

James J Butler

List of Publications by Year in descending order

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Version: 2024-02-01

95
papers

4,307
citations

76326

40
h-index

114465

63
g-index

101
all docs

101
docs citations

101
times ranked

2333
citing authors

#	ARTICLE	IF	CITATIONS
1	Estimation of Specific Yield for Regional Groundwater Models: Pitfalls, Ramifications, and a Promising Path Forward. <i>Water Resources Research</i> , 2022, 58, .	4.2	8
2	Human Intervention Will Stabilize Groundwater Storage Across the North China Plain. <i>Water Resources Research</i> , 2022, 58, .	4.2	34
3	Quantifying the Impact of Lagged Hydrological Responses on the Effectiveness of Groundwater Conservation. <i>Water Resources Research</i> , 2022, 58, .	4.2	5
4	Assessment of NMR Logging for Estimating Hydraulic Conductivity in Glacial Aquifers. <i>Ground Water</i> , 2021, 59, 31-48.	1.3	12
5	A Physically Based Approach for Estimating Hydraulic Conductivity from HPT Pressure and Flowrate. <i>Ground Water</i> , 2021, 59, 266-272.	1.3	8
6	Combining Remote Sensing and Crop Models to Assess the Sustainability of Stakeholder-Driven Groundwater Management in the US High Plains Aquifer. <i>Water Resources Research</i> , 2021, 57, e2020WR027756.	4.2	15
7	Evaluation of Data Needs for Assessments of Aquifers Supporting Irrigated Agriculture. <i>Water Resources Research</i> , 2021, 57, e2020WR028320.	4.2	6
8	Water well hydrographs: An underutilized resource for characterizing subsurface conditions. <i>Ground Water</i> , 2021, 59, 808-818.	1.3	6
9	Introduction to Special Section: The Quest for Sustainability of Heavily Stressed Aquifers at Regional to Global Scales. <i>Water Resources Research</i> , 2021, 57, e2021WR030446.	4.2	4
10	Estimating Local-Scale Groundwater Withdrawals Using Integrated Remote Sensing Products and Deep Learning. , 2021, , .		1
11	Charting Pathways Toward Sustainability for Aquifers Supporting Irrigated Agriculture. <i>Water Resources Research</i> , 2020, 56, e2020WR027961.	4.2	18
12	Groundwater Withdrawal Prediction Using Integrated Multitemporal Remote Sensing Data Sets and Machine Learning. <i>Water Resources Research</i> , 2020, 56, e2020WR028059.	4.2	40
13	A roadblock on the path to aquifer sustainability: underestimating the impact of pumping reductions. <i>Environmental Research Letters</i> , 2020, 15, 014003.	5.2	17
14	Quantifying irrigation adaptation strategies in response to stakeholder-driven groundwater management in the US High Plains Aquifer. <i>Environmental Research Letters</i> , 2019, 14, 044014.	5.2	58
15	Simulation Assessment of Direct Push Injection Logging for High-Resolution Aquifer Characterization. <i>Ground Water</i> , 2019, 57, 562-574.	1.3	6
16	Sustainability of aquifers supporting irrigated agriculture: a case study of the High Plains aquifer in Kansas. <i>Water International</i> , 2018, 43, 815-828.	1.0	41
17	Introduction to special section on Modeling highly heterogeneous aquifers: Lessons learned in the last 30 years from the MADE experiments and others. <i>Water Resources Research</i> , 2017, 53, 2581-2584.	4.2	15
18	Understanding Hydrological Alteration. , 2017, , 37-64.		12

