

# Jason T Dejong

## List of Publications by Year in descending order

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125  
papers

6,417  
citations

147801

31  
h-index

71685

76  
g-index

126  
all docs

126  
docs citations

126  
times ranked

2300  
citing authors

#	ARTICLE	IF	CITATIONS
1	Bio-mediated soil improvement. <i>Ecological Engineering</i> , 2010, 36, 197-210.	3.6	1,177
2	Microbially Induced Cementation to Control Sand Response to Undrained Shear. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2006, 132, 1381-1392.	3.0	1,136
3	Effects of environmental factors on microbial induced calcium carbonate precipitation. <i>Journal of Applied Microbiology</i> , 2011, 111, 338-349.	3.1	427
4	Experimental Optimization of Microbial-Induced Carbonate Precipitation for Soil Improvement. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2013, 139, 587-598.	3.0	369
5	Large-Scale Comparison of Bioaugmentation and Biostimulation Approaches for Biocementation of Sands. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2017, 143, .	3.0	171
6	Role of Initial State, Material Properties, and Confinement Condition on Local and Global Soil-Structure Interface Behavior. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2009, 135, 1646-1660.	3.0	167
7	Field-scale bio-cementation tests to improve sands. <i>Proceedings of the Institution of Civil Engineers: Ground Improvement</i> , 2015, 168, 206-216.	1.0	167
8	Soil engineering <i>in vivo</i> : harnessing natural biogeochemical systems for sustainable, multi-functional engineering solutions. <i>Journal of the Royal Society Interface</i> , 2011, 8, 1-15.	3.4	156
9	Microscale Observation and Modeling of Soil-Structure Interface Behavior Using Particle Image Velocimetry. <i>Soils and Foundations</i> , 2006, 46, 15-28.	3.1	138
10	Interface Load Transfer Degradation During Cyclic Loading: A Microscale Investigation. <i>Soils and Foundations</i> , 2003, 43, 81-93.	3.1	121
11	Shear failure behavior of granular-continuum interfaces. <i>Engineering Fracture Mechanics</i> , 2002, 69, 2029-2048.	4.3	117
12	Bio-bricks: Biologically cemented sandstone bricks. <i>Construction and Building Materials</i> , 2014, 55, 462-469.	7.2	112
13	Stimulation of Native Microorganisms for Biocementation in Samples Recovered from Field-Scale Treatment Depths. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2018, 144, .	3.0	105
14	A microfluidic chip and its use in characterising the particle-scale behaviour of microbial-induced calcium carbonate precipitation (MICP). <i>Geotechnique</i> , 2019, 69, 1086-1094.	4.0	90
15	Microscale Visualization of Microbial-Induced Calcium Carbonate Precipitation Processes. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2019, 145, .	3.0	85
16	Influence of Partial Consolidation during Cone Penetration on Estimated Soil Behavior Type and Pore Pressure Dissipation Measurements. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2012, 138, 777-788.	3.0	82
17	Bio-inspired geotechnical engineering: principles, current work, opportunities and challenges. <i>Geotechnique</i> , 2022, 72, 687-705.	4.0	74
18	Observing strain localisation processes in bio-cemented sand using x-ray imaging. <i>Granular Matter</i> , 2011, 13, 247-250.	2.2	69

