Charles F Harvey

List of Publications by Year in descending order

#	Article	IF	Citations
1	Arsenic Mobility and Groundwater Extraction in Bangladesh. Science, 2002, 298, 1602-1606.	12.6	1,063
2	Validation of an Arsenic Sequential Extraction Method for Evaluating Mobility in Sediments. Environmental Science & Technology, 2001, 35, 2778-2784.	10.0	467
3	Seasonal oscillations in water exchange between aquifers and the coastal ocean. Nature, 2005, 436, 1145-1148.	27.8	466
4	When good statistical models of aquifer heterogeneity go bad: A comparison of flow, dispersion, and mass transfer in connected and multivariate Gaussian hydraulic conductivity fields. Water Resources Research, 2003, 39, .	4.2	337
5	Anthropogenic influences on groundwater arsenic concentrations in Bangladesh. Nature Geoscience, 2010, 3, 46-52.	12.9	331
6	Permanent carbon dioxide storage in deep-sea sediments. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 12291-12295.	7.1	323
7	Groundwater dynamics and arsenic contamination in Bangladesh. Chemical Geology, 2006, 228, 112-136.	3.3	276
8	Mobility of arsenic in a Bangladesh aquifer: Inferences from geochemical profiles, leaching data, and mineralogical characterization. Geochimica Et Cosmochimica Acta, 2004, 68, 4539-4557.	3.9	259
9	The energy penalty of post-combustion CO2 capture & storage and its implications for retrofitting the U.S. installed base. Energy and Environmental Science, 2009, 2, 193.	30.8	235
10	Reactive Transport in Porous Media:Â A Comparison of Model Prediction with Laboratory Visualization. Environmental Science & Technology, 2002, 36, 2508-2514.	10.0	218
11	Rate-limited mass transfer or macrodispersion: Which dominates plume evolution at the macrodispersion experiment (MADE) site?. Water Resources Research, 2000, 36, 637-650.	4.2	196
12	Arsenic in groundwater in Bangladesh: A geostatistical and epidemiological framework for evaluating health effects and potential remedies. Water Resources Research, 2003, 39, .	4.2	185
13	Processes conducive to the release and transport of arsenic into aquifers of Bangladesh. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 18819-18823.	7.1	184
14	Temporal Moment-Generating Equations: Modeling Transport and Mass Transfer in Heterogeneous Aquifers. Water Resources Research, 1995, 31, 1895-1911.	4.2	169
15	Solid-phases and desorption processes of arsenic within Bangladesh sediments. Chemical Geology, 2006, 228, 97-111.	3.3	162
16	Groundwater arsenic contamination on the Ganges Delta: biogeochemistry, hydrology, human perturbations, and human suffering on a large scale. Comptes Rendus - Geoscience, 2005, 337, 285-296.	1.2	160
17	What controls the apparent timescale of solute mass transfer in aquifers and soils? A comparison of experimental results. Water Resources Research, 2004, 40, .	4.2	139
18	Transient groundwater dynamics in a coastal aquifer: The effects of tides, the lunar cycle, and the beach profile. Water Resources Research, 2013, 49, 2473-2488.	4.2	137

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19	Retardation of arsenic transport through a Pleistocene aquifer. Nature, 2013, 501, 204-207.	27.8	136
20	Tropical peatland carbon storage linked to global latitudinal trends in peat recalcitrance. Nature Communications, 2018, 9, 3640.	12.8	135
21	Groundwater Dynamics and Arsenic Mobilization in Bangladesh Assessed Using Noble Gases and Tritium. Environmental Science & Technology, 2006, 40, 243-250.	10.0	130
22	Groundwater systems of the Indian Sub-Continent. Journal of Hydrology: Regional Studies, 2015, 4, 1-14.	2.4	125
23	Denial of longâ€term issues with agriculture on tropical peatlands will have devastating consequences. Global Change Biology, 2017, 23, 977-982.	9.5	114
24	Characterizing submarine groundwater discharge: A seepage meter study in Waquoit Bay, Massachusetts. Geophysical Research Letters, 2003, 30, .	4.0	111
25	Mapping Hydraulic Conductivity: Sequential Conditioning with Measurements of Solute Arrival Time, Hydraulic Head, and Local Conductivity. Water Resources Research, 1995, 31, 1615-1626.	4.2	106
26	Megacity pumping and preferential flow threaten groundwater quality. Nature Communications, 2016, 7, 12833.	12.8	96
27	Experimental Visualization of Solute Transport and Mass Transfer Processes in Two-Dimensional Conductivity Fields with Connected Regions of High Conductivity. Environmental Science & Technology, 2004, 38, 3916-3926.	10.0	94
28	Using Performance Reference Compounds in Polyethylene Passive Samplers to Deduce Sediment Porewater Concentrations for Numerous Target Chemicals. Environmental Science & Technology, 2009, 43, 8888-8894.	10.0	92
29	Marine electrical resistivity imaging of submarine groundwater discharge: sensitivity analysis and application in Waquoit Bay, Massachusetts, USA. Hydrogeology Journal, 2010, 18, 173-185.	2.1	92
30	Patterns and variability of groundwater flow and radium activity at the coast: A case study from Waquoit Bay, Massachusetts. Marine Chemistry, 2011, 127, 100-114.	2.3	87
31	The global flux of carbon dioxide into groundwater. Geophysical Research Letters, 2001, 28, 279-282.	4.0	81
32	Aquifer remediation: A method for estimating mass transfer rate coefficients and an evaluation of pulsed pumping. Water Resources Research, 1994, 30, 1979-1991.	4.2	79
33	Investigation of aquiferâ€estuary interaction using wavelet analysis of fiberâ€optic temperature data. Geophysical Research Letters, 2009, 36, .	4.0	79
34	How temporal patterns in rainfall determine the geomorphology and carbon fluxes of tropical peatlands. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5187-E5196.	7.1	79
35	Widespread subsidence and carbon emissions across Southeast Asian peatlands. Nature Geoscience, 2020, 13, 435-440.	12.9	75
36	Colloidal silica transport through structured, heterogeneous porous media. Journal of Hydrology, 1994, 163, 271-288.	5.4	65

