Rolf T W Siegwolf

List of Publications by Year
in descending order

193 papers	12,977 citations	18436 62 h-index	29081 104 g-index
198 all docs	198 docs citations	198 times ranked	10616 citing authors

#	Article	IF	Citations
1	Plant responses to rising vapor pressure deficit. New Phytologist, 2020, 226, 1550-1566.	3.5	814
2	Linking stable oxygen and carbon isotopes with stomatal conductance and photosynthetic capacity: a conceptual model. Oecologia, 2000, 125, 350-357.	0.9	517
3	Carbon Flux and Growth in Mature Deciduous Forest Trees Exposed to Elevated CO2. Science, 2005, 309, 1360-1362.	6.0	477
4	Carbon isotope discrimination indicates improving water-use efficiency of trees in northern Eurasia over the last 100 years. Global Change Biology, 2004, 10, 2109-2120.	4.2	361
5	Water-use strategies in two co-occurring Mediterranean evergreen oaks: surviving the summer drought. Tree Physiology, 2007, 27, 793-803.	1.4	282
6	Soil Respiration in European Grasslands in Relation to Climate and Assimilate Supply. Ecosystems, 2008, 11, 1352-1367.	1.6	276
7	Drought response of five conifer species under contrasting water availability suggests high vulnerability of Norway spruce and European larch. Global Change Biology, 2013, 19, 3184-3199.	4.2	268
8	Does photosynthesis affect grassland soilâ€respired CO₂ and its carbon isotope composition on a diurnal timescale?. New Phytologist, 2009, 182, 451-460.	3.5	260
9	Correlating delta13C and delta18O in cellulose of trees. Plant, Cell and Environment, 1997, 20, 1543-1550.	2.8	214
10	Belowground carbon trade among tall trees in a temperate forest. Science, 2016, 352, 342-344.	6.0	182
11	Estimating the uptake of traffic-derived NO 2 from 15 N abundance in Norway spruce needles. Oecologia, 1999, 118, 124-131.	0.9	177
12	Spatial variability and temporal trends in waterâ€use efficiency of European forests. Global Change Biology, 2014, 20, 3700-3712.	4.2	175
13	Seasonal transfer of oxygen isotopes from precipitation and soil to the tree ring: source water versus needle water enrichment. New Phytologist, 2014, 202, 772-783.	3.5	171
14	Recovery of trees from drought depends on belowground sink control. Nature Plants, 2016, 2, 16111.	4.7	170
15	Seasonal origins of soil water used by trees. Hydrology and Earth System Sciences, 2019, 23, 1199-1210.	1.9	166
16	Reducing uncertainties in Î´13C analysis of tree rings: Pooling, milling, and cellulose extraction. Journal of Geophysical Research, 1998, 103, 19519-19526.	3.3	165
17	Increased waterâ€use efficiency does not lead to enhanced tree growth under xeric and mesic conditions. New Phytologist, 2014, 203, 94-109.	3.5	158
18	Increased N deposition retards mineralization of old soil organic matter. Soil Biology and Biochemistry, 2003, 35, 1683-1692.	4.2	156

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19	Central <scp>E</scp>uropean hardwood trees in a highâ€<scp>CO</scp>₂ future: synthesis of an 8â€year forest canopy <scp>CO</scp>₂ enrichment project. Journal of Ecology, 2013, 101, 1509-1519.	1.9	141
20	Progress and challenges in using stable isotopes to trace plant carbon and water relations across scales. Biogeosciences, 2012, 9, 3083-3111.	1.3	138
21	The long way down--are carbon and oxygen isotope signals in the tree ring uncoupled from canopy physiological processes?. Tree Physiology, 2011, 31, 1088-1102.	1.4	137
22	Inter- and intra-annual stable carbon and oxygen isotope signals in response to drought in Mediterranean pines. Agricultural and Forest Meteorology, 2013, 168, 59-68.	1.9	133
23	Canopy CO 2 enrichment permits tracing the fate of recently assimilated carbon in a mature deciduous forest. New Phytologist, 2006, 172, 319-329.	3.5	130
24	Estimates of water vapor flux and canopy conductance of Scots pine at the tree level utilizing different xylem sap flow methods. Theoretical and Applied Climatology, 1996, 53, 105-113.	1.3	125
