Robert P Chapuis

List of Publications by Year
in descending order

122 papers	3,926 citations	136740 32 h-index	133063 59 g-index
125 all docs	125 docs citations	125 times ranked	2291 citing authors

#	Article	IF	Citations
1	The Physical Reasons to Have Underdamped or Oscillating Variable-Head (Slug) Tests: A Review and a Clarification. Geotechnical Testing Journal, 2022, 45, 20210065.	0.5	5
2	Barometric Fluctuations and Duration of Variable-Head (Slug) Field Permeability Tests. Geotechnical Testing Journal, 2022, 45, 20200287.	0.5	4
3	Internal Erosion of a 0â€“5Âmm Crushed Sand in a Rigid Wall-Permeameter: Experimental Methods and Results. Geotechnical Testing Journal, 2021, 44, 20190218.	0.5	4
4	Using Public Well Data Banks to Improve Field Investigations for Excavations. Geotechnical Testing Journal, 2021, 44, 20200202.	0.5	2
5	Tracer movements in a straight uniform flow: New equations for the advective part considering the distortion of flow lines around the well. Journal of Contaminant Hydrology, 2021, 239, 103776.	1.6	7
6	Analyzing grain size distributions with the modal decomposition method: potential for future research in engineering geology. Bulletin of Engineering Geology and the Environment, 2021, 80, 6667-6676.	1.6	6
7	Analyzing grain size distributions with the modal decomposition method: literature review and procedures. Bulletin of Engineering Geology and the Environment, 2021, 80, 6649-6666.	1.6	11
8	Evaluating at Three Scales the Hydraulic Conductivity in an Unconfined and Stratified Alluvial Aquifer. Geotechnical Testing Journal, 2021, 44, 20180170.	0.5	11
9	Examples of Variable-Head Field Permeability Tests Used in Books: Given Interpretations and Correct Interpretations. Geotechnical Testing Journal, 2021, 44, 20180210.	0.5	5
10	Numerical values of shape factors for field permeability tests in unconfined aquifers. Acta Geotechnica, 2020, 15, 1243-1257.	2.9	6
11	Assessing internal erosion with the modal decomposition method for grain size distribution curves. Acta Geotechnica, 2020, 15, 1595-1605.	2.9	13
12	How to Improve the Quality of Laboratory Permeability Tests in Rigid-Wall Permeameters: A Review. Geotechnical Testing Journal, 2020, 43, 20180350.	0.5	9
13	Recovery test after a constant-head test in a monitoring well: Interpretation methods and new findings. Engineering Geology, 2019, 259, 105150.	2.9	12
14	A mass-flux method to estimate pollutants in groundwater. Environmental Geotechnics, 2019, 6, 101-110.	1.3	4
15	Disagreeing Evaluations for Slug Tests in Monitoring Wells: Importance of Standards. Geotechnical Testing Journal, 2019, 42, 20160046.	0.5	13
16	Field Permeability Tests: Importance of Calibration and Synchronous Monitoring for Barometric Pressure Sensors. Geotechnical Testing Journal, 2019, 42, 20160306.	0.5	8
17	Two Methods to Detect Poorly Sealed Monitoring Wells Using Pumping Test Data in a Confined Aquifer. Geotechnical Testing Journal, 2019, 42, 20170032.	0.5	8
18	Field Permeability Tests with Inward and Outward Flow in Confined Aquifers. Geotechnical Testing Journal, 2019, 42, 20170417.	0.5	7

