

# Liang Cheng

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

59  
papers

1,775  
citations

20  
h-index

41  
g-index

62  
ext. papers

2,496  
ext. citations

5.2  
avg, IF

5.7  
L-index

| #  | Paper  | IF   | Citations |
|----|--|------|-----------|
| 59 | Cementation of sand soil by microbially induced calcite precipitation at various degrees of saturation. <i>Canadian Geotechnical Journal</i> , <b>2013</b> , 50, 81-90   | 3.2  | 340       |
| 58 | State-of-the-Art Review of Biocementation by Microbially Induced Calcite Precipitation (MICP) for Soil Stabilization. <i>Geomicrobiology Journal</i> , <b>2017</b> , 34, 524-537                                   | 2.5  | 186       |
| 57 | In situ soil cementation with ureolytic bacteria by surface percolation. <i>Ecological Engineering</i> , <b>2012</b> , 42, 64-72   | 3.9  | 175       |
| 56 | Influence of Key Environmental Conditions on Microbially Induced Cementation for Soil Stabilization. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2017</b> , 143, 04016083          | 3.4  | 129       |
| 55 | Upscaling Effects of Soil Improvement by Microbially Induced Calcite Precipitation by Surface Percolation. <i>Geomicrobiology Journal</i> , <b>2014</b> , 31, 396-406  | 2.5  | 99        |
| 54 | Soil bio-cementation using a new one-phase low-pH injection method. <i>Acta Geotechnica</i> , <b>2019</b> , 14, 615-626  | 6.9  | 63        |
| 53 | Effect of Particle Shape on Strength and Stiffness of Biocemented Glass Beads. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2019</b> , 145, 06019016                                | 3.4  | 62        |
| 52 | Restraint of Particle Breakage by Biotreatment Method. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2020</b> , 146, 04020123  | 3.4  | 54        |
| 51 | Urease active bioslurry: a novel soil improvement approach based on microbially induced carbonate precipitation. <i>Canadian Geotechnical Journal</i> , <b>2016</b> , 53, 1376-1385                                | 3.2  | 49        |
| 50 | Microstructural and Geomechanical Study on Biocemented Sand for Optimization of MICP Process. <i>Journal of Materials in Civil Engineering</i> , <b>2019</b> , 31, 04019025  | 3    | 48        |
| 49 | Selective enrichment and production of highly urease active bacteria by non-sterile (open) chemostat culture. <i>Journal of Industrial Microbiology and Biotechnology</i> , <b>2013</b> , 40, 1095-104             | 4.2  | 48        |
| 48 | Theory of Microbial Carbonate Precipitation and Its Application in Restoration of Cement-based Materials Defects. <i>Chinese Journal of Chemistry</i> , <b>2010</b> , 28, 847-857                                  | 4.9  | 46        |
| 47 | A new biogrouting method for fine to coarse sand. <i>Acta Geotechnica</i> , <b>2020</b> , 15, 1-16   | 4.9  | 41        |
| 46 | Enhancing fiber/matrix bonding in polypropylene fiber reinforced cementitious composites by microbially induced calcite precipitation pre-treatment. <i>Cement and Concrete Composites</i> , <b>2018</b> , 88, 1-7 | 8.6  | 35        |
| 45 | Microbial fuel cell biosensor for rapid assessment of assimilable organic carbon under marine conditions. <i>Water Research</i> , <b>2015</b> , 77, 64-71  | 12.5 | 32        |
| 44 | Microbially induced calcite precipitation along a circular flow channel under a constant flow condition. <i>Acta Geotechnica</i> , <b>2019</b> , 14, 673-683   | 4.9  | 30        |
| 43 | Surface Percolation for Soil Improvement by Biocementation Utilizing In Situ Enriched Indigenous Aerobic and Anaerobic Ureolytic Soil Microorganisms. <i>Geomicrobiology Journal</i> , <b>2017</b> , 34, 546-556   | 2.5  | 27        |

