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	A 3-D groundwater isoscape of the contiguous USA for forensic and water resource science. PLoS ONE, 2022, 17, e0261651.	2.5	6
2	Optimizing stable isotope sampling design in terrestrial movement ecology research. Methods in Ecology and Evolution, 2022, 13, 1237-1249.	5.2	4
3	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
4	The NEON Daily Isotopic Composition of Environmental Exchanges Dataset. Scientific Data, 2022, 9, .	5. 3	4
5	Deep lake water balance by dual water isotopes in Yungui Plateau, southwest China. Journal of Hydrology, 2021, 593, 125886.	5.4	7
6	Coupled carbon and oxygen isotope model for pedogenic carbonates. Geochimica Et Cosmochimica Acta, 2021, 294, 126-144.	3.9	15
7	Local and Regional Modes of Hydroclimatic Change Expressed in Modern Multidecadal Precipitation Oxygen Isotope Trends. Geophysical Research Letters, 2021, 48, e2020GL092006.	4.0	8
8	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
9	Calibration Strategies for Detecting Macroscale Patterns in NEON Atmospheric Carbon Isotope Observations. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG005862.	3.0	4
10	Acceleration of western Arctic sea ice loss linked to the Pacific North American pattern. Nature Communications, 2021, 12, 1519.	12.8	27
11	A Statistical Method for Generating Temporally Downscaled Geochemical Tracers in Precipitation. Journal of Hydrometeorology, 2021, , .	1.9	3
12	Streamlining geospatial data processing for isotopic landscape modeling. Concurrency Computation Practice and Experience, 2021, 33, e6324.	2.2	3
13	Lake water based isoscape in central-south Chile reflects meteoric water. Scientific Reports, 2021, 11, 8725.	3.3	1
14	Climate Impacts on Source Contributions and Evaporation to Flow in the Snake River Basin Using Surface Water Isoscapes (δ2 H and δ18 O). Water Resources Research, 2021, 57, e2020WR029157.	4.2	0
15	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
16	Groundwaterâ€Mediated Memory of Past Climate Controls Water Yield in Snowmeltâ€Dominated Catchments. Water Resources Research, 2021, 57, e2021WR030605.	4.2	14
17	The Wasatch Environmental Observatory: A mountain to urban research network in the semiâ€arid western US. Hydrological Processes, 2021, 35, e14352.	2.6	2
18	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

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19	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
20	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
21	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
22	Advances in global bioavailable strontium isoscapes. Palaeogeography, Palaeoclimatology, Palaeoecology, 2020, 555, 109849.	2.3	104
23	<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
24	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
25	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
26	The isotopic geochemistry of CaCO3 encrustations in Taylor Valley, Antarctica: Implications for their origin. Acta Geographica Slovenica, 2020, 60, 125-139.	0.7	5
27	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
28	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
29	Mechanistic model predicts tissue–environment relationships and trophic shifts in animal hydrogen and oxygen isotope ratios. Oecologia, 2019, 191, 777-789.	2.0	25
30	Spatiotemporal variability in water sources of urban soils and trees in the semiarid, irrigated Salt Lake Valley. Ecohydrology, 2019, 12, e2154.	2.4	17
31	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
32	Wintertime decoupling of urban valley and rural ridge hydrological processes revealed through stable water isotopes. Atmospheric Environment, 2019, 213, 337-348.	4.1	6
33	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
34	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
35	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
36	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

