

Arndt Schimmelmänn

List of Publications by Year in descending order

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66
papers

5,127
citations

117571

34
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106281

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71
all docs

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docs citations

71
times ranked

4135
citing authors

#	ARTICLE	IF	CITATIONS
1	Porosity of Devonian and Mississippian New Albany Shale across a maturation gradient: Insights from organic petrology, gas adsorption, and mercury intrusion. AAPG Bulletin, 2013, 97, 1621-1643.	0.7	626
2	Fractionation of hydrogen isotopes in lipid biosynthesis. Organic Geochemistry, 1999, 30, 1193-1200.	0.9	512
3	Compound-specific D/H ratios of lipid biomarkers from sediments as a proxy for environmental and climatic conditions. Geochimica Et Cosmochimica Acta, 2001, 65, 213-222.	1.6	336
4	D/H isotope ratios of kerogen, bitumen, oil, and water in hydrous pyrolysis of source rocks containing kerogen types I, II, IIS, and III. Geochimica Et Cosmochimica Acta, 1999, 63, 3751-3766.	1.6	291
5	HYDROGEN ISOTOPIC (D/H) COMPOSITION OF ORGANIC MATTER DURING DIAGENESIS AND THERMAL MATURATION. Annual Review of Earth and Planetary Sciences, 2006, 34, 501-533.	4.6	246
6	Current challenges in compound-specific stable isotope analysis of environmental organic contaminants. Analytical and Bioanalytical Chemistry, 2012, 403, 2471-2491.	1.9	234
7	Geochemical constraints on the origin and volume of gas in the New Albany Shale (Devonian–Mississippian), eastern Illinois Basin. AAPG Bulletin, 2010, 94, 1713-1740.	0.7	232
8	FTIR absorption indices for thermal maturity in comparison with vitrinite reflectance R ₀ in type-II kerogens from Devonian black shales. Organic Geochemistry, 2005, 36, 1533-1552.	0.9	197
9	A study of the TEX ₈₆ paleothermometer in the water column and sediments of the Santa Barbara Basin, California. Paleoclimatology, 2007, 22, .	3.0	151
10	Determination of the concentration and stable isotopic composition of nonexchangeable hydrogen in organic matter. Analytical Chemistry, 1991, 63, 2456-2459.	3.2	139
11	Organic nitrogen chemistry during low-grade metamorphism. Geochimica Et Cosmochimica Acta, 2008, 72, 1199-1221.	1.6	130
12	Organic Reference Materials for Hydrogen, Carbon, and Nitrogen Stable Isotope-Ratio Measurements: Caffeines, n-Alkanes, Fatty Acid Methyl Esters, Glycines, Valines, Polyethylenes, and Oils. Analytical Chemistry, 2016, 88, 4294-4302.	3.2	126
13	Influence of Soxhlet-extractable bitumen and oil on porosity in thermally maturing organic-rich shales. International Journal of Coal Geology, 2014, 132, 38-50.	1.9	125
14	Experimental controls on D/H and ¹³ C/ ¹² C ratios of kerogen, bitumen and oil during hydrous pyrolysis. Organic Geochemistry, 2001, 32, 1009-1018.	0.9	120
15	Hydrogen isotope fractionation in lipids of the methane-oxidizing bacterium Methylococcus capsulatus. Geochimica Et Cosmochimica Acta, 2002, 66, 3955-3969.	1.6	83
16	D/H ratios in terrestrially sourced petroleum systems. Organic Geochemistry, 2004, 35, 1169-1195.	0.9	83
17	Simplified batch equilibration for D/H determination of non-exchangeable hydrogen in solid organic material. Rapid Communications in Mass Spectrometry, 2009, 23, 949-956.	0.7	81
18	On-Line Hydrogen-Isotope Measurements of Organic Samples Using Elemental Chromium: An Extension for High Temperature Elemental-Analyzer Techniques. Analytical Chemistry, 2015, 87, 5198-5205.	3.2	77

