Mark B David

List of Publications by Year
in descending order

112 papers	9,406 citations	41627 51 h-index	53065 89 g-index
112 all docs	112 docs citations	112 times ranked	7869 citing authors

#	Article	IF	Citations
1	Nitrous Oxide Fluxes from Agricultural Streams in East-Central Illinois. Water, Air, and Soil Pollution, 2018, 229, 1.	1.1	4
2	Fate of water and nitrate using drainage water management on tile systems in east-central Illinois. Agricultural Water Management, 2017, 191, 218-228.	2.4	17
3	Illinois River Nitrateâ€Nitrogen Concentrations and Loads: Longâ€term Variation and Association with Watershed Nitrogen Inputs. Journal of Environmental Quality, 2016, 45, 1268-1275.	1.0	31
4	Riverine Response of Sulfate to Declining Atmospheric Sulfur Deposition in Agricultural Watersheds. Journal of Environmental Quality, 2016, 45, 1313-1319.	1.0	23
5	Chloride Sources and Losses in Two Tile-Drained Agricultural Watersheds. Journal of Environmental Quality, 2016, 45, 341-348.	1.0	20
6	Temperature and Substrate Control Woodchip Bioreactor Performance in Reducing Tile Nitrate Loads in East-Central Illinois. Journal of Environmental Quality, 2016, 45, 822-829.	1.0	77
7	Denitrifying Bioreactors for Nitrate Removal: A Meta-Analysis. Journal of Environmental Quality, 2016, 45, 873-881.	1.0	185
8	Soil nutrient removal by four potential bioenergy crops: Zea mays, Panicum virgatum, MiscanthusÃ—giganteus, and prairie. Agriculture, Ecosystems and Environment, 2016, 216, 51-60.	2.5	37
9	Characterizing the Performance of Denitrifying Bioreactors during Simulated Subsurface Drainage Events. Journal of Environmental Quality, 2015, 44, 1647-1656.	1.0	20
10	Navigating the Socio-Bio-Geo-Chemistry and Engineering of Nitrogen Management in Two Illinois Tile-Drained Watersheds. Journal of Environmental Quality, 2015, 44, 368-381.	1.0	31
11	Nitrogen Removal and Greenhouse Gas Emissions from Constructed Wetlands Receiving Tile Drainage Water. Journal of Environmental Quality, 2015, 44, 1001-1010.	1.0	52
12	Effect of nitrogen addition on <i>MiscanthusÂ</i>Ã—<i>Âgiganteus</i> yield, nitrogen losses, and soil organic matter across five sites. GCB Bioenergy, 2015, 7, 1222-1231.	2.5	39
13	Variation in Riverine Nitrate Flux and Fall Nitrogen Fertilizer Application in East-Central Illinois. Journal of Environmental Quality, 2014, 43, 1467-1474.	1.0	27
14	Long-term fate of nitrate fertilizer in agricultural soils is not necessarily related to nitrate leaching from agricultural soils. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E766.	3.3	15
15	Twenty-Three-Year Changes in Upland and Bottomland Forest Soils of Central Illinois. Soil Science, 2014, 179, 95-102.	0.9	5
16	Nitrogen Mineralization in Soils Used for Biofuel Crops. Communications in Soil Science and Plant Analysis, 2013, 44, 987-995.	0.6	9
17	Role of arthropod communities in bioenergy crop litter decompositionâ€. Insect Science, 2013, 20, 671-678.	1.5	5
18	Biophysical and Social Barriers Restrict Water Quality Improvements in the Mississippi River Basin. Environmental Science & Technology, 2013, 47, 11928-11929.	4.6	8

