

Markus Christian Leuenberger

List of Publications by Year in descending order

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159
papers

15,890
citations

28190

55
h-index

18075

120
g-index

188
all docs

188
docs citations

188
times ranked

12732
citing authors

#	ARTICLE	IF	CITATIONS
1	High-resolution record of Northern Hemisphere climate extending into the last interglacial period. <i>Nature</i> , 2004, 431, 147-151.	13.7	2,489
2	Orbital and Millennial Antarctic Climate Variability over the Past 800,000 Years. <i>Science</i> , 2007, 317, 793-796.	6.0	1,880
3	One-to-one coupling of glacial climate variability in Greenland and Antarctica. <i>Nature</i> , 2006, 444, 195-198.	13.7	1,111
4	Eemian interglacial reconstructed from a Greenland folded ice core. <i>Nature</i> , 2013, 493, 489-494.	13.7	565
5	A 1000-year high precision record of delta13C in atmospheric CO2. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1999, 51, 170-193.	0.8	404
6	Water-use efficiency and transpiration across European forests during the Anthropocene. <i>Nature Climate Change</i> , 2015, 5, 579-583.	8.1	357
7	Carbon isotope composition of atmospheric CO2 during the last ice age from an Antarctic ice core. <i>Nature</i> , 1992, 357, 488-490.	13.7	350
8	Carbon Isotope Constraints on the Deglacial CO ₂ Rise from Ice Cores. <i>Science</i> , 2012, 336, 711-714.	6.0	339
9	Isotope calibrated Greenland temperature record over Marine Isotope Stage 3 and its relation to CH4. <i>Earth and Planetary Science Letters</i> , 2006, 243, 504-519.	1.8	338
10	An optimized multi-proxy, multi-site Antarctic ice and gas orbital chronology (AICC2012): 120â€“800 ka. <i>Climate of the Past</i> , 2013, 9, 1715-1731.	1.3	324
11	Civil Aircraft for the regular investigation of the atmosphere based on an instrumented container: The new CARIBIC system. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 4953-4976.	1.9	289
12	CO ₂ surface fluxes at grid point scale estimated from a global 21 year reanalysis of atmospheric measurements. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	276
13	Temperature reconstruction from 10 to 120 kyr b2k from the NGRIP ice core. <i>Climate of the Past</i> , 2014, 10, 887-902.	1.3	266
14	The age of the air in the firn and the ice at Summit, Greenland. <i>Journal of Geophysical Research</i> , 1993, 98, 2831-2838.	3.3	248
15	Greenland temperature response to climate forcing during the last deglaciation. <i>Science</i> , 2014, 345, 1177-1180.	6.0	226
16	Seven years of recent European net terrestrial carbon dioxide exchange constrained by atmospheric observations. <i>Global Change Biology</i> , 2010, 16, 1317-1337.	4.2	223
17	Stable isotope constraints on Holocene carbon cycle changes from an Antarctic ice core. <i>Nature</i> , 2009, 461, 507-510.	13.7	203
18	16Â°C Rapid Temperature Variation in Central Greenland 70,000 Years Ago. <i>Science</i> , 1999, 286, 934-937.	6.0	188

