

Pore Distribution and Permeability of Silty Clays

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Thematic bibliography of mercury porosimetry. Powder Technology, 1981, 29, 13-43.	4.2	17
2	Measurements of pore size distributions in cements, aggregates and soils. Powder Technology, 1981, 29, 151-165.	4.2	26
3	Field evaluation of methane migration predictions. Canadian Geotechnical Journal, 1982, 19, 239-249.	2.8	6
4	Soil Compaction and Permeability Prediction Models. Journal of Environmental Engineering, ASCE, 1984, 110, 1063-1083.	1.4	67
5	Study of the structure of a sensitive Champlain clay and of its evolution during consolidation. Canadian Geotechnical Journal, 1984, 21, 21-35.	2.8	494
6	Hydraulic Conductivity Tests on Compacted Clay. Journal of Geotechnical Engineering, 1985, 111, 465-478.	0.4	138
7	Clay Liner Permeability: Evaluation and Variation. Journal of Geotechnical Engineering, 1985, 111, 1211-1225.	0.4	28
8	Fabric, Pore Size Distribution, and Permeability of Sandy Soils. Journal of Geotechnical Engineering, 1986, 112, 855-868.	0.4	98
9	A probabilistic permeability model and the pore size density function. International Journal for Numerical and Analytical Methods in Geomechanics, 1986, 10, 543-553.	3.3	64
10	Moisture Interaction with Clays and Clay Minerals. Developments in Geotechnical Engineering, 1987, 41, 167-217.	0.1	0
11	A STUDY ON THE RELATIONSHIP BETWEEN STRENGTH AND PORE SIZE DISTRIBUTION IN COMPACTED STABILIZED SOILS. Doboku Gakkai Ronbunshu, 1988, 1988, 131-140.	0.2	1
12	Influence of salinity on permeability characteristics of marine sediments. Marine Geotechnology, 1989, 8, 249-258.	0.2	5
13	Mercury intrusion and permeability of Louiseville clay. Canadian Geotechnical Journal, 1990, 27, 761-773.	2.8	160
14	Lessons Learned from Compacted Clay Liner. Journal of Geotechnical Engineering, 1990, 116, 1641-1660.	0.4	60
15	PORE STRUCTURES OF COMPACTED SOILS. Doboku Gakkai Ronbunshu, 1992, 1992, 35-44.	0.2	0
16	MERCURY INTRUSION TECHNIQUE FOR MACROPOROUS MEASUREMENT OF PARTICULATE SOIL. Doboku Gakkai Ronbunshu, 1992, 1992, 139-142.	0.2	2
17	CHANGES IN PORE SIZE DISTRIBUTIONS IN ISOTROPIC CONSOLIDATION AND DRAIN SHEAR PROCESSES OF UNDISTURBED PEAT. Doboku Gakkai Ronbunshu, 1992, 1992, 1-8.	0.2	2
18	Change in Pore Size Distribution of Peat in Shear Processes. Soils and Foundations, 1992, 32, 1-16.	3.1	8

