

# David A Dzombak

## List of Publications by Year in descending order

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116  
papers

5,299  
citations

101384

36  
h-index

88477

70  
g-index

119  
all docs

119  
docs citations

119  
times ranked

4323  
citing authors

#	ARTICLE	IF	CITATIONS
1	Degradation of Well Cement by CO <sub>2</sub> under Geologic Sequestration Conditions. <i>Environmental Science &amp; Technology</i> , 2007, 41, 4787-4792.	4.6	453
2	A surface precipitation model for the sorption of cations on metal oxides. <i>Journal of Colloid and Interface Science</i> , 1985, 106, 226-242.	5.0	419
3	Influence of Structural Features on Sorption of NOM-Analogue Organic Acids to Goethite. <i>Environmental Science &amp; Technology</i> , 1998, 32, 2846-2855.	4.6	250
4	Rate of CO <sub>2</sub> Attack on Hydrated Class H Well Cement under Geologic Sequestration Conditions. <i>Environmental Science &amp; Technology</i> , 2008, 42, 6237-6242.	4.6	230
5	Metal-humate interactions. 1. Discrete ligand and continuous distribution models. <i>Environmental Science &amp; Technology</i> , 1986, 20, 669-675.	4.6	192
6	Rare Earth Element Distributions and Trends in Natural Waters with a Focus on Groundwater. <i>Environmental Science &amp; Technology</i> , 2014, 48, 4317-4326.	4.6	171
7	Effects of simple organic acids on sorption of Cu <sup>2+</sup> and Ca <sup>2+</sup> on goethite. <i>Geochimica Et Cosmochimica Acta</i> , 1996, 60, 291-304.	1.6	169
8	Competitive Sorption of Simple Organic Acids and Sulfate on Goethite. <i>Environmental Science &amp; Technology</i> , 1996, 30, 1061-1071.	4.6	160
9	Chemical Factors Influencing Colloid-Facilitated Transport of Contaminants in Porous Media. <i>Environmental Science &amp; Technology</i> , 1997, 31, 656-664.	4.6	146
10	Review: Role of chemistry, mechanics, and transport on well integrity in CO <sub>2</sub> storage environments. <i>International Journal of Greenhouse Gas Control</i> , 2016, 49, 149-160.	2.3	141
11	CO <sub>2</sub> Reaction with Hydrated Class H Well Cement under Geologic Sequestration Conditions: Effects of Flyash Admixtures. <i>Environmental Science &amp; Technology</i> , 2009, 43, 3947-3952.	4.6	136
12	Surface Complexation Modeling of Organic Acid Sorption to Goethite. <i>Journal of Colloid and Interface Science</i> , 1999, 214, 189-206.	5.0	129
13	Colloid release and transport processes in natural and model porous media. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 1996, 107, 245-262.	2.3	124
14	ESTIMATING ADSORPTION OF POLYCYCLIC AROMATIC HYDROCARBONS ON SOILS. <i>Soil Science</i> , 1984, 137, 292-308.	0.9	114
15	Metal-humate interactions. 2. Application and comparison of models. <i>Environmental Science &amp; Technology</i> , 1986, 20, 676-683.	4.6	109
16	Interactions of copper, organic acids, and sulfate in goethite suspensions. <i>Geochimica Et Cosmochimica Acta</i> , 1996, 60, 5045-5053.	1.6	109
17	Control of mineral scale deposition in cooling systems using secondary-treated municipal wastewater. <i>Water Research</i> , 2011, 45, 748-760.	5.3	96
18	A review of sustainable mining and resource management: Transitioning from the life cycle of the mine to the life cycle of the mineral. <i>Resources, Conservation and Recycling</i> , 2018, 137, 281-291.	5.3	95

