

Mark Rehkämpfer

List of Publications by Year in descending order

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118
papers

7,765
citations

30070

54
h-index

53230

85
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121
all docs

121
docs citations

121
times ranked

5635
citing authors

#	ARTICLE	IF	CITATIONS
1	Ir, Ru, Pt, and Pd in basalts and komatiites: new constraints for the geochemical behavior of the platinum-group elements in the mantle. <i>Geochimica Et Cosmochimica Acta</i> , 1999, 63, 3915-3934.	3.9	280
2	The GEOTRACES Intermediate Data Product 2017. <i>Chemical Geology</i> , 2018, 493, 210-223.	3.3	257
3	Applications of Multiple Collector-ICPMS to Cosmochemistry, Geochemistry, and Paleoceanography. <i>Geochimica Et Cosmochimica Acta</i> , 1998, 62, 919-940.	3.9	256
4	Stable isotope compositions of cadmium in geological materials and meteorites determined by multiple-collector ICPMS. <i>Geochimica Et Cosmochimica Acta</i> , 2003, 67, 4639-4654.	3.9	222
5	High precision $^{230}\text{Th}/^{232}\text{Th}$ and $^{234}\text{U}/^{238}\text{U}$ measurements using energyfiltered ICP magnetic sector multiple collector mass spectrometry. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1997, 171, 105-117.	1.8	185
6	Determination of ultra-low Nb, Ta, Zr and Hf concentrations and the chondritic Zr/Hf and Nb/Ta ratios by isotope dilution analyses with multiple collector ICP-MS. <i>Chemical Geology</i> , 2002, 187, 295-313.	3.3	185
7	Thallium isotope variations in seawater and hydrogenetic, diagenetic, and hydrothermal ferromanganese deposits. <i>Earth and Planetary Science Letters</i> , 2002, 197, 65-81.	4.4	177
8	Investigation of matrix effects for Pb isotope ratio measurements by multiple collector ICP-MS: verification and application of optimized analytical protocols. <i>Journal of Analytical Atomic Spectrometry</i> , 2000, 15, 1451-1460.	3.0	165
9	Niobium-Zirconium Chronometry and Early Solar System Development. <i>Science</i> , 2002, 295, 1705-1708.	12.6	165
10	Non-chondritic platinum-group element ratios in oceanic mantle lithosphere: petrogenetic signature of melt percolation?. <i>Earth and Planetary Science Letters</i> , 1999, 172, 65-81.	4.4	145
11	Hydrothermal fluid fluxes calculated from the isotopic mass balance of thallium in the ocean crust. <i>Earth and Planetary Science Letters</i> , 2006, 251, 120-133.	4.4	145
12	The precise measurement of Tl isotopic compositions by MC-ICPMS: Application to the analysis of geological materials and meteorites. <i>Geochimica Et Cosmochimica Acta</i> , 1999, 63, 935-944.	3.9	139
13	Cadmium isotope fractionation in seawater $\delta^{110}\text{Cd}$ A signature of biological activity. <i>Earth and Planetary Science Letters</i> , 2007, 261, 670-684.	4.4	139
14	Resolution of inter-laboratory discrepancies in Mo isotope data: an intercalibration. <i>Journal of Analytical Atomic Spectrometry</i> , 2013, 28, 724.	3.0	138
15	Cadmium stable isotope cosmochemistry. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 646-667.	3.9	137
16	Multiple Collector ICP-MS: Introduction to Instrumentation, Measurement Techniques and Analytical Capabilities. <i>Geostandards and Geoanalytical Research</i> , 2001, 25, 23-40.	3.1	133
17	Cadmium, indium, tin, tellurium, and sulfur in oceanic basalts: Implications for chalcophile element fractionation in the Earth. <i>Journal of Geophysical Research</i> , 2000, 105, 18927-18948.	3.3	130
18	Platinum-Group Element Abundance Patterns in Different Mantle Environments. <i>Science</i> , 1997, 278, 1595-1598.	12.6	122