#	ARTICLE	IF	CITATIONS
19	Problems between soil and construction machinery with special reference to field compaction. Journal of Terramechanics, 1992, 29, 35-55.	3.1	7
20	Compression characteristics of granulated materials: VI. Pore size distributions, assessed by mercury penetration, of compacts of two lactose granulations with different fragmentation propensities. International Journal of Pharmaceutics, 1992, 84, 191-195.	5.2	39
21	Tropical Clays. I: Index Properties and Microstructural Aspects. Journal of Geotechnical Engineering, 1993, 119, 826-839.	0.4	9
22	Electrical Resistivity Measurements For Evaluating Compacted Soil Liners. Journal of Geotechnical Engineering, 1994, 120, 451-457.	0.4	59
23	Estimating Hydraulic Conductivity of Compacted Clay Liners. Journal of Geotechnical Engineering, 1994, 120, 366-387.	0.4	195
24	ENGINEERING PROPERTIES AND MICRO STRUCTURES OF FINE SANDS INJECTED WITH SUSPENSION GROUTS OF ULTRA-FINE GRANULAR CEMENT AND SUPPLEMENTARY WATERGLASS. Doboku Gakkai Ronbunshu, 1994, 1994, 109-118.	0.2	1
25	Hydraulic Conductivity of Thirteen Compacted Clays. Clays and Clay Minerals, 1995, 43, 669-681.	1.3	189
26	Unsaturated Hydraulic Conductivity of Two Compacted Barrier Soils. Journal of Geotechnical Engineering, 1996, 122, 565-576.	0.4	98
27	Electrical Resistivity of Compacted Clays. Journal of Geotechnical Engineering, 1996, 122, 397-406.	0.4	277
28	Representation of Compacted Clay Minifabric Using Random Networks. Journal of Geotechnical Engineering, 1996, 122, 906-913.	0.4	6
29	Soil-Water Characteristic Curves for Compacted Clays. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 1997, 123, 1060-1069.	3.0	148
30	Particle packing and organization of the textural porosity in clay-silt-sand mixtures. European Journal of Soil Science, 1998, 49, 557-567.	3.9	76
31	Fractal Model for Flow through Saturated Soils. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 1998, 124, 53-66.	3.0	22
32	Permeability and fluid flow in natural mudstones. Geological Society Special Publication, 1999, 158, 23-43.	1.3	89
33	Water permeability, water retention and microstructure of unsaturated compacted Boom clay. Engineering Geology, 1999, 54, 117-127.	6.3	454
34	Field Performance of Compacted Clay Liners. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 1999, 125, 390-403.	3.0	206
35	Permeability anisotropy of consolidated clays. Geological Society Special Publication, 1999, 158, 79-96.	1.3	38
36	Foundry Green Sands as Hydraulic Barriers: Laboratory Study. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2000, 126, 1174-1183.	3.0	67

#	ARTICLE	IF	CITATIONS
37	Comparison of Fine Particle Clogging in Soil and Geotextile Filters. , 2000, , 176.		5
38	Permeability Reduction of Soil Filters due to Physical Clogging. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2000, 126, 236-246.	3.0	113
39	Influence of compaction conditions on pore-size distribution and saturated hydraulic conductivity of a glacial till. Canadian Geotechnical Journal, 2000, 37, 1184-1194.	2.8	68
40	Influence of compaction procedure on the mechanical behaviour of an unsaturated compacted clay. Part 1: Wetting and isotropic compression. Geotechnique, 2000, 50, 359-368.	4.0	125
41	Compressibility effect in evaluating the pore-size distribution of kaolin clay using mercury intrusion porosimetry. Canadian Geotechnical Journal, 2000, 37, 393-405.	2.8	161
42	Title is missing!. Transport in Porous Media, 2001, 43, 355-376.	2.6	101
43	Microstructural and petrophysical characterization of Muderong Shale: application to top seal risking. Petroleum Geoscience, 2002, 8, 371-383.	1.5	99
44	Bacteria in sediments. , 1978, , 63-66.		0
45	Assessment of the hydraulic characteristics of unsaturated base-course materials: a practical method for pavement engineers. Canadian Geotechnical Journal, 2003, 40, 121-136.	2.8	34
46	Pore Size Distribution of Clayey Soils Measured by Mercury Intrusion Porosimetry and its Relation to Hydraulic Conductivity. Soils and Foundations, 2003, 43, 63-73.	3.1	46
47	A Method for Estimating the Physical and Acoustic Properties of the Sea Bed Using Chirp Sonar Data. IEEE Journal of Oceanic Engineering, 2004, 29, 1200-1217.	3.8	88
48	Environmental geological and geotechnical investigations related to the potential use of Ankara clay as a compacted landfill liner material, Turkey. Environmental Geology, 2005, 47, 225-236.	1.2	25
49	Pore Occlusion in Compacted Mixtures of Sand and Kaolinite Due to Bioclogging. , 2005, , 1.		0
50	Effectiveness of cement on hydraulic conductivity of compacted soil-cement mixtures. Proceedings of the Institution of Civil Engineers: Ground Improvement, 2006, 10, 77-90.	1.0	25
51	Structural Modifications of a Hard Deep Clayey Rock due to Hygro-Mechanical Solicitations. International Journal of Geomechanics, 2007, 7, 227-235.	2.7	23
52	Artificial Neural Network Prediction Models for Soil Compaction and Permeability. Geotechnical and Geological Engineering, 2008, 26, 47-64.	1.7	115
53	Laboratory and Field Testing of Unsaturated Soils. , 2009, , .		13
54	Evaluation of the influence of boundary confinement on the behaviour of unsaturated swelling clay soils. Canadian Geotechnical Journal, 2009, 46, 339-356.	2.8	31