#	Article	IF	Citations
19	Artificial Sinks: Opportunities and Challenges for Managing Offsite Nitrogen Losses. Journal of Contemporary Water Research and Education, 2013, 151, 9-19.	0.7	6
20	Reduced Nitrogen Losses after Conversion of Row Crop Agriculture to Perennial Biofuel Crops. Journal of Environmental Quality, 2013, 42, 219-228.	1.0	171
21	Early Indications of Soil Recovery from Acidic Deposition in U.S. Red Spruce Forests. Soil Science Society of America Journal, 2012, 76, 1407-1417.	1.2	52
22	The impact of fertilization and hydrology on nitrate fluxes from Mississippi watersheds. Current Opinion in Environmental Sustainability, 2012, 4, 212-218.	3.1	52
23	Greenhouse Gas Emissions, Nitrate Leaching, and Biomass Yields from Production of Miscanthus Ã— giganteus in Illinois, USA. Bioenergy Research, 2012, 5, 801-813.	2.2	59
24	A Spatial Analysis of Phosphorus in the Mississippi River Basin. Journal of Environmental Quality, 2011, 40, 931-941.	1.0	50
25	Evaluating silicon concentrations in biofuel feedstock crops Miscanthus and switchgrass. Biomass and Bioenergy, 2011, 35, 2807-2813.	2.9	25
26	<i>Miscanthus</i> and Switchgrass Production in Central Illinois: Impacts on Hydrology and Inorganic Nitrogen Leaching. Journal of Environmental Quality, 2010, 39, 1790-1799.	1.0	160
27	Assessing the nitrous oxide mole fraction of soils from perennial biofuel and cornâ€“soybean fields. Agriculture, Ecosystems and Environment, 2010, 138, 299-305.	2.5	8
28	Nitrogen balance in and export from agricultural fields associated with controlled drainage systems and denitrifying bioreactors. Ecological Engineering, 2010, 36, 1558-1566.	1.6	163
29	Sources of Nitrate Yields in the Mississippi River Basin. Journal of Environmental Quality, 2010, 39, 1657-1667.	1.0	361
30	Miscanthus. Advances in Botanical Research, 2010, 56, 75-137.	0.5	169
31	Relationships between Benthic Sediments and Water Column Phosphorus in Illinois Streams. Journal of Environmental Quality, 2009, 38, 607-617.	1.0	56
32	Longâ€Term Changes in Mollisol Organic Carbon and Nitrogen. Journal of Environmental Quality, 2009, 38, 200-211.	1.0	81
33	Nitrogen Mass Balance of a Tileâ€drained Agricultural Watershed in Eastâ€Central Illinois. Journal of Environmental Quality, 2009, 38, 1841-1847.	1.0	88
34	Modeling N2O flux from an Illinois agroecosystem using Monte Carlo sampling of field observations. Biogeochemistry, 2009, 93, 31-48.	1.7	5
35	Modeling denitrification in a tile-drained, corn and soybean agroecosystem of Illinois, USA. Biogeochemistry, 2009, 93, 7-30.	1.7	95
36	Dynamic modeling of nitrogen losses in river networks unravels the coupled effects of hydrological and biogeochemical processes. Biogeochemistry, 2009, 93, 91-116.	1.7	212