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19	A Common Reference Material for Cadmium Isotope Studies – NIST SRM 3108. <i>Geostandards and Geoanalytical Research</i> , 2013, 37, 5-17.	3.1	117
20	Neodymium isotopic composition and concentration in the western North Atlantic Ocean: Results from the GEOTRACES GA02 section. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 177, 1-29.	3.9	117
21	Fate of Cd in Agricultural Soils: A Stable Isotope Approach to Anthropogenic Impact, Soil Formation, and Soil-Plant Cycling. <i>Environmental Science & Technology</i> , 2018, 52, 1919-1928.	10.0	117
22	Early evolution of the Earth and Moon: new constraints from Hf-W isotope geochemistry. <i>Earth and Planetary Science Letters</i> , 1996, 142, 75-89.	4.4	115
23	Application of Nontraditional Stable-Isotope Systems to the Study of Sources and Fate of Metals in the Environment. <i>Environmental Science & Technology</i> , 2008, 42, 655-664.	10.0	115
24	Cadmium Isotope Fractionation in Soil-Wheat Systems. <i>Environmental Science & Technology</i> , 2016, 50, 9223-9231.	10.0	113
25	The precise and accurate determination of thallium isotope compositions and concentrations for water samples by MC-ICPMS. <i>Chemical Geology</i> , 2004, 204, 109-124.	3.3	110
26	Determination of the mass-dependence of cadmium isotope fractionation during evaporation. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 2349-2357.	3.9	109
27	Thallium isotope composition of the upper continental crust and rivers – An investigation of the continental sources of dissolved marine thallium. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 2007-2019.	3.9	107
28	Cenozoic marine geochemistry of thallium deduced from isotopic studies of ferromanganese crusts and pelagic sediments. <i>Earth and Planetary Science Letters</i> , 2004, 219, 77-91.	4.4	106
29	Thallium isotopic evidence for ferromanganese sediments in the mantle source of Hawaiian basalts. <i>Nature</i> , 2006, 439, 314-317.	27.8	106
30	GEOTRACES IC1 (BATS) contamination – prone trace element isotopes Cd, Fe, Pb, Zn, Cu, and Mo intercalibration. <i>Limnology and Oceanography: Methods</i> , 2012, 10, 653-665.	2.0	98
31	Measurement of zinc stable isotope ratios in biogeochemical matrices by double-spike MC-ICPMS and determination of the isotope ratio pool available for plants from soil. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 398, 3115-3125.	3.7	95
32	Towards an understanding of thallium isotope fractionation during adsorption to manganese oxides. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 117, 252-265.	3.9	95
33	The mass balance of dissolved thallium in the oceans. <i>Marine Chemistry</i> , 2004, 85, 125-139.	2.3	94
34	Zinc isotopic compositions of breast cancer tissue. <i>Metallomics</i> , 2015, 7, 112-117.	2.4	90
35	Investigation of the mass discrimination of multiple collector ICP-MS using neodymium isotopes and the generalised power law. <i>Journal of Analytical Atomic Spectrometry</i> , 2003, 18, 1371-1375.	3.0	87
36	Inter-calibration of a proposed new primary reference standard AA-ETH Zn for zinc isotopic analysis. <i>Journal of Analytical Atomic Spectrometry</i> , 2017, 32, 415-419.	3.0	86