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19	Mechanisms of Neutralization of Bauxite Residue by Carbon Dioxide. <i>Journal of Environmental Engineering, ASCE</i> , 2009, 135, 433-438.	0.7	85
20	Selective adsorption of rare earth elements onto functionalized silica particles. <i>Green Chemistry</i> , 2018, 20, 1515-1526.	4.6	79
21	Escalating Water Demand for Energy Production and the Potential for Use of Treated Municipal Wastewater. <i>Environmental Science &amp; Technology</i> , 2011, 45, 4195-4200.	4.6	73
22	Chemistry of the Acid Neutralization Capacity of Bauxite Residue. <i>Environmental Engineering Science</i> , 2009, 26, 873-881.	0.8	69
23	Use of the Autoregressive Integrated Moving Average (ARIMA) Model to Forecast Near-Term Regional Temperature and Precipitation. <i>Weather and Forecasting</i> , 2020, 35, 959-976.	0.5	66
24	Sorption nonequilibrium effects on colloid-enhanced transport of hydrophobic organic compounds in porous media. <i>Journal of Contaminant Hydrology</i> , 1998, 30, 179-200.	1.6	56
25	Potential Water-Quality Effects from Iron Cyanide Anticaking Agents in Road Salt. <i>Water Environment Research</i> , 1999, 71, 1235-1239.	1.3	55
26	Evaluation and Testing of Analytical Methods for Cyanide Species in Municipal and Industrial Contaminated Waters. <i>Environmental Science &amp; Technology</i> , 2003, 37, 107-115.	4.6	52
27	Economic impact of condenser fouling in existing thermoelectric power plants. <i>Energy</i> , 2012, 44, 429-437.	4.5	52
28	Characterization of pozzolan-amended wellbore cement exposed to CO <sub>2</sub> and H <sub>2</sub> S gas mixtures under geologic carbon storage conditions. <i>International Journal of Greenhouse Gas Control</i> , 2013, 19, 358-368.	2.3	52
29	Subsurface Fate and Transport of Cyanide Species at a Manufactured-Gas Plant Site. <i>Water Environment Research</i> , 1999, 71, 1205-1216.	1.3	49
30	Physical and chemical characteristics of potential seal strata in regions considered for demonstrating geological saline CO <sub>2</sub> sequestration. <i>Environmental Earth Sciences</i> , 2011, 64, 925-948.	1.3	46
31	Equilibrium Precipitation and Dissolution of Iron Cyanide Solids in Water. <i>Environmental Engineering Science</i> , 1999, 16, 293-313.	0.8	42
32	Corrosion Control When Using Secondary Treated Municipal Wastewater as Alternative Makeup Water for Cooling Tower Systems. <i>Water Environment Research</i> , 2010, 82, 2346-2356.	1.3	42
33	Reactive Transport Modeling of Interactions between Acid Gas (CO <sub>2</sub> + H <sub>2</sub> S) and Pozzolan-Amended Wellbore Cement under Geologic Carbon Sequestration Conditions. <i>Energy &amp; Fuels</i> , 2013, 27, 6921-6937.	2.5	42
34	Long-term changes in quality of discharge water from abandoned underground coal mines in Uniontown Syncline, Fayette County, PA, USA. <i>Water Research</i> , 2004, 38, 277-288.	5.3	41
35	Field Evaluation of Bauxite Residue Neutralization by Carbon Dioxide, Vegetation, and Organic Amendments. <i>Journal of Environmental Engineering, ASCE</i> , 2010, 136, 1045-1053.	0.7	40
36	Rate of H <sub>2</sub> S and CO <sub>2</sub> attack on pozzolan-amended Class H well cement under geologic sequestration conditions. <i>International Journal of Greenhouse Gas Control</i> , 2014, 27, 299-308.	2.3	39

