William P Ball

List of Publications by Year
in descending order

79 papers	6,952 citations	61984 43 h-index	74163 75 g-index
84 all docs	84 docs citations	84 times ranked	6153 citing authors

#	Article	IF	Citations
1	Effect of Strain-Specific Biofilm Properties on the Retention of Colloids in Saturated Porous Media under Conditions of Stormwater Biofiltration. Environmental Science & Technology, 2021, 55, 2585-2596.	10.0	7
2	Supporting cost-effective watershed management strategies for Chesapeake Bay using a modeling and optimization framework. Environmental Modelling and Software, 2021, 144, 105141.	4.5	17
3	Improving riverine constituent concentration and flux estimation by accounting for antecedent discharge conditions. Journal of Hydrology, 2017, 547, 387-402.	5.4	25
4	Sensitivity of Catchment Transit Times to Rainfall Variability Under Present and Future Climates. Water Resources Research, 2017, 53, 10231-10256.	4.2	59
5	An improved method for interpretation of riverine concentrationâ€discharge relationships indicates longâ€term shifts in reservoir sediment trapping. Geophysical Research Letters, 2016, 43, 10,215.	4.0	48
6	Decadal-scale export of nitrogen, phosphorus, and sediment from the Susquehanna River basin, USA: Analysis and synthesis of temporal and spatial patterns. Science of the Total Environment, 2016, 563-564, 1016-1029.	8.0	38
7	Long-Term Changes in Sediment and Nutrient Delivery from Conowingo Dam to Chesapeake Bay: Effects of Reservoir Sedimentation. Environmental Science & Technology, 2016, 50, 1877-1886.	10.0	51
8	Longâ€Term Trends of Nutrients and Sediment from the Nontidal Chesapeake Watershed: An Assessment of Progress by River and Season. Journal of the American Water Resources Association, 2015, 51, 1534-1555.	2.4	69
9	Water-Distance-Based Kriging in Chesapeake Bay. Journal of Hydrologic Engineering - ASCE, 2015, 20, 05014034.	1.9	11
10	An Affordable Open-Source Turbidimeter. Sensors, 2014, 14, 7142-7155.	3.8	74
11	Transport of Oxidized Multi-Walled Carbon Nanotubes through Silica Based Porous Media: Influences of Aquatic Chemistry, Surface Chemistry, and Natural Organic Matter. Environmental Science & Technology, 2013, 47, 14034-14043.	10.0	33
12	Influence of Surface Oxygen on the Interactions of Carbon Nanotubes with Natural Organic Matter. Environmental Science & Technology, 2012, 46, 12839-12847.	10.0	55
13	Long-Term Trends in Chesapeake Bay Seasonal Hypoxia, Stratification, and Nutrient Loading. Estuaries and Coasts, 2011, 34, 1293-1309.	2.2	227
14	Engineering Academic Programs for Hydrophilanthropy: Commonalities and Challenges. Journal of Contemporary Water Research and Education, 2010, 145, 5-29.	0.7	3
15	Comparison of Spatial Interpolation Methods for Water Quality Evaluation in the Chesapeake Bay. Journal of Environmental Engineering, ASCE, 2010, 136, 160-171.	1.4	94
16	Sorption of Aqueous Zn[II] and Cd[II] by Multiwall Carbon Nanotubes: The Relative Roles of Oxygen-Containing Functional Groups and Graphenic Carbon. Langmuir, 2010, 26, 967-981.	3.5	215
17	Assessing the colloidal properties of engineered nanoparticles in water: case studies from fullerene C60 nanoparticles and carbon nanotubes. Environmental Chemistry, 2010, 7, 10.	1.5	134
18	Organization of Data in Non-convex Spatial Domains. Lecture Notes in Computer Science, 2010, , 342-359.	1.3	0

