Mutai Bao

List of Publications by Year
in descending order

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Version: 2024-02-01

102 papers	3,313 citations	136740 32 h-index	174990 52 g-index
103 all docs	103 docs citations	103 times ranked	3576 citing authors

#	Article	IF	Citations
1	Facile fabrication of acidified g-C3N4/g-C3N4 hybrids with enhanced photocatalysis performance under visible light irradiation. Applied Catalysis B: Environmental, 2016, 193, 22-35.	10.8	377
2	Biodegradation of partially hydrolyzed polyacrylamide by bacteria isolated from production water after polymer flooding in an oil field. Journal of Hazardous Materials, 2010, 184, 105-110.	6.5	137
3	Insight into the highly efficient degradation of PAHs in water over graphene oxide/Ag3PO4 composites under visible light irradiation. Chemical Engineering Journal, 2018, 334, 355-376.	6.6	110
4	Treatment of partially hydrolyzed polyacrylamide wastewater by combined Fenton oxidation and anaerobic biological processes. Chemical Engineering Journal, 2015, 273, 1-6.	6.6	81
5	Constructing a novel ternary composite (C16H33(CH3)3N)4W10O32/g-C3N4/rGO with enhanced visible-light-driven photocatalytic activity for degradation of dyes and phenol. Applied Catalysis B: Environmental, 2017, 200, 283-296.	10.8	81
6	Study on the biodegradation of crude oil by free and immobilized bacterial consortium in marine environment. PLoS ONE, 2017, 12, e0174445.	1.1	80
7	Facile Fabrication of Cyclodextrin-Modified Magnetic Particles for Effective Demulsification from Various Types of Emulsions. Environmental Science & Technology, 2016, 50, 8809-8816.	4.6	76
8	Study on bioadsorption and biodegradation of petroleum hydrocarbons by a microbial consortium. Bioresource Technology, 2013, 149, 22-30.	4.8	73
9	Rhamnolipids enhance marine oil spill bioremediation in laboratory system. Marine Pollution Bulletin, 2013, 71, 269-275.	2.3	70
10	Unprecedented efficient degradation of phenanthrene in water by intimately coupling novel ternary composite Mn3O4/MnO2-Ag3PO4 and functional bacteria under visible light irradiation. Chemical Engineering Journal, 2019, 369, 1078-1092.	6.6	70
11	Construction of a Superhydrophobic Sodium Alginate Aerogel for Efficient Oil Absorption and Emulsion Separation. Langmuir, 2021, 37, 882-893.	1.6	69
12	Microbial degradation of four crude oil by biosurfactant producing strain Rhodococcus sp.. Bioresource Technology, 2017, 232, 263-269.	4.8	66
13	An environmentally benign approach to prepare superhydrophobic magnetic melamine sponge for effective oil/water separation. Separation and Purification Technology, 2020, 236, 116308.	3.9	66
14	Effect of rhamnolipid biosurfactant on solubilization of polycyclic aromatic hydrocarbons. Marine Pollution Bulletin, 2015, 101, 219-225.	2.3	65
15	Highly permeable and stable forward osmosis (FO) membrane based on the incorporation of Al₂O₃ nanoparticles into both substrate and polyamide active layer. RSC Advances, 2017, 7, 40311-40320.	1.7	63
16	Biodegradation of hydrolyzed polyacrylamide by the combined expanded granular sludge bed reactor-aerobic biofilm reactor biosystem and key microorganisms involved in this bioprocess. Bioresource Technology, 2018, 263, 153-162.	4.8	54
17	Biodegradation for hydrolyzed polyacrylamide in the anaerobic baffled reactor combined aeration tank. Ecological Engineering, 2015, 84, 121-127.	1.6	53
18	Biodegradation of different petroleum hydrocarbons by free and immobilized microbial consortia. Environmental Sciences: Processes and Impacts, 2015, 17, 2022-2033.	1.7	51