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| 42 | Biocementation of soil using non-sterile enriched urease-producing bacteria from activated sludge. <i>Journal of Cleaner Production</i> , <b>2020</b> , 262, 121315   | 10.3 | 25 |
| 41 | Microbially induced calcite precipitation for production of Bio-bricks treated at partial saturation condition. <i>Construction and Building Materials</i> , <b>2020</b> , 231, 117095  | 6.7  | 23 |
| 40 | Seepage control in sand using bioslurry. <i>Construction and Building Materials</i> , <b>2019</b> , 212, 342-349  | 6.7  | 20 |
| 39 | In-line deoxygenation for organic carbon detections in seawater using a marine microbial fuel cell-biosensor. <i>Bioresource Technology</i> , <b>2015</b> , 182, 34-40  | 11   | 19 |
| 38 | 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> , <b>2014</b> , 111, 2412-20           | 4.9  | 18 |
| 37 | High-strength wastewater treatment using microbial biofilm reactor: a critical review. <i>World Journal of Microbiology and Biotechnology</i> , <b>2020</b> , 36, 75  | 4.4  | 17 |
| 36 | Biogrouting of Aggregates Using Premixed Injection Method with or without pH Adjustment. <i>Journal of Materials in Civil Engineering</i> , <b>2019</b> , 31, 06019008  | 3    | 17 |
| 35 | Energy efficient COD and N-removal from high-strength wastewater by a passively aerated GAO dominated biofilm. <i>Bioresource Technology</i> , <b>2019</b> , 283, 148-158   | 11   | 16 |
| 34 | Enhanced biodegradation of hydrophobic organic pollutants by the bacterial consortium: Impact of enzymes and biosurfactants. <i>Environmental Pollution</i> , <b>2021</b> , 289, 117956   | 9.3  | 14 |
| 33 | In-situ microbially induced Ca -alginate polymeric sealant for seepage control in porous materials. <i>Microbial Biotechnology</i> , <b>2019</b> , 12, 324-333  | 6.3  | 12 |
| 32 | Adsorption of organic compounds from aqueous solution by pyridine-2-carboxaldehyde grafted MIL-101(Cr)-NH <sub>2</sub> metal-organic frameworks. <i>Journal of Environmental Chemical Engineering</i> , <b>2021</b> , 9, 105275                               | 6.8  | 11 |
| 31 | DNA-Modified Electrochemiluminescent Tris(4,4'-Dicarboxylicacid-2,2'-Bipyridyl)Ruthenium(II) Dichloride and Assistant DNA-Modified Carbon Nitride Quantum Dots for Hg <sup>2+</sup> Detection. <i>ACS Applied Nano Materials</i> , <b>2021</b> , 4, 1009-1018 | 5.6  | 11 |
| 30 | Environmental stimulation influence the cognition of developing mice by inducing changes in oxidative and apoptosis status. <i>Brain and Development</i> , <b>2014</b> , 36, 51-6   | 2.2  | 10 |
| 29 | Ca-mediated alleviation of Cd <sup>2+</sup> induced toxicity and improved Cd <sup>2+</sup> biomineralization by <i>Sporosarcina pasteurii</i> . <i>Science of the Total Environment</i> , <b>2021</b> , 787, 147627   | 10.2 | 10 |
| 28 | Recent advances in the fabrication of 2D metal oxides.. <i>IScience</i> , <b>2022</b> , 25, 103598  | 6.1  | 8  |
| 27 | Microbially Induced Calcite Precipitation (MICP) for Soil Stabilization. <i>Ecowise</i> , <b>2019</b> , 47-68   | 0.7  | 8  |
| 26 | Detection of low concentration of assimilable organic carbon in seawater prior to reverse osmosis membrane using microbial electrolysis cell biosensor. <i>Desalination and Water Treatment</i> , <b>2014</b> , 1-6   |      | 7  |
| 25 | 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> , <b>2022</b> , 50, 104132  | 5.2  | 7  |