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37	Biokinetic modeling and scale-up considerations for rotating biological contactors. <i>Water Environment Research</i> , 1992, 64, 223-235.	1.3	36
38	Corrosion management in power plant cooling systems using tertiary-treated municipal wastewater as makeup water. <i>Corrosion Science</i> , 2012, 61, 231-241.	3.0	36
39	Comparative lifecycle inventory (LCI) of greenhouse gas (GHG) emissions of enhanced oil recovery (EOR) methods using different CO <sub>2</sub> sources. <i>International Journal of Greenhouse Gas Control</i> , 2013, 16, 129-144.	2.3	35
40	Effect of exposure environment on the interactions between acid gas (H <sub>2</sub> S and CO <sub>2</sub> ) and pozzolan-amended wellbore cement under acid gas co-sequestration conditions. <i>International Journal of Greenhouse Gas Control</i> , 2014, 27, 309-318.	2.3	32
41	Inventory of Interbasin Transfers in the United States. <i>Journal of the American Water Resources Association</i> , 2017, 53, 1121-1132.	1.0	31
42	Modeling the Effects of Conservation, Demographics, Price, and Climate on Urban Water Demand in Los Angeles, California. <i>Water Resources Management</i> , 2016, 30, 5247-5262.	1.9	30
43	Utilization of municipal wastewater for cooling in thermoelectric power plants: Evaluation of the combined cost of makeup water treatment and increased condenser fouling. <i>Energy</i> , 2013, 60, 139-147.	4.5	29
44	Adsorption kinetics, thermodynamics, and isotherm studies for functionalized lanthanide-chelating resins. <i>Journal of Colloid and Interface Science</i> , 2019, 557, 465-477.	5.0	28
45	Ferrocyanide adsorption on aluminum oxides. <i>Journal of Colloid and Interface Science</i> , 2004, 272, 46-51.	5.0	27
46	Formation of Free Cyanide and Cyanogen Chloride from Chloramination of Publicly Owned Treatment Works Secondary Effluent: Laboratory Study with Model Compounds. <i>Water Environment Research</i> , 2004, 76, 113-120.	1.3	26
47	Identifying water price and population criteria for meeting future urban water demand targets. <i>Journal of Hydrology</i> , 2017, 555, 547-556.	2.3	26
48	Use of Historical Data to Assess Regional Climate Change. <i>Journal of Climate</i> , 2019, 32, 4299-4320.	1.2	26
49	Comparison of dissolution under oxic acid drainage conditions for eight sedimentary and hydrothermal pyrite samples. <i>Environmental Geology</i> , 2008, 56, 171-182.	1.2	25
50	Electrochemical study of hydrothermal and sedimentary pyrite dissolution. <i>Applied Geochemistry</i> , 2008, 23, 2724-2734.	1.4	25
51	Control of biological growth in recirculating cooling systems using treated secondary effluent as makeup water with monochloramine. <i>Water Research</i> , 2012, 46, 6508-6518.	5.3	25
52	Sequestration Enhancement of Metals in Soils by Addition of Iron Oxides Recovered from Coal Mine Drainage Sites. <i>Soil and Sediment Contamination</i> , 2014, 23, 374-388.	1.1	25
53	Enhanced Coagulation for Satisfying the Arsenic Maximum Contaminant Level under Variable and Uncertain Conditions. <i>Environmental Science &amp; Technology</i> , 2005, 39, 6501-6507.	4.6	24
54	Mineral scaling mitigation in cooling systems using tertiary-treated municipal wastewater. <i>Water Research</i> , 2012, 46, 4488-4498.	5.3	24

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55	Assessment of in situ solvent extraction for remediation of coal tar sites: Column studies. <i>Water Environment Research</i> , 1995, 67, 4-15.	1.3	23
56	Effect of Tolytriazole on the Corrosion Protection of Copper against Ammonia and Disinfectants in Cooling Systems. <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 7313-7322.	1.8	23
57	Effects of Ligand Chemistry and Geometry on Rare Earth Element Partitioning from Saline Solutions to Functionalized Adsorbents. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 6115-6124.	3.2	23
58	Characterization of engineered alumina nanofibers and their colloidal properties in water. <i>Journal of Nanoparticle Research</i> , 2015, 17, 1.	0.8	22
59	Integrating external costs with life cycle costs of emissions from tertiary treatment of municipal wastewater for reuse in cooling systems. <i>Journal of Cleaner Production</i> , 2016, 112, 4733-4740.	4.6	22
60	Iron isotope investigation of hydrothermal and sedimentary pyrite and their aqueous dissolution products. <i>Chemical Geology</i> , 2016, 427, 73-82.	1.4	21
61	A method for generating uniform size-segregated pyrite particle fractions. <i>Geochemical Transactions</i> , 2007, 8, 9.	1.8	19
62	Comparison of alkaline industrial wastes for aqueous mineral carbon sequestration through a parallel reactivity study. <i>Waste Management</i> , 2014, 34, 1815-1822.	3.7	19
63	Factors Governing Change in Water Withdrawals for U.S. Industrial Sectors from 1997 to 2002. <i>Environmental Science &amp; Technology</i> , 2014, 48, 3420-3429.	4.6	19
64	Effects of Thiocyanate on the Formation of Free Cyanide during Chlorination and Ultraviolet Disinfection of Publicly Owned Treatment Works Secondary Effluent. <i>Water Environment Research</i> , 2004, 76, 205-212.	1.3	17
65	Development of a Plant Uptake Model for Cyanide. <i>International Journal of Phytoremediation</i> , 2006, 8, 25-43.	1.7	17
66	Bridging Gravimetric and Electrochemical Approaches To Determine the Corrosion Rate of Metals and Metal Alloys in Cooling Systems: Bench Scale Evaluation Method. <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 9117-9123.	1.8	17
67	Selective recovery of rare earth elements with ligand-functionalized polymers in fixed-bed adsorption columns. <i>Separation and Purification Technology</i> , 2021, 265, 118472.	3.9	17
68	Use of Dissolved Sulfur Species to Measure Pyrite Dissolution in Water at pH 3 and 6. <i>Environmental Engineering Science</i> , 2004, 21, 411-420.	0.8	16
69	In Situ Treatment of Cyanide-Contaminated Groundwater by Iron Cyanide Precipitation. <i>Water Environment Research</i> , 1999, 71, 1217-1228.	1.3	15
70	Utilization of municipal wastewater for cooling in thermoelectric power plants. <i>Fuel</i> , 2013, 111, 103-113.	3.4	15
71	Improved Efficiency Reduces U.S. Industrial Water Withdrawals, 2005-2010. <i>Environmental Science and Technology Letters</i> , 2015, 2, 79-83.	3.9	15
72	Release of Polychlorinated Biphenyls from River Sediment to Water under Low-Flow Conditions: Laboratory Assessment. <i>Journal of Environmental Engineering, ASCE</i> , 2004, 130, 126-135.	0.7	14