#	ARTICLE	IF	CITATIONS
55	Impact of initial state on the fabric and permeability of a lime-treated silt under long-term leaching. Canadian Geotechnical Journal, 2009, 46, 1243-1257.	2.8	81
56	Compacted lateritic soil treated with blast furnace slag as hydraulic barriers in waste containment systems. International Journal of Risk Assessment and Management, 2009, 13, 171.	0.1	22
57	Land subsidence and pore structure of soils caused by the high-rise building group through centrifuge model test. Engineering Geology, 2010, 113, 44-52.	6.3	35
58	Fluid-driven fractures in uncemented sediments: Underlying particle-level processes. Earth and Planetary Science Letters, 2010, 299, 180-189.	4.4	54
59	Physical and geotechnical properties of clay phyllites. Applied Clay Science, 2010, 48, 307-318.	5.2	41
60	Assessment of smectite-rich claystones from Northpatagonia for their use as liner materials in landfills. Applied Clay Science, 2010, 48, 438-445.	5.2	29
61	Discussion of "Influence of relative compaction on the hydraulic conductivity of completely decomposed granite in Hong Kong" Appears in Canadian Geotechnical Journal, 46(10): 1229-1235.. Canadian Geotechnical Journal, 2010, 47, 704-707.	2.8	6
62	Non-quantitative correlation of soil resistivity with some soil parameters. , 2011, , .		2
63	Bacteria in sediments: pore size effects. Geotechnique Letters, 2011, 1, 91-93.	1.2	64
64	Microstructure and hydraulic conductivity of a compacted lime-treated soil. Engineering Geology, 2011, 123, 187-193.	6.3	157
65	Modeling of permeability and compaction characteristics of soils using evolutionary polynomial regression. Computers and Geosciences, 2011, 37, 1860-1869.	4.2	63
66	Microstructures of different soil layers caused by the high-rise building group in Shanghai. Environmental Earth Sciences, 2011, 63, 109-119.	2.7	29
67	A Study on Pore Diameter Distribution of Saliniferous Dredger Fill Consolidated by Vacuum Preloading. Advanced Materials Research, 2011, 301-303, 1511-1516.	0.3	3
68	Compacted black cotton soil treated with cement kiln dust as hydraulic barrier material. American Journal of Scientific and Industrial Research, 2011, 2, 521-530.	0.2	19
69	Predicting the saturated hydraulic conductivity of soils: a review. Bulletin of Engineering Geology and the Environment, 2012, 71, 401-434.	3.5	269
70	A fully coupled elastic-plastic hydromechanical model for compacted soils accounting for clay activity. International Journal for Numerical and Analytical Methods in Geomechanics, 2013, 37, 503-535.	3.3	90
71	Influence of damage on pore size distribution and permeability of rocks. International Journal for Numerical and Analytical Methods in Geomechanics, 2013, 37, 810-831.	3.3	53
72	Use of mercury intrusion porosimetry for microstructural investigation of reconstituted clays at high water contents. Engineering Geology, 2013, 158, 15-22.	6.3	99