25	Stable carbon isotopes in tree rings of beech: climatic versus site-related influences. Trees - Structure and Function, 1997, 11, 291-297.	0.9	124
26	Oxygen Isotope Analysis of Cellulose:â€‰ An Interlaboratory Comparison. Analytical Chemistry, 1998, 70, 2074-2080.	3.2	124
27	Hydraulic Lift in Cork Oak Trees in a Savannah-Type Mediterranean Ecosystem and its Contribution to the Local Water Balance. Plant and Soil, 2006, 282, 361-378.	1.8	123
28	Biotic, Abiotic, and Management Controls on the Net Ecosystem CO2 Exchange of European Mountain Grassland Ecosystems. Ecosystems, 2008, 11, 1338-1351.	1.6	122
29	Ideas and perspectives: Tracing terrestrial ecosystem water fluxes using hydrogen and oxygen stable isotopes â€“ challenges and opportunities from an interdisciplinary perspective. Biogeosciences, 2018, 15, 6399-6415.	1.3	115
30	Short-term responses of ecosystem carbon fluxes to experimental soil warming at the Swiss alpine treeline. Biogeochemistry, 2010, 97, 7-19.	1.7	111
31	A 350 year drought reconstruction from Alpine tree ring stable isotopes. Global Biogeochemical Cycles, 2010, 24, .	1.9	108
32	Carbon fluxes to the soil in a mature temperate forest assessed by 13C isotope tracing. Oecologia, 2004, 141, 489-501.	0.9	107
33	Effects of environmental parameters, leaf physiological properties and leaf water relations on leaf water <i>Î´</i>¹⁸O enrichment in different <i>Eucalyptus</i> species. Plant, Cell and Environment, 2008, 31, 738-751.	2.8	107
34	A dynamic leaf gasâ€exchange strategy is conserved in woody plants under changing ambient CO₂: evidence from carbon isotope discrimination in paleo and CO₂ enrichment studies. Global Change Biology, 2016, 22, 889-902.	4.2	106
35	First detection of nitrogen from NOx in tree rings: a 15N/14N study near a motorway. Atmospheric Environment, 2004, 38, 2779-2787.	1.9	103
36	Tree rings indicate different drought resistance of a native (Abies alba Mill.) and a nonnative (Picea) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2009, 257, 820-828.	1.4	103

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37	Soil warming alters microbial substrate use in alpine soils. Global Change Biology, 2014, 20, 1327-1338.	4.2	97
38	Sustained enhancement of photosynthesis in mature deciduous forest trees after 8Âyears of free air CO2 enrichment. Planta, 2010, 232, 1115-1125.	1.6	96
39	The fate of recently fixed carbon after drought release: towards unravelling <scp>C</scp> storage regulation in <scp><i>Tilia platyphyllos</i></scp> and <scp><i>Pinus sylvestris</i></scp>. Plant, Cell and Environment, 2017, 40, 1711-1724.	2.8	96
40	Is the dual-isotope conceptual model fully operational?. Tree Physiology, 2012, 32, 1179-1182.	1.4	94
41	Fruit production in three masting tree species does not rely on stored carbon reserves. Oecologia, 2013, 171, 653-662.	0.9	93
42	Inter-laboratory comparison of cryogenic water extraction systems for stable isotope analysis of soil water. Hydrology and Earth System Sciences, 2018, 22, 3619-3637.	1.9	92
43	Lowâ€frequency noise in <i>Î´</i>¹³C and <i>Î´</i>¹⁸O tree ring data: A case study of <i>Pinus uncinata</i> in the Spanish Pyrenees. Global Biogeochemical Cycles, 2010, 24, .	1.9	91
44	Responses of belowground carbon allocation dynamics to extended shading in mountain grassland. New Phytologist, 2013, 198, 116-126.	3.5	84
45	Stable isotope analysis reveals differential effects of soil nitrogen and nitrogen dioxide on the water use efficiency in hybrid poplar leaves. New Phytologist, 2001, 149, 233-246.	3.5	83
46	The input and fate of new C in two forest soils under elevated CO2. Global Change Biology, 2003, 9, 862-872.	4.2	83
47	Do centennial tree-ring and stable isotope trends of Larix gmelinii (Rupr.) Rupr. indicate increasing water shortage in the Siberian north?. Oecologia, 2009, 161, 825-835.	0.9	83
48	Fast response of Scots pine to improved water availability reflected in treeâ€ring width and <i>Î´</i>¹³C. Plant, Cell and Environment, 2010, 33, 1351-1360.	2.8	83
