

Kai-Chee Loh

List of Publications by Year in descending order

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112
papers

4,039
citations

101384

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143772

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113
all docs

113
docs citations

113
times ranked

3987
citing authors

#	ARTICLE	IF	CITATIONS
1	Biodegradation of aromatic compounds: current status and opportunities for biomolecular approaches. <i>Applied Microbiology and Biotechnology</i> , 2009, 85, 207-228.	1.7	256
2	Modeling the role of metabolic intermediates in kinetics of phenol biodegradation. <i>Enzyme and Microbial Technology</i> , 1999, 25, 177-184.	1.6	137
3	Biochar enhanced thermophilic anaerobic digestion of food waste: Focusing on biochar particle size, microbial community analysis and pilot-scale application. <i>Energy Conversion and Management</i> , 2020, 209, 112654.	4.4	125
4	Enhancement of biogas production in anaerobic co-digestion of food waste and waste activated sludge by biological co-pretreatment. <i>Energy</i> , 2017, 137, 479-486.	4.5	114
5	Three-stage anaerobic digester for food waste. <i>Applied Energy</i> , 2017, 194, 287-295.	5.1	107
6	Enhanced biogas production from anaerobic digestion of solid organic wastes: Current status and prospects. <i>Bioresource Technology Reports</i> , 2019, 5, 280-296.	1.5	107
7	Bioinformatics analysis of metagenomics data of biogas-producing microbial communities in anaerobic digesters: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 100, 110-126.	8.2	107
8	Two-stage anaerobic digestion of food waste and horticultural waste in high-solid system. <i>Applied Energy</i> , 2018, 209, 400-408.	5.1	101
9	Enhancement of biodegradation of phenol and a nongrowth substrate 4-chlorophenol by medium augmentation with conventional carbon sources. , 1997, 8, 329-338.		96
10	Enhancing microalgae cultivation in anaerobic digestate through nitrification. <i>Chemical Engineering Journal</i> , 2018, 354, 905-912.	6.6	96
11	Immobilized-Cell Membrane Bioreactor for High-Strength Phenol Wastewater. <i>Journal of Environmental Engineering, ASCE</i> , 2000, 126, 75-79.	0.7	92
12	Activated carbon enhanced anaerobic digestion of food waste – Laboratory-scale and Pilot-scale operation. <i>Waste Management</i> , 2018, 75, 270-279.	3.7	90
13	Polymeric asymmetric membranes made from polyetherimide/polybenzimidazole/poly(ethylene glycol) (PEI/PBI/PEC) for oil/water separation. <i>Journal of Membrane Science</i> , 1999, 158, 41-53.	4.1	83
14	Methane yield enhancement of mesophilic and thermophilic anaerobic co-digestion of algal biomass and food waste using algal biochar: Semi-continuous operation and microbial community analysis. <i>Bioresource Technology</i> , 2020, 302, 122892.	4.8	83
15	Optimizing mixing strategy to improve the performance of an anaerobic digestion waste-to-energy system for energy recovery from food waste. <i>Applied Energy</i> , 2019, 249, 28-36.	5.1	73
16	Facilitation of cometabolic degradation of 4-chlorophenol using glucose as an added growth substrate. <i>Biodegradation</i> , 1999, 10, 261-269.	1.5	71
17	Three-stage anaerobic co-digestion of food waste and horse manure. <i>Scientific Reports</i> , 2017, 7, 1269.	1.6	69
18	Induction of ortho- and meta-cleavage pathways in <i>Pseudomonas</i> in biodegradation of high benzoate concentration: MS identification of catabolic enzymes. <i>Applied Microbiology and Biotechnology</i> , 2008, 81, 99-107.	1.7	68