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19	Wood Cellulose Preparation Methods and Mass Spectrometric Analyses of $\delta^{13}\text{C}$, $\delta^{18}\text{O}$, and Nonexchangeable $\delta^2\text{H}$ Values in Cellulose, Sugar, and Starch: An Interlaboratory Comparison. <i>Analytical Chemistry</i> , 2007, 79, 4603-4612.	3.2	185
20	Climate on the southern Black Sea coast during the Holocene: implications from the Sofular Cave record. <i>Quaternary Science Reviews</i> , 2011, 30, 2433-2445.	1.4	181
21	Signal strength and climate calibration of a European tree-ring isotope network. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	180
22	Pleistocene water intrusions from the Mediterranean and Caspian seas into the Black Sea. <i>Nature Geoscience</i> , 2011, 4, 236-239.	5.4	177
23	Spatial variability and temporal trends in water-use efficiency of European forests. <i>Global Change Biology</i> , 2014, 20, 3700-3712.	4.2	175
24	Changing boreal methane sources and constant biomass burning during the last termination. <i>Nature</i> , 2008, 452, 864-867.	13.7	173
25	Reducing uncertainties in $\delta^{13}\text{C}$ analysis of tree rings: Pooling, milling, and cellulose extraction. <i>Journal of Geophysical Research</i> , 1998, 103, 19519-19526.	3.3	165
26	Millennial and sub-millennial scale climatic variations recorded in polar ice cores over the last glacial period. <i>Climate of the Past</i> , 2010, 6, 345-365.	1.3	143
27	Oxygen Isotope Analysis of Cellulose: An Interlaboratory Comparison. <i>Analytical Chemistry</i> , 1998, 70, 2074-2080.	3.2	124
28	Volcanic influence on centennial to millennial Holocene Greenland temperature change. <i>Scientific Reports</i> , 2017, 7, 1441.	1.6	120
29	A continuous record of temperature evolution over a sequence of Dansgaard-Oeschger events during Marine Isotopic Stage 4 (76 to 62 kyr BP). <i>Geophysical Research Letters</i> , 2004, 31, .	1.5	108
30	Ice-age atmospheric concentration of nitrous oxide from an Antarctic ice core. <i>Nature</i> , 1992, 360, 449-451.	13.7	105
31	Validation of the Swiss methane emission inventory by atmospheric observations and inverse modelling. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 3683-3710.	1.9	103
32	Firn-air $\delta^{15}\text{N}$ in modern polar sites and glacial-interglacial ice: a model-data mismatch during glacial periods in Antarctica?. <i>Quaternary Science Reviews</i> , 2006, 25, 49-62.	1.4	99
33	What drives the millennial and orbital variations of $\delta^{18}\text{O}_{\text{atm}}$?. <i>Quaternary Science Reviews</i> , 2010, 29, 235-246.	1.4	98
34	The variability in the carbon sinks as reconstructed for the last 1000 years. <i>Geophysical Research Letters</i> , 1999, 26, 1437-1440.	1.5	95
35	Synchronising EDML and NorthGRIP ice cores using $\delta^{18}\text{O}$ of atmospheric oxygen ($\delta^{18}\text{O}_{\text{atm}}$) and CH_4 measurements over MIS5 (80-123 kyr). <i>Quaternary Science Reviews</i> , 2010, 29, 222-234.	1.4	89
36	Delta ^{15}N measurements as a calibration tool for the paleothermometer and gas-ice age differences: A case study for the 8200 B.P. event on GRIP ice. <i>Journal of Geophysical Research</i> , 1999, 104, 22163-22170.	3.3	81