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19	MÃ©thode de dÃ©composition modaleâ€‰: description quantitative de la granulomÃ©trie et autres paramÃ¨tres. Revue FranÃ§aise De GÃ©otechnique, 2018, , 1.	0.1	0
20	A simple reason explains why it is so difficult to assess groundwater ages and contamination ages. Science of the Total Environment, 2017, 593-594, 109-115.	3.9	14
21	Lung bioaccessibility of As, Cu, Fe, Mn, Ni, Pb, and Zn in fine fraction (< 20 Î¼m) from contaminated soils and mine tailings. Science of the Total Environment, 2017, 579, 378-386.	3.9	59
22	Influence of seasonal hydraulic head changes on slug tests conducted in shallow low-permeability soils. Engineering Geology, 2017, 228, 385-394.	2.9	10
23	Stress and strain fields for overdamped slug tests in aquifer materials, and resulting conservation equation. International Journal for Numerical and Analytical Methods in Geomechanics, 2017, 41, 1908-1921.	1.7	15
24	Lung bioaccessibility of contaminants in particulate matter of geological origin. Environmental Science and Pollution Research, 2016, 23, 24422-24434.	2.7	53
25	Pore pressure response to barometric pressure change in Champlain clay: Prediction of the clay elastic properties. Engineering Geology, 2015, 198, 16-29.	2.9	17
26	Simplifying the calculation of equivalent diameter in sedimentation tests. Canadian Geotechnical Journal, 2015, 52, 1186-1189.	1.4	0
27	What maximum permeability can be measured with a monitoring well?. Engineering Geology, 2015, 184, 111-118.	2.9	34
28	Water-Retention Curves of Coarse Soils Without Organic Matter: Improved Data for Improved Predictions. Geotechnical Testing Journal, 2015, 38, 20130154.	0.5	7
29	Parasitic Head Losses During Laboratory Permeability Tests. Geotechnical Testing Journal, 2015, 38, 20130175.	0.5	11
30	Permeability Test Results With Packed Spheres and Non-Plastic Soils. Geotechnical Testing Journal, 2015, 38, 20140124.	0.5	21
31	Overdamped Slug Tests in Aquifers: The Three Diagnostic Graphs for a User-Independent Interpretation. Geotechnical Testing Journal, 2015, 38, 20140250.	0.5	16
32	A coupled analysis of cavity and pore volume changes for pulse tests conducted in soft clay deposits. International Journal for Numerical and Analytical Methods in Geomechanics, 2014, 38, 903-924.	1.7	14
33	Getting Information from Modal Decomposition of Grain Size Distribution Curves. Geotechnical Testing Journal, 2014, 37, 20120218.	0.5	22
34	The Lachenaie clay deposit: some geochemical and geotechnical properties in relation to the salt-leaching process. Canadian Geotechnical Journal, 2013, 50, 311-325.	1.4	10
35	Uniaxial Compression Tests on Diesel-Contaminated Frozen Silty-Soil Specimens. Journal of Cold Regions Engineering - ASCE, 2013, 27, 132-154.	0.5	4
36	A Leaky Aquifer below Champlain Sea Clay: Closedâ€Form Solutions for Natural Seepage. Ground Water, 2013, 51, 960-967.	0.7	6

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37	Full-Scale Evaluation of the Performance of Three Compacted Clay Liners. Geotechnical Testing Journal, 2013, 36, 20120198.	0.5	6
38	Reply to the commentary of Antonis D. Koussis and Evangelos Akylas. Bulletin of Engineering Geology and the Environment, 2012, 71, 603-604.	1.6	0
39	Predicting the saturated hydraulic conductivity of soils: a review. Bulletin of Engineering Geology and the Environment, 2012, 71, 401-434.	1.6	269
40	Monitoring wells in clay: the apparently static water level and its influence during variable-head permeability tests. Bulletin of Engineering Geology and the Environment, 2012, 71, 663-678.	1.6	13
41	Discussion of â€œIntrinsic permeability of materials ranging from sand to rock-fill using natural air convection testsâ€¹Appears in the Canadian Geotechnical Journal,48(5): 679â€“690 [doi:10.1139/t10-097].. Canadian Geotechnical Journal, 2012, 49, 1319-1322.	1.4	4
42	Estimating the in situ porosity of sandy soils sampled in boreholes. Engineering Geology, 2012, 141-142, 57-64.	2.9	34
43	Practical Considerations when Using the Swedish Fall Cone. Geotechnical Testing Journal, 2012, 35, 104178.	0.5	22
44	Improved Curve Fitting Methods for Underdamped Slug Tests. Geotechnical Testing Journal, 2012, 35, 103092.	0.5	5
45	Steady state groundwater seepage in sloping unconfined aquifers. Bulletin of Engineering Geology and the Environment, 2011, 70, 89-99.	1.6	14
46	Pumping a recharged unconfined aquifer: solutions for the hydraulic head and the transfer time. Bulletin of Engineering Geology and the Environment, 2011, 70, 309-316.	1.6	9
47	Sinusoidal oscillations radiating from a cylindrical source in thermal conduction or groundwater flow: Closedâ€form solutions. International Journal for Numerical and Analytical Methods in Geomechanics, 2010, 34, 1743-1765.	1.7	4
48	Using a leaky swimming pool for a huge falling-head permeability test. Engineering Geology, 2010, 114, 65-70.	2.9	9
49	Characterizing Hydraulic Conductivity with the Directâ€push Permeameter. Ground Water, 2010, 48, 792-795.	0.7	1
50	Discussion of â€œInfluence of relative compaction on the hydraulic conductivity of completely decomposed granite in Hong Kongâ€Appears in Canadian Geotechnical Journal,46(10): 1229â€“1235.. Canadian Geotechnical Journal, 2010, 47, 704-707.	1.4	6
51	Discussion of â€œEstimating Storage Coefficient and Transmissivity from Slug Test Dataâ€•by Prabhata K. Swamee and Sushil K. Singh. Journal of Irrigation and Drainage Engineering - ASCE, 2009, 135, 125-125.	0.6	0
52	Monitoring a well in a clay layer: revisiting the time lag problem. Bulletin of Engineering Geology and the Environment, 2009, 68, 387-395.	1.6	15
53	Numerical modeling of reservoirs or pipes in groundwater seepage. Computers and Geotechnics, 2009, 36, 895-901.	2.3	21
54	Field variable-head test in low-permeability materials: Assessing the effects of trapped gas pocket and cavity expansion. Canadian Geotechnical Journal, 2009, 46, 81-92.	1.4	8