#	Article	IF	Citations
37	Mechanisms of Phosphorus Control in Urban Streams Receiving Sewage Effluent. Water, Air, and Soil Pollution, 2008, 191, 217-229.	1.1	22
38	Algal Growth Response in Two Illinois Rivers Receiving Sewage Effluent. Journal of Freshwater Ecology, 2008, 23, 179-187.	0.5	3
39	Assessment of Chlorophyllâ€<i>a</i> as a Criterion for Establishing Nutrient Standards in the Streams and Rivers of Illinois. Journal of Environmental Quality, 2008, 37, 437-447.	1.0	41
40	Response of Sediment Denitrification Rates to Environmental Variables in Streams Heavily Impacted by Agriculture. Journal of Freshwater Ecology, 2007, 22, 371-382.	0.5	20
41	Relationships between Water Quality, Habitat Quality, and Macroinvertebrate Assemblages in Illinois Streams. Journal of Environmental Quality, 2007, 36, 1653-1660.	1.0	50
42	Benthic organic carbon influences denitrification in streams with high nitrate concentration. Freshwater Biology, 2007, 52, 1210-1222.	1.2	168
43	Application of the DNDC model to tile-drained Illinois agroecosystems: model comparison of conventional and diversified rotations. Nutrient Cycling in Agroecosystems, 2007, 78, 65-81.	1.1	46
44	Application of the DNDC model to tile-drained Illinois agroecosystems: model calibration, validation, and uncertainty analysis. Nutrient Cycling in Agroecosystems, 2007, 78, 51-63.	1.1	80
45	METHODS FOR MEASURING DENITRIFICATION: DIVERSE APPROACHES TO A DIFFICULT PROBLEM. , 2006, 16, 2091-2122.		757
46	DENITRIFICATION AND THE NITROGEN BUDGET OF A RESERVOIR IN AN AGRICULTURAL LANDSCAPE. , 2006, 16, 2177-2190.		131
47	Timing of Riverine Export of Nitrate and Phosphorus from Agricultural Watersheds in Illinois:â€‰ Implications for Reducing Nutrient Loading to the Mississippi River. Environmental Science & Technology, 2006, 40, 4126-4131.	4.6	358
48	Influence of Geomorphological Variability in Channel Characteristics on Sediment Denitrification in Agricultural Streams. Journal of Environmental Quality, 2006, 35, 2103-2112.	1.0	52
49	Relationships among Nutrients, Chlorophyll-a , and Dissolved Oxygen in Agricultural Streams in Illinois. Journal of Environmental Quality, 2006, 35, 1110-1117.	1.0	61
50	Nutrient uptake in streams draining agricultural catchments of the midwestern United States. Freshwater Biology, 2006, 51, 499-509.	1.2	167
51	Controls on chlorophyll-a in nutrient-rich agricultural streams in Illinois, USA. Hydrobiologia, 2006, 568, 287-298.	1.0	23
52	Export of dissolved organic carbon from agricultural streams in Illinois, USA. Aquatic Sciences, 2005, 67, 465-471.	0.6	122
53	Export of dissolved organic carbon from agricultural streams in Illinois, USA. Aquatic Sciences, 2005, 67, 465-471.	0.6	11
54	Denitrification associated with plants and sediments in an agricultural stream. Journal of the North American Benthological Society, 2004, 23, 667-676.	3.0	82

#	Article	IF	Citations
55	Transport and Fate of Nitrate in Headwater Agricultural Streams in Illinois. Journal of Environmental Quality, 2004, 33, 1296-1304.	1.0	259
56	On the need for consistent and comprehensive treatment of the N cycle. Science of the Total Environment, 2003, 305, 249-255.	3.9	5
57	Stream Transport of Herbicides and Metabolites in a Tileâ€Drained, Agricultural Watershed. Journal of Environmental Quality, 2003, 32, 1790-1801.	1.0	31
58	Relating Net Nitrogen Input in the Mississippi River Basin to Nitrate Flux in the Lower Mississippi River. Journal of Environmental Quality, 2002, 31, 1610-1622.	1.0	100
59	Plant Nutrient Uptake and Biomass Accumulation in a Constructed Wetland. Journal of Freshwater Ecology, 2001, 16, 527-540.	0.5	44
60	Estimated Historical and Current Nitrogen Balances for Illinois. Scientific World Journal, The, 2001, 1, 597-604.	0.8	20
61	Nitrate flux in the Mississippi River. Nature, 2001, 414, 166-167.	13.7	282
62	Effectiveness of Constructed Wetlands in Reducing Nitrogen and Phosphorus Export from Agricultural Tile Drainage. Journal of Environmental Quality, 2000, 29, 1262-1274.	1.0	270
63	The role of seepage in constructed wetlands receiving agricultural tile drainage. Ecological Engineering, 2000, 15, 91-104.	1.6	48
64	Anthropogenic Inputs of Nitrogen and Phosphorus and Riverine Export for Illinois, USA. Journal of Environmental Quality, 2000, 29, 494-508.	1.0	230
65	Nitrogen Fertilizer and Herbicide Transport from Tile Drained Fields. Journal of Environmental Quality, 2000, 29, 232-240.	1.0	68
66	In Situ Measurements of Denitrification in Constructed Wetlands. Journal of Environmental Quality, 1999, 28, 263-269.	1.0	126
67	SOIL CALCIUM STATUS AND THE RESPONSE OF STREAM CHEMISTRY TO CHANGING ACIDIC DEPOSITION RATES. , 1999, 9, 1059-1072.		118
68	Nitrogen cycling and tile drainage nitrate loss in a corn/soybean watershed. Agriculture, Ecosystems and Environment, 1998, 68, 85-97.	2.5	100
69	Dissolved organic carbon fractions in Finnish and Maine (USA) lakes. Environment International, 1998, 24, 521-525.	4.8	18
70	Kinetics and Modeling of Dissolved Phosphorus Export from a Tileâ€Drained Agricultural Watershed. Journal of Environmental Quality, 1998, 27, 917-922.	1.0	43
71	Acidic Deposition, Cation Mobilization, and Biochemical Indicators of Stress in Healthy Red Spruce. Journal of Environmental Quality, 1997, 26, 871-876.	1.0	72
72	Nitrogen Balance in and Export from an Agricultural Watershed. Journal of Environmental Quality, 1997, 26, 1038-1048.	1.0	323