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37	High-resolution late-glacial chronology for the Gerzensee lake record (Switzerland): $\delta^{18}\text{O}$ correlation between a Gerzensee-stack and NGRIP. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2013, 391, 13-24.	1.0	81
38	20th Century changes in carbon isotopes and water-use efficiency: tree-ring-based evaluation of the CLM4.5 and LPX-Bern models. <i>Biogeosciences</i> , 2017, 14, 2641-2673.	1.3	81
39	Central Europe temperature constrained by speleothem fluid inclusion water isotopes over the past 14,000 years. <i>Science Advances</i> , 2019, 5, eaav3809.	4.7	81
40	Quantification of rapid temperature change during DO event 12 and phasing with methane inferred from air isotopic measurements. <i>Earth and Planetary Science Letters</i> , 2004, 225, 221-232.	1.8	80
41	$\delta^{13}\text{C}$ fractionations during the biosynthesis of carbohydrates and lipids imprint a metabolic signal on the $\delta^2\text{H}$ values of plant organic compounds. <i>New Phytologist</i> , 2018, 218, 479-491.	3.5	78
42	Anomalous flow below 2700 m in the EPICA Dome C ice core detected using $\delta^{18}\text{O}$ of atmospheric oxygen measurements. <i>Climate of the Past</i> , 2007, 3, 341-353.	1.3	74
43	Predicting terrestrial $\delta^{222}\text{Rn}$ flux using gamma dose rate as a proxy. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 2789-2795.	1.9	72
44	Evidence for molecular size dependent gas fractionation in firn air derived from noble gases, oxygen, and nitrogen measurements. <i>Earth and Planetary Science Letters</i> , 2006, 243, 61-73.	1.8	71
45	$\delta^{18}\text{O}$ of tree rings of beech (<i>Fagus sylvatica</i>) as a record of $\delta^{18}\text{O}$ of the growing season precipitation. <i>Tellus, Series B: Chemical and Physical Meteorology</i> , 1997, 49, 80-92.	0.8	69
46	Permeation of atmospheric gases through polymer O-rings used in flasks for air sampling. <i>Journal of Geophysical Research</i> , 2004, 109, n/a-n/a.	3.3	67
47	Spatial gradients of temperature, accumulation and $\delta^{18}\text{O}$ -ice in Greenland over a series of Dansgaard-Oeschger events. <i>Climate of the Past</i> , 2013, 9, 1029-1051.	1.3	67
48	Variations of $^{18}\text{O}/^{16}\text{O}$ in plants from temperate peat bogs (Switzerland): implications for paleoclimatic studies. <i>Earth and Planetary Science Letters</i> , 2002, 202, 419-434.	1.8	66
49	Evidence for periods of wetter and cooler climate in the Sahel between 6 and 40 kyr BP derived from groundwater. <i>Geophysical Research Letters</i> , 2003, 30, .	1.5	64
50	The glacial inception as recorded in the NorthGRIP Greenland ice core: timing, structure and associated abrupt temperature changes. <i>Climate Dynamics</i> , 2006, 26, 273-284.	1.7	63
51	Pooled versus separate measurements of tree-ring stable isotopes. <i>Science of the Total Environment</i> , 2011, 409, 2244-2251.	3.9	63
52	Rapid online equilibration method to determine the D/H ratios of non-exchangeable hydrogen in cellulose. <i>Rapid Communications in Mass Spectrometry</i> , 2006, 20, 3337-3344.	0.7	62
53	Analysis of $\delta^{18}\text{O}$ in tree rings: Wood-cellulose comparison and method dependent sensitivity. <i>Journal of Geophysical Research</i> , 1999, 104, 19267-19273.	3.3	61
54	NGRIP CH_4 concentration from 120 to 10 kyr before present and its relation to a $\delta^{15}\text{N}$ temperature reconstruction from the same ice core. <i>Climate of the Past</i> , 2014, 10, 903-920.	1.3	61