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19	Compound-Specific Hydrogen Isotope Analysis of Heteroatom-Bearing Compounds via Gas Chromatography- ² Chromium-Based High-Temperature Conversion (Cr/HTC)- ¹³ Isotope Ratio Mass Spectrometry. <i>Analytical Chemistry</i> , 2015, 87, 9443-9450.	3.2	74
20	Nicotine, acetanilide and urea multi-level ² H, ¹³ C and ¹⁵ N abundance reference materials for continuous-flow isotope ratio mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2009, 23, 3513-3521.	0.7	71
21	Dike intrusions into bituminous coal, Illinois Basin: H, C, N, O isotopic responses to rapid and brief heating. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 6264-6281.	1.6	71
22	Varves in marine sediments: A review. <i>Earth-Science Reviews</i> , 2016, 159, 215-246.	4.0	69
23	A Large California Flood and Correlative Global Climatic Events 400 Years Ago. <i>Quaternary Research</i> , 1998, 49, 51-61.	1.0	63
24	Preparation of organic and water hydrogen for stable isotope analysis: effects due to reaction vessels and zinc reagent. <i>Analytical Chemistry</i> , 1993, 65, 789-792.	3.2	62
25	From extreme rainfall to drought: 250 years of annually resolved sediment deposition in Santa Barbara Basin, California. <i>Quaternary International</i> , 2015, 387, 3-12.	0.7	56
26	Natural seepage of shale gas and the origin of "eternal flames" in the Northern Appalachian Basin, USA. <i>Marine and Petroleum Geology</i> , 2013, 43, 178-186.	1.5	54
27	A new organic reference material, ¹³ C-glutamic acid, USGS41a, for ¹³ C and ¹⁵ N measurements - a replacement for USGS41. <i>Rapid Communications in Mass Spectrometry</i> , 2016, 30, 859-866.	0.7	54
28	A guide for proper utilisation of stable isotope reference materials. <i>Isotopes in Environmental and Health Studies</i> , 2019, 55, 113-128.	0.5	52
29	Evolutionary changes over the last 1000 years of reduced sulfur phases and organic carbon in varved sediments of the Santa Barbara Basin, California. <i>Geochimica Et Cosmochimica Acta</i> , 1993, 57, 67-78.	1.6	49
30	Nitrogen isotopic exchange during maturation of organic matter. <i>Organic Geochemistry</i> , 2010, 41, 63-70.	0.9	45
31	Anoxic pyrite oxidation by water radiolysis products - A potential source of biosustaining energy. <i>Earth and Planetary Science Letters</i> , 2010, 292, 57-67.	1.8	42
32	Stable hydrogen-isotope ratios in beetle chitin: preliminary European data and re-interpretation of North American data. <i>Quaternary Science Reviews</i> , 2006, 25, 1850-1864.	1.4	35
33	Significance of ² Dkerogen, ¹³ Ckerogen and ³⁴ Spyrite from several Permian/Triassic (P/Tr) sections. <i>Earth and Planetary Science Letters</i> , 2010, 295, 21-29.	1.8	35
34	Revised 1/42000-year chronostratigraphy of partially varved marine sediment in Santa Barbara Basin, California. <i>Gff</i> , 2013, 135, 258-264.	0.4	35
35	Optimization of online hydrogen stable isotope ratio measurements of halogen- and sulfur-bearing organic compounds using elemental analyzer-chromium/high-temperature conversion isotope ratio mass spectrometry (EA-Cr/HTC-IRMS). <i>Rapid Communications in Mass Spectrometry</i> , 2017, 31, 475-484.	0.7	34
36	Subterranean karst environments as a global sink for atmospheric methane. <i>Earth and Planetary Science Letters</i> , 2018, 485, 9-18.	1.8	33

