

Dirk Sachse

List of Publications by Year in descending order

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83
papers

5,451
citations

117625

34
h-index

82547

72
g-index

102
all docs

102
docs citations

102
times ranked

4477
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular Paleohydrology: Interpreting the Hydrogen-Isotopic Composition of Lipid Biomarkers from Photosynthesizing Organisms. <i>Annual Review of Earth and Planetary Sciences</i> , 2012, 40, 221-249.	11.0	748
2	$\delta^2\text{H}$ values of individual n-alkanes from terrestrial plants along a climatic gradient – Implications for the sedimentary biomarker record. <i>Organic Geochemistry</i> , 2006, 37, 469-483.	1.8	455
3	Hydrogen isotope ratios of recent lacustrine sedimentary n-alkanes record modern climate variability. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 4877-4889.	3.9	407
4	Southward movement of the Pacific intertropical convergence zone AD 1400–1850. <i>Nature Geoscience</i> , 2009, 2, 519-525.	12.9	351
5	Prolonged monsoon droughts and links to Indo-Pacific warm pool: A Holocene record from Lonar Lake, central India. <i>Earth and Planetary Science Letters</i> , 2014, 391, 171-182.	4.4	204
6	Leaf water deuterium enrichment shapes leaf wax n-alkane $\delta^2\text{H}$ values of angiosperm plants I: Experimental evidence and mechanistic insights. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 111, 39-49.	3.9	194
7	Leaf water deuterium enrichment shapes leaf wax n-alkane $\delta^2\text{H}$ values of angiosperm plants II: Observational evidence and global implications. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 111, 50-63.	3.9	188
8	Delayed hydrological response to Greenland cooling at the onset of the Younger Dryas in western Europe. <i>Nature Geoscience</i> , 2014, 7, 109-112.	12.9	159
9	Cellulose $\delta^{18}\text{O}$ is an index of leaf-to-air vapor pressure difference (VPD) in tropical plants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 1981-1986.	7.1	148
10	Hydrogen isotope ratios of lacustrine sedimentary n-alkanes as proxies of tropical African hydrology: Insights from a calibration transect across Cameroon. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 79, 106-126.	3.9	137
11	Effect of lake evaporation on $\delta^2\text{H}$ values of lacustrine n-alkanes: A comparison of Nam Co (Tibetan) Tj ETQq1 1 0.784314 rgBT/Overlook	1.8	133
12	Significant seasonal variation in the hydrogen isotopic composition of leaf-wax lipids for two deciduous tree ecosystems (<i>Fagus sylvatica</i> and <i>Acer pseudoplatanus</i>). <i>Organic Geochemistry</i> , 2009, 40, 732-742.	1.8	131
13	Reconstructing C 3 and C 4 vegetation cover using n -alkane carbon isotope ratios in recent lake sediments from Cameroon, Western Central Africa. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 142, 482-500.	3.9	121
14	Leaf wax n-alkane $\delta^2\text{H}$ values of field-grown barley reflect leaf water $\delta^2\text{H}$ values at the time of leaf formation. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 6741-6750.	3.9	107
15	Abundance and distribution of leaf wax n-alkanes in leaves of <i>Acacia</i> and <i>Eucalyptus</i> trees along a strong humidity gradient in northern Australia. <i>Organic Geochemistry</i> , 2013, 62, 62-67.	1.8	106
16	Leaf wax n-alkane $\delta^2\text{H}$ values are determined early in the ontogeny of <i>Populus trichocarpa</i> leaves when grown under controlled environmental conditions. <i>Plant, Cell and Environment</i> , 2011, 34, 1639-1651.	5.7	93
17	Monsoon source shifts during the drying mid-Holocene: Biomarker isotope based evidence from the core –monsoon zone (CMZ) of India. <i>Quaternary Science Reviews</i> , 2015, 123, 144-157.	3.0	93
18	Compound-specific $\delta^{13}\text{C}$ and $\delta^2\text{H}$ analyses of plant and soil organic matter: A preliminary assessment of the effects of vegetation change on ecosystem hydrology. <i>Soil Biology and Biochemistry</i> , 2006, 38, 3211-3221.	8.8	86