#	ARTICLE	IF	CITATIONS
19	Bio-Mediated Soil Improvement: Load Transfer Mechanisms at the Micro- and Macro- Scales. , 2009, , .		68
20	Evaluation of Undrained Shear Strength Using Full-Flow Penetrometers. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2011, 137, 14-26.	3.0	67
21	Large-scale Experiments in Microbially Induced Calcite Precipitation (MICP): Reactive Transport Model Development and Prediction. Water Resources Research, 2018, 54, 480-500.	4.2	65
22	Evaluation of Remolded Shear Strength and Sensitivity of Soft Clay Using Full-Flow Penetrometers. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2009, 135, 1179-1189.	3.0	58
23	Centrifuge Model Testing of Liquefaction Mitigation via Microbially Induced Calcite Precipitation. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2019, 145, .	3.0	56
24	Diversity of <i>Sporosarcina</i> -like Bacterial Strains Obtained from Meter-Scale Augmented and Stimulated Biocementation Experiments. Environmental Science & Technology, 2018, 52, 3997-4005.	10.0	52
25	Stimulating In Situ Soil Bacteria for Bio-Cementation of Sands. , 2014, , .		51
26	Biogeochemical Changes During Bio-cementation Mediated by Stimulated and Augmented Ureolytic Microorganisms. Scientific Reports, 2019, 9, 11517.	3.3	50
27	Integral Abutment Bridge Behavior: Parametric Analysis of a Massachusetts Bridge. Journal of Bridge Engineering, 2007, 12, 64-71.	2.9	49
28	In Situ Assessment of Role of Surface Roughness on Interface Response. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2005, 131, 498-511.	3.0	46
29	Effect of bio-cementation on geophysical and cone penetration measurements in sands. Canadian Geotechnical Journal, 2018, 55, 1632-1646.	2.8	45
30	Effects of Bacterial Density on Growth Rate and Characteristics of Microbial-Induced CaCO <sub>3</sub> Precipitates: Particle-Scale Experimental Study. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, .	3.0	44
31	Fabrication, Operation, and Health Monitoring of Bender Elements for Aggressive Environments. Geotechnical Testing Journal, 2012, 35, 103300.	1.0	39
32	Meter-Scale Biocementation Experiments to Advance Process Control and Reduce Impacts: Examining Spatial Control, Ammonium By-Product Removal, and Chemical Reductions. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2020, 146, .	3.0	37
33	Evaluation of Seasonal and Yearly Behavior of an Integral Abutment Bridge. Journal of Bridge Engineering, 2007, 12, 296-305.	2.9	35
34	Progressive Changes in Liquefaction and Cone Penetration Resistance across Multiple Shaking Events in Centrifuge Tests. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2019, 145, .	3.0	32
35	Native Bacterial Community Convergence in Augmented and Stimulated Ureolytic MICP Biocementation. Environmental Science & Technology, 2021, 55, 10784-10793.	10.0	32
36	Investigating Ammonium By-product Removal for Ureolytic Bio-cementation Using Meter-scale Experiments. Scientific Reports, 2019, 9, 18313.	3.3	31

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37	Interface Behavior of Granular Soils. , 2004, , 65.		30
38	Mitigation of Liquefaction Triggering and Foundation Settlement by MICP Treatment. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, .	3.0	29
39	Effect of Surface Texturing on CPT Friction Sleeve Measurements. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2001, 127, 158-168.	3.0	27
40	Characterization of an alluvial silt and clay deposit for monotonic, cyclic, and post-cyclic behavior. Canadian Geotechnical Journal, 2014, 51, 432-440.	2.8	27
41	The role of root development of <i>Avena fatua</i> in conferring soil strength. American Journal of Botany, 2015, 102, 1050-1060.	1.7	27
42	Bio-Grout Materials: A Review. , 2017, , .		27
43	Microbial Carbonate Precipitation: Correlation of S-Wave Velocity with Calcite Precipitation. , 2011, , .		25
44	Modeling the self-penetration process of a bio-inspired probe in granular soils. Bioinspiration and Biomimetics, 2021, 16, 046012.	2.9	24
45	Vertical pullout tests of orchard trees for bio-inspired engineering of anchorage and foundation systems. Bioinspiration and Biomimetics, 2020, 16, 016009.	2.9	24
46	Work-Based Framework for Sample Quality Evaluation of Low Plasticity Soils. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2018, 144, .	3.0	22
47	Engineering Properties of Bio-Cementation Improved Sandy Soils. , 2017, , .		21
48	Geotechnical systems that evolve with ecological processes. Environmental Earth Sciences, 2015, 73, 1067-1082.	2.7	20
49	Recommended Practice for Full-Flow Penetrometer Testing and Analysis. Geotechnical Testing Journal, 2010, 33, 137-149.	1.0	20
50	Instrumented Becker Penetration Test. I: Equipment, Operation, and Performance. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2017, 143, .	3.0	19
51	Bio-mediated and Bio-inspired Geotechnics. Springer Series in Geomechanics and Geoengineering, 2019, , 193-207.	0.1	19
52	Influence of Particle Properties and Initial Specimen State on One-Dimensional Compression and Hydraulic Conductivity. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2009, 135, 449-454.	3.0	16
53	A Bio-Inspired Perspective for Geotechnical Engineering Innovation. , 2017, , .		16
54	Piezocone Penetration Rate Effects in Transient Gold Tailings. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2018, 144, .	3.0	16

