

Liang Cheng

List of Publications by Year in descending order

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Version: 2024-02-01

61
papers

3,326
citations

186209

28
h-index

149623

56
g-index

62
all docs

62
docs citations

62
times ranked

1508
citing authors

#	ARTICLE	IF	CITATIONS
1	Cementation of sand soil by microbially induced calcite precipitation at various degrees of saturation. <i>Canadian Geotechnical Journal</i> , 2013, 50, 81-90.	1.4	526
2	State-of-the-Art Review of Biocementation by Microbially Induced Calcite Precipitation (MICP) for Soil Stabilization. <i>Geomicrobiology Journal</i> , 2017, 34, 524-537.	1.0	313
3	In situ soil cementation with ureolytic bacteria by surface percolation. <i>Ecological Engineering</i> , 2012, 42, 64-72.	1.6	245
4	Influence of Key Environmental Conditions on Microbially Induced Cementation for Soil Stabilization. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2017, 143, .	1.5	236
5	Soil bio-cementation using a new one-phase low-pH injection method. <i>Acta Geotechnica</i> , 2019, 14, 615-626.	2.9	157
6	Upscaling Effects of Soil Improvement by Microbially Induced Calcite Precipitation by Surface Percolation. <i>Geomicrobiology Journal</i> , 2014, 31, 396-406.	1.0	150
7	Effect of Particle Shape on Strength and Stiffness of Biocemented Glass Beads. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2019, 145, .	1.5	112
8	Restraint of Particle Breakage by Biotreatment Method. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2020, 146, .	1.5	109
9	Microstructural and Geomechanical Study on Biocemented Sand for Optimization of MICP Process. <i>Journal of Materials in Civil Engineering</i> , 2019, 31, .	1.3	94
10	Urease active bioslurry: a novel soil improvement approach based on microbially induced carbonate precipitation. <i>Canadian Geotechnical Journal</i> , 2016, 53, 1376-1385.	1.4	92
11	A new biogrouting method for fine to coarse sand. <i>Acta Geotechnica</i> , 2020, 15, 1-16.	2.9	82
12	Theory of Microbial Carbonate Precipitation and Its Application in Restoration of Cement-based Materials Defects. <i>Chinese Journal of Chemistry</i> , 2010, 28, 847-857.	2.6	64
13	Selective enrichment and production of highly urease active bacteria by non-sterile (open) chemostat culture. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2013, 40, 1095-1104.	1.4	61
14	Enhanced biodegradation of hydrophobic organic pollutants by the bacterial consortium: Impact of enzymes and biosurfactants. <i>Environmental Pollution</i> , 2021, 289, 117956.	3.7	60
15	Ca-mediated alleviation of Cd ²⁺ induced toxicity and improved Cd ²⁺ biomineralization by <i>Sporosarcina pasteurii</i> . <i>Science of the Total Environment</i> , 2021, 787, 147627.	3.9	57
16	Biocementation of soil using non-sterile enriched urease-producing bacteria from activated sludge. <i>Journal of Cleaner Production</i> , 2020, 262, 121315.	4.6	54
17	Enhancing fiber/matrix bonding in polypropylene fiber reinforced cementitious composites by microbially induced calcite precipitation pre-treatment. <i>Cement and Concrete Composites</i> , 2018, 88, 1-7.	4.6	53
18	Microbially induced calcite precipitation for production of "bio-bricks" treated at partial saturation condition. <i>Construction and Building Materials</i> , 2020, 231, 117095.	3.2	47

