David W Clow

List of Publications by Year
in descending order

64	5,064	101384	110170
papers	citations	36 h-index	64 g-index

75	75	75	5909
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Concentrationâ€“discharge relationships reflect chemostatic characteristics of US catchments. Hydrological Processes, 2009, 23, 1844-1864.	1.1	600
2	Changes in the Timing of Snowmelt and Streamflow in Colorado: A Response to Recent Warming. Journal of Climate, 2010, 23, 2293-2306.	1.2	390
3	The role of disseminated calcite in the chemical weathering of granitoid rocks. Geochimica Et Cosmochimica Acta, 1999, 63, 1939-1953.	1.6	260
4	The river as a chemostat: fresh perspectives on dissolved organic matter flowing down the river continuum. Canadian Journal of Fisheries and Aquatic Sciences, 2015, 72, 1272-1285.	0.7	242
5	Aquatic carbon cycling in the conterminous United States and implications for terrestrial carbon accounting. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 58-63.	3.3	175
6	Strontium 87/strontium 86 as a tracer of mineral weathering reactions and calcium sources in an Alpine/Subalpine Watershed, Loch Vale, Colorado. Water Resources Research, 1997, 33, 1335-1351.	1.7	162
7	Ground Water Occurrence and Contributions to Streamflow in an Alpine Catchment, Colorado Front Range. Ground Water, 2003, 41, 937-950.	0.7	162
8	Processes Controlling the Chemistry of Two Snowmelt-Dominated Streams in the Rocky Mountains. Water Resources Research, 1995, 31, 2811-2821.	1.7	154
9	Ecosystem Processes and Human Influences Regulate Streamflow Response to Climate Change at Long-Term Ecological Research Sites. BioScience, 2012, 62, 390-404.	2.2	149
10	Changing forest water yields in response to climate warming: results from longâ€term experimental watershed sites across North America. Global Change Biology, 2014, 20, 3191-3208.	4.2	147
11	Mechanisms for chemostatic behavior in catchments: Implications for CO2 consumption by mineral weathering. Chemical Geology, 2010, 269, 40-51.	1.4	137
12	Winter fluxes of CO2and CH4from subalpine soils in Rocky Mountain National Park, Colorado. Global Biogeochemical Cycles, 1998, 12, 607-620.	1.9	135
13	Hydrological effects of forest transpiration loss in bark beetle-impacted watersheds. Nature Climate Change, 2014, 4, 481-486.	8.1	127
14	Melting Alpine Glaciers Enrich High-Elevation Lakes with Reactive Nitrogen. Environmental Science & Technology, 2010, 44, 4891-4896.	4.6	122
15	Evidence for nutrient enrichment of highâ€elevation lakes in the Sierra Nevada, California. Limnology and Oceanography, 2003, 48, 1885-1892.	1.6	119
16	Relations between basin characteristics and stream water chemistry in alpine/subalpine basins in Rocky Mountain National Park, Colorado. Water Resources Research, 2000, 36, 49-61.	1.7	97
17	Comparison of total mercury and methylmercury cycling at five sites using the small watershed approach. Environmental Pollution, 2008, 154, 143-154.	3.7	96
18	Evaluation of SNODAS snow depth and snow water equivalent estimates for the Colorado Rocky Mountains, USA. Hydrological Processes, 2012, 26, 2583-2591.	1.1	96

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19	Carbon gas exchange at a southern Rocky Mountain wetland, 1996-1998. Global Biogeochemical Cycles, 2001, 15, 321-335.	1.9	91
20	Critical Nitrogen Deposition Loads in High-elevation Lakes of the Western US Inferred from Paleolimnological Records. Water, Air, and Soil Pollution, 2011, 216, 193-202.	1.1	81
21	Organic Carbon Burial in Lakes and Reservoirs of the Conterminous United States. Environmental Science & Technology, 2015, 49, 7614-7622.	4.6	78
22	Inland waters and their role in the carbon cycle of Alaska. Ecological Applications, 2017, 27, 1403-1420.	1.8	78
23	Effects of 2003 wildfires on stream chemistry in Glacier National Park, Montana. Hydrological Processes, 2008, 22, 5013-5023.	1.1	70
24	Responses of soil and water chemistry to mountain pine beetle induced tree mortality in Grand County, Colorado, USA. Applied Geochemistry, 2011, 26, S174-S178.	1.4	70
25	Snow Sublimation in Mountain Environments and Its Sensitivity to Forest Disturbance and Climate Warming. Water Resources Research, 2018, 54, 1191-1211.	1.7	68
26	Use of stable sulfur isotopes to identify sources of sulfate in Rocky Mountain snowpacks. Atmospheric Environment, 2001, 35, 3303-3313.	1.9	67
27	Old groundwater influence on stream hydrochemistry and catchment response times in a small Sierra Nevada catchment: Sagehen Creek, California. Water Resources Research, 2005, 41, .	1.7	65
28	Response of lake chemistry to changes in atmospheric deposition and climate in three high-elevation wilderness areas of Colorado. Biogeochemistry, 2011, 103, 27-43.	1.7	50
29	Increasing aeolian dust deposition to snowpacks in the Rocky Mountains inferred from snowpack, wet deposition, and aerosol chemistry. Atmospheric Environment, 2016, 146, 183-194.	1.9	50
30	Chapter 10. WEATHERING RATES IN CATCHMENTS. , 1995, , 463-484.		49
31	Atmospheric deposition maps for the Rocky Mountains. Atmospheric Environment, 2003, 37, 4881-4892.	1.9	49
32	Mapping critical loads of nitrogen deposition for aquatic ecosystems in the Rocky Mountains, USA. Environmental Pollution, 2012, 166, 125-135.	3.7	48
33	Long-term trends in stream water and precipitation chemistry at five headwater basins in the northeastern United States. Water Resources Research, 1999, 35, 541-554.	1.7	47
34	Source limitation of carbon gas emissions in high-elevation mountain streams and lakes. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 952-964.	1.3	43
35	Major-ion chemistry of the Rocky Mountain snowpack, USA. Atmospheric Environment, 2001, 35, 3957-3966.	1.9	41
36	Comparison of snowpack and winter wet-deposition chemistry in the Rocky Mountains, USA: implications for winter dry deposition. Atmospheric Environment, 2002, 36, 2337-2348.	1.9	40