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55	Instrumented Becker Penetration Test. II: iBPT-SPT Correlation for Characterization and Liquefaction Assessment of Gravelly Soils. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2017, 143, .	3.0	15
56	Liquefaction Evaluation of Interbedded Soil Deposit: Āark Canal in 1999 M7.5 Kocaeli Earthquake. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2019, 145, .	3.0	15
57	Seismic and Resistivity Measurements for Real-Time Monitoring of Microbially Induced Calcite Precipitation in Sand. <i>Geotechnical Testing Journal</i> , 2012, 35, 330-341.	1.0	15
58	Life-Cycle Assessment of Ground Improvement Alternatives for the Treasure Island, California, Redevelopment. , 2017, , .		14
59	Review of impact categories and environmental indicators for life cycle assessment of geotechnical systems. <i>Journal of Industrial Ecology</i> , 2020, 24, 485-499.	5.5	14
60	Slurry Deposition Method of Low-Plasticity Intermediate Soils for Laboratory Element Testing. <i>Geotechnical Testing Journal</i> , 2020, 43, 20180117.	1.0	14
61	Review of life-cycle-based environmental assessments of geotechnical systems. <i>Proceedings of the Institution of Civil Engineers: Engineering Sustainability</i> , 2018, 171, 57-67.	0.7	14
62	Evaluation of Becker penetration test interpretation methods for liquefaction assessment in gravelly soils. <i>Canadian Geotechnical Journal</i> , 2017, 54, 1272-1283.	2.8	13
63	Intersection of Modern Soil Mechanics with Ants and Roots. , 2017, , .		13
64	Life Cycle Sustainability Assessment of Geotechnical Ground Improvement Methods. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2021, 147, .	3.0	13
65	Axisymmetric Simulations of Cone Penetration in Saturated Clay. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2019, 145, .	3.0	12
66	Life Cycle Sustainability Assessment of Fugitive Dust Control Methods. <i>Journal of Construction Engineering and Management - ASCE</i> , 2021, 147, .	3.8	12
67	Bacteria, Biofilms, and Invertebrates: The Next Generation of Geotechnical Engineers?. , 2014, , .		10
68	DEM study of the alteration of the stress state in granular media around a bio-inspired probe. <i>Canadian Geotechnical Journal</i> , 2022, 59, 1691-1711.	2.8	10
69	Evolution of Sand-Structure Interface Response during Monotonic Shear Using Particle Image Velocimetry. , 2006, , 1.		9
70	State-Based Overburden Normalization of Cone Penetration Resistance in Clean Sand. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2014, 140, 04013006.	3.0	9
71	Environmental geotechnics in the US region: a brief overview. <i>Environmental Geotechnics</i> , 2015, 2, 319-325.	2.3	9
72	Influence of Bio-Cementation on the Shearing Behavior of Sand Using X-Ray Computed Tomography. , 2017, , .		9

