Gabriel J Bowen

List of Publications by Year in descending order

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136 papers 10,262 citations

50276 46 h-index 97 g-index

164 all docs

164 docs citations

times ranked

164

8566 citing authors

#	Article	IF	CITATIONS
1	Interpolating the isotopic composition of modern meteoric precipitation. Water Resources Research, 2003, 39, .	4.2	968
2	Global application of stable hydrogen and oxygen isotopes to wildlife forensics. Oecologia, 2005, 143, 337-348.	2.0	862
3	Molecular Paleohydrology: Interpreting the Hydrogen-Isotopic Composition of Lipid Biomarkers from Photosynthesizing Organisms. Annual Review of Earth and Planetary Sciences, 2012, 40, 221-249.	11.0	748
4	Spatial distribution of l´180 in meteoric precipitation. Geology, 2002, 30, 315.	4.4	693
5	Isoscapes: Spatial Pattern in Isotopic Biogeochemistry. Annual Review of Earth and Planetary Sciences, 2010, 38, 161-187.	11.0	421
6	Stable isotopes as one of nature's ecological recorders. Trends in Ecology and Evolution, 2006, 21, 408-414.	8.7	409
7	Hydrogen and oxygen isotope ratios in human hair are related to geography. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2788-2793.	7.1	322
8	Spatial distribution and seasonal variation in 180/160 of modern precipitation and river water across the conterminous USA. Hydrological Processes, 2005, 19, 4121-4146.	2.6	273
9	A humid climate state during the Palaeocene/Eocene thermal maximum. Nature, 2004, 432, 495-499.	27.8	266
10	Stable isotope ratios of tap water in the contiguous United States. Water Resources Research, 2007, 43, .	4.2	212
11	Mapping 87Sr/86Sr variations in bedrock and water for large scale provenance studies. Chemical Geology, 2012, 304-305, 39-52.	3.3	195
12	Using stable hydrogen and oxygen isotope measurements of feathers to infer geographical origins of migrating European birds. Oecologia, 2004, 141, 477-488.	2.0	190
13	Two massive, rapid releases of carbon during the onset of the Palaeocene–Eocene thermalÂmaximum. Nature Geoscience, 2015, 8, 44-47.	12.9	188
14	Isotopes in the Water Cycle: Regional- to Global-Scale Patterns and Applications. Annual Review of Earth and Planetary Sciences, 2019, 47, 453-479.	11.0	168
15	Spatial analysis of the intraâ€annual variation of precipitation isotope ratios and its climatological corollaries. Journal of Geophysical Research, 2008, 113, .	3.3	149
16	Treatment methods for the determination of 2H and 180 of hair keratin by continuous-flow isotope-ratio mass spectrometry. Rapid Communications in Mass Spectrometry, 2005, 19, 2371-2378.	1,5	145
17	Dietary and physiological controls on the hydrogen and oxygen isotope ratios of hair from midâ€20th century indigenous populations. American Journal of Physical Anthropology, 2009, 139, 494-504.	2.1	121
18	Rapid carbon sequestration at the termination of the Palaeocene–Eocene Thermal Maximum. Nature Geoscience, 2010, 3, 866-869.	12.9	105