#	Article	IF	Citations
73	Assessment of soil calcium status in red spruce forests in the northeastern United States. Biogeochemistry, 1997, 38, 19-39.	1.7	89
74	Title is missing!. Plant and Soil, 1997, 191, 109-122.	1.8	51
75	Temperature and moisture effects on the production of dissolved organic carbon in a Spodosol. Soil Biology and Biochemistry, 1996, 28, 1191-1199.	4.2	299
76	Dynamics of extractable organic carbon in Spodosol forest floors. Soil Biology and Biochemistry, 1996, 28, 1171-1179.	4.2	68
77	Carbon mobilization from the forest floor under red spruce in the northeastern U.S.A.. Soil Biology and Biochemistry, 1996, 28, 1181-1189.	4.2	146
78	Ionâ€Chromatographic Analysis of Low Molecular Weight Organic Acids in Spodosol Forest Floor Solutions. Soil Science Society of America Journal, 1996, 60, 1565-1571.	1.2	66
79	Exchangeable Hydrogen Explains the pH of Spodosol Oa Horizons. Soil Science Society of America Journal, 1996, 60, 1926-1932.	1.2	21
80	Characterization of Phosphorus in a Spruceâ€Fir Spodosol by Phosphorusâ€31 Nuclear Magnetic Resonance Spectroscopy. Soil Science Society of America Journal, 1996, 60, 1943-1950.	1.2	62
81	Evidence for effects of CO₂ on soil solution chemistry in spodosols by a simple inâ€field extractor. Zeitschrift Fur Pflanzenernahrung Und Bodenkunde = Journal of Plant Nutrition and Plant Science, 1996, 159, 195-198.	0.4	8
82	Characterization of solid and dissolved carbon in a spruce-fir Spodosol. Biogeochemistry, 1996, 35, 339-365.	1.7	58
83	CHEMICAL EVALUATION OF SOIL-SOLUTION IN ACID FOREST SOILS. Soil Science, 1996, 161, 298-313.	0.9	27
84	SOIL AND SOIL SOLUTION CHEMISTRY UNDER RED SPRUCE STANDS ACROSS THE NORTHEASTERN UNITED STATES. Soil Science, 1996, 161, 314-328.	0.9	50
85	ACIDITY CHARACTERISTICS OF SOLUBLE ORGANIC SUBSTANCES IN SPRUCE-FIR FOREST FLOOR LEACHATES. Soil Science, 1996, 161, 694-704.	0.9	7
86	A new mechanism for calcium loss in forest-floor soils. Nature, 1995, 378, 162-165.	13.7	200
87	Fractionation of dissolved organic carbon in soil water: Effects of extraction and storage methods. Communications in Soil Science and Plant Analysis, 1994, 25, 3305-3319.	0.6	35
88	Soil Carbon Dioxide Characteristics under Different Forest Types and after Harvest. Soil Science Society of America Journal, 1993, 57, 1115-1121.	1.2	82
89	DISSOLVED ORGANIC CARBON and SULFATE SORPTION BY SPODOSOL MINERAL HORIZONS. Soil Science, 1992, 154, 136-144.	0.9	84
90	Soil Chemistry in a Loblolly/Longleaf Pine Forest with Interval Burning. , 1992, 2, 157-164.		106

