

# John Mccartney

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8190689/publications.pdf>

Version: 2024-02-01

120  
papers

3,357  
citations

147566

31  
h-index

174990

52  
g-index

121  
all docs

121  
docs citations

121  
times ranked

1276  
citing authors

#	ARTICLE	IF	CITATIONS
1	Critical Review of Thermal Conductivity Models for Unsaturated Soils. Geotechnical and Geological Engineering, 2015, 33, 207-221.	0.8	207
2	Evaluation of thermo-mechanical and thermal behavior of full-scale energy foundations. Acta Geotechnica, 2015, 10, 179-195.	2.9	189
3	Centrifuge Modeling of Soil-Structure Interaction in Energy Foundations. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2014, 140, .	1.5	158
4	Centrifuge Modeling of End-Restraint Effects in Energy Foundations. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2015, 141, .	1.5	112
5	Impact of Hydraulic Hysteresis on the Small-Strain Shear Modulus of Low Plasticity Soils. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2012, 138, 1326-1333.	1.5	101
6	Seasonal Response of Energy Foundations During Building Operation. Geotechnical and Geological Engineering, 2015, 33, 343-356.	0.8	100
7	Energy geotechnics: Advances in subsurface energy recovery, storage, exchange, and waste management. Computers and Geotechnics, 2016, 75, 244-256.	2.3	86
8	Axial and Radial Thermal Responses of a Field-Scale Energy Pile under Monotonic and Cyclic Temperature Changes. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2018, 144, .	1.5	83
9	Strain Distributions in Full-Scale Energy Foundations (DFI Young Professor Paper Competition 2012). DFI Journal, 2012, 6, 26-38.	0.2	81
10	Energy geostructures: A review of analysis approaches, in situ testing and model scale experiments. Geomechanics for Energy and the Environment, 2020, 22, 100173.	1.2	79
11	Thermal behaviour of unsaturated silt at high suction magnitudes. Geotechnique, 2015, 65, 703-716.	2.2	78
12	Cyclic heating effects on thermal volume change of silt. Environmental Geotechnics, 2015, 2, 257-268.	1.3	67
13	Investigation of potential dragdown/uplift effects on energy piles. Geomechanics for Energy and the Environment, 2017, 10, 21-28.	1.2	66
14	Analysis of a Large Database of GCL-Geomembrane Interface Shear Strength Results. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2009, 135, 209-223.	1.5	63
15	Impact of Heat Exchange on Side Shear in Thermo-Active Foundations. , 2011, , .		60
16	Parameters for Load Transfer Analysis of Energy Piles in Uniform Nonplastic Soils. International Journal of Geomechanics, 2017, 17, .	1.3	58
17	Thermal volume change of poorly draining soils I: Critical assessment of volume change mechanisms. Computers and Geotechnics, 2016, 80, 26-40.	2.3	57
18	Numerical Modeling of a Soil-Borehole Thermal Energy Storage System. Vadose Zone Journal, 2016, 15, 1-17.	1.3	56

#	ARTICLE	IF	CITATIONS
19	Unified Model for Small-Strain Shear Modulus of Variably Saturated Soil. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2016, 142, .	1.5	55
20	Parameterization of a calibrated geothermal energy pile model. Geomechanics for Energy and the Environment, 2016, 5, 1-15.	1.2	53
21	Effects of Cyclic Temperature Variations on Thermal Response of an Energy Pile under a Residential Building. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2019, 145, .	1.5	50
22	Thermal volume change of poorly draining soils II: Model development and experimental validation. Computers and Geotechnics, 2016, 80, 16-25.	2.3	48
23	Gradation-Dependent Thermal Conductivity of Sands. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2018, 144, .	1.5	47
24	Centrifuge Permeameter for Unsaturated Soils. I: Theoretical Basis and Experimental Developments. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2010, 136, 1051-1063.	1.5	46
25	Effects of infiltration and evaporation on geosynthetic capillary barrier performance. Canadian Geotechnical Journal, 2010, 47, 1201-1213.	1.4	45
26	Municipal solid waste landfills as geothermal heat sources. Renewable and Sustainable Energy Reviews, 2013, 19, 463-474.	8.2	45
27	Numerical Simulation of Deformation and Failure Behavior of Geosynthetic Reinforced Soil Bridge Abutments. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2018, 144, 04018037.	1.5	44
28	Impact of Effective Stress on the Dynamic Shear Modulus of Unsaturated Sand. , 2010, , .		42
29	Heat Transfer in Unsaturated Soil with Application to Borehole Thermal Energy Storage. Vadose Zone Journal, 2016, 15, 1-17.	1.3	42
30	Empirical Methodology to Estimate Seismically Induced Settlement of Partially Saturated Sand. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2013, 139, 367-376.	1.5	40
31	Role of Nonequilibrium Water Vapor Diffusion in Thermal Energy Storage Systems in the Vadose Zone. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2018, 144, .	1.5	38
32	Pore water pressure prediction for undrained heating of soils. Environmental Geotechnics, 2017, 4, 70-78.	1.3	35
33	Compression mechanisms of unsaturated clay under high stresses. Canadian Geotechnical Journal, 2015, 52, 2099-2112.	1.4	34
34	Shearing Behavior of Tire-Derived Aggregate with Large Particle Size. I: Internal and Concrete Interface Direct Shear. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2017, 143, .	1.5	34
35	Transient evaluation of a soil-borehole thermal energy storage system. Renewable Energy, 2020, 147, 2582-2598.	4.3	32
36	Axial and radial thermal responses of energy pile under six storey residential building. Canadian Geotechnical Journal, 2019, 56, 1019-1033.	1.4	31