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19	A Global Perspective on Local Meteoric Water Lines: Metaâ€analytic Insight Into Fundamental Controls and Practical Constraints. Water Resources Research, 2019, 55, 6896-6910.	4.2	105
20	Advances in global bioavailable strontium isoscapes. Palaeogeography, Palaeoclimatology, Palaeoecology, 2020, 555, 109849.	2.3	104
21	Stable Isotope Analysis of Precipitation Samples Obtained via Crowdsourcing Reveals the Spatiotemporal Evolution of Superstorm Sandy. PLoS ONE, 2014, 9, e91117.	2.5	103
22	Stable hydrogen and oxygen isotope ratios of bottled waters of the world. Rapid Communications in Mass Spectrometry, 2005, 19, 3442-3450.	1.5	96
23	Expanding the Isotopic Toolbox: Applications of Hydrogen and Oxygen Stable Isotope Ratios to Food Web Studies. Frontiers in Ecology and Evolution, 2016, 4, .	2.2	95
24	ENSO variability reflected in precipitation oxygen isotopes across the Asian Summer Monsoon region. Earth and Planetary Science Letters, 2017, 475, 25-33.	4.4	93
25	Eocene hyperthermal event offers insight into greenhouse warming. Eos, 2006, 87, 165.	0.1	91
26	Migratory Connectivity of a Widely Distributed Songbird, the American Redstart (Setophaga ruticilla). Ornithological Monographs, 2006, , 14-28.	1.3	88
27	Stable isotope analysis of modern human hair collected from Asia (China, India, Mongolia, and) Tj ETQq $1\ 1\ 0.78$	34314.rgBT 2.1	/Oggrlock 10
28	Atmospheric circulation is reflected in precipitation isotope gradients over the conterminous United States. Journal of Geophysical Research, 2010, 115, .	3.3	82
29	Inferring the source of evaporated waters using stable H and O isotopes. Oecologia, 2018, 187, 1025-1039.	2.0	82
30	Terrestrial carbon isotope excursions and biotic change during Palaeogene hyperthermals. Nature Geoscience, 2012, 5, 326-329.	12.9	80
31	Completing the data life cycle: using information management in macrosystems ecology research. Frontiers in Ecology and the Environment, 2014, 12, 24-30.	4.0	71
32	A geostatistical framework for predicting variations in strontium concentrations and isotope ratios in Alaskan rivers. Chemical Geology, 2014, 389, 1-15.	3.3	70
33	Geographic assignment with stable isotopes in IsoMAP. Methods in Ecology and Evolution, 2014, 5, 201-206.	5.2	70
34	Determining origin in a migratory marine vertebrate: a novel method to integrate stable isotopes and satellite tracking. Ecological Applications, 2015, 25, 320-335.	3.8	70
35	Mapping multiple source effects on the strontium isotopic signatures of ecosystems from the circumâ€Caribbean region. Ecosphere, 2012, 3, 1-24.	2.2	69
36	Spatial-seasonal patterns reveal large-scale atmospheric controls on Asian Monsoon precipitation water isotope ratios. Earth and Planetary Science Letters, 2018, 503, 158-169.	4.4	68

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37	Spatioâ€temporal heterogeneity in soil water stable isotopic composition and its ecohydrologic implications in semiarid ecosystems. Hydrological Processes, 2019, 33, 1724-1738.	2.6	65
38	Water balance model for mean annual hydrogen and oxygen isotope distributions in surface waters of the contiguous United States. Journal of Geophysical Research, 2011, 116, .	3.3	63
39	Temporal variation of oxygen isotope ratios (\hat{l} 180) in drinking water: Implications for specifying location of origin with human scalp hair. Forensic Science International, 2011, 208, 156-166.	2.2	62
40	Footprint of recycled water subsidies downwind of Lake Michigan. Ecosphere, 2012, 3, 1-16.	2.2	56
41	D/H isotope ratios in the global hydrologic cycle. Geophysical Research Letters, 2015, 42, 5042-5050.	4.0	56
42	Tap water isotope ratios reflect urban water system structure and dynamics across a semiarid metropolitan area. Water Resources Research, 2016, 52, 5891-5910.	4.2	56
43	Mechanisms of PETM global change constrained by a new record from central Utah. Geology, 2008, 36, 379.	4.4	55
44	Isotopes as Tracers of the Hawaiian Coffee-Producing Regions. Journal of Agricultural and Food Chemistry, 2011, 59, 10239-10246.	5.2	55
45	Incorporating water isoscapes in hydrological and water resource investigations. Wiley Interdisciplinary Reviews: Water, 2015, 2, 107-119.	6.5	55
46	A Framework for the Incorporation of Isotopes and Isoscapes in Geospatial Forensic Investigations. , $2010, 357-387.$		53
47	Statistical and Geostatistical Mapping of Precipitation Water Isotope Ratios. , 2010, , 139-160.		53
48	Forensic Stable Isotope Biogeochemistry. Annual Review of Earth and Planetary Sciences, 2016, 44, 175-206.	11.0	51
49	Strontium isotope variation and carbonate versus silicate weathering in rivers from across Alaska: Implications for provenance studies. Chemical Geology, 2014, 389, 167-181.	3.3	50
50	Opinion: Why we need a centralized repository for isotopic data. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2997-3001.	7.1	50
51	Urban water – a new frontier in isotope hydrology. Isotopes in Environmental and Health Studies, 2016, 52, 477-486.	1.0	47
52	Isoscapes to Address Largeâ€Scale Earth Science Challenges. Eos, 2009, 90, 109-110.	0.1	45
53	Hydrogen and oxygen in brine shrimp chitin reflect environmental water and dietary isotopic composition. Geochimica Et Cosmochimica Acta, 2010, 74, 1812-1822.	3.9	45
54	Dietary controls on extinction versus survival among avian megafauna in the late Pleistocene. Geology, 2006, 34, 685.	4.4	43