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| 24 | Bio-mediated soil improvement: An introspection into processes, materials, characterization and applications. <i>Soil Use and Management</i> ,  | 3.1  | 7 |
| 23 | Biocarbonation of reactive magnesia for soil improvement. <i>Acta Geotechnica</i> , <b>2021</b> , 16, 1113-1125   | 4.9  | 7 |
| 22 | Dynamically controlling the electrode potential of a microbial fuel cell-powered biocathode for sensitive quantification of nitrate. <i>Electrochimica Acta</i> , <b>2021</b> , 369, 137661                           | 6.7  | 7 |
| 21 | Proof of concept of wastewater treatment via passive aeration SND using a novel zeolite amended biofilm reactor. <i>Water Science and Technology</i> , <b>2018</b> , 78, 2204-2213                                    | 2.2  | 7 |
| 20 | Experimental and Analytical Study on Geomechanical Behavior of Biocemented Sand. <i>International Journal of Geomechanics</i> , <b>2021</b> , 21, 04021126  | 3.1  | 5 |
| 19 | Automatic online buffer capacity (alkalinity) measurement of wastewater using an electrochemical cell. <i>Environmental Technology (United Kingdom)</i> , <b>2016</b> , 37, 2467-72                                   | 2.6  | 4 |
| 18 | Microbial Surfactants are Next-Generation Biomolecules for Sustainable Remediation of Polyaromatic Hydrocarbons <b>2021</b> , 139-158   |      | 4 |
| 17 | Plastic Change in the Auditory Minimum Threshold Induced by Intercollicular Effects in Mice. <i>Neural Plasticity</i> , <b>2016</b> , 2016, 4195391   | 3.3  | 3 |
| 16 | Countermeasures for local scour at offshore wind turbine monopile foundations: A review. <i>Water Science and Engineering</i> , <b>2022</b> , 15, 15-15   | 4    | 2 |
| 15 | Construction of Water Pond Using Bioslurry-Induced Biocementation. <i>Journal of Materials in Civil Engineering</i> , <b>2022</b> , 34,   | 3    | 2 |
| 14 | Efficient persistent organic pollutant removal in water using MIL-metal-organic framework driven Fenton-like reactions: A critical review. <i>Chemical Engineering Journal</i> , <b>2022</b> , 431, 134182            | 14.7 | 2 |
| 13 | Bio-Cementation for Improving Soil Thermal Conductivity. <i>Sustainability</i> , <b>2021</b> , 13, 10238  | 3.6  | 2 |
| 12 | Impact of biosurfactant and iron nanoparticles on biodegradation of polyaromatic hydrocarbons (PAHs).. <i>Environmental Pollution</i> , <b>2022</b> , 119384  | 9.3  | 2 |
| 11 | Sustained and enhanced anaerobic removal of COD and nitrogen in a zeolite amended glycogen accumulating organism dominated biofilm process. <i>Science of the Total Environment</i> , <b>2022</b> , 807, 150602       | 10.2 | 1 |
| 10 | Preparation and Characterization of Multi-Doped Porous Carbon Nanofibers from Carbonization in Different Atmospheres and Their Oxygen Electrocatalytic Properties Research.. <i>Nanomaterials</i> , <b>2022</b> , 12, | 5.4  | 1 |
| 9  | Electrochemistry of newly isolated Gram-positive bacteria <i>Paenibacillus lautus</i> with starch as sole carbon source. <i>Electrochimica Acta</i> , <b>2022</b> , 411, 140068                                       | 6.7  | 1 |
| 8  | Utilization of carbide sludge and urine for sustainable biocement production. <i>Journal of Environmental Chemical Engineering</i> , <b>2022</b> , 10, 107443   | 6.8  | 1 |
| 7  | In situ biomass flocculation improves placement of <i>Sporosarcina Pasteurii</i> for microbially mediated sandy soil stabilization. <i>Acta Geotechnica</i> , 1   | 4.9  | 0 |

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| 6 | Coupling effect of biocementation-fiber reinforcement on mechanical behavior of calcareous sand for ocean engineering. <i>Bulletin of Engineering Geology and the Environment</i> , <b>2022</b> , 81, 1                               | 4   | o |
| 5 | Mechanical Behavior and Microstructural Study of Biocemented Sand under Various Treatment Methods. <i>Geofluids</i> , <b>2022</b> , 2022, 1-11  | 1.5 | o |
| 4 | Mitigation of alkali-silica reaction by microbially induced CaCO <sub>3</sub> protective layer on aggregates. <i>Construction and Building Materials</i> , <b>2022</b> , 328, 127065  | 6.7 | o |
| 3 | Method of Hybrid Adaptive Sampling for the Kriging Metamodel and Application in the Hydropurification Process of Industrial Terephthalic Acid. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2020</b> , 59, 19345-19360 | 3.9 |   |
| 2 | Honors Lecture: Biological Cementation of Unstable Soils and Grounds for Civil Infrastructure Developments. <i>Sustainable Civil Infrastructures</i> , <b>2019</b> , 1-9  | 0.2 |   |
| 1 | Enhancing splitting tensile strength of biocarbonated reactive magnesia-based sand using polypropylene fiber reinforcement. <i>Acta Geotechnica</i> , 1   | 4.9 |   |