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73	Undrained Shear Behavior of Low-Plasticity Intermediate Soils Subjected to Simulated Tube-Sampling Disturbance. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2019, 145, .	3.0	9
74	Influence of Particle Size and Gradation on Liquefaction Potential and Dynamic Response. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2022, 148, .	3.0	9
75	Closure to "Evaluation of Undrained Shear Strength Using Full-Flow Penetrometers" by Jason T. DeJong, Nicholas J. Yafrate, and Don J. DeGroot. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2012, 138, 765-767.	3.0	8
76	Effect of soil gradation on embankment response during liquefaction: A centrifuge testing program. <i>Soil Dynamics and Earthquake Engineering</i> , 2022, 157, 107221.	3.8	8
77	Calibrated Models of Deicing Agent Solids, Pavement Texture, and Specific Conductivity of Highway Runoff. <i>Journal of Environmental Engineering, ASCE</i> , 2006, 132, 1562-1571.	1.4	7
78	Effects of Thixotropy and Cement Content on the Sensitivity of Soft Remolded Clay. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2015, 141, .	3.0	7
79	Accounting for Spatial Variability in Nonlinear Dynamic Analyses of Embankment Dams on Liquefiable Deposits. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2020, 146, .	3.0	7
80	Large-Scale Bio-Cementation Improvement of Sands. , 2016, , .		6
81	Mechanistic Development of CPT-Based Cyclic Strength Correlations for Clean Sand. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2019, 145, .	3.0	6
82	Particle Size Effects on the Strength and Fabric of Granular Media. , 2020, , .		6
83	Analysis of the Self-Penetration Process of a Bio-Inspired In Situ Testing Probe. , 2020, , .		6
84	Centrifuge Tests of Cone-Penetration Test of Layered Soil. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2022, 148, .	3.0	6
85	Evaluation of Liquefaction-Induced Lateral Spreading Procedures for Interbedded Deposits: Åark Canal in the 1999 M7.5 Kocaeli Earthquake. , 2017, , .		5
86	Centrifuge Model Testing of Liquefaction Mitigation via Denitrification-Induced Desaturation. , 2018, , .		5
87	Centrifuge Model Testing of Liquefaction Mitigation via Microbially Induced Calcite Precipitation. , 2018, , .		5
88	Effect of Partial Drainage on Cyclic Strengths of Saturated Sands in Dynamic Centrifuge Tests. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2019, 145, .	3.0	5
89	Life-cycle sustainability assessment of geotechnical site investigation. <i>Canadian Geotechnical Journal</i> , 2022, 59, 863-877.	2.8	5
90	Influence of Daily and Annual Thermal Variations on Integral Abutment Bridge Performance. , 2004, , 496.		4

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91	Variable Penetration Rate Cone Testing in Sands with Fines. , 2014, , .		4
92	Bio-Inspiration through Tree Root Pullout Tests for Innovative Anchorage Design. , 2020, , .		4
93	Measurements of Side Friction Using Textured CPT Friction Sleeves. , 2000, , 80.		3
94	Volumetric Strains from Inverse Analysis of Pore Pressure Transducer Arrays in Centrifuge Models. , 2018, , .		3
95	Life Cycle Assessment of Site Characterization Methods. , 2020, , .		3
96	Examining Spatial Control, Ammonium By-Product Removal, and Chemical Reductions for Bio-Cementation Soil Improvement Using Meter-Scale Experiments. , 2020, , .		3
97	Using Conditional Random Fields for a Spatially Variable Liquefiable Foundation Layer in Nonlinear Dynamic Analyses of Embankments. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, .	3.0	3
98	Development and Evaluation of Preconditioning Protocols for Sand Specimens in Constant-Volume Cyclic Direct Simple Shear Tests. Geotechnical Testing Journal, 2022, 45, 20210028.	1.0	3
99	Effect of Gradation on the Strength and Stress-Dilatancy of Coarse-Grained Soils: A Comparison of Monotonic Direct Simple Shear and Triaxial Tests. , 2022, , .		3
100	Instrumented Becker Penetration Test for Improved Characterization of Gravelly Deposits. , 2014, , .		2
101	Evaluation of a logarithmic-law strength rate parameter using full-flow penetrometers. Geotechnical Research, 2014, 1, 53-59.	1.4	2
102	An Instrumented Becker Penetration Test for the Estimation of Soil Penetration Resistance and Pile Capacity in Gravelly Soils. , 2017, , .		2
103	Liquefaction Evaluation for an Interbedded Soil Deposit: St. Teresa's School, Christchurch, New Zealand. , 2019, , .		2
104	A Centrifuge Study on the Effects of Soil Gradation on CPT Tip Resistance. , 2019, , .		2
105	NHERI Centrifuge Facility: Large-Scale Centrifuge Modeling in Geotechnical Research. Frontiers in Built Environment, 2020, 6, .	2.3	2
106	Life Cycle Sustainability Assessment (LCSA): A Research Evaluation Tool for Emerging Geotechnologies. , 2020, , .		2
107	Nonlinear Dynamic Analyses of Perris Dam Using Transition Probability to Model Interbedded Alluvial Strata. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2022, 148, .	3.0	2
108	Dynamic Behavior of Uniform Clean Sands: Evaluation of Predictive Capabilities in the Element- and the System-Level Scale. , 2022, , .		2