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19	Inverse relationship between D/H fractionation in cyanobacterial lipids and salinity in Christmas Island saline ponds. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 793-806.	3.9	85
20	Early anthropogenic impact on Western Central African rainforests 2,600 y ago. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 3261-3266.	7.1	83
21	Can stable isotopes ride out the storms? The role of convection for water isotopes in models, records, and paleoaltimetry studies in the central Andes. <i>Earth and Planetary Science Letters</i> , 2014, 407, 187-195.	4.4	72
22	Correlation between hydrogen isotope ratios of lipid biomarkers and sediment maturity. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 5517-5530.	3.9	64
23	Effect of aridity on $\delta^{13}\text{C}$ and $\delta^2\text{H}$ values of C_3 plant- and C_4 graminoid-derived leaf wax lipids from soils along an environmental gradient in Cameroon (Western Central Africa). <i>Organic Geochemistry</i> , 2015, 78, 99-109.	1.8	57
24	Miocene orographic uplift forces rapid hydrological change in the southern central Andes. <i>Scientific Reports</i> , 2016, 6, 35678.	3.3	54
25	Influence of water availability in the distributions of branched glycerol dialkyl glycerol tetraether in soils of the Iberian Peninsula. <i>Biogeosciences</i> , 2014, 11, 2571-2581.	3.3	53
26	Hydrogen isotope ratios of terrigenous n-alkanes in lacustrine surface sediment of the Tibetan Plateau record the precipitation signal. <i>Geochemical Journal</i> , 2008, 42, 331-338.	1.0	50
27	Effects of leaf water evaporative $\delta^{2\text{H}}$ enrichment and biosynthetic fractionation on leaf wax $\delta^{13}\text{C}$ and $\delta^2\text{H}$ values in C_3 and C_4 grasses. <i>Plant, Cell and Environment</i> , 2016, 39, 2390-2403.	5.7	50
28	A dual-biomarker approach for quantification of changes in relative humidity from sedimentary lipid $\delta^2\text{H}$ and $\delta^{13}\text{C}$ ratios. <i>Climate of the Past</i> , 2017, 13, 741-757.	3.4	49
29	A hypersaline microbial mat from the Pacific Atoll Kiritimati: insights into composition and carbon fixation using biomarker analyses and a $\delta^{13}\text{C}$ labeling approach. <i>Geobiology</i> , 2009, 7, 308-323.	2.4	47
30	Millennial-scale cyclical environment and climate variability during the Holocene in the western Mediterranean region deduced from a new multi-proxy analysis from the Padul record (Sierra Nevada, Spain). <i>Quaternary Science Reviews</i> , 2010, 29, 107-117.	1.0	46
31	Understanding erosion rates in the Himalayan orogen: A case study from the Arun Valley. <i>Journal of Geophysical Research F: Earth Surface</i> , 2015, 120, 2080-2102.	2.8	39
32	Fluvial organic carbon cycling regulated by sediment transit time and mineral protection. <i>Nature Geoscience</i> , 2021, 14, 842-848.	12.9	39
33	Seasonal variation of leaf wax $\delta^{13}\text{C}$ -alkane production and $\delta^2\text{H}$ values from the evergreen oak tree, <i>Quercus agrifolia</i> . <i>Isotopes in Environmental and Health Studies</i> , 2015, 51, 124-142.	1.0	37
34	Lateral variations in vegetation in the Himalaya since the Miocene and implications for climate evolution. <i>Earth and Planetary Science Letters</i> , 2017, 471, 1-9.	4.4	36
35	Lipid biomarker signatures in a hypersaline lake on Isabel Island (Eastern Pacific) as a proxy for past rainfall anomaly (1942-2006 AD). <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2012, 350-352, 49-61.	2.3	35
36	Spatial heterogeneity in lipid biomarker distributions in the catchment and sediments of a crater lake in central India. <i>Organic Geochemistry</i> , 2014, 66, 125-136.	1.8	35