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37	Tales of 1001 varves: a review of Santa Barbara Basin sediment studies. Geological Society Special Publication, 1996, 116, 121-141.	0.8	31
38	Isotopic disproportionation during hydrogen isotopic analysis of nitrogen-bearing organic compounds. Rapid Communications in Mass Spectrometry, 2015, 29, 878-884.	0.7	31
39	D/H ratios and hydrogen exchangeability of type-II kerogens with increasing thermal maturity. Organic Geochemistry, 2006, 37, 342-353.	0.9	29
40	Environmental, trophic, and ecological factors influencing bone collagen $\delta^2\text{H}$. Geochimica Et Cosmochimica Acta, 2013, 111, 88-104.	1.6	27
41	Catalytic generation of methane at 60–100°C and 0.1–300 MPa from source rocks containing kerogen Types I, II, and III. Geochimica Et Cosmochimica Acta, 2018, 231, 88-116.	1.6	27
42	A 9000-year flood history for Southern California: A revised stratigraphy of varved sediments in Santa Barbara Basin. Marine Geology, 2018, 397, 29-42.	0.9	26
43	Compositional Control on Shale Pore Structure Characteristics across a Maturation Gradient: Insights from the Devonian New Albany Shale and Marcellus Shale in the Eastern United States. Energy & Fuels, 2021, 35, 7913-7929.	2.5	26
44	Subterranean microbial oxidation of atmospheric methane in cavernous tropical karst. Chemical Geology, 2017, 466, 229-238.	1.4	23
45	Natural geological seepage of hydrocarbon gas in the Appalachian Basin and Midwest USA in relation to shale tectonic fracturing and past industrial hydrocarbon production. Science of the Total Environment, 2018, 644, 982-993.	3.9	23
46	Food Matrix Reference Materials for Hydrogen, Carbon, Nitrogen, Oxygen, and Sulfur Stable Isotope-Ratio Measurements: Collagens, Flours, Honeys, and Vegetable Oils. Journal of Agricultural and Food Chemistry, 2020, 68, 10852-10864.	2.4	18
47	Comparison of three methods for the methylation of aliphatic and aromatic compounds. Rapid Communications in Mass Spectrometry, 2017, 31, 1633-1640.	0.7	17
48	Micrometer scale imaging of sedimentary climate archives – Sample preparation for combined elemental and lipid biomarker analysis. Organic Geochemistry, 2019, 127, 81-91.	0.9	17
49	Consumption of atmospheric methane in a limestone cave in Indiana, USA. Chemical Geology, 2016, 443, 1-9.	1.4	15
50	Mechanistic Insights Into Molecular Proxies Through Comparison of Subannually Resolved Sedimentary Records With Instrumental Water Column Data in the Santa Barbara Basin, Southern California. Paleoceanography and Paleoclimatology, 2020, 35, e2020PA004076.	1.3	13
51	Habitat Use by Coastal Birds Inferred from Stable Carbon and Nitrogen Isotopes. Estuaries and Coasts, 2012, 35, 633-645.	1.0	11
52	Stable isotopes of H, C and N in mice bone collagen as a reflection of isotopically controlled food and water intake. Isotopes in Environmental and Health Studies, 2019, 55, 129-149.	0.5	10
53	Reconstruction of palaeoenvironmental variability based on an inter-comparison of four lacustrine archives on the Peloponnese (Greece) for the last 5000 years. E&G Quaternary Science Journal, 2020, 69, 165-186.	0.2	8
54	Environmental history recorded over the last 70 years in Biá»fn Há»“ maar sediment, Central Highlands of Vietnam. Quaternary International, 2020, , .	0.7	7

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55	Human exposure to radon radiation geohazard in Rong Cave, Dong Van Karst Plateau Geopark, Vietnam. Vietnam Journal of Earth Sciences, 2018, 40, 117-126.	1.0	6
56	Characterization and microbial mitigation of fugitive methane emissions from oil and gas wells: Example from Indiana, USA. Applied Geochemistry, 2020, 118, 104619.	1.4	5
57	Excessive radon-based radiation in indoor air caused by soil building materials in traditional homes on the karst plateau, northern Vietnam. Chemosphere, 2020, 257, 127119.	4.2	5
58	Radiolysis via radioactivity is not responsible for rapid methane oxidation in subterranean air. PLoS ONE, 2018, 13, e0206506.	1.1	4
59	²²⁰ Rn (Thoron) Geohazard in Room Air of Earthen Dwellings in Vietnam. Geofluids, 2019, 2019, 1-11.	0.3	4
60	Interannual Southern California Precipitation Variability During the Common Era and the ENSO Teleconnection. Geophysical Research Letters, 2020, 47, e2019GL085891.	1.5	4
61	Reply to Van Geelet al.'s Comment on "A Large California Flood and Correlative Global Climatic Events 400 Years Ago". Quaternary Research, 1999, 51, 111-112.	1.0	3
62	Disrupted Coherence Between Upwelling Strength and Redox Conditions Reflects Source Water Change in Santa Barbara Basin During the 20th Century. Paleoceanography and Paleoclimatology, 2021, 36, .	1.3	3
63	A high-resolution, 1250-year long drought record from Ea Tyn Lake, Central Highlands of Vietnam. Holocene, 2022, 32, 1026-1040.	0.9	2
64	Radioactive Thoron ²²⁰ Rn Exhalation From Unfired Mud Building Material Into Room Air of Earthen Dwellings. Frontiers in Earth Science, 2021, 9, .	0.8	1
65	Citation for presentation of the 2008 Alfred Treibs award to Martin Schoell. Geochimica Et Cosmochimica Acta, 2012, 89, 318-319.	1.6	0
66	Catalytic Generation of Methane at 60 to 100°C and 0.1 to 300 MPa From Source Rocks Containing Kerogen Types I, II, and III. , 2017, , .		0