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55	Porosity and Permeability in Sediment Mixtures. Ground Water, 2008, 46, 794-795.	0.7	1
56	Comment on â€œShape factors for constantâ€head doubleâ€packer permeametersâ€•by S. A. Mathias and A. P. Butler. Water Resources Research, 2008, 44, .	1.7	4
57	Ã‰coulement saturÃ© et non saturÃ© de lâ€™eau souterraine vers des drains en aquifÃ¨re Ã nappe libre. Canadian Geotechnical Journal, 2008, 45, 1210-1223.	1.4	3
58	Discussion of "Variations in moisture content for a soil cover over a 10 year period". Canadian Geotechnical Journal, 2007, 44, 103-106.	1.4	1
59	Field experimental cells to evaluate the hydrogeological behaviour of oxygen barriers made of silty materials. Canadian Geotechnical Journal, 2007, 44, 245-265.	1.4	55
60	Seepage Face Height, Water Table Position, and Well Efficiency at Steady State. Ground Water, 2007, 45, 168-177.	0.7	35
61	Comment on â€œComputing residence times for flow towards a pumping well: nomograph solution and validity of the small draw-down approximationâ€• Technical Note published in Hydrogeology Journal (2005) 13:889â€“894, by Matthew J. Simpson. Hydrogeology Journal, 2007, 15, 429-430.	0.9	1
62	Discussion of "Network model for hydraulic conductivity of sand-bentonite mixtures". Canadian Geotechnical Journal, 2006, 43, 110-114.	1.4	7
63	Long-term persistence of a nutrient-starved biofilm in a limestone fracture. Water Research, 2006, 40, 925-934.	5.3	19
64	Phosphorus removal by electric arc furnace steel slag and serpentinite. Water Research, 2006, 40, 1547-1554.	5.3	217
65	Pumping Test in a Confined Aquifer Under Tidal Influence. Ground Water, 2006, 44, 300-305.	0.7	22
66	Travel Time to a Well Pumping an Unconfined Aquifer without Recharge. Ground Water, 2006, 44, 600-603.	0.7	12
67	A linear graphical method to predict the effect of compaction on the hydraulic conductivity of clay liners and covers. Bulletin of Engineering Geology and the Environment, 2006, 65, 93-98.	1.6	9
68	Discussion of â€œMeasuring the Hydraulic Conductivity of Soilâ€“Bentonite Backfillâ€•by Jeremy P. Britton, George M. Filz, and Wayne E. Herring. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2006, 132, 809-812.	1.5	3
69	Travel Time to a Well Pumping an Unconfined Aquifer without Recharge. Ground Water, 2006, 44, 600-603.	0.7	17
70	Unusual drawdown curves for a pumping test in an unconfined aquifer at Lachenaie, Quebec: field data and numerical modeling. Canadian Geotechnical Journal, 2005, 42, 1133-1144.	1.4	17
71	Evaluating the hydraulic conductivity at three different scales within an unconfined sand aquifer at Lachenaie, Quebec. Canadian Geotechnical Journal, 2005, 42, 1212-1220.	1.4	53
72	Numerical modeling of rising-head permeability tests in monitoring wells after lowering the water level down to the screen. Canadian Geotechnical Journal, 2005, 42, 705-715.	1.4	22