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37	Biosynthetic hydrogen isotopic fractionation factors during lipid synthesis in submerged aquatic macrophytes: Effect of groundwater discharge and salinity. <i>Organic Geochemistry</i> , 2017, 113, 10-16.	1.8	31
38	Hydroclimate in the Pamirs Was Driven by Changes in Precipitation–Evaporation Seasonality Since the Last Glacial Period. <i>Geophysical Research Letters</i> , 2019, 46, 13972-13983.	4.0	31
39	Elevation-dependent changes in n-alkane δD and soil GDGTs across the South Central Andes. <i>Earth and Planetary Science Letters</i> , 2016, 453, 234-242.	4.4	29
40	Oxygen isotope ratios of sedimentary biogenic silica reflect the European transcontinental climate gradient. <i>Journal of Quaternary Science</i> , 2008, 23, 341-350.	2.1	27
41	Preservation of organic carbon during active fluvial transport and particle abrasion. <i>Geology</i> , 2019, 47, 958-962.	4.4	25
42	Sources and abundances of leaf waxes in aerosols in central Europe. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 198, 299-314.	3.9	24
43	The fate of fluvially-deposited organic carbon during transient floodplain storage. <i>Earth and Planetary Science Letters</i> , 2021, 561, 116822.	4.4	23
44	The Lateglacial to early Holocene tephrochronological record from Lake HÄmelsee, Germany: a key site within the European tephra framework. <i>Boreas</i> , 2018, 47, 28-40.	2.4	22
45	Sediment Transit Time and Floodplain Storage Dynamics in Alluvial Rivers Revealed by Meteoric ¹⁰ Be. <i>Journal of Geophysical Research F: Earth Surface</i> , 2020, 125, e2019JF005419.	2.8	22
46	Reconstruction of palaeohydrological conditions in a lagoon during the 2nd Zechstein cycle through simultaneous use of δD values of individual n-alkanes and $\delta^{18}O$ and $\delta^{13}C$ values of carbonates. <i>International Journal of Earth Sciences</i> , 2004, 93, 554.	1.8	20
47	Vegetation Dynamics at the Upper Reaches of a Tropical Montane Forest are Driven by Disturbance Over the Past 7300 Years. <i>Arctic, Antarctic, and Alpine Research</i> , 2014, 46, 787-799.	1.1	20
48	Leaf wax $\delta^{13}C$ and $\delta^{18}O$ -alkane distributions record ecological changes during the Younger Dryas at Trzechowskie paleolake (northern Poland) without temporal delay. <i>Climate of the Past</i> , 2018, 14, 1607-1624.	3.4	20
49	Paleohydrological dynamics in the Western Mediterranean during the last glacial cycle. <i>Global and Planetary Change</i> , 2021, 202, 103527.	3.5	19
50	The Effect of Biodiversity on Carbon Storage in Soils. , 2005, , 165-183.		18
51	Climatic and geomorphic drivers of plant organic matter transport in the Arun River, E Nepal. <i>Earth and Planetary Science Letters</i> , 2016, 452, 104-114.	4.4	18
52	A deglaciation and Holocene biomarker-based reconstruction of climate and environmental variability in NW Iberian Peninsula: the Sanabria Lake sequence. <i>Journal of Paleolimnology</i> , 2016, 56, 49-66.	1.6	17
53	Variations in organic carbon sourcing along a trans-Himalayan river determined by a Bayesian mixing approach. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 286, 159-176.	3.9	17
54	Hydrological and ecological changes in western Europe between 3200 and 2000 years BP derived from lipid biomarker δD values in lake Meerfelder Maar sediments. <i>Quaternary Science Reviews</i> , 2017, 172, 44-54.	3.0	16