#	ARTICLE	IF	CITATIONS
37	Thermal Conductivity of Sandâ€“Tire Shred Mixtures. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2019, 145, .	1.5	30
38	Thermal Conductivity of Biocemented Graded Sands. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, .	1.5	30
39	Yielding of Silt at High Temperature and Suction Magnitudes. Geotechnical and Geological Engineering, 2016, 34, 501-514.	0.8	29
40	Coupled Axisymmetric Thermo-Poro-Mechanical Finite Element Analysis of Energy Foundation Centrifuge Experiments in Partially Saturated Silt. Geotechnical and Geological Engineering, 2015, 33, 373-388.	0.8	28
41	Shear Behavior of Silty Soil and Soil-Structure Interface under Temperature Effects. , 2014, , .		27
42	Influence of Temperature on the Volume Change Behavior of Saturated Sand. Geotechnical Testing Journal, 2018, 41, 20160308.	0.5	26
43	Scaling Shear Modulus from Small to Finite Strain for Unsaturated Soils. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2018, 144, .	1.5	25
44	Effects of temperature on the shear strength of saturated sand. Soils and Foundations, 2018, 58, 1326-1338.	1.3	25
45	Shearing Behavior of Tire-Derived Aggregate with Large Particle Size. II: Cyclic Simple Shear. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2017, 143, .	1.5	24
46	Temperature-Dependent Model for Small-Strain Shear Modulus of Unsaturated Soils. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2020, 146, .	1.5	24
47	Heat transfer analysis of thermo-active foundations. Energy and Buildings, 2015, 86, 492-501.	3.1	23
48	Suction-Induced Hardening Effects on the Shear Modulus of Unsaturated Silt. International Journal of Geomechanics, 2016, 16, .	1.3	22
49	Numerical study on maximum reinforcement tensile forces in geosynthetic reinforced soil bridge abutments. Geotextiles and Geomembranes, 2018, 46, 634-645.	2.3	22
50	Effect of nearby piles and soil properties on thermal behaviour of a field-scale energy pile. Canadian Geotechnical Journal, 2021, 58, 1351-1364.	1.4	22
51	Thermal Borehole Shear Device. Geotechnical Testing Journal, 2014, 37, 20140009.	0.5	20
52	Thermal Conductivity of Granular Soil Mixtures with Contrasting Particle Shapes. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2020, 146, .	1.5	19
53	Impact of Heat Exchange on the Thermo-Hydro-Mechanical Response of Reinforced Embankments. , 2013, , .		18
54	Issues in the Implementation of Sustainable Heat Exchange Technologies in Reinforced, Unsaturated Soil Structures. , 2014, , .		18

