101, 6336-6344.	4.8	37
41	Mild-temperature thermochemical pretreatment of green macroalgal biomass: Effects on solubilization, methanation, and microbial community structure. <i>Bioresource Technology</i> , 2016, 199, 326-335.	4.8	36
42	A review of technologies for in-situ sulfide control in anaerobic digestion. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 157, 112068.	8.2	36
43	Carbon amendment and soil depth affect the distribution and abundance of denitrifiers in agricultural soils. <i>Environmental Science and Pollution Research</i> , 2016, 23, 7899-7910.	2.7	35
44	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
45	Characterization of food waste-recycling wastewater as biogas feedstock. <i>Bioresource Technology</i> , 2015, 196, 200-208.	4.8	34
46	Response of a continuous biomethanation process to transient organic shock loads under controlled and uncontrolled pH conditions. <i>Water Research</i> , 2015, 73, 68-77.	5.3	33
47	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
48	Magnetite-assisted in situ microbial oxidation of H ₂ S to S ₀ during anaerobic digestion: A new potential for sulfide control. <i>Chemical Engineering Journal</i> , 2020, 397, 124982.	6.6	32
49	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
50	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
51	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
52	Effects of Different pH Control Strategies on Microalgae Cultivation and Nutrient Removal from Anaerobic Digestion Effluent. <i>Microorganisms</i> , 2022, 10, 357.	1.6	27
53	Continuous anaerobic co-digestion of <i>Ulva</i> biomass and cheese whey at varying substrate mixing ratios: Different responses in two reactors with different operating regimes. <i>Bioresource Technology</i> , 2016, 221, 366-374.	4.8	26
54	Anaerobic co-digestion of high-strength organic wastes pretreated by thermal hydrolysis. <i>Bioresource Technology</i> , 2018, 257, 238-248.	4.8	26

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55	Shifts in bacterial and archaeal community structures during the batch biomethanation of Ulva biomass under mesophilic conditions. <i>Bioresource Technology</i> , 2014, 169, 502-509.	4.8	25
56	Long-term effectiveness of bioaugmentation with rumen culture in continuous anaerobic digestion of food and vegetable wastes under feed composition fluctuations. <i>Bioresource Technology</i> , 2021, 338, 125500.	4.8	25
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	Effect of Mild-Temperature Thermo-Alkaline Pretreatment on the Solubilization and Anaerobic Digestion of Spent Coffee Grounds. <i>Energies</i> , 2018, 11, 865.	1.6	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	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
62	Potential of mixed-culture microalgae enriched from aerobic and anaerobic sludges for nutrient removal and biomass production from anaerobic effluents. <i>Bioresource Technology</i> , 2019, 280, 325-336.	4.8	19
63	Temperature Effects on Methanogenesis and Sulfidogenesis during Anaerobic Digestion of Sulfur-Rich Macroalgal Biomass in Sequencing Batch Reactors. <i>Microorganisms</i> , 2019, 7, 682.	1.6	19
64	Effect of low pH start-up on continuous mixed-culture lactic acid fermentation of dairy effluent. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 10179-10191.	1.7	17
65	Treatment of low-strength ammonia wastewater by single-stage partial nitritation and anammox using upflow dual-bed gel-carrier reactor (UDGR). <i>Bioresource Technology</i> , 2020, 304, 123023.	4.8	17
66	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
67	Abundance of denitrification genes under different peizometer depths in four Irish agricultural groundwater sites. <i>Environmental Science and Pollution Research</i> , 2013, 20, 6646-6657.	2.7	15
68	Long-term monitoring of a thermal hydrolysis-anaerobic co-digestion plant treating high-strength organic wastes: Process performance and microbial community dynamics. <i>Bioresource Technology</i> , 2021, 319, 124138.	4.8	15
69	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
70	Continuous treatment of dairy effluent in a downflow anaerobic filter packed with slag grains: Reactor performance and kinetics. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2016, 68, 147-152.	2.7	14
71	Ulva biomass as a co-substrate for stable anaerobic digestion of spent coffee grounds in continuous mode. <i>Bioresource Technology</i> , 2017, 241, 1182-1190.	4.8	14
72	Correlation of microbial mass with ATP and DNA concentrations in acidogenesis of whey permeate. <i>Biodegradation</i> , 2008, 19, 187-195.	1.5	13