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19	Efficient persistent organic pollutant removal in water using MIL-metal-organic framework driven Fenton-like reactions: A critical review. <i>Chemical Engineering Journal</i> , 2022, 431, 134182.	6.6	46
20	Recent advances in the fabrication of 2D metal oxides. <i>IScience</i> , 2022, 25, 103598.	1.9	45
21	Surface Percolation for Soil Improvement by Biocementation Utilizing <i>In Situ</i> Enriched Indigenous Aerobic and Anaerobic Ureolytic Soil Microorganisms. <i>Geomicrobiology Journal</i> , 2017, 34, 546-556.	1.0	43
22	Bio-mediated soil improvement: An introspection into processes, materials, characterization and applications. <i>Soil Use and Management</i> , 2022, 38, 68-93.	2.6	43
23	Seepage control in sand using bioslurry. <i>Construction and Building Materials</i> , 2019, 212, 342-349.	3.2	42
24	High-strength wastewater treatment using microbial biofilm reactor: a critical review. <i>World Journal of Microbiology and Biotechnology</i> , 2020, 36, 75.	1.7	41
25	Microbially induced calcite precipitation along a circular flow channel under a constant flow condition. <i>Acta Geotechnica</i> , 2019, 14, 673-683.	2.9	40
26	Microbial fuel cell biosensor for rapid assessment of assimilable organic carbon under marine conditions. <i>Water Research</i> , 2015, 77, 64-71.	5.3	38
27	Effect of microbially induced calcite precipitation treatment on the bonding properties of steel fiber in ultra-high performance concrete. <i>Journal of Building Engineering</i> , 2022, 50, 104132.	1.6	37
28	Biogrouting of Aggregates Using Premixed Injection Method with or without pH Adjustment. <i>Journal of Materials in Civil Engineering</i> , 2019, 31, .	1.3	32
29	Adsorption of organic compounds from aqueous solution by pyridine-2-carboxaldehyde grafted MIL-101(Cr)-NH ₂ metal-organic frameworks. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105275.	3.3	28
30	Impact of biosurfactant and iron nanoparticles on biodegradation of polyaromatic hydrocarbons (PAHs). <i>Environmental Pollution</i> , 2022, 306, 119384.	3.7	28
31	Energy efficient COD and N-removal from high-strength wastewater by a passively aerated GAO dominated biofilm. <i>Bioresource Technology</i> , 2019, 283, 148-158.	4.8	27
32	Biocarbonation of reactive magnesia for soil improvement. <i>Acta Geotechnica</i> , 2021, 16, 1113-1125.	2.9	27
33	Countermeasures for local scour at offshore wind turbine monopile foundations: A review. <i>Water Science and Engineering</i> , 2022, 15, 15-28.	1.4	25
34	In-line deoxygenation for organic carbon detections in seawater using a marine microbial fuel cell-biosensor. <i>Bioresource Technology</i> , 2015, 182, 34-40.	4.8	23
35	<i>In situ</i> microbially induced Ca ²⁺ -alginate polymeric sealant for seepage control in porous materials. <i>Microbial Biotechnology</i> , 2019, 12, 324-333.	2.0	21
36	Hexacyanoferrate-adapted biofilm enables the development of a microbial fuel cell biosensor to detect trace levels of assimilable organic carbon (AOC) in oxygenated seawater. <i>Biotechnology and Bioengineering</i> , 2014, 111, 2412-2420.	1.7	20