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55	Up in smoke: A role for organic carbon feedbacks in Paleogene hyperthermals. Global and Planetary Change, 2013, 109, 18-29.	3.5	43
56	Patterns of local and nonlocal water resource use across the western U.S. determined via stable isotope intercomparisons. Water Resources Research, 2014, 50, 8034-8049.	4.2	43
57	Contrasting assignment of migratory organisms to geographic origins using longâ€term versus yearâ€specific precipitation isotope maps. Methods in Ecology and Evolution, 2014, 5, 891-900.	5.2	41
58	Pacific–North American Teleconnection Controls on Precipitation Isotopes (δ18O) across the Contiguous United States and Adjacent Regions: A GCM-Based Analysis. Journal of Climate, 2014, 27, 1046-1061.	3.2	40
59	Paired oxygen isotope records reveal modern North American atmospheric dynamics during the Holocene. Nature Communications, 2014, 5, 3701.	12.8	40
60	Stable hydrogen and oxygen isotopes of tap water reveal structure of the San Francisco Bay Area's water system and adjustments during a major drought. Water Research, 2017, 119, 212-224.	11.3	39
61	Synchronizing early Eocene deep-sea and continental records $\hat{a} \in \text{``cyclostratigraphic age models for the Bighorn Basin Coring Project drill cores. Climate of the Past, 2018, 14, 303-319.}$	3.4	39
62	Isotope Landscapes for Terrestrial Migration Research. Journal of Nano Education (Print), 2008, 2, 79-105.	0.3	37
63	Environmental impact and magnitude of paleosol carbonate carbon isotope excursions marking five early Eocene hyperthermals in the Bighorn Basin, Wyoming. Climate of the Past, 2016, 12, 1151-1163.	3.4	36
64	Vapor hydrogen and oxygen isotopes reflect water of combustion in the urban atmosphere. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3247-3252.	7.1	35
65	Persistent Urban Influence on Surface Water Quality via Impacted Groundwater. Environmental Science &	10.0	34
66	<scp>assignR</scp> : An <scp>r</scp> package for isotopeâ€based geographic assignment. Methods in Ecology and Evolution, 2020, 11, 996-1001.	5.2	32
67	Î2H and Î18O of human body water: a GIS model to distinguish residents from non-residents in the contiguous USA. Isotopes in Environmental and Health Studies, 2012, 48, 259-279.	1.0	31
68	Stream Nitrogen Inputs Reflect Groundwater Across a Snowmelt-Dominated Montane to Urban Watershed. Environmental Science & Env	10.0	31
69	Pacific North American circulation pattern links external forcing and North American hydroclimatic change over the past millennium. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 3340-3345.	7.1	30
70	Pacific/North American teleconnection controls on precipitation isotope ratios across the contiguous United States. Earth and Planetary Science Letters, 2011, 310, 319-326.	4.4	27
71	Acceleration of western Arctic sea ice loss linked to the Pacific North American pattern. Nature Communications, 2021, 12, 1519.	12.8	27
72	Water Source Signatures in the Spatial and Seasonal Isotope Variation of Chinese Tap Waters. Water Resources Research, 2018, 54, 9131-9143.	4.2	25