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73	Improving Biomethanation of Chicken Manure by Co-Digestion with Ethanol Plant Effluent. <i>International Journal of Environmental Research and Public Health</i> , 2019, 16, 5023.	1.2	13
74	Effectiveness of electromagnetic in situ magnetite capture in anaerobic sequencing batch treatment of dairy effluent under electro-syntrophic conditions. <i>Renewable Energy</i> , 2021, 179, 105-115.	4.3	13
75	Formation and characterization of conductive magnetite-embedded granules in upflow anaerobic sludge blanket reactor treating dairy wastewater. <i>Bioresource Technology</i> , 2022, 345, 126492.	4.8	12
76	Optimization of adenosine 5- α -triphosphate extraction for the measurement of acidogenic biomass utilizing whey wastewater. <i>Biodegradation</i> , 2006, 17, 347-355.	1.5	11
77	Effect of mild-temperature H_2O_2 oxidation on solubilization and anaerobic digestion of waste activated sludge. <i>Environmental Technology (United Kingdom)</i> , 2014, 35, 1702-1709.	1.2	9
78	Co-feeding spent coffee grounds in anaerobic food waste digesters: Effects of co-substrate and stabilization strategy. <i>Bioresource Technology</i> , 2019, 288, 121594.	4.8	9
79	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
80	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
81	Effect of enhanced biomass retention by sequencing batch operation on biomethanation of sulfur-rich macroalgal biomass: Process performance and microbial ecology. <i>Algal Research</i> , 2017, 28, 128-138.	2.4	8
82	Rapid fingerprinting of methanogenic communities by high-resolution melting analysis. <i>Bioresource Technology</i> , 2014, 174, 321-327.	4.8	7
83	Assessment of bacterial community structure in nitrifying biofilm under inorganic carbon-sufficient and -limited conditions. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2015, 50, 201-212.	0.9	7
84	Pretreatment of spent coffee grounds with alkaline soju bottle-washing wastewater for enhanced biomethanation. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 803-808.	2.9	7
85	Designing a marine outfall to reduce microbial risk on a recreational beach: Field experiment and modeling. <i>Journal of Hazardous Materials</i> , 2021, 409, 124587.	6.5	7
86	Biomethanation of Harmful Macroalgal Biomass in Leach-Bed Reactor Coupled to Anaerobic Filter: Effect of Water Regime and Filter Media. <i>International Journal of Environmental Research and Public Health</i> , 2018, 15, 866.	1.2	6
87	Changes in Microbial Community Structure During Anaerobic Repeated-Batch Treatment of Cheese-Processing Wastewater. <i>APCBEE Procedia</i> , 2013, 5, 520-526.	0.5	5
88	The potential use of human urine as a solvent for biogas upgrading. <i>Journal of Water Process Engineering</i> , 2020, 36, 101343.	2.6	5
89	Potential treatment of aged cow manure using spare capacity in anaerobic digesters treating a mixture of food waste and pig manure. <i>Waste Management</i> , 2022, 148, 22-32.	3.7	4
90	Enhancement of methanogenic biodegradation of tetramethylammonium hydroxide wastewater by co-digestion with ethyl lactate wastewater. <i>Environmental Technology and Innovation</i> , 2021, 21, 101372.	3.0	2

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91	Effects of applying external voltage on development of anaerobic dynamic membrane under high suspended solids conditions. <i>Chemical Engineering Journal</i> , 2022, 438, 135528.	6.6	2
92	Science Walden: Exploring the Convergence of Environmental Technologies with Design and Art. <i>Sustainability</i> , 2017, 9, 35.	1.6	1
93	Editorial Preface to the Special Issue on “The 2nd International Conference on Alternative Fuels and Energy: Futures and Challenges (ICAFE 2017)” 25th October 2017, Daegu, Republic of Korea. <i>Waste and Biomass Valorization</i> , 2020, 11, 1017-1017.	1.8	1