49	Long-term effects of drought on tree-ring growth and carbon isotope variability in Scots pine in a dry environment. Tree Physiology, 2017, 37, 1028-1041.	1.4	83
50	An investigation of the common signal in tree ring stable isotope chronologies at temperate sites. Journal of Geophysical Research, 2008, 113, .	3.3	82
51	20thÂcentury changes in carbon isotopes and water-use efficiency: tree-ring-based evaluation of the CLM4.5 and LPX-Bern models. Biogeosciences, 2017, 14, 2641-2673.	1.3	81
52	Phylogenetically balanced evidence for structural and carbon isotope responses in plants along elevational gradients. Oecologia, 2010, 162, 853-863.	0.9	80
53	Spatial and temporal oxygen isotope trends at the northern tree-line in Eurasia. Geophysical Research Letters, 2002, 29, 7-1-7-4.	1.5	77
54	Rapid mixing between old and new C pools in the canopy of mature forest trees. Plant, Cell and Environment, 2007, 30, 963-972.	2.8	76

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55	Determination of primary and secondary sources of organic acids and carbonaceous aerosols using stable carbon isotopes. Atmospheric Environment, 2009, 43, 431-437.	1.9	76
56	Preparation of starch and soluble sugars of plant material for the analysis of carbon isotope composition: a comparison of methods. Rapid Communications in Mass Spectrometry, 2009, 23, 2476-2488.	0.7	76
57	Carbon and Nitrogen Dynamics in Preferential Flow Paths and Matrix of a Forest Soil. Soil Science Society of America Journal, 2001, 65, 1529-1538.	1.2	75
58	Allocation dynamics of recently fixed carbon in beech saplings in response to increased temperatures and drought. Tree Physiology, 2015, 35, 585-598.	1.4	73
59	Growth and carbon relations of mature <i>Picea abies</i> trees under 5Âyears of freeâ€air CO₂ enrichment. Journal of Ecology, 2016, 104, 1720-1733.	1.9	68
60	Spatial variation in throughfall, soil, and plant water isotopes in a temperate forest. Ecohydrology, 2019, 12, e2059.	1.1	67
61	Diffusive fractionation complicates isotopic partitioning of autotrophic and heterotrophic sources of soil respiration. Plant, Cell and Environment, 2010, 33, 1804-1819.	2.8	65
62	Tracing carbon uptake from a natural CO2 spring into tree rings: an isotope approach. Tree Physiology, 2003, 23, 997-1004.	1.4	64
63	Seasonal Variations in Soil and Plant Water Status in a Quercus suber L. Stand: Roots as Determinants of Tree Productivity and Survival in the Mediterranean-type Ecosystem. Plant and Soil, 2006, 283, 119-135.	1.8	64
64	Comparison of Î´¹⁸O and Î´¹³C values between tree-ring whole wood and cellulose in five species growing under two different site conditions. Rapid Communications in Mass Spectrometry, 2015, 29, 2233-2244.	0.7	64
65	A synthesis of hydrogen isotope variability and its hydrological significance at the Qinghaiâ€“Tibetan Plateau. Quaternary International, 2013, 313-314, 3-16.	0.7	63
66	Climatic sensitivity of Î´18O in the wood and cellulose of tree rings: Results from a mixed stand of Acer pseudoplatanus L. and Fagus sylvatica L.. Palaeogeography, Palaeoclimatology, Palaeoecology, 2008, 261, 193-202.	1.0	62
67	Spatial patterns of climatic changes in the Eurasian north reflected in Siberian larch treeâ€ring parameters and stable isotopes. Global Change Biology, 2010, 16, 1003-1018.	4.2	62
68	Isotope ratio mass spectrometry as a tool for source inference in forensic science: A critical review. Forensic Science International, 2015, 251, 139-158.	1.3	61
69	Tracing Changes in Ecosystem Function under Elevated Carbon Dioxide Conditions. BioScience, 2003, 53, 805.	2.2	60
70	Temporal stability of climateâ€isotope relationships in tree rings of oak and pine (Ticino, Switzerland). Global Biogeochemical Cycles, 2007, 21, .	1.9	60
71	Impact of interspecific competition and drought on the allocation of new assimilates in trees. Plant Biology, 2016, 18, 785-796.	1.8	60