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19	Tertiary wastewater treatment in membrane photobioreactor using microalgae: Comparison of forward osmosis & microfiltration. <i>Bioresource Technology</i> , 2016, 222, 448-457.	4.8	63
20	Nitrogen and phosphorus removal from tertiary wastewater in an osmotic membrane photobioreactor. <i>Bioresource Technology</i> , 2016, 206, 180-187.	4.8	63
21	Acidogenic fermentation of food waste for production of volatile fatty acids: Bacterial community analysis and semi-continuous operation. <i>Waste Management</i> , 2020, 109, 75-84.	3.7	62
22	Ortho pathway of benzoate degradation in <i>Pseudomonas putida</i> : induction of meta pathway at high substrate concentrations. <i>Enzyme and Microbial Technology</i> , 2002, 30, 620-626.	1.6	58
23	Enhanced anaerobic digestion of food waste by adding activated carbon: Fate of bacterial pathogens and antibiotic resistance genes. <i>Biochemical Engineering Journal</i> , 2017, 128, 19-25.	1.8	56
24	Mesophilic and thermophilic anaerobic digestion of soybean curd residue for methane production: Characterizing bacterial and methanogen communities and their correlations with organic loading rate and operating temperature. <i>Bioresource Technology</i> , 2019, 288, 121597.	4.8	56
25	Metagenomic insight into the microbial networks and metabolic mechanism in anaerobic digesters for food waste by incorporating activated carbon. <i>Scientific Reports</i> , 2017, 7, 11293.	1.6	53
26	Evaluating the effects of activated carbon on methane generation and the fate of antibiotic resistant genes and class I integrons during anaerobic digestion of solid organic wastes. <i>Bioresource Technology</i> , 2018, 249, 729-736.	4.8	51
27	Paradigm in biodegradation using <i>Pseudomonas putida</i> —A review of proteomics studies. <i>Enzyme and Microbial Technology</i> , 2008, 43, 1-12.	1.6	50
28	Jointly reducing antibiotic resistance genes and improving methane yield in anaerobic digestion of chicken manure by feedstock microwave pretreatment and activated carbon supplementation. <i>Chemical Engineering Journal</i> , 2019, 372, 815-824.	6.6	49
29	Catabolic pathways and cellular responses of <i>Pseudomonas putida</i> P8 during growth on benzoate with a proteomics approach. <i>Biotechnology and Bioengineering</i> , 2008, 101, 1297-1312.	1.7	48
30	Biotransformation kinetics of <i>Pseudomonas putida</i> for cometabolism of phenol and 4-chlorophenol in the presence of sodium glutamate. <i>Biodegradation</i> , 2001, 12, 189-199.	1.5	46
31	Photosynthetic aeration in biological wastewater treatment using immobilized microalgae-bacteria symbiosis. <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 10345-10354.	1.7	46
32	Microbial biodiesel production from industrial organic wastes by oleaginous microorganisms: Current status and prospects. <i>Journal of Hazardous Materials</i> , 2021, 402, 123543.	6.5	45
33	Biodegradation of phenol from saline wastewater using forward osmotic hollow fiber membrane bioreactor coupled chemostat. <i>Biochemical Engineering Journal</i> , 2015, 94, 125-133.	1.8	44
34	Simultaneous extraction and biodegradation of phenol in a hollow fiber supported liquid membrane bioreactor. <i>Journal of Membrane Science</i> , 2013, 430, 242-251.	4.1	41
35	Food waste enhanced anaerobic digestion of biologically pretreated yard waste: Analysis of cellulose crystallinity and microbial communities. <i>Waste Management</i> , 2018, 79, 109-119.	3.7	41
36	Effects of activated carbon on anaerobic digestion — Methanogenic metabolism, mechanisms of antibiotics and antibiotic resistance genes removal. <i>Bioresource Technology Reports</i> , 2019, 5, 113-120.	1.5	41