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19	Facile one-step synthesis of onion-like carbon modified ultrathin g-C3N4 2D nanosheets with enhanced visible-light photocatalytic performance. Journal of Colloid and Interface Science, 2019, 533, 47-58.	5.0	50
20	3D Bombax-structured carbon nanotube sponge coupling with Ag3PO4 for tetracycline degradation under ultrasound and visible light irradiation. Science of the Total Environment, 2019, 695, 133694.	3.9	50
21	Novel and Environmentally Friendly Oil Spill Dispersant Based on the Synergy of Biopolymer Xanthan Gum and Silica Nanoparticles. ACS Sustainable Chemistry and Engineering, 2016, 4, 3095-3102.	3.2	48
22	Lipopeptide biosurfactant production bacteria Acinetobacter sp. D3-2 and its biodegradation of crude oil. Environmental Sciences: Processes and Impacts, 2014, 16, 897-903.	1.7	46
23	Preparation of superhydrophobic magnetic sawdust for effective oil/water separation. Journal of Cleaner Production, 2020, 253, 120058.	4.6	46
24	Preparation of Oil-in-Seawater Emulsions Based on Environmentally Benign Nanoparticles and Biosurfactant for Oil Spill Remediation. ACS Sustainable Chemistry and Engineering, 2015, 3, 2686-2693.	3.2	45
25	Microbial community structure shifts are associated with temperature, dispersants and nutrients in crude oil-contaminated seawaters. Marine Pollution Bulletin, 2016, 111, 203-212.	2.3	45
26	Fabrication of organic-inorganic nanofiltration membrane using ordered stacking SiO2 thin film as rejection layer assisted with layer-by-layer method. Chemical Engineering Journal, 2017, 330, 337-344.	6.6	45
27	An efficient and environmental-friendly dispersant based on the synergy of amphiphilic surfactants for oil spill remediation. Chemosphere, 2019, 215, 241-247.	4.2	45
28	Fingerprinting and source identification of an oil spill in China Bohai Sea by gas chromatography-flame ionization detection and gas chromatographyâ€“mass spectrometry coupled with multi-statistical analyses. Journal of Chromatography A, 2009, 1216, 830-836.	1.8	43
29	Fabrication of MIL-Fe (53)/modified g-C3N4 photocatalyst synergy H2O2 for degradation of tetracycline. Separation and Purification Technology, 2021, 279, 119661.	3.9	40
30	The contribution of chemical dispersants and biosurfactants on crude oil biodegradation by Pseudomonas sp. LSH-7â€². Journal of Cleaner Production, 2017, 153, 74-82.	4.6	38
31	Metabolic pathway for a new strain Pseudomonas synxantha LSH-7â€²: from chemotaxis to uptake of n-hexadecane. Scientific Reports, 2017, 7, 39068.	1.6	38
32	Construction of a hydrophobic magnetic aerogel based on chitosan for oil/water separation applications. International Journal of Biological Macromolecules, 2020, 165, 1869-1880.	3.6	38
33	Amphiphilic Janus particles for efficient dispersion of oil contaminants in seawater. Journal of Colloid and Interface Science, 2019, 556, 54-64.	5.0	33
34	Hydrolyzed polyacrylamide biodegradation and mechanism in sequencing batch biofilm reactor. Bioresource Technology, 2016, 207, 315-321.	4.8	32
35	Degradation of crude oil and relationship with bacteria and enzymatic activities in laboratory testing. International Biodeterioration and Biodegradation, 2016, 106, 106-116.	1.9	31
36	The enhanced stability and biodegradation of dispersed crude oil droplets by Xanthan Gum as an additive of chemical dispersant. Marine Pollution Bulletin, 2017, 118, 275-280.	2.3	31