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73	Mechanistic model predicts tissue–environment relationships and trophic shifts in animal hydrogen and oxygen isotope ratios. Oecologia, 2019, 191, 777-789.	2.0	25
74	Analysis of the hydrogen and oxygen stable isotope ratios of beverage waters without prior water extraction using isotope ratio infrared spectroscopy. Rapid Communications in Mass Spectrometry, 2010, 24, 3205-3213.	1.5	22
75	Mean annual temperatures of mid-latitude regions derived from Î'2H values of wood lignin methoxyl groups and its implications for paleoclimate studies. Science of the Total Environment, 2017, 574, 1276-1282.	8.0	22
76	Applying the principles of isotope analysis in plant and animal ecology to forensic science in the Americas. Oecologia, 2018, 187, 1077-1094.	2.0	22
77	When the world turned cold. Nature, 2007, 445, 607-608.	27.8	21
78	The soil and plant biogeochemistry sampling design for The National Ecological Observatory Network. Ecosphere, 2016, 7, e01234.	2.2	21
79	Detection and variability of combustion-derived vapor in an urban basin. Atmospheric Chemistry and Physics, 2018, 18, 8529-8547.	4.9	21
80	Stream Centric Methods for Determining Groundwater Contributions in Karst Mountain Watersheds. Water Resources Research, 2018, 54, 6708-6724.	4.2	20
81	Floral change during the Initial Eocene Thermal Maximum in the Powder River Basin, Wyoming. , 2003, , .		19
82	Consistent predictable patterns in the hydrogen and oxygen stable isotope ratios of animal proteins consumed by modern humans in the USA. Rapid Communications in Mass Spectrometry, 2011, 25, 3713-3722.	1.5	19
83	Winter precipitation isotope slopes of the contiguous USA and their relationship to the Pacific/North American (PNA) pattern. Climate Dynamics, 2013, 41, 403-420.	3.8	18
84	Bighorn Basin Coring Project (BBCP): a continental perspective on early Paleogene hyperthermals. Scientific Drilling, $0, 16, 21-31$.	0.6	18
85	Isotopic reconnaissance of urban water supply system dynamics. Hydrology and Earth System Sciences, 2018, 22, 6109-6125.	4.9	18
86	Recent contrasting winter temperature changes over North America linked to enhanced positive Pacificâ€North American pattern. Geophysical Research Letters, 2015, 42, 7750-7757.	4.0	17
87	Spatiotemporal variability in water sources of urban soils and trees in the semiarid, irrigated Salt Lake Valley. Ecohydrology, 2019, 12, e2154.	2.4	17
88	Influence of provenance and preservation on the carbon isotope variations of dispersed organic matter in ancient floodplain sediments. Geochemistry, Geophysics, Geosystems, 2013, 14, 4874-4891.	2.5	16
89	Spaceâ€time tradeoffs in the development of precipitationâ€based isoscape models for determining migratory origin. Journal of Avian Biology, 2015, 46, 658-667.	1.2	16
90	Isoscapes for Terrestrial Migration Research. , 2019, , 53-84.		16