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55	Using ^{81}Kr and noble gases to characterize and date groundwater and brines in the Baltic Artesian Basin on the one-million-year timescale. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 205, 187-210.	1.6	59
56	Triple isotope ($\delta^{18}\text{O}$, $\delta^{17}\text{O}$, $\delta^{15}\text{N}$) study on precipitation, drip water and speleothem fluid inclusions for a Western Central European cave (NW Switzerland). <i>Quaternary Science Reviews</i> , 2015, 127, 73-89.	1.4	56
57	A multi-proxy, high-resolution record of peatland development and its drivers during the last millennium from the subalpine Swiss Alps. <i>Quaternary Science Reviews</i> , 2011, 30, 3467-3480.	1.4	55
58	New online method for water isotope analysis of speleothem fluid inclusions using laser absorption spectroscopy (WS-CRDS). <i>Climate of the Past</i> , 2014, 10, 1291-1304.	1.3	54
59	Glacial-interglacial temperature change in the tropical West Pacific: A comparison of stalagmite-based paleo-thermometers. <i>Quaternary Science Reviews</i> , 2015, 127, 90-116.	1.4	50
60	Firn processes and $\delta^{15}\text{N}$: potential for a gas-phase climate proxy. <i>Quaternary Science Reviews</i> , 2010, 29, 28-42.	1.4	48
61	Influence of atmospheric circulation patterns on the oxygen isotope ratio of tree rings in the Alpine region. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	48
62	CO_2 and O_2/N_2 variations in and just below the bubble-clathrate transformation zone of Antarctic ice cores. <i>Earth and Planetary Science Letters</i> , 2010, 297, 226-233.	1.8	47
63	Precipitation isoscape of high reliefs: interpolation scheme designed and tested for monthly resolved precipitation oxygen isotope records of an Alpine domain. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 1897-1907.	1.9	45
64	Pluvial periods in Southern Arabia over the last 1.1 million-years. <i>Quaternary Science Reviews</i> , 2020, 229, 106112.	1.4	45
65	Towards orbital dating of the EPICA Dome C ice core using $\delta^{18}\text{O}$ and $\delta^{15}\text{N}$. <i>Climate of the Past</i> , 2012, 8, 191-203.	1.3	43
66	Two-phase change in CO_2 , Antarctic temperature and global climate during Termination II. <i>Nature Geoscience</i> , 2013, 6, 1062-1065.	5.4	43
67	Are carbohydrate storage strategies of trees traceable by early-latewood carbon isotope differences?. <i>Trees - Structure and Function</i> , 2015, 29, 859-870.	0.9	41
68	An interlaboratory comparison of techniques for extracting and analyzing trapped gases in ice cores. <i>Journal of Geophysical Research</i> , 1997, 102, 26527-26538.	3.3	40
69	Simultaneous Determination of Stable Carbon, Oxygen, and Hydrogen Isotopes in Cellulose. <i>Analytical Chemistry</i> , 2015, 87, 376-380.	3.2	39
70	The CarboCount CH sites: characterization of a dense greenhouse gas observation network. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 11147-11164.	1.9	38
71	Measurements of CO_2 , its stable isotopes, O_2 , and $\delta^{18}\text{O}$ at Bern, Switzerland. <i>Atmospheric Chemistry and Physics</i> , 2006, 6, 1991-2004.	1.9	35
72	Spatio-temporal patterns of tree growth as related to carbon isotope fractionation in European forests under changing climate. <i>Global Ecology and Biogeography</i> , 2019, 28, 1295-1309.	2.7	35