#	ARTICLE	IF	CITATIONS
55	Issues involved with thermoactive geotechnical systems: characterization of thermomechanical soil behavior and soil-structure interface behavior. DFI Journal, 2014, 8, 108-120.	0.2	18
56	Physical Model Tests of Half-Scale Geosynthetic Reinforced Soil Bridge Abutments. II: Dynamic Loading. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2019, 145, .	1.5	18
57	Analysis of Thermo-Active Foundations With U-Tube Heat Exchangers. Journal of Solar Energy Engineering, Transactions of the ASME, 2012, 134, .	1.1	17
58	Physical Model Tests of Half-Scale Geosynthetic Reinforced Soil Bridge Abutments. I: Static Loading. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2019, 145, .	1.5	17
59	Cross-sectional thermo-mechanical responses of energy piles. Computers and Geotechnics, 2021, 138, 104320.	2.3	17
60	Shaking Table Test of a Half-Scale Geosynthetic-Reinforced Soil Bridge Abutment. Geotechnical Testing Journal, 2018, 41, 20160268.	0.5	16
61	Numerical simulation of the deformation response of geosynthetic reinforced soil mini-piers. Geosynthetics International, 2018, 25, 271-286.	1.5	15
62	Emerging Thermal Issues in Geotechnical Engineering. Springer Series in Geomechanics and Geoengineering, 2019, , 275-317.	0.0	15
63	Undrained Seismic Compression of Unsaturated Sand. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, .	1.5	15
64	Large-Scale Combination Direct Shear/Simple Shear Device for Tire-Derived Aggregate. Geotechnical Testing Journal, 2018, 41, 20160245.	0.5	14
65	Impact of Horizontal Run-Out Length on the Thermal Response of Full-Scale Energy Foundations. , 2014, , .		13
66	Transverse shaking table test of a half-scale geosynthetic reinforced soil bridge abutment. Geosynthetics International, 2018, 25, 582-598.	1.5	12
67	A novel energy pile: The thermo-syphon helical pile. Applied Thermal Engineering, 2019, 159, 113882.	3.0	12
68	Pullout of geogrids from tire-derived aggregate having large particle size. Geosynthetics International, 2020, 27, 671-684.	1.5	12
69	Engineering Performance of Thermo-Active Foundations. , 2010, , .		11
70	Outcomes from international workshop on thermoactive geotechnical systems for near-surface geothermal energy: from research to practice. DFI Journal, 2014, 8, 59-73.	0.2	11
71	Development of a Full-Scale Soil-Borehole Thermal Energy Storage System. , 2015, , .		11
72	Numerical analysis of energy piles under different boundary conditions and thermal loading cycles. E3S Web of Conferences, 2016, 9, 05005.	0.2	11

#	ARTICLE	IF	CITATIONS
73	An approach for shake table performance evaluation during repair and retrofit actions. <i>Earthquake Engineering and Structural Dynamics</i> , 2018, 47, 131-146.	2.5	11
74	Thermal resistance analysis of an energy pile and adjacent soil using radial temperature gradients. <i>Renewable Energy</i> , 2022, 190, 1066-1077.	4.3	11
75	Impact of temperature on the pullout of reinforcing geotextiles from unsaturated silt. <i>Geosynthetics International</i> , 2020, 27, 1-15.	1.5	10
76	Constitutive Model for Drained Compression of Unsaturated Clay to High Stresses. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2017, 143, .	1.5	9
77	Thermal Conductivity of Municipal Solid Waste from In Situ Heat Extraction Tests. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2020, 146, .	1.5	9
78	Drained Seismic Compression of Unsaturated Sand. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2020, 146, .	1.5	9
79	Impacts of Fixed-End and Flexible Boundary Conditions on Seismic Response of Shallow Foundations on Saturated Sand in 1-g Shaking Table Tests. <i>Geotechnical Testing Journal</i> , 2021, 44, 637-664.	0.5	9
80	Soil Thermal Response to Temperature Cycles and End Boundary Conditions of Energy Piles. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2022, 148, .	1.5	8
81	Evaluation of Head Restraint Effects on Energy Foundations. , 2014, , .		7
82	Relative density effects on the bearing capacity of unsaturated sand. <i>Soils and Foundations</i> , 2019, 59, 1280-1291.	1.3	7
83	Reinforcing Effect of Polypropylene Waste Strips on Compacted Lateritic Soils. <i>Sustainability</i> , 2020, 12, 9572.	1.6	7
84	Axial Load Transfer Analyses of Energy Piles at a Rock Site. <i>Geotechnical and Geological Engineering</i> , 2020, 38, 4711-4733.	0.8	7
85	Coupled Thermo-Poro-Mechanical Finite Element Analysis of an Energy Foundation Centrifuge Experiment in Partially Saturated Silt. , 2014, , .		6
86	Constitutive Model for the Undrained Compression of Unsaturated Clay. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2017, 143, .	1.5	6
87	Shearing Behavior of Interfaces between Tire-Derived Aggregate and Three Soil Materials. <i>Journal of Materials in Civil Engineering</i> , 2020, 32, .	1.3	6
88	Thermohydraulic Responses of Unsaturated Sand around a Model Energy Pile. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2021, 147, .	1.5	6
89	Impacts of Unsaturated Conditions on The Ultimate Axial Capacity of Energy Piles. <i>E3S Web of Conferences</i> , 2020, 195, 04005.	0.2	6
90	Calibration of Capacitance Sensors for Compacted Silt in Non-Isothermal Applications. <i>Geotechnical Testing Journal</i> , 2016, 39, 169-180.	0.5	6