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91	Chemostratigraphic age model for the Tornillo Group: A possible link between fluvial stratigraphy and climate. Palaeogeography, Palaeoclimatology, Palaeoecology, 2016, 457, 277-289.	2.3	15
92	Interactive Effects of Vegetation Type and Topographic Position on Nitrogen Availability and Loss in a Temperate Montane Ecosystem. Ecosystems, 2017, 20, 1073-1088.	3.4	15
93	Coupled carbon and oxygen isotope model for pedogenic carbonates. Geochimica Et Cosmochimica Acta, 2021, 294, 126-144.	3.9	15
94	Biased estimates of the isotope ratios of steadyâ€state evaporation from the assumption of equilibrium between vapour and precipitation. Hydrological Processes, 2019, 33, 2576-2590.	2.6	14
95	Groundwaterâ€Mediated Memory of Past Climate Controls Water Yield in Snowmeltâ€Dominated Catchments. Water Resources Research, 2021, 57, e2021WR030605.	4.2	14
96	Stable isotope patterns of benthic organisms from the Great Lakes region indicate variable dietary overlap of <i>Diporeia</i> spp. and dreissenid mussels. Canadian Journal of Fisheries and Aquatic Sciences, 2014, 71, 1784-1795.	1.4	13
97	Technical Note: A global database of the stable isotopic ratios of meteoric and terrestrial waters. Hydrology and Earth System Sciences, 2019, 23, 4389-4396.	4.9	13
98	Calibration chain transformation improves the comparability of organic hydrogen and oxygen stable isotope data. Methods in Ecology and Evolution, 2021, 12, 732-747.	5.2	13
99	Influence of Recent Climate Shifts on the Relationship Between ENSO and Asian Monsoon Precipitation Oxygen Isotope Ratios. Journal of Geophysical Research D: Atmospheres, 2019, 124, 7825-7835.	3.3	12
100	Paleocene-Eocene Microvertebrates in Freshwater Limestones of the Willwood Formation, Clarks Fork Basin, Wyoming. Topics in Geobiology, 2001, , 95-129.	0.5	10
101	Physicochemical characteristics of a southern Lake Michigan river plume. Journal of Great Lakes Research, 2018, 44, 209-218.	1.9	10
102	Coupled and decoupled responses of continental and marine organicâ€sedimentary systems through the Paleoceneâ€Eocene thermal maximum, New Jersey margin, USA. Paleoceanography, 2013, 28, 105-115.	3.0	9
103	Navajo Nation, USA, Precipitation Variability from 2002 to 2015. Journal of Contemporary Water Research and Education, 2018, 163, 109-123.	0.7	9
104	Warm Terrestrial Subtropics During the Paleocene and Eocene: Carbonate Clumped Isotope (î" ₄₇) Evidence From the Tornillo Basin, Texas (USA). Paleoceanography and Paleoclimatology, 2018, 33, 1230-1249.	2.9	9
105	Every apple has a voice: using stable isotopes to teach about food sourcing and the water cycle. Hydrology and Earth System Sciences, 2017, 21, 3799-3810.	4.9	8
106	Joint inversion of proxy system models to reconstruct paleoenvironmental time series from heterogeneous data. Climate of the Past, 2020, 16, 65-78.	3.4	8
107	Local and Regional Modes of Hydroclimatic Change Expressed in Modern Multidecadal Precipitation Oxygen Isotope Trends. Geophysical Research Letters, 2021, 48, e2020GL092006.	4.0	8
108	Cyberinfrastructure for isotope analysis and modeling. Eos, 2012, 93, 185-187.	0.1	7