#	ARTICLE	IF	CITATIONS
73	Potential use of calcareous mudstones in low hydraulic conductivity earthen barriers for environmental applications. <i>Environmental Technology (United Kingdom)</i> , 2013, 34, 2465-2476.	2.2	8
74	A Chemo-Poromechanical Model for Well/Caprock Interface in Presence of CO ₂ . , 2013, , .		2
75	Retention and permeability properties of damaged porous rocks. <i>Computers and Geotechnics</i> , 2013, 48, 272-282.	4.7	27
76	Hydraulic conductivity of compacted lateritic soil treated with bagasse ash. <i>International Journal of Environment and Waste Management</i> , 2013, 11, 38.	0.3	16
77	Rock Stiffness and Permeability During Crack Opening and Closure: A Planar Transverse Isotropic (PTI) Model Using Pore Size Distributions (PSD). , 2013, , .		0
78	Experimental research on the evolution laws of soil fabric of compacted clay liner in a landfill final cover under the dry-wet cycle. <i>Bulletin of Engineering Geology and the Environment</i> , 2014, 73, 517-529.	3.5	14
79	Study on the permeability evolution law and the micro-mechanism of CCL in a landfill final cover under the dry-wet cycle. <i>Bulletin of Engineering Geology and the Environment</i> , 2014, 73, 1089-1103.	3.5	15
80	Bayesian paradigm to assess rock compression damage models. <i>Environmental Geotechnics</i> , 2015, 2, 155-165.	2.3	4
81	Capillary bundle model for the computation of the apparent permeability from pore size distributions. <i>European Journal of Environmental and Civil Engineering</i> , 2015, 19, 168-183.	2.1	20
82	Geotechnical evaluation of Ankara clay as a compacted clay liner. <i>Environmental Earth Sciences</i> , 2015, 74, 2991-3006.	2.7	15
83	Hydraulic conductivity of cement-stabilized marine clay with metakaolin and its correlation with pore size distribution. <i>Engineering Geology</i> , 2015, 193, 146-152.	6.3	104
84	Thermo-diffusional radon waves in soils. <i>Science of the Total Environment</i> , 2016, 565, 1-7.	8.0	19
85	Influence of Shear on Permeability of Clayey Soil. <i>International Journal of Geomechanics</i> , 2016, 16, .	2.7	10
86	Hydraulic and Thermal Conductivities of Kaolin-Silica Mixtures under Different Consolidation Stresses. <i>Marine Georesources and Geotechnology</i> , 2016, 34, 532-541.	2.1	7
87	A New Model for Estimating Fluid Transfer Properties of Cementitious Materials. , 2017, , .		0
88	Effects on Air Permeability of the Initial Fabric in Compacted Clay. , 2017, , .		0
89	The use of Ankara Clay as a compacted clay liner for landfill sites. <i>Clay Minerals</i> , 2017, 52, 391-412.	0.6	5
90	Clay barriers for protecting historic buildings from ground moisture intrusion. <i>Heritage Science</i> , 2017, 5, .	2.3	15

#	ARTICLE	IF	CITATIONS
91	The influence of small pores on the anion transport properties of natural argillaceous rocks – A pore size distribution investigation of Opalinus Clay and Helvetic Marl. <i>Applied Clay Science</i> , 2018, 156, 134-143.	5.2	11
92	Water retention characteristics of swelling clays in different compaction states. <i>Geomechanics and Geoengineering</i> , 2018, 13, 88-103.	1.8	11
93	Hydraulic Conductivity Variation of Coarse-Fine Soil Mixture upon Mixing Ratio. <i>Advances in Civil Engineering</i> , 2018, 2018, 1-11.	0.7	6
94	Applicability of cavity-throat connecting model for estimating the hydraulic conductivity of fine-grained soils: a geometrical and mathematical approach. <i>Journal of Soils and Sediments</i> , 2019, 19, 652-667.	3.0	4
95	Pore Structure of Grain-Size Fractal Granular Material. <i>Materials</i> , 2019, 12, 2053.	2.9	10
96	A Pore Size Distribution-based Microscopic Model for Evaluating the Permeability of Clay. <i>KSCE Journal of Civil Engineering</i> , 2019, 23, 5002-5011.	1.9	13
97	Microbially Induced Calcite Precipitation for Seepage Control in Sandy Soil. <i>Geomicrobiology Journal</i> , 2019, 36, 366-375.	2.0	63
98	Evaluating the Influence of Specimen Preparation on Saturated Hydraulic Conductivity Using Nuclear Magnetic Resonance Technology. <i>Vadose Zone Journal</i> , 2019, 18, 1-7.	2.2	18
99	Effects of soil structure on the permeability of saturated Maryland clay. <i>Geotechnique</i> , 2019, 69, 72-78.	4.0	21
100	Caveats of using fractal analysis for clay rich pore systems. <i>Journal of Petroleum Science and Engineering</i> , 2020, 195, 107622.	4.2	13
101	Effects of remoulding and wetting-drying-freezing-thawing cycles on the pore structures of Yanji mudstones. <i>Cold Regions Science and Technology</i> , 2020, 174, 103037.	3.5	20
102	On the prediction of permeability and relative permeability from pore size distributions. <i>Cement and Concrete Research</i> , 2020, 133, 106074.	11.0	18
103	Influence of soil microstructure on air permeability in compacted clay. <i>Geotechnique</i> , 2021, 71, 373-391.	4.0	14
104	Impact of wetting-drying cycles and cracks on the permeability of compacted clayey soil. <i>European Journal of Environmental and Civil Engineering</i> , 2021, 25, 696-721.	2.1	22
105	A study of suffusion kinetics inspired from experimental data: comparison of three different approaches. <i>Acta Geotechnica</i> , 2021, 16, 347-365.	5.7	14
106	Characterization of Clay Fabric. <i>Frontiers in Sedimentary Geology</i> , 1991, , 291-295.	0.2	1
107	Underpinning by chemical grouting. , 1993, , 242-275.		1
108	Comparison of Internal and Surface Erosion Using Flow Pump Tests on a Sand-Kaolinite Mixture. <i>Geotechnical Testing Journal</i> , 2000, 23, 116-122.	1.0	152