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37	A hybrid biological and thermal waste-to-energy system with heat energy recovery and utilization for solid organic waste treatment. <i>Energy</i> , 2018, 152, 214-222.	4.5	40
38	Development of cellulose acetate membranes for bacteria immobilization to remove phenol. <i>Journal of Applied Polymer Science</i> , 1998, 68, 1677-1688.	1.3	39
39	Kinetics of carbazole degradation by <i>Pseudomonas putida</i> in presence of sodium salicylate. <i>Water Research</i> , 2000, 34, 4131-4138.	5.3	38
40	Assessment and optimization of a decentralized food-waste-to-energy system with anaerobic digestion and CHP for energy utilization. <i>Energy Conversion and Management</i> , 2021, 228, 113654.	4.4	38
41	Characterization of pore size distribution of packing materials used in perfusion chromatography using a network model. <i>Journal of Chromatography A</i> , 1995, 718, 239-255.	1.8	36
42	External loop inversed fluidized bed airlift bioreactor (EIFBAB) for treating high strength phenolic wastewater. <i>Chemical Engineering Science</i> , 2001, 56, 6171-6176.	1.9	35
43	Synergistic effect of activated carbon and encapsulated trace element additive on methane production from anaerobic digestion of food wastes – Enhanced operation stability and balanced trace nutrition. <i>Bioresource Technology</i> , 2019, 278, 108-115.	4.8	35
44	Development of polysulfone membranes for bacteria immobilization to remove phenol. <i>Journal of Applied Polymer Science</i> , 1998, 70, 2585-2594.	1.3	34
45	Review and perspectives of enhanced volatile fatty acids production from acidogenic fermentation of lignocellulosic biomass wastes. <i>Bioresources and Bioprocessing</i> , 2021, 8, .	2.0	32
46	Activated carbon-filled cellulose acetate hollow-fiber membrane for cell immobilization and phenol degradation. <i>Journal of Applied Polymer Science</i> , 2000, 76, 695-707.	1.3	31
47	New cell growth pattern on mixed substrates and substrate utilization in cometabolic transformation of 4-chlorophenol. <i>Water Research</i> , 2000, 34, 3786-3794.	5.3	31
48	Triethylphosphine oxide-impregnated hollow fiber membranes for removal of phenol from wastewater. <i>Journal of Membrane Science</i> , 2013, 437, 1-6.	4.1	30
49	Prediction of critical cell growth behavior of <i>Pseudomonas putida</i> to maximize the cometabolism of 4-chlorophenol with phenol and sodium glutamate as carbon sources. <i>Enzyme and Microbial Technology</i> , 2003, 32, 422-430.	1.6	29
50	Formulation of microbial cocktails for BTEX biodegradation. <i>Biodegradation</i> , 2015, 26, 51-63.	1.5	29
51	Effects of Singapore soil type on bioavailability of nutrients in soil bioremediation. <i>Journal of Environmental Management</i> , 2003, 7, 889-900.	1.7	28
52	Osmotic membrane bioreactor for phenol biodegradation under continuous operation. <i>Journal of Hazardous Materials</i> , 2016, 305, 115-122.	6.5	27
53	Effects of disposable plastics and wooden chopsticks on the anaerobic digestion of food waste. <i>Waste Management</i> , 2018, 79, 607-614.	3.7	26
54	Wastewater treatment and microbial community dynamics in a sequencing batch reactor operating under photosynthetic aeration. <i>Chemosphere</i> , 2019, 215, 893-903.	4.2	25