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19	Colloidal Properties of Aqueous Suspensions of Acid-Treated, Multi-Walled Carbon Nanotubes. Environmental Science & Technology, 2009, 43, 819-825.	10.0	196
20	Study of Sorption-Retarded U(VI) Diffusion in Hanford Silt/Clay Material. Environmental Science & Technology, 2009, 43, 7706-7711.	10.0	23
21	Influence of Surface Oxides on the Colloidal Stability of Multi-Walled Carbon Nanotubes: A Structureâ^'Property Relationship. Langmuir, 2009, 25, 9767-9776.	3.5	190
22	Influence of Surface Oxides on the Adsorption of Naphthalene onto Multiwalled Carbon Nanotubes. Environmental Science & Technology, 2008, 42, 2899-2905.	10.0	277
23	Prototype System for Multidisciplinary Shared Cyberinfrastructure: Chesapeake Bay Environmental Observatory. Journal of Hydrologic Engineering - ASCE, 2008, 13, 960-970.	1.9	12
24	Evidence for a Pore-Filling Mechanism in the Adsorption of Aromatic Hydrocarbons to a Natural Wood Char. Environmental Science & Technology, 2007, 41, 1212-1217.	10.0	208
25	Comparison of quantification methods to measure fireâ€derived (black/elemental) carbon in soils and sediments using reference materials from soil, water, sediment and the atmosphere. Global Biogeochemical Cycles, 2007, 21, .	4.9	483
26	Effect of fluid velocity on modelâ€estimated rates of radial solute diffusion in a cylindrical macropore column. Water Resources Research, 2007, 43, .	4.2	9
27	Effects of Initial Solute Distribution on Contaminant Availability, Desorption Modeling, and Subsurface Remediation. Journal of Environmental Quality, 2007, 36, 1392-1402.	2.0	3
28	Comment on â€œSorption Kinetics of Organic Contaminants by Sandy Aquifer and Its Kerogen Isolateâ€. Environmental Science & Technology, 2006, 40, 2489-2490.	10.0	1
29	Absorption and Adsorption of Hydrophobic Organic Contaminants to Diesel and Hexane Soot. Environmental Science & Technology, 2006, 40, 2958-2964.	10.0	69
30	Sorption and bioreduction of hexavalent uranium at a military facility by the Chesapeake Bay. Environmental Pollution, 2006, 142, 132-142.	7.5	36
31	Production and characterization of synthetic wood chars for use as surrogates for natural sorbents. Organic Geochemistry, 2006, 37, 321-333.	1.8	285
32	The influence of biogeochemical conditions and level of model complexity when simulating cometabolic biodegradation in sorbent-water systems. Advances in Water Resources, 2006, 29, 571-589.	3.8	10
33	Modeling and interpreting bioavailability of organic contaminant mixtures in subsurface environments. Journal of Contaminant Hydrology, 2006, 82, 255-292.	3.3	59
34	Misinterpretations in the Modeling of Contaminant Desorption from Environmental Solids When Equilibrium Conditions Are Not Fully Understood. Environmental Engineering Science, 2005, 22, 350-366.	1.6	24
35	Immobilization of Soot Particles in a Silica Matrix:Â A Sorbent-Carrier System for Studying Organic Chemical Sorptionâ€. Environmental Science & Technology, 2005, 39, 6527-6534.	10.0	7
36	In honor of Charles R. O'Melia: Researcher, scholar, engineer, and educator | Guest Editors for the Charles R. O'Melia tribute issue. Environmental Science & Technology, 2005, 39, 352A-353A.	10.0	0