72	Long-term ecological consequences of forest fires in the continuous permafrost zone of Siberia. Environmental Research Letters, 2020, 15, 034061.	2.2	58

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73	Pathways and dynamics of 15NO3âˆ’ and 15NH4+ applied in a mountain Picea abies forest and in a nearby meadow in central Switzerland. Soil Biology and Biochemistry, 2006, 38, 1645-1657.	4.2	56
74	Tree-ring growth and stable isotopes (13C and 15N) detect effects of wildfires on tree physiological processes in Pinus sylvestris L.. Trees - Structure and Function, 2011, 25, 627-636.	0.9	55
75	Tracing fresh assimilates through <i>Larix decidua</i> exposed to elevated <scp>CO</scp>₂ and soil warming at the alpine treeline using compoundâ€specific stable isotope analysis. New Phytologist, 2013, 197, 838-849.	3.5	55
76	Elevated atmospheric CO2 and increased N deposition effects on dissolved organic carbonâ€”clues from Î´13C signature. Soil Biology and Biochemistry, 2002, 34, 355-366.	4.2	54
77	Oxygen isotope fractionations across individual leaf carbohydrates in grass and tree species. Plant, Cell and Environment, 2017, 40, 1658-1670.	2.8	54
78	Resilient Leaf Physiological Response of European Beech (Fagus sylvatica L.) to Summer Drought and Drought Release. Frontiers in Plant Science, 2018, 9, 187.	1.7	54
79	Isotopic composition (<i>Î´</i>¹³C, <i>Î´</i>¹⁸O) in wood and cellulose of Siberian larch trees for early Medieval and recent periods. Journal of Geophysical Research, 2008, 113, .	3.3	53
80	Title is missing!. Plant and Soil, 2001, 233, 189-202.	1.8	52
81	Summer temperature dependency of larch budmoth outbreaks revealed by Alpine tree-ring isotope chronologies. Oecologia, 2009, 160, 353-365.	0.9	52
82	Carbon allocation in calcareous grassland under elevated CO2 : a combined 13 C pulse-labelling/soil physical fractionation study. Functional Ecology, 2001, 15, 43-50.	1.7	51
83	Estimation of Hg0 exchange between ecosystems and the atmosphere using 222Rn and Hg0 concentration changes in the stable nocturnal boundary layer. Atmospheric Environment, 2006, 40, 856-866.	1.9	51
84	Microbial assimilation of plant-derived carbon in soil traced by isotope analysis. Biology and Fertility of Soils, 2005, 41, 153-162.	2.3	50
85	Effect of water availability on leaf water isotopic enrichment in beech seedlings shows limitations of current fractionation models. Plant, Cell and Environment, 2009, 32, 1285-1296.	2.8	50
86	The impact of an inverse climateâ€“isotope relationship in soil water on the oxygenâ€isotope composition of <i>Larix gmelinii</i> in Siberia. New Phytologist, 2016, 209, 955-964.	3.5	50
87	Stable isotope coherence in the earlywood and latewood of tree-line conifers. Chemical Geology, 2009, 268, 52-57.	1.4	49
88	Evaluation of a liquid chromatography method for compoundâ€specific Î´¹³C analysis of plant carbohydrates in alkaline media. Rapid Communications in Mass Spectrometry, 2012, 26, 2173-2185.	0.7	49
89	A multi-proxy approach for revealing recent climatic changes in the Russian Altai. Climate Dynamics, 2012, 38, 175-188.	1.7	49
90	Influence of atmospheric circulation patterns on the oxygen isotope ratio of tree rings in the Alpine region. Journal of Geophysical Research, 2012, 117, .	3.3	48

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91	Carbon allocation in shoots of alpine treeline conifers in a CO2 enriched environment. Trees - Structure and Function, 2007, 21, 283-294.	0.9	47
92	Inferring foliar water uptake using stable isotopes of water. Oecologia, 2017, 184, 763-766.	0.9	47
93	Lack of photosynthetic or stomatal regulation after 9 years of elevated [<scp><scp>CO₂</scp></scp>] and 4 years of soil warming in two conifer species at the alpine treeline. Plant, Cell and Environment, 2014, 37, 315-326.	2.8	46
94	The enigma of effective path length for <scp>¹⁸O</scp> enrichment in leaf water of conifers. Plant, Cell and Environment, 2015, 38, 2551-2565.	2.8	45