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55	Enhanced food waste anaerobic digestion: An encapsulated metal additive for shear stress-based controlled release. <i>Journal of Cleaner Production</i> , 2019, 235, 85-95.	4.6	23
56	Cometabolic Transformation of 2-Chlorophenol and 4-Chlorophenol in the Presence of Phenol by <i>Pseudomonas putida</i> . <i>Canadian Journal of Chemical Engineering</i> , 2006, 84, 356-367.	0.9	22
57	<i>Zymomonas mobilis</i> immobilization in polymeric membranes for improved resistance to lignocellulose-derived inhibitors in bioethanol fermentation. <i>Biochemical Engineering Journal</i> , 2018, 140, 29-37.	1.8	22
58	External-loop fluidized bed airlift bioreactor (EFBAB) for the cometabolic biotransformation of 4-chlorophenol (4-cp) in the presence of phenol. <i>Chemical Engineering Science</i> , 2005, 60, 6313-6319.	1.9	21
59	Symbiotic hollow fiber membrane photobioreactor for microalgal growth and bacterial wastewater treatment. <i>Bioresource Technology</i> , 2016, 219, 261-269.	4.8	21
60	Enhancing productivity for cascade biotransformation of styrene to (S)-vicinal diol with biphasic system in hollow fiber membrane bioreactor. <i>Applied Microbiology and Biotechnology</i> , 2017, 101, 1857-1868.	1.7	21
61	Effects of plastics on reactor performance and microbial communities during acidogenic fermentation of food waste for production of volatile fatty acids. <i>Bioresource Technology</i> , 2021, 337, 125481.	4.8	21
62	Cometabolic Transformation of High Concentrations of 4-Chlorophenol in an Immobilized Cell Hollow Fiber Membrane Bioreactor. <i>Journal of Environmental Engineering, ASCE</i> , 2005, 131, 1285-1292.	0.7	20
63	Three-stage anaerobic co-digestion of food waste and waste activated sludge: Identifying bacterial and methanogenic archaeal communities and their correlations with performance parameters. <i>Bioresource Technology</i> , 2019, 285, 121333.	4.8	20
64	Co-culture of <i>Zymomonas mobilis</i> and <i>Scheffersomyces stipitis</i> immobilized in polymeric membranes for fermentation of glucose and xylose to ethanol. <i>Biochemical Engineering Journal</i> , 2019, 145, 145-152.	1.8	20
65	Nutrient removal in an algal membrane photobioreactor: effects of wastewater composition and light/dark cycle. <i>Applied Microbiology and Biotechnology</i> , 2019, 103, 3571-3580.	1.7	20
66	Mixing strategies – Activated carbon nexus: Rapid start-up of thermophilic anaerobic digestion with the mesophilic anaerobic sludge as inoculum. <i>Bioresource Technology</i> , 2020, 310, 123401.	4.8	20
67	Immunoglobulin-M purification – Challenges and perspectives. <i>Biotechnology Advances</i> , 2011, 29, 840-849.	6.0	19
68	Highly efficient anaerobic co-digestion of food waste and horticultural waste using a three-stage thermophilic bioreactor: Performance evaluation, microbial community analysis, and energy balance assessment. <i>Energy Conversion and Management</i> , 2020, 223, 113290.	4.4	19
69	Growth kinetics of <i>Pseudomonas putida</i> in cometabolism of phenol and 4-chlorophenol in the presence of a conventional carbon source. , 2000, 68, 437-447.		18
70	Inhibition of p-cresol on aerobic biodegradation of carbazole, and sodium salicylate by <i>Pseudomonas putida</i> . <i>Water Research</i> , 2002, 36, 1794-1802.	5.3	18
71	Enhancing laboratory experience through e-lessons. <i>Education for Chemical Engineers</i> , 2016, 15, 19-22.	2.8	18
72	Molecular biology-based methods for quantification of bacteria in mixed culture: perspectives and limitations. <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 6907-6919.	1.7	17