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37	Hydrolyzed polyacrylamide-containing wastewater treatment using ozone reactor-upflow anaerobic sludge blanket reactor-aerobic biofilm reactor multistage treatment system. Environmental Pollution, 2021, 269, 116111.	3.7	30
38	Multi-functional magnetic bacteria as efficient and economical Pickering emulsifiers for encapsulation and removal of oil from water. Journal of Colloid and Interface Science, 2020, 560, 349-358.	5.0	29
39	Dissipative particle dynamics simulation on the properties of the oil/water/surfactant system in the absence and presence of polymer. Molecular Simulation, 2013, 39, 299-308.	0.9	28
40	Micelle-vesicle transitions in catanionic mixtures of SDS/DTAB induced by salt, temperature, and selective solvents: a dissipative particle dynamics simulation study. Colloid and Polymer Science, 2014, 292, 2349-2360.	1.0	27
41	Kinetics and thermodynamics of biodegradation of hydrolyzed polyacrylamide under anaerobic and aerobic conditions. Bioresource Technology, 2016, 216, 95-104.	4.8	27
42	Biohydrogen and polyhydroxyalkanoate production from original hydrolyzed polyacrylamide-containing wastewater. Bioresource Technology, 2019, 287, 121404.	4.8	27
43	Morphology and Surface Chemistry of Gas-Wetting Nanoparticles and Their Effect on the Liquid Menisci in Porous Media. Industrial & Engineering Chemistry Research, 2019, 58, 6747-6755.	1.8	27
44	Potential of hydrolyzed polyacrylamide biodegradation to final products through regulating its own nitrogen transformation in different dissolved oxygen systems. Bioresource Technology, 2018, 256, 61-68.	4.8	26
45	Effect of surfactants on the solubilization, sorption and biodegradation of benzo (a) pyrene by Pseudomonas aeruginosa BT-1. Journal of the Taiwan Institute of Chemical Engineers, 2019, 96, 121-130.	2.7	26
46	Biodegradation of hydrolyzed polyacrylamide by a Bacillus megaterium strain SZK-5: Functional enzymes and antioxidant defense mechanism. Chemosphere, 2019, 231, 184-193.	4.2	25
47	Hydrolyzed polyacrylamide biotransformation in an up-flow anaerobic sludge blanket reactor system: key enzymes, functional microorganisms, and biodegradation mechanisms. Bioprocess and Biosystems Engineering, 2019, 42, 941-951.	1.7	24
48	A super-hydrophobic and antibiofouling membrane constructed from carbon sphere-welded MnO2 nanowires for ultra-fast separation of emulsion. Journal of Membrane Science, 2022, 653, 120514.	4.1	24
49	Aggregation Behavior of Surfactants with Different Molecular Structures in Aqueous Solution: DPD Simulation Study. Journal of Dispersion Science and Technology, 2012, 33, 1437-1443.	1.3	22
50	Enhanced hydrolyzed polyacrylamide removal from water by an aerobic biofilm reactor-ozone reactor-aerobic biofilm reactor hybrid treatment system: Performance, key enzymes and functional microorganisms. Bioresource Technology, 2019, 291, 121811.	4.8	21
51	Effects of different electron acceptors on the methanogenesis of hydrolyzed polyacrylamide biodegradation in anaerobic activated sludge systems. Bioresource Technology, 2018, 247, 759-768.	4.8	20
52	Bioremediation of the oil spill polluted marine intertidal zone and its toxicity effect on microalgae. Environmental Sciences: Processes and Impacts, 2015, 17, 877-885.	1.7	19
53	Highly Efficient Photocatalytic Remediation of Simulated Polycyclic Aromatic Hydrocarbons (PAHs) Contaminated Wastewater under Visible Light Irradiation by Graphene Oxide Enwrapped Ag₃PO₄ Composite.. Chinese Journal of Chemistry, 2017, 35, 1549-1558.	2.6	19
54	An efficient classification method for fuel and crude oil types based on m/z 256 mass chromatography by COW-PCA-LDA. Fuel, 2018, 222, 416-423.	3.4	19

