Lai Peng

List of Publications by Year
in descending order

65 papers	2,360 citations	201575 27 h-index	223716 46 g-index
65 all docs	65 docs citations	65 times ranked	2075 citing authors

#	Article	IF	Citations
1	A mechanistic model for denitrifying anaerobic methane oxidation coupled to dissimilatory nitrate reduction to ammonium. Chemosphere, 2022, 287, 132148.	4.2	5
2	Contribution of nitrification and denitrification to nitrous oxide turnovers in membrane-aerated biofilm reactors (MABR): A model-based evaluation. Science of the Total Environment, 2022, 806, 151321.	3.9	6
3	Storage without nitrite or nitrate enables the long-term preservation of full-scale partial nitritation/anammox sludge. Science of the Total Environment, 2022, 806, 151330.	3.9	13
4	Enhanced biodegradation of ciprofloxacin by enriched nitrifying sludge: assessment of removal pathways and microbial responses. Water Science and Technology, 2022, 85, 409-419.	1.2	10
5	Cometabolic biodegradation of antibiotics by ammonia oxidizing microorganisms during wastewater treatment processes. Journal of Environmental Management, 2022, 305, 114336.	3.8	37
6	A two-stage degradation coupling photocatalysis to microalgae enhances the mineralization of enrofloxacin. Chemosphere, 2022, 293, 133523.	4.2	18
7	Regulating light, oxygen and volatile fatty acids to boost the productivity of purple bacteria biomass, protein and co-enzyme Q10. Science of the Total Environment, 2022, 822, 153489.	3.9	6
8	Insight into integration of photocatalytic and microbial wastewater treatment technologies for recalcitrant organic pollutants: From sequential to simultaneous reactions. Chemosphere, 2022, 295, 133952.	4.2	16
9	Spectral bands of incandescent lamp leading to variable productivity of purple bacteria biomass and microbial protein: Full is better than segmented. Science of the Total Environment, 2022, 823, 153736.	3.9	2
10	Modeling nitrate/nitrite dependent anaerobic methane oxidation and Anammox process in a membrane granular sludge reactor. Chemical Engineering Journal, 2021, 403, 125822.	6.6	12
11	Denitrifying biofilm processes for wastewater treatment: developments and perspectives. Environmental Science: Water Research and Technology, 2021, 7, 40-67.	1.2	12
12	Anaerobic Oxidation of Methane Coupled with Dissimilatory Nitrate Reduction to Ammonium Fuels Anaerobic Ammonium Oxidation. Environmental Science & Technology, 2021, 55, 1197-1208.	4.6	46
13	The entering of polyethylene terephthalate microplastics into biological wastewater treatment system affects aerobic sludge digestion differently from their direct entering into sludge treatment system. Water Research, 2021, 190, 116731.	5.3	55
14	Simultaneous nitrate and sulfate dependent anaerobic oxidation of methane linking carbon, nitrogen and sulfur cycles. Water Research, 2021, 194, 116928.	5.3	43
15	Biosorption of Cr (VI) Using Bacillus licheniformis and Bacillus mucilaginosus Krassilnikov: Contrastive Investigation on Removal Performance, Kinetics, and Mechanisms. Environmental Engineering Science, 2021, 38, 231-244.	0.8	4
16	Degradation of fluoroquinolones in homogeneous and heterogeneous photo-Fenton processes: A review. Chemosphere, 2021, 270, 129481.	4.2	68
17	Insights into the degradation mechanisms and pathways of cephalexin during homogeneous and heterogeneous photo-Fenton processes. Chemosphere, 2021, 285, 131417.	4.2	22
18	Impact of coexistence of sludge flocs on nitrous oxide production in a granule-based nitrification system: A model-based evaluation. Water Research, 2020, 170, 115312.	5.3	14