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37	Isoscapes for Terrestrial Migration Research. , 2019, , 53-84.		16
38	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
39	Physicochemical characteristics of a southern Lake Michigan river plume. Journal of Great Lakes Research, 2018, 44, 209-218.	1.9	10
40	Detection and variability of combustion-derived vapor in an urban basin. Atmospheric Chemistry and Physics, 2018, 18, 8529-8547.	4.9	21
41	Isotopic reconnaissance of urban water supply system dynamics. Hydrology and Earth System Sciences, 2018, 22, 6109-6125.	4.9	18
42	Water Source Signatures in the Spatial and Seasonal Isotope Variation of Chinese Tap Waters. Water Resources Research, 2018, 54, 9131-9143.	4.2	25
43	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
44	Navajo Nation, USA, Precipitation Variability from 2002 to 2015. Journal of Contemporary Water Research and Education, 2018, 163, 109-123.	0.7	9
45	Warm Terrestrial Subtropics During the Paleocene and Eocene: Carbonate Clumped Isotope (Δ ₄₇) Evidence From the Tornillo Basin, Texas (USA). Paleoceanography and Paleoclimatology, 2018, 33, 1230-1249.	2.9	9
46	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
47	Inferring the source of evaporated waters using stable H and O isotopes. Oecologia, 2018, 187, 1025-1039.	2.0	82
48	Synchronizing early Eocene deep-sea and continental records – cyclostratigraphic age models for the Bighorn Basin Coring Project drill cores. Climate of the Past, 2018, 14, 303-319.	3.4	39
49	Stream Centric Methods for Determining Groundwater Contributions in Karst Mountain Watersheds. Water Resources Research, 2018, 54, 6708-6724.	4.2	20
50	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
51	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
52	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
53	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
54	Persistent Urban Influence on Surface Water Quality via Impacted Groundwater. Environmental Science &	10.0	34

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55	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
56	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
57	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
58	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
59	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
60	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
61	Urban water – a new frontier in isotope hydrology. Isotopes in Environmental and Health Studies, 2016, 52, 477-486.	1.0	47
62	Forensic Stable Isotope Biogeochemistry. Annual Review of Earth and Planetary Sciences, 2016, 44, 175-206.	11.0	51
63	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
64	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
65	The soil and plant biogeochemistry sampling design for The National Ecological Observatory Network. Ecosphere, 2016, 7, e01234.	2.2	21
66	Stream Nitrogen Inputs Reflect Groundwater Across a Snowmelt-Dominated Montane to Urban Watershed. Environmental Science & Env	10.0	31
67	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
68	D/H isotope ratios in the global hydrologic cycle. Geophysical Research Letters, 2015, 42, 5042-5050.	4.0	56
69	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
70	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
71	Incorporating water isoscapes in hydrological and water resource investigations. Wiley Interdisciplinary Reviews: Water, 2015, 2, 107-119.	6.5	55
72	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

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73	Two massive, rapid releases of carbon during the onset of the Palaeocene–Eocene thermalÂmaximum. Nature Geoscience, 2015, 8, 44-47.	12.9	188
74	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
75	Stable Isotope Analysis of Precipitation Samples Obtained via Crowdsourcing Reveals the Spatiotemporal Evolution of Superstorm Sandy. PLoS ONE, 2014, 9, e91117.	2.5	103
76	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
77	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
78	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
79	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
80	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
81	A geostatistical framework for predicting variations in strontium concentrations and isotope ratios in Alaskan rivers. Chemical Geology, 2014, 389, 1-15.	3.3	70
82	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
83	Paired oxygen isotope records reveal modern North American atmospheric dynamics during the Holocene. Nature Communications, 2014, 5, 3701.	12.8	40
84	Geographic assignment with stable isotopes in IsoMAP. Methods in Ecology and Evolution, 2014, 5, 201-206.	5.2	70
85	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
86	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
87	Up in smoke: A role for organic carbon feedbacks in Paleogene hyperthermals. Global and Planetary Change, 2013, 109, 18-29.	3.5	43
88	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
89	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
90	Footprint of recycled water subsidies downwind of Lake Michigan. Ecosphere, 2012, 3, 1-16.	2.2	56