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109	Analysis of Liquefaction at a Bridge Site in the 2014 Napa Earthquake. , 2017, , .		1
110	Pile-Driving Mechanics at the Base as Informed by Direct Measurements. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2017, 143, 04017064.	3.0	1
111	Centrifuge Modeling of Cone Penetration Testing in Layered Soil. , 2018, , .		1
112	Prediction, Performance, and Uncertainty in Dynamic Pile Load Testing as Informed by Direct Measurements from an Instrumented Becker Penetration Test. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2020, 146, .	3.0	1
113	MICP Treatment to Mitigate Soil Liquefaction-Induced Building Settlements. , 2021, , .		1
114	Dynamic Analyses of Liquefaction and Lateral Spreading for an Interlayered Deposit in the Chi-Chi Earthquake. , 2021, , .		1
115	Stimulated Microbial Growth for Permeability Reductions in Granular Soils. Proceedings of the Institution of Civil Engineers: Ground Improvement, 0, , 1-19.	1.0	1
116	A Reusable Instrumented Test Pile for Improved Pile Design. , 2011, , .		0
117	Closure to "Evaluation of Remolded Shear Strength and Sensitivity of Soft Clay Using Full-Flow Penetrometers" by Nicholas Yafate, Jason DeJong, Don DeGroot, and Mark Randolph. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2011, 137, 440-441.	3.0	0
118	"Particle breakage and the critical state of sand" by Ghafghazi, M., Shuttle, D.A., and DeJong, J.T. [Soils and Foundations 54 (3) (2014) 451-461]. Soils and Foundations, 2015, 55, 223-225.	3.1	0
119	A Multistage Signal Matching Approach for Pile Capacity Estimation Using the Instrumented Becker Penetration Test. , 2018, , .		0
120	Developing Authentic Design Experiences Using Case Studies in a Senior Design Course. , 2020, , .		0
121	The Effects of Soil Gradation on System Level Dynamic Response. , 2020, , .		0
122	Closure to "Axisymmetric Simulations of Cone Penetration in Saturated Clay" by Diane M. Moug, Ross W. Boulanger, Jason T. DeJong, and Robert A. Jaeger. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2020, 146, 07020005.	3.0	0
123	Biogeotechnical Mitigation of Earthquake-Induced Soil Liquefaction. Geo-strata, 2016, 20, 62-67.	0.1	0
124	Claims against Geotechnical Engineers: Getting it Right in the Midst of Uncertainty. Geo-strata, 2017, 21, 54-59.	0.1	0
125	Site-Specific CPT-Based Fines Content Correlations Using Percentile Matching. , 2022, , .		0