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73	Reply to the discussion by D. Hansen on "On the use of the KozenyÂ–Carman equation to predict the hydraulic conductivity of soils". Canadian Geotechnical Journal, 2004, 41, 994-996.	1.4	14
74	Predicting the saturated hydraulic conductivity of sand and gravel using effective diameter and void ratio. Canadian Geotechnical Journal, 2004, 41, 787-795.	1.4	312
75	The behavior of inclined covers used as oxygen barriers. Canadian Geotechnical Journal, 2003, 40, 512-535.	1.4	129
76	Effects of monitoring and pumping well pipe capacities during pumping tests in confined aquifers. Canadian Geotechnical Journal, 2003, 40, 1093-1103.	1.4	21
77	On the use of the KozenyÂ–Carman equation to predict the hydraulic conductivity of soils. Canadian Geotechnical Journal, 2003, 40, 616-628.	1.4	397
78	The 2000 R.M. Hardy Lecture: Full-scale hydraulic performance of soilÂ–bentonite and compacted clay liners. Canadian Geotechnical Journal, 2002, 39, 417-439.	1.4	75
79	Phosphorus Saturation Potential:Â A Parameter for Estimating the Longevity of Constructed Wetland Systems. Environmental Science & Technology, 2002, 36, 4642-4648.	4.6	212
80	Slug tests in a confined aquifer: experimental results in a large soil tank and numerical modeling. Canadian Geotechnical Journal, 2002, 39, 14-21.	1.4	39
81	Methods to Determine Storativity of Infinite Confined Aquifers from a Recovery Test. Ground Water, 2002, 40, 385-389.	0.7	10
82	A user's approach to assess numerical codes for saturated and unsaturated seepage conditions. Canadian Geotechnical Journal, 2001, 38, 1113-1126.	1.4	47
83	A simplified method to estimate saturated and unsaturated seepage through dikes under steady-state conditions. Canadian Geotechnical Journal, 2001, 38, 1321-1328.	1.4	38
84	Estimation of hydraulic conductivity of an unconfined aquifer using cokriging of GPR and hydrostratigraphic data. Journal of Applied Geophysics, 2001, 47, 135-152.	0.9	70
85	Borehole variable-head permeability tests in compacted clay liners and covers. Canadian Geotechnical Journal, 1999, 36, 39-51.	1.4	32
86	Overdamped slug test in monitoring wells: review of interpretation methods with mathematical, physical, and numerical analysis of storativity influence. Canadian Geotechnical Journal, 1998, 35, 697-719.	1.4	68
87	Detecting a hydraulic short circuit along a monitoring well with the recovery curve of a pumping test in a confined aquifer: method and example. Canadian Geotechnical Journal, 1998, 35, 790-800.	1.4	12
88	A predictive model for the water retention curve: application to tailings from hard-rock mines. Canadian Geotechnical Journal, 1998, 35, 55-69.	1.4	92
89	Quantifying the Effects of Well Development in Unconsolidated Material. Ground Water, 1997, 35, 387-393.	0.7	19
90	Migration of fines in 0Â–20 mm crushed base during placement, compaction, and seepage under laboratory conditions. Canadian Geotechnical Journal, 1996, 33, 168-176.	1.4	46