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73	Copper Complexation with the Mellitic Acid Series. <i>Journal of Solution Chemistry</i> , 1998, 27, 89-105.	0.6	13
74	Inhibition of Copper Corrosion by Tolyltriazole in Cooling Systems Using Treated Municipal Wastewater as Makeup Water. <i>Arabian Journal for Science and Engineering</i> , 2014, 39, 7741-7749.	1.1	13
75	Life cycle impact analysis of tertiary treatment alternatives to treat secondary municipal wastewater for reuse in cooling systems. <i>Environmental Progress and Sustainable Energy</i> , 2015, 34, 178-187.	1.3	12
76	Hydrologic and Geochemical Factors Governing Chemical Evolution of Discharges from an Abandoned, Flooded, Underground Coal Mine Network. <i>Journal of Environmental Engineering, ASCE</i> , 2005, 131, 643-650.	0.7	10
77	Controlled electrochemical dissolution of hydrothermal and sedimentary pyrite. <i>Applied Geochemistry</i> , 2009, 24, 836-842.	1.4	10
78	Development of an Instantaneous Corrosion Rate Monitoring System for Metal and Metal Alloys in Recirculating Cooling Systems. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51, 4230-4239.	1.8	10
79	An Assessment of the Environmental Sustainability and Circularity of Future Scenarios of the Copper Life Cycle in the U.S.. <i>Sustainability</i> , 2019, 11, 5624.	1.6	10
80	Parameter Estimation of a Plant Uptake Model for Cyanide: Application to Hydroponic Data. <i>International Journal of Phytoremediation</i> , 2006, 8, 45-62.	1.7	9
81	Free Cyanide Sorption on Freshwater Sediment and Model Components. <i>Soil and Sediment Contamination</i> , 2006, 15, 497-510.	1.1	9
82	A method for preparation and cleaning of uniformly sized arsenopyrite particles. <i>Geochemical Transactions</i> , 2014, 15, 14.	1.8	9
83	Determination of Rare Earth Elements in Hypersaline Solutions Using Low-Volume, Liquid-Liquid Extraction. <i>Environmental Science &amp; Technology</i> , 2015, 49, 9423-9430.	4.6	9
84	Life cycle costs to treat secondary municipal wastewater for reuse in cooling systems. <i>Journal of Water Reuse and Desalination</i> , 2013, 3, 224-238.	1.2	8
85	Potential global GHG emissions reduction from increased adoption of metals recycling. <i>Resources, Conservation and Recycling</i> , 2022, 184, 106424.	5.3	8
86	Effects of Water Quality and Model Structure on Arsenic Removal Simulation: An Optimization Study. <i>Environmental Engineering Science</i> , 2006, 23, 835-850.	0.8	7
87	Ammonia stripping in open-recirculating cooling water systems. <i>Environmental Progress and Sustainable Energy</i> , 2013, 32, 489-495.	1.3	7
88	Comprehensive Evaluation of Biological Growth Control by Chlorine-Based Biocides in Power Plant Cooling Systems Using Tertiary Effluent. <i>Environmental Engineering Science</i> , 2013, 30, 324-332.	0.8	7
89	Geochemical approach to estimate the quality of water entering abandoned underground coalmines. <i>Environmental Geology</i> , 2004, 45, 769-780.	1.2	6
90	Drivers of Interbasin Transfers in the United States: Insights from Sampling. <i>Journal of the American Water Resources Association</i> , 2019, 55, 1038-1052.	1.0	6