#	Article	IF	Citations
91	Acid-base characteristics of organic carbon in the HUMEX lake Skjervatjern. Environment International, 1992, 18, 621-629.	4.8	16
92	Chemistry of dissolved organic carbon and organic acids in two streams draining forested watersheds. Water Resources Research, 1992, 28, 389-396.	1.7	42
93	Chemical characteristics and acidity of soluble organic substances from a northern hardwood forest floor, central Maine, USA. Geochimica Et Cosmochimica Acta, 1991, 55, 3611-3625.	1.6	124
94	FOREST SOIL RESPONSE TO ACID AND SALT ADDITIONS OF SULFATE: I. SULFUR CONSTITUENTS AND NET RETENTION. Soil Science, 1991, 151, 136-145.	0.9	21
95	FOREST SOIL RESPONSE TO ACID AND SALT ADDITIONS-OF SULFATE. Soil Science, 1991, 151, 297-305.	0.9	51
96	Chemical character and origin of organic acids in streams and seepage lakes of central Maine. Biogeochemistry, 1991, 12, 17.	1.7	80
97	Adsorption of dissolved organic carbon and sulfate by acid forest soils in the Fichtelgebirge, FRG. Zeitschrift Fur Pflanzenernahrung Und Bodenkunde = Journal of Plant Nutrition and Plant Science, 1990, 153, 379-384.	0.4	30
98	Organic Carbon Fractions in Extracts of O and B Horizons from a New England Spodosol: Effects of Acid Treatment. Journal of Environmental Quality, 1989, 18, 212-217.	1.0	72
99	Soil nitrogen mineralization in plantations ofJuglans nigra interplanted with actinorhizalElaeagnus umbellata orAlnus glutinosa. Plant and Soil, 1989, 118, 33-42.	1.8	55
100	Analysis of sulfur in soil, plant and sediment materials: Sample handling and use of an automated analyzer. Soil Biology and Biochemistry, 1989, 21, 119-123.	4.2	42
101	Generation of soil solution acid-neutralizing capacity by addition of dissolved inorganic carbon. Environmental Science & Technology, 1989, 23, 1021-1024.	4.6	14
102	Effect of Acid Treatment on Dissolved Organic Carbon Retention by a Spodic Horizon. Soil Science Society of America Journal, 1989, 53, 1242-1247.	1.2	95
103	Use of lossâ€onâ€ignition to assess soil organic carbon in forest soils. Communications in Soil Science and Plant Analysis, 1988, 19, 1593-1599.	0.6	74
104	Sulfur constituents and transformations in upland and floodplain forest soils. Canadian Journal of Forest Research, 1988, 18, 1106-1112.	0.8	21
105	Sulfur, carbon, and nitrogen relationships in forest soils across the northern Great Lakes States as affected by atmospheric deposition and vegetation. Canadian Journal of Forest Research, 1988, 18, 1386-1391.	0.8	21
106	Sources of variation in soil solution collected by tension plate lysimeters. Canadian Journal of Forest Research, 1987, 17, 191-193.	0.8	6
107	Transformations of Organic and Inorganic Sulfur: Importance to Sulfate Flux in an Adirondack Forest Soil. Japca, 1987, 37, 39-44.	0.3	20
108	Sulfur retention at intensively studied sites in the U.S. and Canada. Water, Air, and Soil Pollution, 1987, 33, 73-83.	1.1	101

#	Article	IF	Citations
109	Importance of biological processes in the sulfur budget of a northern hardwood ecosystem. Biology and Fertility of Soils, 1987, 5, 258.	2.3	43
110	Sulfur constituents and cycling in waters, seston, and sediments of an oligotrophic lake. Limnology and Oceanography, 1985, 30, 1196-1207.	1.6	69
111	Aluminum speciation and equilibria in soil solutions of a Haplorthod in the Adirondack Mountains (New York, U.S.A.). Geoderma, 1984, 33, 297-318.	2.3	170
112	Carbon Controls on Spodosol Nitrogen, Sulfur, and Phosphorus Cycling. , 0, , 329-353.		11