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19	How does synthetic musks affect methane production from the anaerobic digestion of waste activated sludge?. Science of the Total Environment, 2020, 713, 136594.	3.9	8
20	Nitrous oxide production from wastewater treatment: The potential as energy resource rather than potent greenhouse gas. Journal of Hazardous Materials, 2020, 387, 121694.	6.5	26
21	New perspectives on microbial communities and biological nitrogen removal processes in wastewater treatment systems. Bioresource Technology, 2020, 297, 122491.	4.8	78
22	Mitigating nitrous oxide emissions at a full-scale wastewater treatment plant. Water Research, 2020, 185, 116196.	5.3	48
23	Denitrifying Anaerobic Methane Oxidation and Anammox Process in a Membrane Aerated Membrane Bioreactor: Kinetic Evaluation and Optimization. Environmental Science & Technology, 2020, 54, 6968-6977.	4.6	23
24	Enhanced high-quality biomethane production from anaerobic digestion of primary sludge by corn stover biochar. Bioresource Technology, 2020, 306, 123159.	4.8	83
25	Return-Sludge Treatment with Endogenous Free Nitrous Acid Limits Nitrate Production and N₂O Emission for Mainstream Partial Nitritation/Anammox. Environmental Science & Technology, 2020, 54, 5822-5831.	4.6	17
26	Operation strategies of n-DAMO and Anammox process based on microbial interactions for high rate nitrogen removal from landfill leachate. Environment International, 2020, 139, 105596.	4.8	39
27	Persulfate and zero valent iron combined conditioning as a sustainable technique for enhancing dewaterability of aerobically digested sludge. Chemosphere, 2019, 232, 45-53.	4.2	39
28	Heterotrophic denitrifiers growing on soluble microbial products contribute to nitrous oxide production in anammox biofilm: Model evaluation. Journal of Environmental Management, 2019, 242, 309-314.	3.8	14
29	The roles of free ammonia (FA) in biological wastewater treatment processes: A review. Environment International, 2019, 123, 10-19.	4.8	294
30	Resource recovery from pig manure via an integrated approach: A technical and economic assessment for full-scale applications. Bioresource Technology, 2019, 272, 582-593.	4.8	52
31	Substrate Diffusion within Biofilms Significantly Influencing the Electron Competition during Denitrification. Environmental Science & Technology, 2019, 53, 261-269.	4.6	31
32	Kinetic assessment of simultaneous removal of arsenite, chlorate and nitrate under autotrophic and mixotrophic conditions. Science of the Total Environment, 2018, 628-629, 85-93.	3.9	7
33	Model-based assessment of estrogen removal by nitrifying activated sludge. Chemosphere, 2018, 197, 430-437.	4.2	17
34	Effect of diclofenac on the production of volatile fatty acids from anaerobic fermentation of waste activated sludge. Bioresource Technology, 2018, 254, 7-15.	4.8	80
35	Modeling electron competition among nitrogen oxides reduction and N₂O accumulation in hydrogenotrophic denitrification. Biotechnology and Bioengineering, 2018, 115, 978-988.	1.7	12
36	A novel mechanistic model for nitrogen removal in algal-bacterial photo sequencing batch reactors. Bioresource Technology, 2018, 267, 502-509.	4.8	13