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37	Numerical experiments to explain multiscale hydrological responses to mountain pine beetle tree mortality in a headwater watershed. Water Resources Research, 2016, 52, 3143-3161.	1.7	40
38	Water-quality response to a high-elevation wildfire in the Colorado Front Range. Hydrological Processes, 2016, 30, 1811-1823.	1.1	38
39	CONTROLS ON SURFACE WATER CHEMISTRY IN THE UPPER MERCED RIVER BASIN, YOSEMITE NATIONAL PARK, CALIFORNIA. Hydrological Processes, 1996, 10, 727-746.	1.1	36
40	Comparison of methods for quantifying surface sublimation over seasonally snowâ€covered terrain. Hydrological Processes, 2016, 30, 3373-3389.	1.1	36
41	Links between N Deposition and Nitrate Export from a High-Elevation Watershed in the Colorado Front Range. Environmental Science & Technology, 2014, 48, 14258-14265.	4.6	32
42	Spatial and temporal patterns of dissolved organic matter quantity and quality in the Mississippi River Basin, 1997â€“2013. Hydrological Processes, 2017, 31, 902-915.	1.1	31
43	Effect of basin physical characteristics on solute fluxes in nine alpine/subalpine basins, Colorado, USA. Hydrological Processes, 2001, 15, 2749-2769.	1.1	30
44	Chemistry of Selected High-Elevation Lakes in Seven National Parks in the Western United States. Water, Air and Soil Pollution, 2002, 2, 139-164.	0.8	30
45	Surface water acidification responses and critical loads of sulfur and nitrogen deposition in Loch Vale watershed, Colorado. Water Resources Research, 2005, 41, .	1.7	30
46	Toward the improvement of total nitrogen deposition budgets in the United States. Science of the Total Environment, 2019, 691, 1328-1352.	3.9	29
47	Changes in the chemistry of lakes and precipitation in high-elevation national parks in the western United States, 1985-1999. Water Resources Research, 2003, 39, .	1.7	25
48	Spatial patterns of atmospheric deposition of nitrogen and sulfur using ion-exchange resin collectors in Rocky Mountain National Park, USA. Atmospheric Environment, 2015, 101, 149-157.	1.9	25
49	Use of regressionâ€based models to map sensitivity of aquatic resources to atmospheric deposition in Yosemite National Park, USA. Water Resources Research, 2010, 46, .	1.7	22
50	Linking transit times to catchment sensitivity to atmospheric deposition of acidity and nitrogen in mountains of the western United States. Hydrological Processes, 2018, 32, 2456-2470.	1.1	19
51	Trends in snowpack chemistry and comparison to National Atmospheric Deposition Program results for the Rocky Mountains, US, 1993â€“2004. Atmospheric Environment, 2008, 42, 6098-6113.	1.9	18
52	Spatial variation of atmospheric nitrogen deposition and critical loads for aquatic ecosystems in the Greater Yellowstone Area. Environmental Pollution, 2017, 223, 644-656.	3.7	18
53	Influence of climate on alpine stream chemistry and water sources. Hydrological Processes, 2018, 32, 1993-2008.	1.1	18
54	Assessment of lake sensitivity to acidic deposition in national parks of the Rocky Mountains. Ecological Applications, 2009, 19, 961-973.	1.8	16

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55	Particulate carbonate matter in snow from selected sites in the south-central rocky mountains. Atmospheric Environment, 1994, 28, 575-584.	1.9	11
56	Assessing possible visitor-use impacts on water quality in Yosemite National Park, California. Environmental Monitoring and Assessment, 2011, 183, 197-215.	1.3	11
57	Tracer gauge: An automated dye dilution gauging system for iceâ€affected streams. Water Resources Research, 2008, 44, .	1.7	8
58	Effects of Stock Use and Backpackers on Water Quality in Wilderness in Sequoia and Kings Canyon National Parks, USA. Environmental Management, 2013, 52, 1400-1414.	1.2	8
59	Spatiotemporal Dynamics of CO₂ Gas Exchange From Headwater Mountain Streams. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006509.	1.3	8
60	Elevated Nitrogen Deposition to Fireâ€Prone Forests Adjacent to Urban and Agricultural Areas, Colorado Front Range, USA. Earth's Future, 2022, 10, .	2.4	8
61	Spatial Variability in Seasonal Snowpack Trends across the Rio Grande Headwaters (1984â€“2017). Journal of Hydrometeorology, 2020, 21, 2713-2733.	0.7	7
62	Changes in Climate and Land Cover Affect Seasonal Streamflow Forecasts in the Rio Grande Headwaters. Journal of the American Water Resources Association, 2020, 56, 882-902.	1.0	6
63	Preferential elution of ionic solutes in melting snowpacks: Improving process understanding through field observations and modeling in the Rocky Mountains. Science of the Total Environment, 2020, 710, 136273.	3.9	5
64	Longâ€term ecosystem and biogeochemical research in Loch Vale watershed, Rocky Mountain National Park, Colorado. Hydrological Processes, 2021, 35, e14107.	1.1	3