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73	European source and sink areas of CO ₂ ; retrieved from Lagrangian transport model interpretation of combined O ₂ and CO ₂ measurements at the high alpine research station Jungfraujoch. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 8017-8036.	1.9	33
74	A global picture of the first abrupt climatic event occurring during the last glacial inception. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	33
75	Reconstruction of past climate conditions over central Europe from groundwater data. <i>Quaternary Science Reviews</i> , 2011, 30, 3423-3429.	1.4	32
76	An inter-regional assessment of concentrations and $\delta^{13}\text{C}$ values of methane and dissolved inorganic carbon in small European lakes. <i>Aquatic Sciences</i> , 2015, 77, 667-680.	0.6	32
77	On the use of $\delta^{18}\text{O}_{\text{atm}}$ for ice core dating. <i>Quaternary Science Reviews</i> , 2018, 185, 244-257.	1.4	32
78	$\delta^{18}\text{O}$ of atmospheric oxygen measured on the GRIP Ice Core Document Stratigraphic disturbances in the lowest 10% of the core. <i>Geophysical Research Letters</i> , 1996, 23, 1049-1052.	1.5	31
79	Millennial scale variations of the isotopic composition of atmospheric oxygen over Marine Isotopic Stage 4. <i>Earth and Planetary Science Letters</i> , 2007, 258, 101-113.	1.8	30
80	Swiss tree rings reveal warm and wet summers during medieval times. <i>Geophysical Research Letters</i> , 2014, 41, 1732-1737.	1.5	30
81	Comparison of continuous in situ CO ₂ observations at Jungfraujoch using two different measurement techniques. <i>Atmospheric Measurement Techniques</i> , 2015, 8, 57-68.	1.2	30
82	Continuous CO ₂ /CH ₄ /CO measurements (2012-2014) at Beromünster tall tower station in Switzerland. <i>Biogeosciences</i> , 2016, 13, 2623-2635.	1.3	30
83	Temperature dependencies of high-temperature reduction on conversion products and their isotopic signatures. <i>Rapid Communications in Mass Spectrometry</i> , 2007, 21, 1587-1598.	0.7	29
84	^2H -enrichment of cellulose and n-alkanes in heterotrophic plants. <i>Oecologia</i> , 2019, 189, 365-373.	0.9	29
85	Stable carbon isotope composition and concentrations of CO ₂ and CH ₄ in the deep catotelm of a peat bog. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 6015-6026.	1.6	28
86	Geostatistical analysis and isoscape of ice core derived water stable isotope records in an Antarctic macro region. <i>Polar Science</i> , 2017, 13, 23-32.	0.5	28
87	More than climate: Hydrogen isotope ratios in tree rings as novel plant physiological indicator for stress conditions. <i>Dendrochronologia</i> , 2021, 65, 125788.	1.0	28
88	Atmospheric O ₂ , CO ₂ and $\delta^{13}\text{C}$ observations from the remote sites Jungfraujoch, Switzerland, and Puy de Dôme, France. <i>Geophysical Research Letters</i> , 2005, 32, .	1.5	26
89	The stable carbon isotopic composition of <i>Daphnia ephippia</i> in small, temperate lakes reflects in-lake methane availability. <i>Limnology and Oceanography</i> , 2015, 60, 1064-1075.	1.6	26
90	Comparative carbon cycle dynamics of the present and last interglacial. <i>Quaternary Science Reviews</i> , 2016, 137, 15-32.	1.4	26

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91	To What Extent Can Ice Core Data Contribute to the Understanding of Plant Ecological Developments of the Past?. <i>Journal of Nano Education (Print)</i> , 2007, 1, 211-233.	0.3	25
92	Methods to merge overlapping tree-ring isotope series to generate multi-centennial chronologies. <i>Chemical Geology</i> , 2012, 294-295, 127-134.	1.4	25
93	Gas adsorption and desorption effects on cylinders and their importance for long-term gas records. <i>Atmospheric Measurement Techniques</i> , 2015, 8, 5289-5299.	1.2	25
94	Comment on "Greenland-Antarctic phase relations and millennial time-scale climate fluctuations in the Greenland ice-cores" by C. Wunsch. <i>Quaternary Science Reviews</i> , 2004, 23, 2053-2054.	1.4	24
95	Temporal patterns in lacustrine stable isotopes as evidence for climate change during the late glacial in the Southern European Alps. <i>Journal of Paleolimnology</i> , 2008, 40, 885-895.	0.8	24
96	Trophic state changes can affect the importance of methane-derived carbon in aquatic food webs. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2017, 284, 20170278.	1.2	24
97	400 Years of summer hydroclimate from stable isotopes in Iberian trees. <i>Climate Dynamics</i> , 2017, 49, 143-161.	1.7	24
98	Modeling the signal transfer of sea water $\delta^{18}O$ to the $\delta^{18}O$ of atmospheric oxygen using a diagnostic box model for the terrestrial and marine biosphere. <i>Journal of Geophysical Research</i> , 1997, 102, 26841-26850.	3.3	23
99	$\delta^{13}C$ and $\delta^{18}O$ fractionation effects on open splits and on the ion source in continuous flow isotope ratio mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2010, 24, 1419-1430.	0.7	23
100	CO ₂ concentration measurements on air samples by mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2000, 14, 1552-1557.	0.7	22
101	On-Line Determination of Oxygen Isotope Ratios of Water or Ice by Mass Spectrometry. <i>Analytical Chemistry</i> , 2002, 74, 4611-4617.	3.2	22
102	A multi-proxy Late-glacial palaeoenvironmental record from Lake Bled, Slovenia. <i>Hydrobiologia</i> , 2009, 631, 121-141.	1.0	22
103	Glacial-interglacial dynamics of Antarctic firn columns: comparison between simulations and ice core air- $\delta^{15}N$ measurements. <i>Climate of the Past</i> , 2013, 9, 983-999.	1.3	22
104	Measurements and trend analysis of O ₂ , CO ₂ and $\delta^{13}C$ of CO ₂ from the high altitude research station Jungfraujoch, Switzerland "A comparison with the observations from the remote site Puy de Dôme, France. <i>Science of the Total Environment</i> , 2008, 391, 203-210.	3.9	21
105	Qualitative Distinction of Autotrophic and Heterotrophic Processes at the Leaf Level by Means of Triple Stable Isotope ($\delta^{13}C$, $\delta^{15}N$) Patterns. <i>Frontiers in Plant Science</i> , 2015, 6, 1008.	1.7	19
106	Temperature and precipitation signal in two Alpine ice cores over the period 1961-2001. <i>Climate of the Past</i> , 2014, 10, 1093-1108.	1.3	18
107	Estimation of the fossil fuel component in atmospheric CO ₂ based on radiocarbon measurements at the Beromünster tall tower, Switzerland. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 10753-10766.	1.9	18
108	Fast high-precision on-line determination of hydrogen isotope ratios of water or ice by continuous-flow isotope ratio mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2003, 17, 1319-1325.	0.7	17