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73	Low-retention operation to enhance biomass productivity in an algal membrane photobioreactor. <i>Algal Research</i> , 2019, 40, 101487.	2.4	17
74	Continuous phenol biodegradation at high concentrations in an immobilized-cell hollow fiber membrane bioreactor. <i>Journal of Applied Polymer Science</i> , 2007, 105, 1732-1739.	1.3	16
75	Hydrodynamic and dispersion behavior in a non-porous silica monolith through fluid dynamic study of a computational mimic reconstructed from sub-micro-tomographic scans. <i>Journal of Chromatography A</i> , 2013, 1274, 65-76.	1.8	15
76	Solventless extraction/stripping of phenol using trioctylphosphine oxide impregnated hollow fiber membranes – Experimental & modeling analysis. <i>Chemical Engineering Journal</i> , 2014, 255, 641-649.	6.6	14
77	Plastic-containing food waste conversion to biomethane, syngas, and biochar via anaerobic digestion and gasification: Focusing on reactor performance, microbial community analysis, and energy balance assessment. <i>Journal of Environmental Management</i> , 2022, 306, 114471.	3.8	14
78	Phenolic wastewater treatment through extractive recovery coupled with biodegradation in a two-phase partitioning membrane bioreactor. <i>Chemosphere</i> , 2015, 141, 176-182.	4.2	13
79	Continuous Cometabolic Transformation of 4-Chlorophenol in the Presence of Phenol in a Hollow Fiber Membrane Bioreactor. <i>Journal of Environmental Engineering, ASCE</i> , 2006, 132, 309-314.	0.7	12
80	Two-phase biodegradation of phenol in trioctylphosphine oxide impregnated hollow fiber membrane bioreactor. <i>Biochemical Engineering Journal</i> , 2013, 79, 274-282.	1.8	12
81	Integrating gravity settler with an algal membrane photobioreactor for in situ biomass concentration and harvesting. <i>Bioresource Technology</i> , 2020, 315, 123822.	4.8	12
82	Contribution of axial dispersion to band spreading in perfusion chromatography. <i>Journal of Chromatography A</i> , 2001, 918, 37-46.	1.8	11
83	Solid/liquid extraction equilibria of phenolic compounds with trioctylphosphine oxide impregnated in polymeric membranes. <i>Chemosphere</i> , 2016, 153, 405-413.	4.2	11
84	Two-Stage Fermentation of <i>Lipomyces starkeyi</i> for Production of Microbial Lipids and Biodiesel. <i>Microorganisms</i> , 2021, 9, 1724.	1.6	11
85	Heterogeneity of Surface Energies in Reversed-Phase Perfusive Packings. <i>Journal of Colloid and Interface Science</i> , 2001, 239, 447-457.	5.0	10
86	Thermodynamic analysis of Cr(VI) extraction using TOPO impregnated membranes. <i>Journal of Hazardous Materials</i> , 2016, 314, 204-210.	6.5	10
87	Hybrid-Hollow-Fiber Membrane Bioreactor for Cometabolic Transformation of 4-Chlorophenol in the Presence of Phenol. <i>Journal of Environmental Engineering, ASCE</i> , 2007, 133, 404-410.	0.7	9
88	Kinetics modeling of two phase biodegradation in a hollow fiber membrane bioreactor. <i>Separation and Purification Technology</i> , 2014, 122, 350-358.	3.9	9
89	Recovery of Nitrogen and Phosphorus Nutrition from Anaerobic Digestate by Natural Superabsorbent Fiber-Based Adsorbent and Reusing as an Environmentally Friendly Slow-Release Fertilizer for Horticultural Plants. <i>Waste and Biomass Valorization</i> , 2020, 11, 5223-5237.	1.8	9
90	Microbial succession analysis reveals the significance of restoring functional microorganisms during rescue of failed anaerobic digesters by bioaugmentation of nano-biochar-amended digestate. <i>Bioresource Technology</i> , 2022, 352, 127102.	4.8	9