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37	DNA-Modified Electrochemiluminescent Tris(4,4'-Dicarboxylicacid-2,2'-Bipyridyl)Ruthenium(II) Dichloride and Assistant DNA-Modified Carbon Nitride Quantum Dots for Hg ²⁺ Detection. ACS Applied Nano Materials, 2021, 4, 1009-1018.	2.4	19
38	Microbially Induced Calcite Precipitation (MICP) for Soil Stabilization. Ecowise, 2019, , 47-68.	0.1	18
39	Experimental and Analytical Study on Geomechanical Behavior of Biocemented Sand. International Journal of Geomechanics, 2021, 21, .	1.3	15
40	Coupling effect of biocementation-fiber reinforcement on mechanical behavior of calcareous sand for ocean engineering. Bulletin of Engineering Geology and the Environment, 2022, 81, 1.	1.6	14
41	Construction of Water Pond Using Bioslurry-Induced Biocementation. Journal of Materials in Civil Engineering, 2022, 34, .	1.3	13
42	Utilization of carbide sludge and urine for sustainable biocement production. Journal of Environmental Chemical Engineering, 2022, 10, 107443.	3.3	13
43	Environmental stimulation influence the cognition of developing mice by inducing changes in oxidative and apoptosis status. Brain and Development, 2014, 36, 51-56.	0.6	12
44	Dynamically controlling the electrode potential of a microbial fuel cell-powered biocathode for sensitive quantification of nitrate. Electrochimica Acta, 2021, 369, 137661.	2.6	12
45	Bio-Cementation for Improving Soil Thermal Conductivity. Sustainability, 2021, 13, 10238.	1.6	11
46	Detection of low concentration of assimilable organic carbon in seawater prior to reverse osmosis membrane using microbial electrolysis cell biosensor. Desalination and Water Treatment, 0, , 1-6.	1.0	9
47	Sustained and enhanced anaerobic removal of COD and nitrogen in a zeolite amended glycogen accumulating organism dominated biofilm process. Science of the Total Environment, 2022, 807, 150602.	3.9	9
48	Proof of concept of wastewater treatment via passive aeration SND using a novel zeolite amended biofilm reactor. Water Science and Technology, 2018, 78, 2204-2213.	1.2	8
49	Mitigation of alkali-silica reaction by microbially induced CaCO ₃ protective layer on aggregates. Construction and Building Materials, 2022, 328, 127065.	3.2	8
50	Preparation and Characterization of Multi-Doped Porous Carbon Nanofibers from Carbonization in Different Atmospheres and Their Oxygen Electrocatalytic Properties Research. Nanomaterials, 2022, 12, 832.	1.9	7
51	Improvement of uniformity of biocemented sand column using CH ₃ COOH-buffered one-phase-low-pH injection method. Acta Geotechnica, 2023, 18, 413-428.	2.9	7
52	Electrochemistry of newly isolated Gram-positive bacteria Paenibacillus lautus with starch as sole carbon source. Electrochimica Acta, 2022, 411, 140068.	2.6	5
53	Automatic online buffer capacity (alkalinity) measurement of wastewater using an electrochemical cell. Environmental Technology (United Kingdom), 2016, 37, 2467-2472.	1.2	4
54	Plastic Change in the Auditory Minimum Threshold Induced by Intercollicular Effects in Mice. Neural Plasticity, 2016, 2016, 1-8.	1.0	3

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55	Microstructural and Geomechanical Study on Microbial-Carbonized Sand Using Streptomyces Microflavus for Dust Control. <i>Frontiers in Earth Science</i> , 2022, 10, .	0.8	3
56	In situ biomass flocculation improves placement of <i>Sporosarcina Pasteurii</i> for microbially mediated sandy soil stabilization. <i>Acta Geotechnica</i> , 2022, 17, 4435-4445.	2.9	2
57	Mechanical Behavior and Microstructural Study of Biocemented Sand under Various Treatment Methods. <i>Geofluids</i> , 2022, 2022, 1-11.	0.3	2
58	Enhancing splitting tensile strength of biocarbonated reactive magnesia-based sand using polypropylene fiber reinforcement. <i>Acta Geotechnica</i> , 2022, 17, 4761-4768.	2.9	1
59	Specific Effects of Characteristics of Enriched Environment on Innovative Problem Solving by Animals. <i>Psychological Science</i> , 2022, 33, 1097-1111.	1.8	1
60	Honors Lecture: Biological Cementation of Unstable Soils and Grounds for Civil Infrastructure Developments. <i>Sustainable Civil Infrastructures</i> , 2019, , 1-9.	0.1	0
61	Method of Hybrid Adaptive Sampling for the Kriging Metamodel and Application in the Hydropurification Process of Industrial Terephthalic Acid. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 19345-19360.	1.8	0