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109	A new gas inlet system for an isotope ratio mass spectrometer improves reproducibility. Rapid Communications in Mass Spectrometry, 2000, 14, 1543-1551.	0.7	16
110	Continuous Extraction of Trapped Air from Bubble Ice or Water for On-Line Determination of Isotope Ratios. Analytical Chemistry, 2003, 75, 2324-2332.	3.2	16
111	Measurements of greenhouse gases at Beromünster tall-tower station in Switzerland. Atmospheric Measurement Techniques, 2016, 9, 2603-2614.	1.2	16
112	Adaptive selection of diurnal minimum variation: a statistical strategy to obtain representative atmospheric CO ₂ data and its application to European elevated mountain stations. Atmospheric Measurement Techniques, 2018, 11, 1501-1514.	1.2	16
113	Measurements of isotope and elemental ratios of air from polar ice with a new on-line extraction method. Geochemistry, Geophysics, Geosystems, 2004, 5, n/a-n/a.	1.0	15
114	A CO ₂ -based method to determine the regional biospheric signal in atmospheric CO ₂ . Tellus, Series B: Chemical and Physical Meteorology, 2022, 69, 1353388.	0.8	15
115	Atmospheric O ₂ , CO ₂ and ¹³ C measurements from aircraft sampling over Griffin Forest, Perthshire, UK. Rapid Communications in Mass Spectrometry, 2005, 19, 2399-2406.	0.7	14
116	Multi-isotope labelling of organic matter by diffusion of ² H ₂ O vapour and ¹³ C-CO ₂ into the leaves and its distribution within the plant. Biogeosciences, 2015, 12, 1865-1879.	1.5	13
117	Phase relationships between orbital forcing and the composition of air trapped in Antarctic ice cores. Climate of the Past, 2016, 12, 729-748.	1.3	13
118	Atmospheric CO ₂ , ¹⁸ O ₂ and ¹⁵ N ₂ and ¹³ C-CO ₂ measurements at Jungfraujoch, Switzerland: results from a flask sampling intercomparison program. Atmospheric Measurement Techniques, 2013, 6, 1805-1815.	1.2	12
119	Post-bubble close-off fractionation of gases in polar firn and ice cores: effects of accumulation rate on permeation through overloading pressure. Atmospheric Chemistry and Physics, 2015, 15, 13895-13914.	1.9	12
120	The 8.2 ka BP event in northeastern North America: first combined oxygen and hydrogen isotopic data from peat in Newfoundland. Journal of Quaternary Science, 2016, 31, 416-425.	1.1	12
121	Redox zonation and organic matter oxidation in palaeogroundwater of glacial origin from the Baltic Artesian Basin. Chemical Geology, 2018, 488, 149-161.	1.4	12
122	To What Extent Can Ice Core Data Contribute to the Understanding of Plant Ecological Developments of the Past?. , 2007, , 211-III.		12
123	On-line systems for continuous water and gas isotope ratio measurements. Isotopes in Environmental and Health Studies, 2005, 41, 189-205.	0.5	11
124	Analyzing atmospheric trace gases and aerosols using passenger aircraft. Eos, 2005, 86, 77.	0.1	11
125	High-resolution delta ¹³ C measurements on ancient air extracted from less than 10 cm ³ of ice. Tellus, Series B: Chemical and Physical Meteorology, 2003, 55, 138-144.	0.8	10
126	Intercomparison of in situ NDIR and column FTIR measurements of CO ₂ at Jungfraujoch. Atmospheric Chemistry and Physics, 2016, 16, 9935-9949.	1.9	10