#	ARTICLE	IF	CITATIONS
109	Microstructural and Mineralogical Evaluation of the Effectiveness of Mixing Treatments in Stabilized Clays. <i>Geotechnical Testing Journal</i> , 2013, 36, 742-754.	1.0	4
110	Analysis of the relationship between the water retention curve, particle size and pore size distribution in the characterization of a collapsible porous clay. <i>Respuestas</i> , 2020, 25, 33-43.	0.2	2
111	Equivalent Channel Models for Permeability Estimation and Their Application to Sedimentary Rocks.. <i>Journal of the Japan Society of Engineering Geology</i> , 1999, 39, 533-539.	0.2	8
112	Permeability of Inada Granite with High Temperature History and Its Estimation by the Equivalent Channel Models.. <i>Journal of the Japan Society of Engineering Geology</i> , 1999, 40, 25-35.	0.2	8
113	Relationship between microstructure and hydraulic conductivity in compacted lime-treated soils. , 2008, , 643-649.		0
114	Discontinuities in granular materials: Particle-level mechanisms. , 2009, , 223-237.		1
115	Permeability and Consolidation Characteristics of Clayey Sand Soils. <i>Journal of the Korean Geotechnical Society</i> , 2013, 29, 61-70.	0.1	0
116	Experimental Study and Mathematical Model on Permeability of Clayey Soil with Shear Deformation. <i>Advances in Porous Flow</i> , 2014, 04, 1-9.	0.3	0
119	Factors Influencing the Soil-Water Characteristics of Unsaturated Tropical Silty Sand. <i>Journal of Geoscience and Environment Protection</i> , 2019, 07, 264-273.	0.5	0
121	Evaluating the influence of soil plasticity on hydraulic conductivity based on a general capillary model. <i>Engineering Geology</i> , 2020, 278, 105826.	6.3	7
122	Influence of Pressure Generation Rate on Both Pore Size Distribution Measured by Mercury Porosimetry and Predicted Permeability. <i>Journal of the Japan Society of Engineering Geology</i> , 2021, 62, 170-180.	0.2	0
123	Observations of Pore Systems of Natural Siliciclastic Mudstones. , 0, , 33-44.		0
124	A Comparative Study of Soft Computing Models for Prediction of Permeability Coefficient of Soil. <i>Mathematical Problems in Engineering</i> , 2021, 2021, 1-11.	1.1	9
125	Hybrid Model: Teaching Learning-Based Optimization of Artificial Neural Network (TLBO-ANN) for the Prediction of Soil Permeability Coefficient. <i>Mathematical Problems in Engineering</i> , 2022, 2022, 1-9.	1.1	6
126	X-Ray microtomography of mercury intruded compacted clay: An insight into the geometry of macropores. <i>Applied Clay Science</i> , 2022, 227, 106573.	5.2	5
127	Novel Approach to Predicting Soil Permeability Coefficient Using Gaussian Process Regression. <i>Sustainability</i> , 2022, 14, 8781.	3.2	10
128	Predicting and Investigating the Permeability Coefficient of Soil with Aided Single Machine Learning Algorithm. <i>Complexity</i> , 2022, 2022, 1-18.	1.6	8
129	Water Retention Curve of Biocemented Sands Using MIP Results. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 10447.	2.5	1

#	ARTICLE	IF	CITATIONS
130	A Unified Pore Network Model for Evaluation of Permeability, Relative Permeability, and Sealing Capacity From Mercury Intrusion Measurement. SPE Journal, 2023, 28, 575-593.	3.1	3
131	Microstructural evolution of saturated normally consolidated kaolinite clay under thermal cycles. Engineering Geology, 2023, 318, 107101.	6.3	2
132	A simple model for the water retention curve of compressible biocemented sands using MIP results. E3S Web of Conferences, 2023, 382, 09001.	0.5	0
133	Permeability of High Clay Content Dredger Fill Treated by Step Vacuum Preloading: Pore Distribution Analysis. Journal of Marine Science and Engineering, 2023, 11, 1714.	2.6	0