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109	Plant wax integration and transport from the Mississippi River Basin to the Gulf of Mexico inferred from GIS-enabled isoscapes and mixing models. Geochimica Et Cosmochimica Acta, 2019, 257, 131-149.	3.9	7
110	Differential habitat use patterns of yellow perch Perca flavescens in eastern Lake Michigan and connected drowned river mouth lakes. Journal of Great Lakes Research, 2020, 46, 1412-1422.	1.9	7
111	Deep lake water balance by dual water isotopes in Yungui Plateau, southwest China. Journal of Hydrology, 2021, 593, 125886.	5.4	7
112	Stable Isotopes in Large Scale Hydrological Applications. , 2010, , 389-405.		7
113	Influence of diet and ambient water on hydrogen and oxygen stable isotope ratios in fish tissue: patterns within and among tissues and relationships with growth rates. Hydrobiologia, 2017, 799, 111-121.	2.0	6
114	Wintertime decoupling of urban valley and rural ridge hydrological processes revealed through stable water isotopes. Atmospheric Environment, 2019, 213, 337-348.	4.1	6
115	Multi-Substrate Radiocarbon Data Constrain Detrital and Reservoir Effects in Holocene Sediments of the Great Salt Lake, Utah. Radiocarbon, 2019, 61, 905-926.	1.8	6
116	Decreased soil carbon in a warming world: Degraded pyrogenic carbon during the Paleocene-Eocene Thermal Maximum, Bighorn Basin, Wyoming. Earth and Planetary Science Letters, 2021, 566, 116970.	4.4	6
117	Stable Isotopes and Human Water Resources. , 2007, , 285-V.		6
118	Stable Isotopes in Precipitation and Meteoric Water: Sourcing and Tracing the North American Monsoon in Arizona, New Mexico, and Utah. Water Resources Research, 2021, 57, e2021WR030039.	4.2	6
119	A 3-D groundwater isoscape of the contiguous USA for forensic and water resource science. PLoS ONE, 2022, 17, e0261651.	2.5	6
120	Spatial and Temporal Variations in Plant Source Water: O and H Isotope Ratios from Precipitation to Xylem Water. Tree Physiology, 2022, , 501-535.	2.5	6
121	Enabling online geospatial isotopic model development and analysis. , 2011, , .		5
122	Combining Models of Environment, Behavior, and Physiology to Predict Tissue Hydrogen and Oxygen Isotope Variance Among Individual Terrestrial Animals. Frontiers in Ecology and Evolution, 2020, 8, .	2.2	5
123	The Soil Water Isotope Storage System (SWISS): An integrated soil water vapor sampling and multiport storage system for stable isotope geochemistry. Rapid Communications in Mass Spectrometry, 2020, 34, e8783.	1.5	5
124	The isotopic geochemistry of CaCO3 encrustations in Taylor Valley, Antarctica: Implications for their origin. Acta Geographica Slovenica, 2020, 60, 125-139.	0.7	5
125	Stable Isotopes and Human Water Resources: Signals of Change. Journal of Nano Education (Print), 2007, , 283-300.	0.3	4
126	Calibration Strategies for Detecting Macroscale Patterns in NEON Atmospheric Carbon Isotope Observations. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG005862.	3.0	4

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127	Optimizing stable isotope sampling design in terrestrial movement ecology research. Methods in Ecology and Evolution, 2022, 13, 1237-1249.	5.2	4
128	The NEON Daily Isotopic Composition of Environmental Exchanges Dataset. Scientific Data, 2022, 9, .	5. 3	4
129	Potential impacts to perennial springs from tar sand mining, processing, and disposal on the Tavaputs Plateau, Utah, USA. Science of the Total Environment, 2015, 532, 20-30.	8.0	3
130	A Statistical Method for Generating Temporally Downscaled Geochemical Tracers in Precipitation. Journal of Hydrometeorology, 2021, , .	1.9	3
131	Streamlining geospatial data processing for isotopic landscape modeling. Concurrency Computation Practice and Experience, 2021, 33, e6324.	2.2	3
132	The Wasatch Environmental Observatory: A mountain to urban research network in the semiâ€arid western US. Hydrological Processes, 2021, 35, e14352.	2.6	2
133	Lake water based isoscape in central-south Chile reflects meteoric water. Scientific Reports, 2021, 11, 8725.	3.3	1
134	Effects of the Paleocene-Eocene Thermal Maximum on Terrestrial Plants and Carbon Storage. The Paleontological Society Special Publications, 2014, 13, 131-132.	0.0	1
135	Climate Impacts on Source Contributions and Evaporation to Flow in the Snake River Basin Using Surface Water Isoscapes ($\hat{\Gamma}$ 2 H and $\hat{\Gamma}$ 18 O). Water Resources Research, 2021, 57, e2020WR029157.	4.2	0
136	Water emissions put a damper on the coal-to-gas transition. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2024360118.	7.1	0