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55	Integrated asymmetric superwetting Janus membrane for the efficient separation of various surfactant-stabilized oilâ€“water emulsions. Environmental Science: Nano, 2021, 8, 2235-2248.	2.2	19
56	Petroleum hydrocarbon degrading bacteria associated with chitosan as effective particle-stabilizers for oil emulsification. RSC Advances, 2015, 5, 37640-37647.	1.7	18
57	Dodecanol-Modified Petroleum Hydrocarbon Degrading Bacteria for Oil Spill Remediation: Double Effect on Dispersion and Degradation. ACS Sustainable Chemistry and Engineering, 2016, 4, 169-176.	3.2	18
58	Promoting the treatment of crude oil alkane pollution through the study of enzyme activity. International Journal of Biological Macromolecules, 2018, 119, 708-716.	3.6	18
59	A solar-heated antibacterial sodium alginate aerogel for highly efficient cleanup of viscous oil spills. Journal of Colloid and Interface Science, 2022, 621, 241-253.	5.0	18
60	Magnet-Responsive Silica Microrods as Solid Stabilizer and Adsorbent for Simultaneous Removal of Coexisting Contaminants in Water. ACS Sustainable Chemistry and Engineering, 2019, 7, 13786-13795.	3.2	17
61	Advanced treatment for actual hydrolyzed polyacrylamide-containing wastewater in a biofilm/activated sludge membrane bioreactor system: Biodegradation and interception. Biochemical Engineering Journal, 2019, 141, 120-130.	1.8	17
62	Individually immobilized and surface-modified hydrocarbon-degrading bacteria for oil emulsification and biodegradation. Marine Pollution Bulletin, 2017, 125, 433-439.	2.3	16
63	Great correlation: Biodegradation and chemotactic adsorption of Pseudomonas synxantha LSH-7â€™ for oil contaminated seawater bioremediation. Water Research, 2019, 153, 160-168.	5.3	15
64	Efficient biodegradation of phenanthrene using Pseudomonas stutzeri LSH-PAH1 with the addition of sophorolipids: Alleviation of biotoxicity and cometabolism studies. Environmental Pollution, 2022, 301, 119011.	3.7	15
65	Removal efficiency of heavy oil by free and immobilised microorganisms on laboratoryâ€scale. Canadian Journal of Chemical Engineering, 2013, 91, 1-8.	0.9	14
66	Construction of long-chain alkane degrading bacteria and its application in bioremediation of crude oil pollution. International Journal of Biological Macromolecules, 2018, 119, 524-532.	3.6	14
67	Insights into the effect of different levels of crude oil on hydrolyzed polyacrylamide biotransformation in aerobic and anoxic biosystems: Bioresource production, enzymatic activity, and microbial function. Bioresource Technology, 2019, 293, 122023.	4.8	14
68	Effects of suspended particulate matter, surface oil layer thickness and surfactants on the formation and transport of oil-sediment aggregates (OSA). International Biodeterioration and Biodegradation, 2020, 149, 104925.	1.9	14
69	Magnetic chitosanâ€based aerogel decorated with polydimethylsiloxane: A highâ€performance scavenger for oil in water. Journal of Applied Polymer Science, 2021, 138, 50461.	1.3	14
70	Correlation between polyhydroxyalkanoates and extracellular polymeric substances in the activated sludge biosystems with different carbon to nitrogen ratio. Biochemical Engineering Journal, 2021, 176, 108204.	1.8	14
71	TiO2@palygorskite composite for the efficient remediation of oil spills via a dispersion-photodegradation synergy. Frontiers of Environmental Science and Engineering, 2021, 15, 1.	3.3	13
72	Improvement in emulsifying properties of whey proteinâ€“Rhamnolipid conjugates through short-time heat treatment. Colloids and Surfaces B: Biointerfaces, 2019, 181, 688-695.	2.5	12