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19	Field Investigation of a New Recharge Approach for <scp>ASR</scp> Projects in Near-Surface Aquifers. Ground Water, 2016, 54, 425-433.	1.3	9
20	<scp>NMR</scp> Logging to Estimate Hydraulic Conductivity in Unconsolidated Aquifers. Ground Water, 2016, 54, 104-114.	1.3	49
21	Assessment of small-diameter shallow wells for managed aquifer recharge at a site in southern Styria, Austria. Hydrogeology Journal, 2016, 24, 2079-2091.	2.1	10
22	Reassessing the MADE direct-push hydraulic conductivity data using a revised calibration procedure. Water Resources Research, 2016, 52, 8970-8985.	4.2	19
23	A new approach for assessing the future of aquifers supporting irrigated agriculture. Geophysical Research Letters, 2016, 43, 2004-2010.	4.0	40
24	Assessing the major drivers of water-level declines: new insights into the future of heavily stressed aquifers. Hydrological Sciences Journal, 2016, 61, 134-145.	2.6	65
25	Groundwater Transport in Highly Heterogeneous Aquifers. Eos, 2016, 97, .	0.1	4
26	Isotopic Composition of the Ogallala-high Plains Aquifer Andvadose Zone. Procedia Earth and Planetary Science, 2015, 13, 39-42.	0.6	3
27	Bootstrap Calibration and Uncertainty Estimation of Downhole <scp>NMR</scp> Hydraulic Conductivity Estimates in an Unconsolidated Aquifer. Ground Water, 2015, 53, 111-121.	1.3	19
28	Predicting flow and transport in highly heterogeneous alluvial aquifers. Geophysical Research Letters, 2014, 41, 7560-7565.	4.0	35
29	Importance of a sound hydrologic foundation for assessing the future of the High Plains Aquifer in Kansas. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E531-E531.	7.1	1
30	Slug Tests in Wells Screened Across the Water Table: Some Additional Considerations. Ground Water, 2014, 52, 311-316.	1.3	2
31	Numerical assessment of ASR recharge using small-diameter wells and surface basins. Journal of Hydrology, 2014, 517, 54-63.	5.4	33
32	Interpretation of Water Level Changes in the High Plains Aquifer in Western Kansas. Ground Water, 2013, 51, 180-190.	1.3	24
33	A Small-Diameter <scp>NMR</scp> Logging Tool for Groundwater Investigations. Ground Water, 2013, 51, 914-926.	1.3	112
34	Hydraulic profiling with the direct-push permeameter: Assessment of probe configuration and analysis methodology. Journal of Hydrology, 2013, 496, 195-204.	5.4	6
35	Resolving centimeter-scale flows in aquifers and their hydrostratigraphic controls. Geophysical Research Letters, 2013, 40, 1098-1103.	4.0	28
36	Integration of surface and logging NMR data to map hydraulic conductivity. ASEG Extended Abstracts, 2013, 2013, 1-4.	0.1	0

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37	Geostatistical analysis of centimeter-scale hydraulic conductivity variations at the MADE site. <i>Water Resources Research</i> , 2012, 48, .	4.2	63
38	Hydraulic conductivity profiling with direct push methods. <i>Grundwasser</i> , 2012, 17, 19-29.	1.4	40
39	Spatial connectivity in a highly heterogeneous aquifer: From cores to preferential flow paths. <i>Water Resources Research</i> , 2011, 47, .	4.2	111
40	Hydrostratigraphic analysis of the MADE site with full-resolution GPR and direct-push hydraulic profiling. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	31
41	New Insights from Well Responses to Fluctuations in Barometric Pressure. <i>Ground Water</i> , 2011, 49, 525-533.	1.3	37
42	Patterns of Tamarix water use during a record drought. <i>Oecologia</i> , 2010, 162, 283-292.	2.0	63
43	A Potential-Based Inversion of Unconfined Steady-State Hydraulic Tomography. <i>Ground Water</i> , 2010, 48, 343-344.	1.3	1
44	Characterizing Hydraulic Conductivity with the Direct-push Permeameter. <i>Ground Water</i> , 2010, 48, 792-795.	1.3	1
45	Inherent Limitations of Hydraulic Tomography. <i>Ground Water</i> , 2010, 48, 809-824.	1.3	66
46	Relative importance of dispersion and rate-limited mass transfer in highly heterogeneous porous media: Analysis of a new tracer test at the Macrodispersion Experiment (MADE) site. <i>Water Resources Research</i> , 2010, 46, .	4.2	27
47	Pumping Tests for Aquifer Evaluation—Time for a Change?. <i>Ground Water</i> , 2009, 47, 615-617.	1.3	17
48	A new method for high-resolution characterization of hydraulic conductivity. <i>Water Resources Research</i> , 2009, 45, .	4.2	65
49	Investigation of flow and transport processes at the MADE site using ensemble Kalman filter. <i>Advances in Water Resources</i> , 2008, 31, 975-986.	3.8	92
50	A Rapid Method for Hydraulic Profiling in Unconsolidated Formations. <i>Ground Water</i> , 2008, 46, 323-328.	1.3	92
51	A^{uthor's}R^eply. <i>Ground Water</i> , 2008, 46, 530-531.	1.3	3
52	Simulation assessment of the direct-push permeameter for characterizing vertical variations in hydraulic conductivity. <i>Water Resources Research</i> , 2008, 44, .	4.2	19
53	A field investigation of phreatophyte-induced fluctuations in the water table. <i>Water Resources Research</i> , 2007, 43, .	4.2	122
54	A field assessment of the value of steady shape hydraulic tomography for characterization of aquifer heterogeneities. <i>Water Resources Research</i> , 2007, 43, .	4.2	113