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127	Preliminary evaluation of the potential of tree-ring cellulose content as a novel supplementary proxy in dendroclimatology. <i>Biogeosciences</i> , 2018, 15, 1047-1064.	1.3	10
128	Alpine Holocene tree-ring dataset: age-related trends in the stable isotopes of cellulose show species-specific patterns. <i>Biogeosciences</i> , 2020, 17, 4871-4882.	1.3	10
129	Larch Cellulose Shows Significantly Depleted Hydrogen Isotope Values With Respect to Evergreen Conifers in Contrast to Oxygen and Carbon Isotopes. <i>Frontiers in Earth Science</i> , 2020, 8, .	0.8	9
130	Disentangle Kinetic From Equilibrium Fractionation Using Primary ($\delta^{17}\text{O}$, $\delta^{18}\text{O}$, $\delta^2\text{H}$) and Secondary ($\delta^{17}\text{O}$, $\delta^{18}\text{O}$) Tj ETQq0 0 0 rgBT /Overlock Science, 2021, 9, .	0.8	9
131	Spruce tree-ring proxy signals during cold and warm periods. <i>Dendrobiology</i> , 0, 77, 3-18.	0.6	9
132	Comparison between real time and flask measurements of atmospheric O ₂ and CO ₂ performed at the High Altitude Research Station Jungfrauoch, Switzerland. <i>Science of the Total Environment</i> , 2008, 391, 196-202.	3.9	8
133	Measurements of the $\delta^{17}\text{O}$ Excess in Water with the Equilibration Method. <i>Analytical Chemistry</i> , 2008, 80, 3244-3253.	3.2	8
134	Net CO ₂ surface emissions at Bern, Switzerland inferred from ambient observations of CO ₂ , $\delta^{13}\text{C}$, and $\delta^{222}\text{Rn}$ using a customized radon tracer inversion. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 1580-1591.	1.2	8
135	High-precision atmospheric oxygen measurement comparisons between a newly built CRDS analyzer and existing measurement techniques. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 6803-6826.	1.2	8
136	Assessing local CO ₂ contamination revealed by two near-by high altitude records at Jungfrauoch, Switzerland. <i>Environmental Research Letters</i> , 2021, 16, 044037.	2.2	8
137	Triple Water Vapour $\delta^{17}\text{O}$, $\delta^{18}\text{O}$, $\delta^2\text{H}$ and Comparison to Meteorological Parameters. <i>Frontiers in Earth Science</i> , 2021, 8, .	0.8	8
138	Bryozoan stable carbon and hydrogen isotopes: relationships between the isotopic composition of zooids, statoblasts and lake water. <i>Hydrobiologia</i> , 2016, 765, 209-223.	1.0	7
139	Observations of Atmospheric Methane and Carbon Dioxide Mixing Ratios: Tall-Tower or Mountain-Top Stations?. <i>Boundary-Layer Meteorology</i> , 2017, 164, 135-159.	1.2	6
140	Younger Dryas and Holocene environmental change at the Atlantic fringe of Europe derived from lake $\delta^{13}\text{C}$ sediment stable isotope records from western Ireland. <i>Boreas</i> , 2020, 49, 233-247.	1.2	6
141	Elucidating local pollution and site representativeness at the Jungfrauoch, Switzerland through parallel aerosol measurements at an adjacent mountain ridge. <i>Environmental Research Communications</i> , 2021, 3, 021001.	0.9	6
142	Comment on "The phase relation between atmospheric carbon dioxide and global temperature". Humlum et al. [<i>Glob. Planet. Change</i> 100: 51-69.]: Isotopes ignored. <i>Global and Planetary Change</i> , 2013, 109, 1-2.	1.6	5
143	Unveiling the anatomy of Termination 3 using water and air isotopes in the Dome C ice core, East Antarctica. <i>Quaternary Science Reviews</i> , 2019, 211, 156-165.	1.4	5
144	Origin and percolation times of Milandre Cave drip water determined by tritium time series and beryllium-7 data from Switzerland. <i>Journal of Environmental Radioactivity</i> , 2020, 222, 106346.	0.9	5