95	The effect of ¹⁸Oâ€labelled water vapour on the oxygen isotope ratio of water and assimilates in plants at high humidity. New Phytologist, 2018, 217, 105-116.	3.5	45
96	Metabolic fluxes, carbon isotope fractionation and respiration â€“ lessons to be learned from plant biochemistry. New Phytologist, 2011, 191, 10-15.	3.5	44
97	Carbon transfer, partitioning and residence time in the plant-soil system: a comparison of two ¹³CO₂ labelling techniques. Biogeosciences, 2014, 11, 1637-1648.	1.3	44
98	Drought response of mesophyll conductance in forest understory species - impacts on water-use efficiency and interactions with leaf water movement. Physiologia Plantarum, 2014, 152, 98-114.	2.6	44
99	Impact of different nitrogen emission sources on tree physiology as assessed by a triple stable isotope approach. Atmospheric Environment, 2009, 43, 410-418.	1.9	43
100	Eddy Covariance Measurements On Mountain Slopes: The Advantage Of Surface-Normal Sensor Orientation Over A Vertical Set-Up. Boundary-Layer Meteorology, 2000, 96, 371-392.	1.2	42
101	Oxygen isotopes in tree rings ofAbies alba: The climatic significance of interdecadal variations. Journal of Geophysical Research, 2000, 105, 12461-12470.	3.3	42
102	Effect of Inoculation and Leaf Litter Amendment on Establishment of Nodule-Forming Frankia Populations in Soil. Applied and Environmental Microbiology, 2001, 67, 2603-2609.	1.4	40
103	Examining the response of needle carbohydrates from <scp>S</scp>iberian larch trees to climate using compoundâ€specific Î´¹³<scp>C</scp> and concentration analyses. Plant, Cell and Environment, 2015, 38, 2340-2352.	2.8	40
104	Flow of Deposited Inorganic N in Two Gleysol-dominated Mountain Catchments Traced with 15NO3âˆ’ and 15NH4+. Biogeochemistry, 2005, 76, 453-475.	1.7	39
105	Twentieth century trends in tree ring stable isotopes (<i>Î´</i>¹³C and) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 187 Journal of Geophysical Research, 2010, 115, .	3.3	39
106	Immobilization, stabilization and remobilization of nitrogen in forest soils at elevated CO2: a 15N and 13C tracer study. Global Change Biology, 2005, 11, 1816-1827.	4.2	38
107	Long-term 13C labeling provides evidence for temporal and spatial carbon allocation patterns in mature Picea abies. Oecologia, 2014, 175, 747-762.	0.9	35
108	Development of acute frost drought in Rhododendron ferrugineum at the alpine timberline. Oecologia, 1985, 67, 298-300.	0.9	34

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109	Using Stable Isotopes as Indicators, Tracers, and Recorders of Ecological Change: Some Context and Background. Journal of Nano Education (Print), 2007, 1, 1-18.	0.3	34
110	Volcanic explosive eruptions of the Vesuvio decrease tree-ring growth but not photosynthetic rates in the surrounding forests. Global Change Biology, 2007, 13, 1122-1137.	4.2	33
111	ECOMONT: a combined approach of field measurements and process-based modelling for assessing effects of land-use changes in mountain landscapes. Ecological Modelling, 1998, 113, 167-178.	1.2	32
112	Growth cessation uncouples isotopic signals in leaves and tree rings of drought-exposed oak trees. Tree Physiology, 2015, 35, 1095-1105.	1.4	32
113	Species specific and environment induced variation of ÃŽÂ´13C and ÃŽÂ´15N in alpine plants. Frontiers in Plant Science, 2015, 6, 423.	1.7	31
114	¹⁵N immobilization in forest soil: a sterilization experiment coupled with ¹⁵CPMAS NMR spectroscopy. European Journal of Soil Science, 2008, 59, 467-475.	1.8	30
115	Determination of the Aerosol Yield of Isoprene in the Presence of an Organic Seed with Carbon Isotope Analysis. Environmental Science & Technology, 2009, 43, 6697-6702.	4.6	30
116	Î´15N measurement of organic and inorganic substances by EA-IRMS: a speciation-dependent procedure. Analytical and Bioanalytical Chemistry, 2013, 405, 159-176.	1.9	30
117	Nitrogen partitioning in oak leaves depends on species, provenance, climate conditions and soil type. Plant Biology, 2013, 15, 198-209.	1.8	30