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91	Assessing the Effect of Changing Ambient Air Temperature on Water Temperature and Quality in Drinking Water Distribution Systems. <i>Water (Switzerland)</i> , 2021, 13, 1916.	1.2	6
92	Editorial Perspectives: the need for a comprehensive, centralized database of interbasin water transfers in the United States. <i>Environmental Science: Water Research and Technology</i> , 2020, 6, 420-422.	1.2	6
93	Plant Tissue Extraction Method for Complexed and Free Cyanide. <i>Water, Air, and Soil Pollution</i> , 2004, 157, 281-293.	1.1	5
94	Evaluation of cleaning and coating techniques for PCB-contaminated concrete. <i>Environmental Progress</i> , 2002, 21, 47-56.	0.8	4
95	Processes Governing Flow and Chemical Characteristics of Discharges from Free-Draining, Underground Coal Mines. <i>Journal of Environmental Engineering, ASCE</i> , 2005, 131, 1361-1368.	0.7	4
96	Physical and Chemical Properties and Reactivity of Cyanide in Water and Soil. , 2005, , 57-92.		3
97	Crossing Researcher-Public Boundaries. <i>Environmental Science &amp; Technology</i> , 2017, 51, 1057-1057.	4.6	2
98	Moving beyond forensic monitoring to understand and manage impacts of hydraulic fracturing for oil and gas development. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 13145-13147.	3.3	2
99	Water Supply Risk in the United States 2015-2050 Considering Projected Changes in Population and Thermoelectric Power Demand. <i>Environmental Science &amp; Technology</i> , 2019, 53, 14113-14122.	4.6	2
100	Expanding Perspectives of Element Cycling from 1970 to 2020: The Influence of Stumm and Morgan. <i>Environmental Science &amp; Technology</i> , 2021, 55, 14342-14346.	4.6	2
101	The Jack Edward McKee Medal. <i>Water Environment Research</i> , 1996, 68, 835-835.	1.3	1
102	Corrosion Control when Using Passively Treated Abandoned Mine Drainage as Alternative Makeup Water for Cooling Systems. <i>Water Environment Research</i> , 2011, 83, 807-814.	1.3	1
103	Effect of CO <sub>2</sub> stripping on pH in open recirculating cooling water systems. <i>Environmental Progress and Sustainable Energy</i> , 2014, 33, 275-282.	1.3	1
104	Impact of Tertiary Treatment Processes on the Effectiveness of Chloramination for Biological Growth Control in Recirculating Cooling Systems Using Treated Municipal Wastewater. <i>Journal of Environmental Engineering, ASCE</i> , 2014, 140, 04013003.	0.7	1
105	Fate and Transport of Anthropogenic Cyanide in Soil and Groundwater. , 2005, , 191-208.		1
106	Framing the Use of Climate Model Projections in Infrastructure Engineering: Practices, Uncertainties, and Recommendations. <i>Journal of Infrastructure Systems</i> , 2022, 28, .	1.0	1
107	Establishing and Evaluating the Risk Implications of Uniform Soil Remediation Goals. <i>Journal of the Air and Waste Management Association</i> , 1996, 46, 1179-1184.	0.9	0
108	Phytoremediation of Iron Cyanide Complexes in Soil-Water Systems. <i>Soil and Sediment Contamination</i> , 2002, 11, 458-458.	1.1	0

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109	New Environmental Engineering Awards for a New ASCE. Journal of Environmental Engineering, ASCE, 2002, 128, 205-205.	0.7	0
110	The Public Subsidies of Coal. Environmental Science & Technology, 2009, 43, 2191-2191.	4.6	0
111	Sustainability of non-fuel minerals in the U.S.: A Copper Stocks and Flows Analysis. Procedia CIRP, 2019, 80, 673-676.	1.0	0
112	Use of Integrated Global Climate Model Simulations and Statistical Time Series Forecasting to Project Regional Temperature and Precipitation. Journal of Applied Meteorology and Climatology, 2021, , .	0.6	0
113	Pioneering groundwater contamination investigation, research, and in situ treatment. Water Environment Research, 2021, 93, 1466.	1.3	0
114	Separation Technologies for Treatment of Cyanide. , 2005, , 413-437.		0
115	Management of Cyanide in Municipal Wastewaters. , 2005, , 501-515.		0
116	Analysis of Cyanide in Solids and Semi-Solids. , 2005, , 155-169.		0