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91	Terrestrial carbon isotope excursions and biotic change during Palaeogene hyperthermals. Nature Geoscience, 2012, 5, 326-329.	12.9	80
92	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
93	Î 2H and Î 18O 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
94	Mapping multiple source effects on the strontium isotopic signatures of ecosystems from the circumâ€Caribbean region. Ecosphere, 2012, 3, 1-24.	2.2	69
95	Mapping 87Sr/86Sr variations in bedrock and water for large scale provenance studies. Chemical Geology, 2012, 304-305, 39-52.	3.3	195
96	Cyberinfrastructure for isotope analysis and modeling. Eos, 2012, 93, 185-187.	0.1	7
97	Isotopes as Tracers of the Hawaiian Coffee-Producing Regions. Journal of Agricultural and Food Chemistry, 2011, 59, 10239-10246.	5.2	55
98	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
99	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
100	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
101	Temporal variation of oxygen isotope ratios (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
102	Enabling online geospatial isotopic model development and analysis., 2011,,.		5
103	Stable isotope analysis of modern human hair collected from Asia (China, India, Mongolia, and) Tj ETQq1 1 0.784	314 rgBT / 2.1	Oyerlock 10
104	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
105	Rapid carbon sequestration at the termination of the Palaeocene–Eocene Thermal Maximum. Nature Geoscience, 2010, 3, 866-869.	12.9	105
106	A Framework for the Incorporation of Isotopes and Isoscapes in Geospatial Forensic Investigations. , 2010, , 357-387.		53
107	Isoscapes: Spatial Pattern in Isotopic Biogeochemistry. Annual Review of Earth and Planetary Sciences, 2010, 38, 161-187.	11.0	421
108	Statistical and Geostatistical Mapping of Precipitation Water Isotope Ratios. , 2010, , 139-160.		53

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109	Atmospheric circulation is reflected in precipitation isotope gradients over the conterminous United States. Journal of Geophysical Research, 2010, 115, .	3.3	82
110	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
111	Stable Isotopes in Large Scale Hydrological Applications. , 2010, , 389-405.		7
112	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
113	Isoscapes to Address Largeâ€Scale Earth Science Challenges. Eos, 2009, 90, 109-110.	0.1	45
114	Spatial analysis of the intraâ€annual variation of precipitation isotope ratios and its climatological corollaries. Journal of Geophysical Research, 2008, 113, .	3.3	149
115	Isotope Landscapes for Terrestrial Migration Research. Journal of Nano Education (Print), 2008, 2, 79-105.	0.3	37
116	Mechanisms of PETM global change constrained by a new record from central Utah. Geology, 2008, 36, 379.	4.4	55
117	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
118	Stable Isotopes and Human Water Resources: Signals of Change. Journal of Nano Education (Print), 2007, , 283-300.	0.3	4
119	Stable isotope ratios of tap water in the contiguous United States. Water Resources Research, 2007, 43, .	4.2	212
120	When the world turned cold. Nature, 2007, 445, 607-608.	27.8	21
121	Stable Isotopes and Human Water Resources. , 2007, , 285-V.		6
122	Migratory Connectivity of a Widely Distributed Songbird, the American Redstart (Setophaga ruticilla). Ornithological Monographs, 2006, , 14-28.	1.3	88
123	Eocene hyperthermal event offers insight into greenhouse warming. Eos, 2006, 87, 165.	0.1	91
124	Stable isotopes as one of nature's ecological recorders. Trends in Ecology and Evolution, 2006, 21, 408-414.	8.7	409
125	Dietary controls on extinction versus survival among avian megafauna in the late Pleistocene. Geology, 2006, 34, 685.	4.4	43
126	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

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127	Global application of stable hydrogen and oxygen isotopes to wildlife forensics. Oecologia, 2005, 143, 337-348.	2.0	862
128	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
129	Stable hydrogen and oxygen isotope ratios of bottled waters of the world. Rapid Communications in Mass Spectrometry, 2005, 19, 3442-3450.	1.5	96
130	A humid climate state during the Palaeocene/Eocene thermal maximum. Nature, 2004, 432, 495-499.	27.8	266
131	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
132	Interpolating the isotopic composition of modern meteoric precipitation. Water Resources Research, 2003, 39, .	4.2	968
133	Floral change during the Initial Eocene Thermal Maximum in the Powder River Basin, Wyoming. , 2003, , .		19
134	Spatial distribution of \hat{l} 180 in meteoric precipitation. Geology, 2002, 30, 315.	4.4	693
135	Paleocene-Eocene Microvertebrates in Freshwater Limestones of the Willwood Formation, Clarks Fork Basin, Wyoming. Topics in Geobiology, 2001, , 95-129.	0.5	10
136	Bighorn Basin Coring Project (BBCP): a continental perspective on early Paleogene hyperthermals. Scientific Drilling, 0, 16, 21-31.	0.6	18