Kewei Liao

List of Publications by Year
in descending order

78 papers	3,765 citations	117625 34 h-index	138484 58 g-index
79 all docs	79 docs citations	79 times ranked	3692 citing authors

#	Article	IF	Citations
1	Accumulation of different shapes of microplastics initiates intestinal injury and gut microbiota dysbiosis in the gut of zebrafish. Chemosphere, 2019, 236, 124334.	8.2	450
2	Comparative analysis of surface water quality prediction performance and identification of key water parameters using different machine learning models based on big data. Water Research, 2020, 171, 115454.	11.3	254
3	Municipal wastewater treatment in China: Development history and future perspectives. Frontiers of Environmental Science and Engineering, 2019, 13, 1.	6.0	238
4	Combined effects of polystyrene microplastics and natural organic matter on the accumulation and toxicity of copper in zebrafish. Science of the Total Environment, 2019, 682, 128-137.	8.0	203
5	Polyethylene imine modified hydrochar adsorption for chromium (VI) and nickel (II) removal from aqueous solution. Bioresource Technology, 2018, 247, 370-379.	9.6	182
6	A review of the application of machine learning in water quality evaluation. , 2022, 1, 107-116.		145
7	Metagenomic analysis of bacterial community composition and antibiotic resistance genes in a wastewater treatment plant and its receiving surface water. Ecotoxicology and Environmental Safety, 2016, 132, 260-269.	6.0	123
8	The diversity, distribution and function of N-acyl-homoserine lactone (AHL) in industrial anaerobic granular sludge. Bioresource Technology, 2018, 247, 116-124.	9.6	88
9	Towards the biofilm characterization and regulation in biological wastewater treatment. Applied Microbiology and Biotechnology, 2019, 103, 1115-1129.	3.6	70
10	Ammonium nitrogen recovery from digestate by hydrothermal pretreatment followed by activated hydrochar sorption. Chemical Engineering Journal, 2020, 379, 122254.	12.7	69
11	Exposure to microplastics cause gut damage, locomotor dysfunction, epigenetic silencing, and aggravate cadmium (Cd) toxicity in Drosophila. Science of the Total Environment, 2020, 744, 140979.	8.0	69
12	Dissolved organic matter (DOM) removal from biotreated coking wastewater by chitosan-modified biochar: Adsorption fractions and mechanisms. Bioresource Technology, 2020, 297, 122281.	9.6	66
13	An efficient method for extracting microplastics from feces of different species. Journal of Hazardous Materials, 2020, 384, 121489.	12.4	65
14	Enhanced biofilm formation and denitrification in biofilters for advanced nitrogen removal by rhamnolipid addition. Bioresource Technology, 2019, 287, 121387.	9.6	61
15	The characterization of dissolved organic matter in alkaline fermentation of sewage sludge with different pH for volatile fatty acids production. Water Research, 2019, 164, 114924.	11.3	58
16	The strengthening effect of a static magnetic field on activated sludge activity at low temperature. Bioresource Technology, 2013, 150, 156-162.	9.6	54
17	Removal characteristics of DON in pharmaceutical wastewater and its influence on the N-nitrosodimethylamine formation potential and acute toxicity of DOM. Water Research, 2017, 109, 114-121.	11.3	54
18	Aromatic compounds lead to increased abundance of antibiotic resistance genes in wastewater treatment bioreactors. Water Research, 2019, 166, 115073.	11.3	53