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37	Rice Field Geochemistry and Hydrology: An Explanation for Why Groundwater Irrigated Fields in Bangladesh are Net Sinks of Arsenic from Groundwater. Environmental Science & Technology, 2011, 45, 2072-2078.	10.0	64
38	What does a slug test measure: An investigation of instrument response and the effects of heterogeneity. Water Resources Research, 2002, 38, 26-1-26-14.	4.2	59
39	River bank geomorphology controls groundwater arsenic concentrations in aquifers adjacent to the Red River, Hanoi Vietnam. Water Resources Research, 2016, 52, 6321-6334.	4.2	57
40	Forest dynamics and tipâ€•up pools drive pulses of high carbon accumulation rates in a tropical peat dome in Borneo (Southeast Asia). Journal of Geophysical Research G: Biogeosciences, 2015, 120, 617-640.	3.0	56
41	Vulnerability of low-arsenic aquifers to municipal pumping in Bangladesh. Journal of Hydrology, 2016, 539, 674-686.	5.4	54
42	Impact of deforestation on solid and dissolved organic matter characteristics of tropical peat forests: implications for carbon release. Biogeochemistry, 2013, 114, 183-199.	3.5	53
43	Smoke radiocarbon measurements from Indonesian fires provide evidence for burning of millennia-aged peat. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12419-12424.	7.1	52
44	Origin, composition, and transformation of dissolved organic matter in tropical peatlands. Geochimica Et Cosmochimica Acta, 2014, 137, 35-47.	3.9	44
45	Hydrology of a groundwaterâ€•irrigated rice field in Bangladesh: Seasonal and daily mechanisms of infiltration. Water Resources Research, 2009, 45, .	4.2	43
46	Field Study of Rice Yield Diminished by Soil Arsenic in Bangladesh. Environmental Science & Technology, 2017, 51, 11553-11560.	10.0	38
47	Groundwater Flow in the Ganges Delta. Science, 2002, 296, 1563a-1563.	12.6	37
48	Propagation velocity of a natural hydraulic fracture in a poroelastic medium. Journal of Geophysical Research, 1994, 99, 21667-21677.	3.3	35
49	A method for estimating distributions of mass transfer rate coefficients with application to purging and batch experiments. Journal of Contaminant Hydrology, 1999, 37, 367-388.	3.3	35
50	Carbon fluxes from an urban tropical grassland. Environmental Pollution, 2015, 203, 227-234.	7.5	30
51	Comment on â€œInvestigating the Macrodispersion Experiment (MADE) site in Columbus, Mississippi, using a three-dimensional inverse flow and transport modelâ€• by Heidi Christiansen Barlebo, Mary C. Hill, and Dan Rosbjerg. Water Resources Research, 2006, 42, .	4.2	29
52	A colorimetric reaction to quantify fluid mixing. Experiments in Fluids, 2006, 41, 673-683.	2.4	29
53	CO₂ emissions from an undrained tropical peatland: Interacting influences of temperature, shading and water table depth. Global Change Biology, 2019, 25, 2885-2899.	9.5	28
54	Poisoned waters traced to source. Nature, 2008, 454, 415-416.	27.8	27