118	Swiss tree rings reveal warm and wet summers during medieval times. Geophysical Research Letters, 2014, 41, 1732-1737.	1.5	30
119	Oxygen isotopes in tree rings are less sensitive to changes in tree size and relative canopy position than carbon isotopes. Plant, Cell and Environment, 2018, 41, 2899-2914.	2.8	30
120	Using eddy covariance and stable isotope mass balance techniques to estimate fog water contributions to a Costa Rican cloud forest during the dry season. Hydrological Processes, 2011, 25, 429-437.	1.1	29
121	Malate as a key carbon source of leaf dark-respired CO₂across different environmental conditions in potato plants. Journal of Experimental Botany, 2015, 66, 5769-5781.	2.4	29
122	Effect of Vapor Pressure Deficit on Gas Exchange in Wild-Type and Abscisic Acidâ€“Insensitive Plants. Plant Physiology, 2019, 181, 1573-1586.	2.3	29
123	Title is missing!. Pirineos, 1996, 147-148, 145-172.	0.6	28
124	Can we use the CO₂concentrations determined by continuousâ€flow isotope ratio mass spectrometry from small samples for the Keeling plot approach?. Rapid Communications in Mass Spectrometry, 2008, 22, 4029-4034.	0.7	27
125	Climatic isotope signals in tree rings masked by air pollution: A case study conducted along the Mont Blanc Tunnel access road (Western Alps, Italy). Atmospheric Environment, 2012, 61, 169-179.	1.9	27
126	The ¹⁸Oâ€signal transfer from water vapour to leaf water and assimilates varies among plant species and growth forms. Plant, Cell and Environment, 2020, 43, 510-523.	2.8	27

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127	Tissue-specific variation of Î´13C in mature canopy trees in a temperate forest in central Europe. Basic and Applied Ecology, 2005, 6, 519-534.	1.2	26
128	Optimization of automated gas sample collection and isotope ratio mass spectrometric analysis of <i>Î´</i>¹³C of CO₂ in air. Rapid Communications in Mass Spectrometry, 2008, 22, 3883-3892.	0.7	26
129	Siberian tree-ring and stable isotope proxies as indicators of temperature and moisture changes after major stratospheric volcanic eruptions. Climate of the Past, 2019, 15, 685-700.	1.3	26
130	Carbon and nitrogen stable isotope signals for an entire alpine flora, based on herbarium samples. Alpine Botany, 2016, 126, 153-166.	1.1	25
131	Warming Effects on Pinus sylvestris in the Coldâ€“Dry Siberian Forestâ€“Steppe: Positive or Negative Balance of Trade?. Forests, 2017, 8, 490.	0.9	25
132	Anthropogenic NOx emissions alter the intrinsic water-use efficiency (WUEi) for Quercus cerris stands under Mediterranean climate conditions. Environmental Pollution, 2010, 158, 2841-2847.	3.7	24
133	The application of tree-rings and stable isotopes for reconstructions of climate conditions in the Russian Altai. Climatic Change, 2013, 120, 153-167.	1.7	24
134	Site-specific water-use strategies of mountain pine and larch to cope with recent climate change. Tree Physiology, 2016, 36, 942-953.	1.4	24
135	Environmental drivers of carbon and nitrogen isotopic signatures in peatland vascular plants along an altitude gradient. Oecologia, 2016, 180, 257-264.	0.9	24
136	The response of Î´13C, Î´18O and cell anatomy of Larix gmelinii tree rings to differing soil active layer depths. Dendrochronologia, 2015, 34, 51-59.	1.0	23
137	Long-term trends in leaf level gas exchange mirror tree-ring derived intrinsic water-use efficiency of Pinus cembra at treeline during the last century. Agricultural and Forest Meteorology, 2018, 248, 251-258.	1.9	22
138	Study of isotopic variations in black powder: reflections on the use of stable isotopes in forensic science for source inference. Rapid Communications in Mass Spectrometry, 2009, 23, 2559-2567.	0.7	21
139	Douglas-Fir Seedlings Exhibit Metabolic Responses to Increased Temperature and Atmospheric Drought. PLoS ONE, 2014, 9, e114165.	1.1	21
140	Application of eco-physiological models to the climatic interpretation of Î´13C and Î´18O measured in Siberian larch tree-rings. Dendrochronologia, 2016, 39, 51-59.	1.0	21