#	Article	IF	Citations
19	Towards physicochemical and biological effects on detachment and activity recovery of aging biofilm by enzyme and surfactant treatments. Bioresource Technology, 2018, 247, 319-326.	9.6	51
20	Development of an extraction method and LC–MS analysis for N-acylated-l-homoserine lactones (AHLs) in wastewater treatment biofilms. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2017, 1041-1042, 37-44.	2.3	50
21	Effect of Solids Retention Time on Effluent Dissolved Organic Nitrogen in the Activated Sludge Process: Studies on Bioavailability, Fluorescent Components, and Molecular Characteristics. Environmental Science & Technology, 2018, 52, 3449-3455.	10.0	49
22	Low-level free nitrous acid efficiently inhibits the conjugative transfer of antibiotic resistance by altering intracellular ions and disabling transfer apparatus. Water Research, 2019, 158, 383-391.	11.3	48
23	Phosphorus recovery from biogas slurry by ultrasound/H_2O_2 digestion coupled with HFO/biochar adsorption process. Waste Management, 2017, 60, 219-229.	7.4	45
24	The biological role of N-acyl-homoserine lactone-based quorum sensing (QS) in EPS production and microbial community assembly during anaerobic granulation process. Scientific Reports, 2018, 8, 15793.	3.3	45
25	Removal Characteristics of Dissolved Organic Nitrogen and Its Bioavailable Portion in a Postdenitrifying Biofilter: Effect of the C/N Ratio. Environmental Science & Technology, 2018, 52, 757-764.	10.0	43
26	Effect of temperature on the characterization of soluble microbial products in activated sludge system with special emphasis on dissolved organic nitrogen. Water Research, 2019, 162, 87-94.	11.3	43
27	Machine learning-aided analyses of thousands of draft genomes reveal specific features of activated sludge processes. Microbiome, 2020, 8, 16.	11.1	42
28	Impact of selected non-steroidal anti-inflammatory pharmaceuticals on microbial community assembly and activity in sequencing batch reactors. PLoS ONE, 2017, 12, e0179236.	2.5	41
29	Effect of adding low-concentration of rhamnolipid on reactor performances and microbial community evolution in MBBRs for low C/N ratio and antibiotic wastewater treatment. Bioresource Technology, 2018, 256, 557-561.	9.6	41
30	Characteristics of dissolved organic nitrogen in effluent from a biological nitrogen removal process using sludge alkaline fermentation liquid as an external carbon source. Water Research, 2020, 176, 115741.	11.3	41
31	Estimation of spatial distribution of quorum sensing signaling in sequencing batch biofilm reactor (SBBR) biofilms. Science of the Total Environment, 2018, 612, 405-414.	8.0	40
32	Diverse aromatic-degrading bacteria present in a highly enriched autotrophic nitrifying sludge. Science of the Total Environment, 2019, 666, 245-251.	8.0	39
33	In-situ monitoring AHL-mediated quorum-sensing regulation of the initial phase of wastewater biofilm formation. Environment International, 2020, 135, 105326.	10.0	39
34	Removal of artificial sweeteners using UV/persulfate: Radical-based degradation kinetic model in wastewater, pathways and toxicity. Water Research, 2019, 167, 115102.	11.3	38
35	Modeling assessment for ammonium nitrogen recovery from wastewater by chemical precipitation. Journal of Environmental Sciences, 2011, 23, 881-890.	6.1	37
36	Effect of microbial activity and microbial community structure on the formation of dissolved organic nitrogen (DON) and bioavailable DON driven by low temperatures. Water Research, 2019, 159, 397-405.	11.3	35

#	Article	IF	Citations
37	Occurrence and removal of progestagens in municipal wastewater treatment plants from different regions in China. Science of the Total Environment, 2019, 668, 1191-1199.	8.0	35
38	Comparative study of activated sludge with different individual nitrogen sources at a low temperature: Effluent dissolved organic nitrogen compositions, metagenomic and microbial community. Bioresource Technology, 2018, 247, 915-923.	9.6	33
39	Distribution and removal of fluorescent dissolved organic matter in 15 municipal wastewater treatment plants in China. Chemosphere, 2020, 251, 126375.	8.2	33
40	In situ monitoring of wastewater biofilm formation process via ultrasonic time domain reflectometry (UTDR). Chemical Engineering Journal, 2018, 334, 2134-2141.	12.7	32
41	Quorum sensing signaling distribution during the development of full-scale municipal wastewater treatment biofilms. Science of the Total Environment, 2019, 685, 28-36.	8.0	32
42	Transformation of anaerobic granules into aerobic granules and the succession of bacterial community. Applied Microbiology and Biotechnology, 2017, 101, 7703-7713.	3.6	28
43	In-situ monitoring of the unstable bacterial adhesion process during wastewater biofilm formation: A comprehensive study. Environment International, 2020, 140, 105722.	10.0	28
44	Calcium ion- and rhamnolipid-mediated deposition of soluble matters on biocarriers. Water Research, 2018, 133, 37-46.	11.3	26
45	Concentration, composition, bioavailability, and N-nitrosodimethylamine formation potential of particulate and dissolved organic nitrogen in wastewater effluents: A comparative study. Science of the Total Environment, 2016, 569-570, 1359-1368.	8.0	25
46	Long-term exogenous addition of synthetic acyl homoserine lactone enhanced the anaerobic granulation process. Science of the Total Environment, 2019, 696, 133809.	8.0	24
47	Modeling the formation of microorganism-derived dissolved organic nitrogen (mDON) in the activated sludge system. Water Research, 2020, 174, 115604.	11.3	24
48	Distribution characteristics of N-acyl homoserine lactones during the moving bed biofilm reactor biofilm development process: Effect of carbon/nitrogen ratio and exogenous quorum sensing signals. Bioresource Technology, 2019, 289, 121591.	9.6	23
49	Characteristics of DOM in 14 AAO processes of municipal wastewater treatment plants. Science of the Total Environment, 2020, 742, 140654.	8.0	23
50	Effect of salinity on mature wastewater treatment biofilm microbial community assembly and metabolite characteristics. Science of the Total Environment, 2020, 711, 134437.	8.0	21
51	High concentrations of dissolved organic nitrogen and N-nitrosodimethylamine precursors in effluent from biological nutrient removal process with low dissolved oxygen conditions. Water Research, 2022, 216, 118336.	11.3	21
52	Insight into mature biofilm quorum sensing in full-scale wastewater treatment plants. Chemosphere, 2019, 234, 310-317.	8.2	20
53	A novel start-up strategy for mixotrophic denitrification biofilters by rhamnolipid and its performance on denitrification of low C/N wastewater. Chemosphere, 2020, 239, 124726.	8.2	20
54	Undesirable effects of exogenous N-acyl homoserine lactones on moving bed biofilm reactor treating medium-strength synthetic wastewater. Science of the Total Environment, 2019, 696, 134061.	8.0	19