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55	An automated solid phase extraction procedure for lipid biomarker purification and stable isotope analysis. <i>Organic Geochemistry</i> , 2020, 142, 103995.	1.8	16
56	Modern pollen vegetation relationships in a dry deciduous monsoon forest: A case study from Lonar Crater Lake, central India. <i>Quaternary International</i> , 2015, 371, 268-279.	1.5	15
57	Centennial-scale lake-level lowstand at Lake Uddelermeer (The Netherlands) indicates changes in moisture source region prior to the 2.8-kyr event. <i>Holocene</i> , 2016, 26, 1075-1091.	1.7	15
58	Monsoon forced evolution of savanna and the spread of agro-pastoralism in peninsular India. <i>Scientific Reports</i> , 2021, 11, 9032.	3.3	15
59	Subdecadal-scale vegetation responses to a previously unknown late-Allerød climate fluctuation and Younger Dryas cooling at Lake Meerfelder Maar (Germany). <i>Journal of Quaternary Science</i> , 2016, 31, 741-752.	2.1	14
60	Carbon Allocation in <i>Rhodococcus jostii</i> RHA1 in Response to Disruption and Overexpression of nlpR Regulatory Gene, Based on ¹³ C-labeling Analysis. <i>Frontiers in Microbiology</i> , 2017, 8, 1992.	3.5	14
61	Prolonged Monsoonal Moisture Availability Preconditioned Glaciation of the Tibetan Plateau During the Mid-Pleistocene Transition. <i>Geophysical Research Letters</i> , 2018, 45, 13,020.	4.0	14
62	Relationships between low-temperature fires, climate and vegetation during three late glacial and interglacials of the last 430 kyr in northeastern Siberia reconstructed from monosaccharide anhydrides in Lake El'gygytgyn sediments. <i>Climate of the Past</i> , 2020, 16, 799-818.	3.4	14
63	Growth-dependent hydrogen isotopic fractionation of algal lipid biomarkers in hypersaline Isabel Lake (México). <i>Geochimica Et Cosmochimica Acta</i> , 2013, 106, 490-500.	3.9	13
64	Comparisons of lipid molecular and carbon isotopic compositions in two particle-size fractions from surface peat and their implications for lipid preservation. <i>Environmental Earth Sciences</i> , 2016, 75, 1.	2.7	10
65	Late Holocene changes in vegetation and atmospheric circulation at Lake Uddelermeer (The Netherlands). <i>Quaternary Science</i> , 2018, 33, 100-111.	2.1	10
66	Late Holocene Landscape Collapse of a Trans-Himalayan Dryland: Human Impact and Aridification. <i>Geophysical Research Letters</i> , 2019, 46, 13814-13824.	4.0	10
67	Fluvial Organic Carbon Composition Regulated by Seasonal Variability in Lowland River Migration and Water Discharge. <i>Geophysical Research Letters</i> , 2021, 48, .	4.0	10
68	The effect of Indian Summer Monsoon rainfall on surface water δD values in the central Himalaya. <i>Hydrological Processes</i> , 2018, 32, 3662-3674.	2.6	9
69	River Organic Carbon Fluxes Modulated by Hydrodynamic Sorting of Particulate Organic Matter. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	9
70	Paleoclimate reconstruction of the last 36 kyr based on branched glycerol dialkyl glycerol tetraethers in the Padul palaeolake record (Sierra Nevada, southern Iberian Peninsula). <i>Quaternary Science Reviews</i> , 2022, 281, 107434.	3.0	9
71	Molecular Paleoclimate Reconstructions over the Last 9 ka from a Peat Sequence in South China. <i>PLoS ONE</i> , 2016, 11, e0160934.	2.5	8
72	Dinosterol δD values in stratified tropical lakes (Cameroon) are affected by eutrophication. <i>Organic Geochemistry</i> , 2015, 88, 35-49.	1.8	7

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73	Validation and calibration of soil $\delta^{2}\text{H}$ and brGDGTs along (E-W) and strike (N-S) of the Himalayan climatic gradient. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 290, 408-423.	3.9	6
74	Last millennium hydroclimate in the central equatorial North Pacific (5°N , 160°W). <i>Quaternary Science Reviews</i> , 2021, 259, 106906.	3.0	6
75	Asynchronous responses of aquatic ecosystems to hydroclimatic forcing on the Tibetan Plateau. <i>Communications Earth & Environment</i> , 2022, 3, .	6.8	5
76	Variation of deuterium excess in surface waters across a 5000-m elevation gradient in eastern Nepal. <i>Journal of Hydrology</i> , 2020, 586, 124802.	5.4	4
77	Holocene evolution of a proglacial lake in southern Kamchatka, Russian Far East. <i>Boreas</i> , 2021, 50, 1011.	2.4	4
78	Reply to Giresse et al.: No evidence for climate variability during the late Holocene rainforest crisis in Western Central Africa. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E6674-E6675.	7.1	3
79	Reply to Clist et al.: Human activity is the most probable trigger of the late Holocene rainforest crisis in Western Central Africa. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E4735-E4736.	7.1	3
80	Compound-specific $\delta^{2}\text{H}$ and $\delta^{13}\text{C}$ values of n-alkanes as a tool to unravel complex petroleum mixtures in the South Viking Graben, Norway. <i>Organic Geochemistry</i> , 2021, 152, 104167.	1.8	3
81	DO RADIOCARBON AGES OF PLANT WAX BIOMARKERS AGREE WITH ^{14}C -TOC/OSL-BASED AGE MODELS IN AN ARID HIGH-ALTITUDE LAKE SYSTEM?. <i>Radiocarbon</i> , 2021, 63, 1575-1590.	1.8	3
82	Indigenous impacts on north Australian savanna fire regimes over the Holocene. <i>Scientific Reports</i> , 2021, 11, 23157.	3.3	3
83	Local effects on soil leaf wax hydrogen isotopes along a west to east transect through the Pamirs, Tajikistan. <i>Organic Geochemistry</i> , 2021, 160, 104272.	1.8	1