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37	Polyparameter Linear Free Energy Relationships for Estimating the Equilibrium Partition of Organic Compounds between Water and the Natural Organic Matter in Soils and Sediments. Environmental Science & Technology, 2005, 39, 913-924.	10.0	260
38	Influence of Calcite and Dissolved Calcium on Uranium(VI) Sorption to a Hanford Subsurface Sediment. Environmental Science & Technology, 2005, 39, 7949-7955.	10.0	137
39	Riverbank filtration: Effect of ground passage on NOM character. Journal of Water Supply: Research and Technology - AQUA, 2004, 53, 61-83.	1.4	9
40	Response to Comment on â€œSorption Nonlinearity for Organic Contaminants with Diesel Soot:Â Method Development and Isotherm Interpretationâ€• Environmental Science & Technology, 2004, 38, 5486-5487.	10.0	2
41	Sorption Nonlinearity for Organic Contaminants with Diesel Soot:Â Method Development and Isotherm Interpretation. Environmental Science & Technology, 2004, 38, 3595-3603.	10.0	58
42	An evaluation of thermal resistance as a measure of black carbon content in diesel soot, wood char, and sediment. Organic Geochemistry, 2004, 35, 217-234.	1.8	157
43	Longevity of granular iron in groundwater treatment processes: changes in solute transport properties over time. Journal of Contaminant Hydrology, 2003, 64, 3-33.	3.3	74
44	Longevity of Granular Iron in Groundwater Treatment Processes:Â Solution Composition Effects on Reduction of Organohalides and Nitroaromatic Compounds. Environmental Science & Technology, 2003, 37, 1208-1218.	10.0	196
45	Comparing RBF with Benchâ€Scale Conventional Treatment for precursor reduction. Journal - American Water Works Association, 2003, 95, 67-80.	0.3	11
46	Back Diffusion of Chlorinated Solvent Contaminants from a Natural Aquitard to a Remediated Aquifer Under Well-Controlled Field Conditions: Predictions and Measurements. Ground Water, 2002, 40, 175-184.	1.3	126
47	New modeling paradigms for the sorption of hydrophobic organic chemicals to heterogeneous carbonaceous matter in soils, sediments, and rocks. Advances in Water Resources, 2002, 25, 985-1016.	3.8	332
48	Coal Tar Contamination: Bioremediation and Bioavailability. The IMA Volumes in Mathematics and Its Applications, 2002, , 217-229.	0.5	0
49	Diffusion-Limited Contamination and Decontamination in a Layered Aquitard: Forensic and Predictive Analysis of Field Data. The IMA Volumes in Mathematics and Its Applications, 2002, , 179-194.	0.5	0
50	Column experimental design requirements for estimating model parameters from temporal moments under nonequilibrium conditions. Advances in Water Resources, 2000, 23, 449-460.	3.8	43
51	Use of the generalized integral transform method for solving equations of solute transport in porous media. Advances in Water Resources, 2000, 23, 483-492.	3.8	60
52	A controlled field evaluation of continuous vs. pulsed pump-and-treat remediation of a VOC-contaminated aquifer: site characterization, experimental setup, and overview of results. Journal of Contaminant Hydrology, 2000, 41, 81-131.	3.3	49
53	Polanyi-Based Models for the Competitive Sorption of Low-Polarity Organic Contaminants on a Natural Sorbent. Environmental Science & Technology, 2000, 34, 1246-1253.	10.0	99
54	Polychlorinated ethane reaction with zero-valent zinc: pathways and rate control. Journal of Contaminant Hydrology, 1999, 40, 183-200.	3.3	94