#	Article	IF	Citations
55	Simultaneous nitrogen removal and toxicity reduction of synthetic municipal wastewater by micro-electrolysis and sulfur-based denitrification biofilter. Bioresource Technology, 2020, 316, 123924.	9.6	19
56	In-situ sludge reduction performance and mechanism in an anoxic/aerobic process coupled with alternating aerobic/anaerobic side-stream reactor. Science of the Total Environment, 2021, 777, 145856.	8.0	19
57	Abiotic and biotic processes of diclofenac in enriched nitrifying sludge: Kinetics, transformation products and reactions. Science of the Total Environment, 2019, 683, 80-88.	8.0	18
58	Compositional characteristics of dissolved organic matter in pharmaceutical wastewater effluent during ozonation. Science of the Total Environment, 2021, 778, 146278.	8.0	18
59	Can fluorescence spectrometry be used as a surrogate for predicting the dissolved organic nitrogen and its bioavailable portion in wastewater effluents?. Chemosphere, 2016, 164, 299-303.	8.2	17
60	Occurrence and fate of androgens in municipal wastewater treatment plants in China. Chemosphere, 2019, 237, 124371.	8.2	16
61	Bacterial assembly and succession in the start-up phase of an IFAS metacommunity: The role of AHL-driven quorum sensing. Science of the Total Environment, 2021, 777, 145870.	8.0	15
62	Removal of artificial sweeteners and their effects on microbial communities in sequencing batch reactors. Scientific Reports, 2018, 8, 3399.	3.3	13
63	A novel anoxic/aerobic process coupled with micro-aerobic/anaerobic side-stream reactor filled with packing carriers for in-situ sludge reduction. Journal of Cleaner Production, 2021, 311, 127192.	9.3	13
64	Occurrence and removal of progestogens from wastewater treatment plants in China: Spatiotemporal variation and process comparison. Water Research, 2022, 211, 118038.	11.3	11
65	Linking microbial respiratory activity with phospholipid fatty acid of biofilm from full-scale bioreactors. Bioresource Technology, 2019, 272, 599-605.	9.6	9
66	Characterization of dissolved organic matter in reclaimed wastewater supplying urban rivers with a special focus on dissolved organic nitrogen: A seasonal study. Environmental Pollution, 2020, 265, 114959.	7.5	9
67	Removal of pharmaceuticals by ammonia oxidizers during nitrification. Applied Microbiology and Biotechnology, 2021, 105, 909-921.	3.6	9
68	A metabolomic view of how the anaerobic side-stream reactors achieves in-situ sludge reduction. Journal of Cleaner Production, 2022, 368, 132990.	9.3	8
69	Microscopic analysis towards rhamnolipid-mediated adhesion of Thiobacillus denitrificans: A QCM-D study. Chemosphere, 2021, 271, 129539.	8.2	6
70	Metagenomic insights into the â€œwindowâ€•effect of static magnetic field on nitrous oxide emission from biological nitrogen removal process at low temperature. Journal of Environmental Management, 2021, 298, 113377.	7.8	6
71	Bacterial enrichment in highly-selective acetate-fed bioreactors and its application in rapid biofilm formation. Water Research, 2020, 170, 115359.	11.3	5
72	Effect of Influent Carbon-to-Nitrogen Ratios on the Production and Bioavailability of Microorganism-Derived Dissolved Organic Nitrogen (mDON) in Activated Sludge Systems. ACS ES&T Water, 2021, 1, 2037-2045.	4.6	5

#	Article	IF	Citations
73	Combined influences of process parameters on microorganism-derived dissolved organic nitrogen (mDON) formation at low temperatures: Multivariable statistical and systematic analysis. Science of the Total Environment, 2020, 744, 140732.	8.0	4
74	Regulation of exogenous acyl homoserine lactones on sludge settling performance: Monitoring via ultrasonic time-domain reflectometry. Chemosphere, 2022, 303, 135019.	8.2	3
75	Effects of DOM characteristics from real wastewater on the degradation of pharmaceutically active compounds by the UV/H2O2 process. Journal of Environmental Sciences, 2022, 116, 220-228.	6.1	2
76	Spatiotemporal variation and removal of selected endocrine-disrupting chemicals in wastewater treatment plants across China: Treatment process comparison. Science of the Total Environment, 2022, 835, 155374.	8.0	2
77	Synergistic Adsorbent Sequence for Dissolved Organic Nitrogen Fractional Removal from Biotreated Pharmaceutical Wastewater. ACS ES&T Water, 2021, 1, 991-1001.	4.6	1
78	<scp>AHLS</scp> â€pred: a novel sequenceâ€based predictor of acylâ€homoserineâ€lactone synthases using machine learning algorithms. Environmental Microbiology Reports, 2022, , .	2.4	1