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73	Solid inoculants as a practice for bioaugmentation to enhance bioremediation of hydrocarbon contaminated areas. Chemosphere, 2021, 263, 128175.	4.2	12
74	Enhanced photocatalytic activity of glyphosate over a combination strategy of GQDs/TNAs heterojunction composites. Journal of Colloid and Interface Science, 2022, 607, 607-620.	5.0	12
75	Characterization of crude oil degrading microbial cultures isolated in Qingdao China. RSC Advances, 2015, 5, 97665-97674.	1.7	11
76	Temperature mediates metabolism switching of Bacillus sp. ZT-1: Analysis of the properties and structure of exopolysaccharides. Microbiological Research, 2021, 251, 126839.	2.5	11
77	Mesoscale evaluation of oil submerging and floating processes during marine oil spill response: Effects of dispersant on submerging stability and the associated mechanism. Journal of Hazardous Materials, 2022, 436, 129153.	6.5	11
78	The formation process and responsive impacts of single oil droplet in submerged process. Marine Pollution Bulletin, 2017, 124, 139-146.	2.3	10
79	Simultaneous nitrification and denitrification in an aerobic biofilm biosystem with loofah sponges as carriers for biodegrading hydrolyzed polyacrylamide-containing wastewater. Bioprocess and Biosystems Engineering, 2020, 43, 529-540.	1.7	10
80	Rapid capturing of oil-degrading bacteria by engineered attapulgite and their synergistic remediation for oil spill. Journal of Colloid and Interface Science, 2021, 604, 272-280.	5.0	10
81	A new perspective of particle adsorption: Dispersed oil and granular materials interactions in simulated coastal environment. Marine Pollution Bulletin, 2017, 122, 100-109.	2.3	9
82	RNA-seq analysis reveals the significant effects of different light conditions on oil degradation by marine Chlorella vulgaris. Marine Pollution Bulletin, 2018, 137, 267-276.	2.3	9
83	Deep remediation of oil spill based on the dispersion and photocatalytic degradation of biosurfactant-modified TiO2. Chemosphere, 2021, 281, 130744.	4.2	9
84	Study and Application on the Oil-Film Method Used for Reservoir Protection Drilling and Completion Fluid Systems. Journal of Dispersion Science and Technology, 2010, 31, 1273-1277.	1.3	8
85	Sensitivity and Identification Indexes for Fuel Oils and Crude Oils Based on the Hydrocarbon Components and Diagnostic Ratios Using Principal Component Analysis (PCA) Biplots. Energy & Fuels, 2015, 29, 3032-3040.	2.5	8
86	Kinetics and thermodynamics of dissolved petroleum hydrocarbons in sediment under sophorolipid application and their effects on oil behaviour end-results in marine environment. RSC Advances, 2017, 7, 45843-45851.	1.7	8
87	Microbial degradation of four dispersed crude oils by Rhodococcus sp. evaluated using carbon stable isotope analysis. Journal of Chemical Technology and Biotechnology, 2019, 94, 1800-1807.	1.6	8
88	Key role of different levels of dissolved oxygen in hydrolyzed polyacrylamide bioconversion: Focusing on metabolic products, key enzymes and functional microorganisms. Bioresource Technology, 2020, 306, 123089.	4.8	8
89	The proliferation and colonization of functional bacteria on amorphous polyethylene terephthalate: Key role of ultraviolet irradiation and nonionic surfactant polysorbate 80 addition. Chemosphere, 2022, 291, 132940.	4.2	8
90	Biodegradation of marine surface floating crude oil in a large-scale field simulated experiment. Environmental Sciences: Processes and Impacts, 2014, 16, 1948-1956.	1.7	7

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91	Regulation of different electron acceptors on petroleum hydrocarbon biotransformation to final products in activated sludge biosystems. Bioprocess and Biosystems Engineering, 2019, 42, 643-655.	1.7	7
92	Occurrence and distribution of cyclic-alkane-consuming psychrophilic bacteria in the Yellow Sea and East China Sea. Journal of Hazardous Materials, 2022, 427, 128129.	6.5	7
93	Petroleum hydrocarbon release behavior study in oil-sediment aggregates: turbulence intensity and chemical dispersion effect. RSC Advances, 2019, 9, 7922-7931.	1.7	6
94	New insights into the interaction between asphaltene and hydrolyzed polyacrylamide at the oil-water interface based on emulsion stability. Journal of Petroleum Science and Engineering, 2022, 215, 110628.	2.1	6
95	Dominant species succession and oil behavior change under LSH-7â€² petroleum hydrocarbon degradation bacteria and chemical dispersant in open water columns. Journal of the Taiwan Institute of Chemical Engineers, 2018, 93, 519-527.	2.7	5
96	The physicalâ€“biological processes of petroleum hydrocarbons in seawater/sediments after an oil spill. RSC Advances, 2015, 5, 98990-98998.	1.7	3
97	Experimental study of oil plume stability: Parametric dependences and optimization. Marine Pollution Bulletin, 2016, 111, 358-364.	2.3	3
98	Automatic integration method for single and multiple peaks in the GC and GC-MS chromatograms of characteristic oil compounds. Analytical Methods, 2015, 7, 2670-2679.	1.3	1
99	Back Cover: Highly Efficient Photocatalytic Remediation of Simulated Polycyclic Aromatic Hydrocarbons (PAHs) Contaminated Wastewater under Visible Light Irradiation by Graphene Oxide Enwrapped Ag3 PO4 Composite (Chin. J. Chem. 10/2017). Chinese Journal of Chemistry, 2017, 35, 1650-1650.	2.6	0
100	Letter to the editor: Recognition of Athas etÂal. (Langmuir, 2014). Chemosphere, 2019, 233, 985.	4.2	0
101	The interaction between dispersed crude oil droplets and particulate matter. Environmental Sciences: Processes and Impacts, 2020, 22, 1397-1407.	1.7	0
102	Contrasting vertical distribution between prokaryotes and fungi in different water masses on the Ninety-East Ridge, Southern Indian Ocean. Journal of Oceanology and Limnology, 0, , 1.	0.6	0