#	ARTICLE	IF	CITATIONS
145	Quantifying the Porosity of Crystalline Rocks by In Situ and Laboratory Injection Methods. Minerals (Basel, Switzerland), 2021, 11, 1072.	0.8	4
146	The Stable Hydrogen Isotopic Signature: From Source Water to Tree Rings. Tree Physiology, 2022, , 331-359.	0.9	4
147	Estimation of temperature $\delta^{18}O$ altitude gradients during the Pleistocene-Holocene transition from Swiss stalagmites. Earth and Planetary Science Letters, 2020, 544, 116387.	1.8	3
148	Towards an understanding of surface effects: testing of various materials in a small volume measurement chamber and its relevance for atmospheric trace gas analysis. Atmospheric Measurement Techniques, 2020, 13, 119-130.	1.2	3
149	Investigating Masking Effects of Age Trends on the Correlations among Tree Ring Proxies. Forests, 2021, 12, 1523.	0.9	3
150	Research at Jungfrauoch. Science of the Total Environment, 2008, 391, 169-176.	3.9	2
151	Investigation of adsorption and desorption behavior of small-volume cylinders and its relevance for atmospheric trace gas analysis. Atmospheric Measurement Techniques, 2020, 13, 101-117.	1.2	2
152	Comparison of Holocene temperature reconstructions based on GISP2 multiple-gas-isotope measurements. Quaternary Science Reviews, 2022, 280, 107274.	1.4	2
153	Novel automated inversion algorithm for temperature reconstruction using gas isotopes from ice cores. Climate of the Past, 2018, 14, 763-788.	1.3	1
154	Oxygen and hydrogen isotope analysis of experimentally generated magmatic and metamorphic aqueous fluids using laser spectroscopy (WS-CRDS). Chemical Geology, 2021, 584, 120487.	1.4	1
155	High Precision Carbon Dioxide and Oxygen Measurements Onboard of a Passenger Airplane. Chimia, 2006, 60, 817-817.	0.3	0
156	A multi-proxy Late-glacial palaeoenvironmental record from Lake Bled, Slovenia. , 2009, , 121-141.		0
157	Comparison of Three Measurement Principles on Water Triple Oxygen Isotopologues. Frontiers in Earth Science, 2021, 9, .	0.8	0
158	Challenges in the Direct Determination of ^{17}O excess in Microliter Amount of Water Extracted From Speleothem Fluid Inclusions. Frontiers in Earth Science, 2021, 9, .	0.8	0
159	Hydrogen isotope ratios as a Larix detector in archaeological wood samples. Journal of Archaeological Science: Reports, 2022, 41, 103261.	0.2	0