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55	Twoâ€region linear/nonlinear sorption modeling: Batch and column experiments. Environmental Toxicology and Chemistry, 1999, 18, 1686-1693.	4.3	24
56	Application of inverse methods to contaminant source identification from aquitard diffusion profiles at Dover AFB, Delaware. Water Resources Research, 1999, 35, 1975-1985.	4.2	98
57	Adsorption-Partitioning Uptake of Nine Low-Polarity Organic Chemicals on a Natural Sorbent. Environmental Science & Technology, 1999, 33, 262-269.	10.0	272
58	TWO-REGION LINEAR/NONLINEAR SORPTION MODELING: BATCH AND COLUMN EXPERIMENTS. Environmental Toxicology and Chemistry, 1999, 18, 1686.	4.3	4
59	Title is missing!. Transport in Porous Media, 1998, 30, 25-43.	2.6	54
60	Bioavailability of Hydrophobic Organic Contaminants: Effects and Implications of Sorption-Related Mass Transfer on Bioremediation. Ground Water Monitoring and Remediation, 1998, 18, 126-138.	0.8	69
61	Sorption of 1,2,4-trichlorobenzene and tetrachloroethene within an authigenic soil profile: Changes in Koc with soil depth. Journal of Contaminant Hydrology, 1998, 29, 347-377.	3.3	17
62	Analytical modeling of diffusion-limited contamination and decontamination in a two-layer porous medium. Advances in Water Resources, 1998, 21, 297-313.	3.8	65
63	Estimating Diffusion Coefficients in Low-Permeability Porous Media Using a Macropore Column. Environmental Science & Technology, 1998, 32, 2578-2584.	10.0	26
64	Comment on â€œField-Scale Transport of Nonpolar Organic Solutes in 3-D Heterogeneous Aquifersâ€• Environmental Science & Technology, 1998, 32, 2654-2655.	10.0	2
65	NOM Accumulation at NF Membrane Surface: Impact of Chemistry and Shear. Journal of Environmental Engineering, ASCE, 1998, 124, 1087-1098.	1.4	78
66	Nanofiltration of Natural Organic Matter: pH and Ionic Strength Effects. Journal of Environmental Engineering, ASCE, 1997, 123, 628-641.	1.4	213
67	Injection Mode Effects on Tracer Experiments in Columns. Journal of Hydrologic Engineering - ASCE, 1997, 2, 113-119.	1.9	7
68	Effects of column conditions on the first-order rate modeling of nonequilibrium solute breakthrough: Cylindrical macropores versus spherical media. Water Resources Research, 1997, 33, 1149-1156.	4.2	14
69	A diffusion-based interpretation of tetrachloroethene and trichloroethene concentration profiles in a groundwater aquitard. Water Resources Research, 1997, 33, 2741-2757.	4.2	83
70	Effects of Column Conditions on the First-Order Rate Modeling of Nonequilibrium Solute Breakthrough. Water Resources Research, 1995, 31, 2181-2192.	4.2	57
71	A priori simulation of tetrachloroethene transport through aquifer material using an intraparticle diffusion model. Environmental Progress, 1994, 13, 9-20.	0.7	39
72	Probabilistic Evaluation of Packedâ€Tower Aeration Designs for VOC Removal. Journal - American Water Works Association, 1993, 85, 73-86.	0.3	5

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73	Comment on "Long-term sorption of halogenated organic chemicals by aquifer material. 1. Equilibrium". [Erratum to document cited in CA115(4):35278s]. Environmental Science & Technology, 1992, 26, 2301-2302.	10.0	12
74	Long-term sorption of halogenated organic chemicals by aquifer material. 1. Equilibrium. Environmental Science & Technology, 1991, 25, 1223-1237.	10.0	296
75	Comment on â€œModeling the transport of solutes influenced by multiprocess nonequilibriumâ€•by M. L. Brusseau, R. E. Jessup, and P. S. C. Rao. Water Resources Research, 1991, 27, 653-656.	4.2	14
76	Long-term sorption of halogenated organic chemicals by aquifer material. 2. Intraparticle diffusion. Environmental Science & Technology, 1991, 25, 1237-1249.	10.0	497
77	Characterization of a sandy aquifer material at the grain scale. Journal of Contaminant Hydrology, 1990, 5, 253-295.	3.3	139
78	Variability of aquifer sorption properties in a field experiment on groundwater transport of organic solutes: Methods and preliminary results. Journal of Contaminant Hydrology, 1986, 1, 119-132.	3.3	74
79	Surface Oxides on Carbon Nanotubes (CNTs): Effects on CNT Stability and Sorption Properties in Aquatic Environments. , 0, , 133-158.		1