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55	Evaluation of the applicability of the dual-domain mass transfer model in porous media containing connected high-conductivity channels. <i>Water Resources Research</i> , 2007, 43, .	4.2	50
56	Pumping-Induced Drawdown and Stream Depletion in a Leaky Aquifer System. <i>Ground Water</i> , 2007, 45, 178-186.	1.3	46
57	Characterizing Hydraulic Conductivity with the Direct-Push Permeameter. <i>Ground Water</i> , 2007, 45, 409-419.	1.3	83
58	KGS-HighK: A Fortran 90 program for simulation of hydraulic tests in highly permeable aquifers. <i>Computers and Geosciences</i> , 2006, 32, 704-707.	4.2	2
59	Direct-Push Hydrostratigraphic Profiling: Coupling Electrical Logging and Slug Tests. <i>Ground Water</i> , 2005, 43, 19-29.	1.3	47
60	Hydrogeological Methods for Estimation of Spatial Variations in Hydraulic Conductivity. <i>Water Science and Technology Library</i> , 2005, , 23-58.	0.3	80
61	Estimation of groundwater consumption by phreatophytes using diurnal water table fluctuations: A saturated-unsaturated flow assessment. <i>Water Resources Research</i> , 2005, 41, .	4.2	241
62	Noise in Pressure Transducer Readings Produced by Variations in Solar Radiation. <i>Ground Water</i> , 2004, 42, 939-944.	1.3	17
63	Direct-push geochemical profiling for assessment of inorganic chemical heterogeneity in aquifers. <i>Journal of Contaminant Hydrology</i> , 2004, 69, 215-232.	3.3	22
64	Limits of applicability of the advection-dispersion model in aquifers containing connected high-conductivity channels. <i>Water Resources Research</i> , 2004, 40, .	4.2	65
65	Hydraulic tests in highly permeable aquifers. <i>Water Resources Research</i> , 2004, 40, .	4.2	57
66	HIGH-RESOLUTION STRATIGRAPHIC CHARACTERIZATION OF UNCONSOLIDATED DEPOSITS USING DIRECT-PUSH ELECTRICAL CONDUCTIVITY LOGGING: A FLOODPLAIN-MARGIN EXAMPLE. , 2004, , 67-78.		5
67	Analysis of Slug Tests in Formations of High Hydraulic Conductivity. <i>Ground Water</i> , 2003, 41, 620-631.	1.3	95
68	Direct-Push Electrical Conductivity Logging for High-Resolution Hydrostratigraphic Characterization. <i>Ground Water Monitoring and Remediation</i> , 2003, 23, 52-62.	0.8	98
69	Pumping-induced leakage in a bounded aquifer: An example of a scale-invariant phenomenon. <i>Water Resources Research</i> , 2003, 39, .	4.2	21
70	Direct Push Technology and Application to Vertical Profiling of Hydraulic Conductivity in Unconsolidated Formations. , 2003, , 1933.		1
71	A dual-tube direct-push method for vertical profiling of hydraulic conductivity in unconsolidated formations. <i>Environmental and Engineering Geoscience</i> , 2002, 8, 75-84.	0.9	29
72	Dynamic interpretation of slug tests in highly permeable aquifers. <i>Water Resources Research</i> , 2002, 38, 7-17-18.	4.2	62