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91	Two-Phase Biodegradation of Phenol in a Hollow Fiber Membrane Bioreactor. Journal of Environmental Engineering, ASCE, 2013, 139, 654-660.	0.7	8
92	Hydrodynamic dispersion in perfusion chromatography—a network model analysis. Chemical Engineering Science, 2003, 58, 3439-3451.	1.9	7
93	Physiological comparison of <i>Pseudomonas putida</i> between two growth phases during cometabolism of 4-chlorophenol in presence of phenol and glutamate: a proteomics approach. Journal of Chemical Technology and Biotechnology, 2009, 84, 1178-1185.	1.6	7
94	Human pIgR mimetic peptidic ligand for affinity purification of IgM. Separation and Purification Technology, 2013, 102, 173-179.	3.9	7
95	Effects of adsorption kinetics and surface heterogeneity on band spreading in perfusion chromatography—a network model analysis. Chemical Engineering Science, 2004, 59, 2447-2456.	1.9	6
96	Ultrasound-facilitated electro-oxidation for treating cyan ink effluent. Canadian Journal of Chemical Engineering, 2008, 86, 739-746.	0.9	6
97	Biodegradation of High Strength Phenolic Wastewater in a Modified External Loop Inversed Fluidized Bed Airlift Bioreactor (EIFBAB). Canadian Journal of Chemical Engineering, 2003, 81, 1246-1250.	0.9	6
98	Immobilization of hydrophobic peptidic ligands to hydrophilic chromatographic matrix: A preconcentration approach. Analytical Biochemistry, 2012, 423, 202-209.	1.1	6
99	Importance of uniform distribution of impregnated trioctylphosphine oxide in hollow fiber membranes for simultaneous extraction/stripping of phenol. Chemical Engineering Journal, 2017, 308, 727-737.	6.6	6
100	Immobilization of growing <i>Sphingomonas</i> sp. HXN-200 to gelatin microspheres: Efficient biotransformation of N-Cbz-pyrrolidine and N-Boc-pyrrolidine into hydroxypyrrolidine derivatives. Journal of Biotechnology, 2014, 182-183, 74-82.	1.9	5
101	Acidogenic fermentation of organic wastes for production of volatile fatty acids. , 2022, , 343-366.		4
102	In situ monitoring of turbid immobilized lipase-catalyzed esterification of oleic acid using fiber-optic Raman spectroscopy. Catalysis Today, 2010, 155, 223-226.	2.2	3
103	Bioinformatics and molecular biology for the quantification of closely related bacteria. Applied Microbiology and Biotechnology, 2013, 97, 6489-6502.	1.7	3
104	Human pIgR mimetic peptidic ligand for affinity purification of IgM Part II: Ligand binding characteristics. Separation and Purification Technology, 2013, 102, 43-49.	3.9	3
105	An immersed hollow fiber membrane bioreactor for enhanced biotransformation of indene to cis-indandiol using <i>Pseudomonas putida</i> . Biochemical Engineering Journal, 2014, 87, 1-7.	1.8	3
106	Enhanced Cometabolic Transformation of 4-Chlorophenol in the Presence of Phenol by Granular Activated Carbon Adsorption. Canadian Journal of Chemical Engineering, 2006, 84, 248-255.	0.9	2
107	Response to “Comments on “Hydrodynamic and dispersion behavior in a non-porous silica monolith through fluid dynamic study of a computational mimic reconstructed from sub-micro-tomographic scans””. Journal of Chromatography A, 2013, 1302, 208-212.	1.8	2
108	Bioaugmentation strategies via acclimatized microbial consortia for bioenergy production. , 2022, , 179-214.		2

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109	Systematic Approach for Quick Quality Assessment of Ink Effluents for Treatment and Discharge. Journal of Environmental Engineering, ASCE, 2004, 130, 417-424.	0.7	1
110	Transcolumn dispersion in a computational mimic of an analytical silica monolith reconstructed from sub-microtomographic scans using computational fluid dynamics. Separation and Purification Technology, 2014, 122, 159-169.	3.9	1
111	Strategies for enhanced microbial fermentation processes. , 2022, , 1-24.		1
112	Functional microbial characteristics in acidogenic fermenters of organic wastes for production of volatile fatty acids. , 2022, , 367-394.		0