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55	Crab burrows as conduits for groundwaterâ€surface water exchange in Bangladesh. Geophysical Research Letters, 2014, 41, 8342-8347.	4.0	26
56	Illuminating reactive microbial transport in saturated porous media: Demonstration of a visualization method and conceptual transport model. Journal of Contaminant Hydrology, 2005, 77, 233-245.	3.3	25
57	Scalar Simulation and Parameterization of Water Table Dynamics in Tropical Peatlands. Water Resources Research, 2019, 55, 9351-9377.	4.2	23
58	From canals to the coast: dissolved organic matter and trace metal composition in rivers draining degraded tropical peatlands in Indonesia. Biogeosciences, 2020, 17, 1897-1909.	3.3	23
59	Satellite soil moisture observations predict burned area in Southeast Asian peatlands. Environmental Research Letters, 2019, 14, 094014.	5.2	22
60	Changes in arsenic exposure in Araihazar, Bangladesh from 2001 through 2015 following a blanket well testing and education campaign. Environment International, 2019, 125, 82-89.	10.0	21
61	Highâ€Arsenic Groundwater in the Southwestern Bengal Basin Caused by a Lithologically Controlled Deep Flow System. Geophysical Research Letters, 2019, 46, 13062-13071.	4.0	21
62	Aquifer-Scale Observations of Iron Redox Transformations in Arsenic-Impacted Environments to Predict Future Contamination. Environmental Science and Technology Letters, 2020, 7, 916-922.	8.7	19
63	Carbon storage capacity of tropical peatlands in natural and artificial drainage networks. Environmental Research Letters, 2020, 15, 114009.	5.2	18
64	Drainage Canals in Southeast Asian Peatlands Increase Carbon Emissions. AGU Advances, 2021, 2, e2020AV000321.	5.4	17
65	Quantifying Riverine Recharge Impacts on Redox Conditions and Arsenic Release in Groundwater Aquifers Along the Red River, Vietnam. Water Resources Research, 2019, 55, 6712-6728.	4.2	16
66	The Effects of Dual-Domain Mass Transfer on the Tritiumâˆ’Helium-3 Dating Method. Environmental Science & Technology, 2008, 42, 4837-4843.	10.0	15
67	Temperature and burning history affect emissions of greenhouse gases and aerosol particles from tropical peatland fire. Journal of Geophysical Research D: Atmospheres, 2017, 122, 1281-1292.	3.3	15
68	The Immobility of CO₂ in Marine Sediments Beneath 1500 Meters of Water. ChemSusChem, 2010, 3, 905-912.	6.8	14
69	Inversion of High-Arsenic Soil for Improved Rice Yield in Bangladesh. Environmental Science & Technology, 2019, 53, 3410-3418.	10.0	13
70	Reply to 'Aquifer arsenic source'. Nature Geoscience, 2011, 4, 656-656.	12.9	11
71	Arsenic oxyanion binding to NOM from dung and aquaculture pond sediments in Bangladesh: Importance of site-specific binding constants. Applied Geochemistry, 2017, 78, 234-240.	3.0	11
72	Latitude, Elevation, and Mean Annual Temperature Predict Peat Organic Matter Chemistry at a Global Scale. Global Biogeochemical Cycles, 2022, 36, .	4.9	11

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73	A Differential Pressure Instrument with Wireless Telemetry for In-Situ Measurement of Fluid Flow across Sediment-Water Boundaries. Sensors, 2009, 9, 404-429.	3.8	10
74	Geochemical transformations beneath man-made ponds: Implications for arsenic mobilization in South Asian aquifers. Geochimica Et Cosmochimica Acta, 2020, 288, 262-281.	3.9	9
75	Bromide transport before, during, and after colloid mobilization in push-pull tests and the implications for changes in aquifer properties. Water Resources Research, 2003, 39, .	4.2	7
76	A mass-balance model to assess arsenic exposure from multiple wells in Bangladesh. Journal of Exposure Science and Environmental Epidemiology, 2022, 32, 442-450.	3.9	7
77	Characterizing Submarine Groundâ€Water Discharge Using Fiberâ€Optic Distributed Temperature Sensing and Marine Electrical Resistivity. , 2008, , .		4
78	Detecting Well Casing Leaks in Bangladesh Using a Salt Spiking Method. Ground Water, 2014, 52, 195-200.	1.3	4
79	Evaluation of a field kit for testing arsenic in paddy soil contaminated by irrigation water. Geoderma, 2021, 382, 114755.	5.1	4
80	Wellâ€Switching to Reduce Arsenic Exposure in Bangladesh: Making the Most of Inaccurate Field Kit Measurements. GeoHealth, 2021, 5, e2021GH000464.	4.0	4
81	A mass-balance approach to evaluate arsenic intake and excretion in different populations. Environment International, 2022, 166, 107371.	10.0	4
82	An Off-Grid PV Power System for Meteorological and Eddy Covariance Flux Station in Kranji, Singapore. Energy Procedia, 2013, 33, 364-373.	1.8	2
83	Characterizing Submarine Ground-Water Discharge Using Fiber-Optic Distributed Temperature Sensing And Marine Electrical Resistivity. , 2008, , .		2
84	Fiberâ€Optic Distributed Temperature Sensing: A New Tool for Assessment and Monitoring of Hydrologic Processes. , 2008, , .		2
85	Fiber-Optic Distributed Temperature Sensing: A New Tool For Assessment And Monitoring Of Hydrologic Processes. , 2008, , .		0
86	Arsenic: its biogeochemistry and transport in groundwater. Metal Ions in Biological Systems, 2005, 44, 145-69.	0.4	0