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73	Steady shape analysis of tomographic pumping tests for characterization of aquifer heterogeneities. <i>Water Resources Research</i> , 2002, 38, 60-1-60-15.	4.2	121
74	Hydraulic Tests with Direct-Push Equipment. <i>Ground Water</i> , 2002, 40, 25-36.	1.3	101
75	A Simple Correction for Slug Tests in Small-Diameter Wells. <i>Ground Water</i> , 2002, 40, 303-308.	1.3	54
76	Drawdown and Stream Depletion Produced by Pumping in the Vicinity of a Partially Penetrating Stream. <i>Ground Water</i> , 2001, 39, 651-659.	1.3	124
77	lr2div: A finite-difference model for inverse analysis of two-dimensional linear or radial groundwater flow. <i>Computers and Geosciences</i> , 2001, 27, 1147-1156.	4.2	24
78	Pumping tests in networks of multilevel sampling wells: Motivation and methodology. <i>Water Resources Research</i> , 1999, 35, 3553-3560.	4.2	94
79	Relationship Between Pumping-Test and Slug-Test Parameters: Scale Effect or Artifact?. <i>Ground Water</i> , 1998, 36, 305-312.	1.3	131
80	Improving the Quality of Parameter Estimates Obtained from Slug Tests. <i>Ground Water</i> , 1996, 34, 480-490.	1.3	91
81	Slug Tests in Unconfined Formations: An Assessment of the Bouwer and Rice Technique. <i>Ground Water</i> , 1995, 33, 16-22.	1.3	65
82	Sensitivity analysis of slug tests. Part 1. The slugged well. <i>Journal of Hydrology</i> , 1995, 164, 53-67.	5.4	37
83	Sensitivity analysis of slug tests Part 2. Observation wells. <i>Journal of Hydrology</i> , 1995, 164, 69-87.	5.4	29
84	An Assessment of the Nguyen and Finder Method for Slug Test Analysis. <i>Ground Water Monitoring and Remediation</i> , 1994, 14, 124-131.	0.8	2
85	The use of slug tests to describe vertical variations in hydraulic conductivity. <i>Journal of Hydrology</i> , 1994, 156, 137-162.	5.4	41
86	Slug tests in partially penetrating wells. <i>Water Resources Research</i> , 1994, 30, 2945-2957.	4.2	151
87	Pumping tests in nonuniform aquifers: The radially asymmetric case. <i>Water Resources Research</i> , 1993, 29, 259-269.	4.2	92
88	Pumping tests in non-uniform aquifers – the linear strip case. <i>Journal of Hydrology</i> , 1991, 128, 69-99.	5.4	68
89	A Stochastic Analysis of Pumping Tests in Laterally Nonuniform Media. <i>Water Resources Research</i> , 1991, 27, 2401-2414.	4.2	24
90	A New Sampling System for Obtaining Relatively Undisturbed Samples of Unconsolidated Coarse Sand and Gravel. <i>Ground Water Monitoring and Remediation</i> , 1991, 11, 182-191.	0.8	38

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91	Discussion of "Type Curves for Two-Regime Well Flow" by Zekri & Zhen (December, 1988, Vol. 114, No. 1) <i>J. Hydr. Engrg.</i> 114, 1078-1084.	1.5	29
92	The Role of Pumping Tests in Site Characterization: Some Theoretical Considerations. <i>Ground Water</i> , 1990, 28, 394-402.	1.3	87
93	Variable-rate pumping tests for radially symmetric nonuniform aquifers. <i>Water Resources Research</i> , 1990, 26, 291-306.	4.2	45
94	Pumping tests in nonuniform aquifers - The radially symmetric case. <i>Journal of Hydrology</i> , 1988, 101, 15-30.	5.4	108
95	Optimal Siting of Artificial Recharge: An Analysis of Objective Functions. <i>Ground Water</i> , 1987, 25, 141-150.	1.3	9