#	ARTICLE	IF	CITATIONS
91	Nonisothermal Shear Strength of Compacted Silt at Residual Saturation. , 2014, , .		5
92	Investigation of a field-scale energy micropile in stratified soil under cyclic temperature changes. Geomechanics for Energy and the Environment, 2022, 29, 100263.	1.2	5
93	Physical Modeling of Stone Columns in Unsaturated Soil Deposits. Geotechnical Testing Journal, 2020, 43, 20170405.	0.5	5
94	Centrifuge Modeling Methodology for Energy Pile Pullout from Saturated Soft Clay. Geotechnical Testing Journal, 2022, 45, 20210062.	0.5	4
95	Centrifuge modeling of temperature effects on the pullout capacity of torpedo piles in soft clay. Soils and Rocks, 2022, 45, 1-13.	0.2	4
96	Impact of void ratio and state parameters on the small strain shear modulus of unsaturated soils. Japanese Geotechnical Society Special Publication, 2016, 2, 241-246.	0.2	3
97	Small-Strain Shear Modulus Model for Saturated and Unsaturated Soils. , 2016, , .		3
98	Procedure to Estimate the Seismic Settlement of Partially Saturated Soils. Indian Geotechnical Journal, 2016, 46, 272-275.	0.7	3
99	Numerical Study of the Compaction Effect on the Static Behavior of a Geosynthetic Reinforced Soil-Integrated Bridge System. , 2017, , .		3
100	3D Deformation Behavior of Geosynthetic-Reinforced Soil Bridge Abutments. , 2017, , .		3
101	Experimental Design for a Half-Scale Shaking Table Test of a Geosynthetic-Reinforced Soil Bridge Abutment. , 2017, , .		3
102	Application of Hysteretic Trends in the Preconsolidation Stress of Unsaturated Soils. Geotechnical and Geological Engineering, 2018, 36, 193-207.	0.8	3
103	Simulation of the thermo-hydraulic response of energy piles in unsaturated soils. E3S Web of Conferences, 2020, 205, 05002.	0.2	3
104	Hydromechanical behavior of unsaturated soils: Interpretation of compression curves in terms of effective stress. Soils and Rocks, 2021, 44, 1-19.	0.2	3
105	A Temperature-Dependent Model for Ultimate Bearing Capacity of Energy Piles in Unsaturated Fine-Grained Soils. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, .	1.5	3
106	2D and 3D simulations of static response of a geosynthetic reinforced soil bridge abutment. Geosynthetics International, 2022, 29, 534-546.	1.5	3
107	Thermal Volume Change of Unsaturated Silt under Different Stress States and Suction Magnitudes. E3S Web of Conferences, 2016, 9, 09009.	0.2	2
108	Mechanical response of a thermal micro-pile installed in stratified sedimentary soil. E3S Web of Conferences, 2020, 205, 05007.	0.2	2

#	ARTICLE	IF	CITATIONS
109	Seismic Response of Rail Embankments. , 2022, , .		2
110	Compression Behavior of Unsaturated Clay under High Stresses. , 2014, , .		1
111	Compression of Unsaturated Clay under High Stresses. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2017, 143, 02817003.	1.5	1
112	Soil thermal responses around a field-scale energy pile. E3S Web of Conferences, 2020, 205, 05027.	0.2	1
113	Thermal diffusivity of municipal solid waste based on inverse analysis of in-situ heat extraction test. Japanese Geotechnical Society Special Publication, 2021, 9, 435-440.	0.2	1
114	Centrifuge Shake Table Tests on Rocking Footings on Sand. , 2022, , .		1
115	Effect of Relative Density on the Drained Seismic Compression of Unsaturated Backfills. Lecture Notes in Civil Engineering, 2022, , 277-288.	0.3	1
116	Introduction to the Special Issue of Geotechnical and Geological Engineering Entitled: "Thermo-Hydro-Mechanical Behavior of Soils and Energy Geostructures" Geotechnical and Geological Engineering, 2015, 33, 175-177.	0.8	0
117	Closure to "Roles of Particle Breakage and Drainage in the Isotropic Compression of Sand to High Pressures" by Woongju Mun and John S. McCartney. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2019, 145, 07019008.	1.5	0
118	Editorial: Special Issue on Advances in Laboratory Experimentation for Unsaturated Soils. Geotechnical Testing Journal, 2021, 44, 235-236.	0.5	0
119	Improvement on the Calculation of Heat Transfer Rate for a New Type of Geothermal Energy Pile. , 2021, , .		0
120	Water Retention in Expansive Clay under Elevated Temperatures and Constrained Conditions. , 2022, , .		0