141	Larix decidua Î´18O tree-ring cellulose mainly reflects the isotopic signature of winter snow in a high-altitude glacial valley of the European Alps. Science of the Total Environment, 2017, 579, 230-237.	3.9	21
142	Determination of stable carbon isotopes of organic acids and carbonaceous aerosols in the atmosphere. Rapid Communications in Mass Spectrometry, 2006, 20, 2343-2347.	0.7	20
143	Stable oxygen isotopes (Î´ 18O) in Austrocedrus chilensis tree rings reflect climate variability in northwestern Patagonia, Argentina. International Journal of Biometeorology, 2006, 51, 97-105.	1.3	18
144	The influence of traffic and wood combustion on the stable isotopic composition of carbon monoxide. Atmospheric Chemistry and Physics, 2009, 9, 3147-3161.	1.9	18

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145	A cluster of stratospheric volcanic eruptions in the AD 530s recorded in Siberian tree rings. Global and Planetary Change, 2014, 122, 140-150.	1.6	18
146	Quantification of dynamic soilâ€"vegetation feedbacks following an isotopically labelled precipitation pulse. Biogeosciences, 2017, 14, 2293-2306.	1.3	18
147	Testing a dual isotope model to track carbon and water gas exchanges in a Mediterranean forest. IForest, 2009, 2, 59-66.	0.5	18
148	An injection method for measuring the carbon isotope content of soil carbon dioxide and soil respiration with a tunable diode laser absorption spectrometer. Rapid Communications in Mass Spectrometry, 2010, 24, 894-900.	0.7	17
149	The mobility of nitrogen across treeâ€rings of Norway spruce (<i>Picea abies</i> L.) and the effect of extraction method on treeâ€ring Î´¹⁵N and Î´¹³C values. Rapid Communications in Mass Spectrometry, 2014, 28, 1258-1264.	0.7	15
150	Metabolic Fate of the Carboxyl Groups of Malate and Pyruvate and their Influence on Î´13C of Leaf-Respired CO2 during Light Enhanced Dark Respiration. Frontiers in Plant Science, 2016, 7, 739.	1.7	15
151	Dynamics of soil organic matter turnover and soil respired CO2in a temperate grassland labelled with13C. European Journal of Soil Science, 2007, 58, 1364-1372.	1.8	14
152	Can tree-ring Î´15N be used as a proxy for foliar Î´15N in European beech and Norway spruce?. Trees - Structure and Function, 2016, 30, 627-638.	0.9	14
153	A portable automated system for trace gas sampling in the field and stable isotope analysis in the laboratory. Rapid Communications in Mass Spectrometry, 2004, 18, 2106-2112.	0.7	13
154	Multi-isotope labelling of organic matter by diffusion of ²H/¹⁸O-H<sub>2</sub&a vapour and ¹³C-CO₂ into the leaves and its distribution within the plant. Biogeosciences, 2015, 12, 1865-1879.	1.3	13
155	Warm season precipitation signal in <i>Î´</i>²H values of wood lignin methoxyl groups from high elevation larch trees in Switzerland. Rapid Communications in Mass Spectrometry, 2017, 31, 1589-1598.	0.7	13
156	Climatic Influences on Summer Use of Winter Precipitation by Trees. Geophysical Research Letters, 2022, 49, .	1.5	13
157	A novel methodological approach for Î´¹⁸O analysis of sugars using gas chromatography-pyrolysis-isotope ratio mass spectrometry. Isotopes in Environmental and Health Studies, 2013, 49, 492-502.	0.5	12
158	Contribution of methane to aerosol carbon mass. Atmospheric Environment, 2016, 141, 41-47.	1.9	12
159	Plasticity in gasâ€exchange physiology of mature Scots pine and European larch drive shortâ€and longâ€term adjustments to changes in water availability. Plant, Cell and Environment, 2017, 40, 1972-1983.	2.8	12
160	Compound-Specific Carbon Isotopes and Concentrations of Carbohydrates and Organic Acids as Indicators of Tree Decline in Mountain Pine. Forests, 2018, 9, 363.	0.9	12
161	High-frequency stable isotope signals in uneven-aged forests as proxy for physiological responses to climate in Central Europe. Tree Physiology, 2021, 41, 2046-2062.	1.4	12
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