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37	Modeling aerobic biotransformation of vinyl chloride by vinyl chloride-assimilating bacteria, methanotrophs and ethenotrophs. Journal of Hazardous Materials, 2017, 332, 97-103.	6.5	3
38	Nitrous Oxide Production in a Granule-based Partial Nitritation Reactor: A Model-based Evaluation. Scientific Reports, 2017, 7, 45609.	1.6	6
39	Approach of describing dynamic production of volatile fatty acids from sludge alkaline fermentation. Bioresource Technology, 2017, 238, 343-351.	4.8	73
40	The ManureEcoMine pilot installation: advanced integration of technologies for the management of organics and nutrients in livestock waste. Water Science and Technology, 2017, 75, 1281-1293.	1.2	21
41	Smart operation of nitritation/denitritation virtually abolishes nitrous oxide emission during treatment of co-digested pig slurry centrate. Water Research, 2017, 127, 1-10.	5.3	23
42	Modelling cometabolic biotransformation of sulfamethoxazole by an enriched ammonia oxidizing bacteria culture. Chemical Engineering Science, 2017, 173, 465-473.	1.9	21
43	Enhancing immobilization of arsenic in groundwater: A model-based evaluation. Journal of Cleaner Production, 2017, 166, 449-457.	4.6	7
44	Sulfide removal and sulfur production in a membrane aerated biofilm reactor: Model evaluation. Chemical Engineering Journal, 2017, 309, 454-462.	6.6	49
45	A modeling approach to direct interspecies electron transfer process in anaerobic transformation of ethanol to methane. Environmental Science and Pollution Research, 2017, 24, 855-863.	2.7	19
46	Model-Based Feasibility Assessment of Membrane Biofilm Reactor to Achieve Simultaneous Ammonium, Dissolved Methane, and Sulfide Removal from Anaerobic Digestion Liquor. Scientific Reports, 2016, 6, 25114.	1.6	10
47	Assessment of Heterotrophic Growth Supported by Soluble Microbial Products in Anammox Biofilm using Multidimensional Modeling. Scientific Reports, 2016, 6, 27576.	1.6	24
48	Determining Multiple Responses of Pseudomonas aeruginosa PAO1 to an Antimicrobial Agent, Free Nitrous Acid. Environmental Science & Technology, 2016, 50, 5305-5312.	4.6	48
49	Evaluation of Nitrous Oxide Emission from Sulfide- and Sulfur-Based Autotrophic Denitrification Processes. Environmental Science & Technology, 2016, 50, 9407-9415.	4.6	85
50	Nitrous Oxide Production in Co- Versus Counter-Diffusion Nitrifying Biofilms. Scientific Reports, 2016, 6, 28880.	1.6	4
51	Modeling N2O production by ammonia oxidizing bacteria at varying inorganic carbon concentrations by coupling the catabolic and anabolic processes. Chemical Engineering Science, 2016, 144, 386-394.	1.9	9
52	Evaluating simultaneous chromate and nitrate reduction during microbial denitrification processes. Water Research, 2016, 89, 1-8.	5.3	60
53	Nitrous oxide production in completely autotrophic nitrogen removal biofilm process: A simulation study. Chemical Engineering Journal, 2016, 287, 217-224.	6.6	30
54	Enhancing post aerobic digestion of full-scale anaerobically digested sludge using free nitrous acid pretreatment. Chemosphere, 2016, 150, 152-158.	4.2	14

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55	Evaluation on the Nanoscale Zero Valent Iron Based Microbial Denitrification for Nitrate Removal from Groundwater. Scientific Reports, 2015, 5, 12331.	1.6	42
56	Evaluating the Role of Microbial Internal Storage Turnover on Nitrous Oxide Accumulation During Denitrification. Scientific Reports, 2015, 5, 15138.	1.6	20
57	N2O production by ammonia oxidizing bacteria in an enriched nitrifying sludge linearly depends on inorganic carbon concentration. Water Research, 2015, 74, 58-66.	5.3	37
58	The combined effect of dissolved oxygen and nitrite on N2O production by ammonia oxidizing bacteria in an enriched nitrifying sludge. Water Research, 2015, 73, 29-36.	5.3	147
59	Mathematical modeling of microbial extracellular electron transfer by electrically active microorganisms. Environmental Science: Water Research and Technology, 2015, 1, 747-752.	1.2	1
60	Selection of mathematical models for N2O production by ammonia oxidizing bacteria under varying dissolved oxygen and nitrite concentrations. Chemical Engineering Journal, 2015, 281, 661-668.	6.6	27
61	Biodegradation of pharmaceuticals in membrane aerated biofilm reactor for autotrophic nitrogen removal: A model-based evaluation. Journal of Membrane Science, 2015, 494, 39-47.	4.1	32
62	Mathematical Modeling of Nitrous Oxide Production during Denitrifying Phosphorus Removal Process. Environmental Science & Technology, 2015, 49, 8595-8601.	4.6	32
63	Assessing chromate reduction by dissimilatory iron reducing bacteria using mathematical modeling. Chemosphere, 2015, 139, 334-339.	4.2	13
64	The effect of dissolved oxygen on N 2 O production by ammonia-oxidizing bacteria in an enriched nitrifying sludge. Water Research, 2014, 66, 12-21.	5.3	123
65	Modeling of Nitrous Oxide Production by Autotrophic Ammonia-Oxidizing Bacteria with Multiple Production Pathways. Environmental Science & Technology, 2014, 48, 3916-3924.	4.6	110