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91	Determination of bentonite content in soilÂ–bentonite liners by X-ray diffraction. Canadian Geotechnical Journal, 1996, 33, 760-769.	1.4	6
92	Hydraulic conductivity of homogenized tailings from hard rock mines. Canadian Geotechnical Journal, 1996, 33, 470-482.	1.4	116
93	Controlling the quality of groundwater parameters: some examples. Canadian Geotechnical Journal, 1995, 32, 172-177.	1.4	34
94	Assessment of Methods and Conditions to Locate Boundaries: I. One or Two Straight Impervious Boundaries. Ground Water, 1994, 32, 576-582.	0.7	6
95	Assessment of Methods and Conditions to Locate Boundaries: II. One Straight Recharge Boundary. Ground Water, 1994, 32, 583-590.	0.7	5
96	REPLY TO the preceding Discussion by P. N. Ballukraya of "Using Cooper-Jacob Approximation to Take Account of Pumping Well Storage Effects in Early Drawdown Data of a Confined Aquifer". Ground Water, 1993, 31, 324-324.	0.7	0
97	Similarity of internal stability criteria for granular soils. Canadian Geotechnical Journal, 1992, 29, 711-713.	1.4	85
98	Design, construction, performance, and repair of the soilâ€“bentonite liners of two lagoons. Canadian Geotechnical Journal, 1992, 29, 638-649.	1.4	47
99	DISCUSSION OF "Estimation of Storativity from Recovery Data", by P. N. Ballukraya and K. K. Sharma. Ground Water, 1992, 30, 269-272.	0.7	12
100	Using Cooper-Jacob Approximation to Take Account of Pumping Well Pipe Storage Effects in Early Drawdown Data of a Confined Aquifer. Ground Water, 1992, 30, 331-337.	0.7	19
101	Laboratory permeability tests on sand: influence of the compaction method on anisotropy. Reply. Canadian Geotechnical Journal, 1991, 28, 172-173.	1.4	3
102	Monitoring wells: measurement of permeability with minimal modification of groundwater. Canadian Journal of Civil Engineering, 1991, 18, 871-875.	0.7	16
103	Pumping more than 100â€‚m³/min from excavations for open-air amphitheatres in the city of QuÃ©bec. Canadian Journal of Civil Engineering, 1991, 18, 875-881.	0.7	2
104	Laboratory modelling of field permeability tests in cased boreholes. Canadian Geotechnical Journal, 1990, 27, 647-658.	1.4	10
105	Sandâ€“bentonite liners: field control methods. Canadian Geotechnical Journal, 1990, 27, 216-223.	1.4	18
106	Sandâ€“bentonite liners: predicting permeability from laboratory tests. Canadian Geotechnical Journal, 1990, 27, 47-57.	1.4	151
107	Hydraulic anisotropy of homogeneous soils and rocks: influence of the densification process. Bulletin of Engineering Geology and the Environment, 1989, 39, 75-86.	1.6	38
108	Shape Factors for Permeability Tests in Boreholes and Piezometers. Ground Water, 1989, 27, 647-654.	0.7	61

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109	Laboratory permeability tests on sand: influence of the compaction method on anisotropy. Canadian Geotechnical Journal, 1989, 26, 614-622.	1.4	70
110	Effects of installation of piezometers and wells on groundwater characteristics and measurements. Canadian Geotechnical Journal, 1989, 26, 604-613.	1.4	42
111	Granular soils in rigid-wall permeameters: method for determining the degree of saturation. Canadian Geotechnical Journal, 1989, 26, 71-79.	1.4	67
112	Theoretical bearing capacity of clay under shallow footings: verifying whether it is realistic. Canadian Geotechnical Journal, 1988, 25, 62-75.	1.4	0
113	Two case histories of major frost heaving in refrigerated buildings: thermal analyses, repairs, and prevention. Canadian Geotechnical Journal, 1988, 25, 535-540.	1.4	0
114	Conception et performance d'un champ d'Ã©pandage de grandes dimensions. Canadian Journal of Civil Engineering, 1988, 15, 216-222.	0.7	1
115	An improved rotating cylinder technique for quantitative measurements of the scour resistance of clays. Canadian Geotechnical Journal, 1986, 23, 83-87.	1.4	44
116	Quantitative measurement of the scour resistance of natural solid clays. Canadian Geotechnical Journal, 1986, 23, 132-141.	1.4	18
117	New stability method for embankments on clay foundations: Reply. Canadian Geotechnical Journal, 1984, 21, 195-196.	1.4	0
118	Laboratory test results on self-hardening grouts for flexible cutoffs. Canadian Geotechnical Journal, 1984, 21, 185-191.	1.4	7
119	New stability method for embankments on clay foundations. Canadian Geotechnical Journal, 1982, 19, 44-48.	1.4	4
120	StabilitÃ© interne des murs en terre armÃ©e. Canadian Geotechnical Journal, 1977, 14, 389-398.	1.4	1
121	ContrÃ1e de la stabilitÃ© des remblais par la mesure des dÃ©placements horizontaux. Canadian Geotechnical Journal, 1974, 11, 182-201.	1.4	17
122	Analytical, Numerical and Experimental Studies on Steady-State Seepage Through 3D Rockfill Trapezoidal Dikes. Mine Water and the Environment, 0, , 1.	0.9	2