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37	Application of MC-ICPMS to the precise determination of tellurium isotope compositions in chondrites, iron meteorites and sulfides. <i>International Journal of Mass Spectrometry</i> , 2004, 232, 83-94.	1.5	81
38	Cadmium isotope variations in the Southern Ocean. <i>Earth and Planetary Science Letters</i> , 2013, 382, 161-172.	4.4	73
39	A new methodology for precise cadmium isotope analyses of seawater. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 402, 883-893.	3.7	72
40	Tracing Bioavailability of ZnO Nanoparticles Using Stable Isotope Labeling. <i>Environmental Science & Technology</i> , 2012, 46, 12137-12145.	10.0	71
41	Investigation and Application of Thallium Isotope Fractionation. <i>Reviews in Mineralogy and Geochemistry</i> , 2017, 82, 759-798.	4.8	70
42	Zirconium isotope evidence for incomplete admixing of r -process components in the solar nebula. <i>Earth and Planetary Science Letters</i> , 2003, 216, 467-481.	4.4	69
43	Nucleosynthetic molybdenum isotope anomalies in iron meteorites â€“ new evidence for thermal processing of solar nebula material. <i>Earth and Planetary Science Letters</i> , 2017, 473, 215-226.	4.4	63
44	Molybdenum drawdown during Cretaceous Oceanic Anoxic Event 2. <i>Earth and Planetary Science Letters</i> , 2016, 440, 81-91.	4.4	61
45	Cadmium-isotopic evidence for increasing primary productivity during the Late Permian anoxic event. <i>Earth and Planetary Science Letters</i> , 2015, 410, 84-96.	4.4	60
46	A Reflection on Mg, Cd, Ca, Li and Si Isotopic Measurements and Related Reference Materials. <i>Geostandards and Geoanalytical Research</i> , 2004, 28, 139-148.	1.9	59
47	Thallium isotopes in Iceland and Azores lavas â€” Implications for the role of altered crust and mantle geochemistry. <i>Earth and Planetary Science Letters</i> , 2007, 264, 332-345.	4.4	58
48	Ion exchange chromatography and high precision isotopic measurements of zirconium by MC-ICP-MS. <i>Analyst</i> , 2004, 129, 32-37.	3.5	57
49	Large thallium isotopic variations in iron meteorites and evidence for lead-205 in the early solar system. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 2643-2657.	3.9	57
50	Isotopic analysis of Cd in the mixing zone of Siberian rivers with the Arctic Oceanâ€”New constraints on marine Cd cycling and the isotope composition of riverine Cd. <i>Earth and Planetary Science Letters</i> , 2013, 361, 64-73.	4.4	57
51	Earthworm Uptake Routes and Rates of Ionic Zn and ZnO Nanoparticles at Realistic Concentrations, Traced Using Stable Isotope Labeling. <i>Environmental Science & Technology</i> , 2016, 50, 412-419.	10.0	57
52	Nucleosynthetic zirconium isotope anomalies in acid leachates of carbonaceous chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 5113-5122.	3.9	56
53	A new separation procedure for Cu prior to stable isotope analysis by MC-ICP-MS. <i>Journal of Analytical Atomic Spectrometry</i> , 2011, 26, 1627.	3.0	56
54	Tracing Anthropogenic Thallium in Soil Using Stable Isotope Compositions. <i>Environmental Science & Technology</i> , 2014, 48, 9030-9036.	10.0	52

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55	Towards an understanding of the Cd isotope fractionation during transfer from the soil to the cereal grain. <i>Environmental Pollution</i> , 2019, 244, 834-844.	7.5	51
56	A nebula setting as the origin for bulk chondrule Fe isotope variations in CV chondrites. <i>Earth and Planetary Science Letters</i> , 2010, 296, 423-433.	4.4	47
57	Return of naturally sourced Pb to Atlantic surface waters. <i>Nature Communications</i> , 2016, 7, 12921.	12.8	47
58	Problems and Suggestions Concerning the Notation of Cadmium Stable Isotope Compositions and the Use of Reference Materials. <i>Geostandards and Geoanalytical Research</i> , 2004, 28, 173-178.	1.9	46
59	Evaluation of Stable Isotope Tracing for ZnO Nanomaterials—New Constraints from High Precision Isotope Analyses and Modeling. <i>Environmental Science & Technology</i> , 2012, 46, 4149-4158.	10.0	46
60	A geochemical study of the winonaites: Evidence for limited partial melting and constraints on the precursor composition. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 199, 13-30.	3.9	46
61	Using isotopes to trace freshly applied cadmium through mineral phosphorus fertilization in soil-fertilizer-plant systems. <i>Science of the Total Environment</i> , 2019, 648, 779-786.	8.0	46
62	Stable Isotope Tracer To Determine Uptake and Efflux Dynamics of ZnO Nano- and Bulk Particles and Dissolved Zn to an Estuarine Snail. <i>Environmental Science & Technology</i> , 2013, 47, 8532-8539.	10.0	41
63	Cadmium isotope fractionation reveals genetic variation in Cd uptake and translocation by <i>Theobroma cacao</i> and role of natural resistance-associated macrophage protein 5 and heavy metal ATPase-family transporters. <i>Horticulture Research</i> , 2020, 7, 71.	6.3	39
64	Precise Determination of Cadmium, Indium and Tellurium Using Multiple Collector ICP-MS. <i>Geostandards and Geoanalytical Research</i> , 1998, 22, 173-179.	3.1	38
65	The effects of core formation on the Pb- and Tl- isotopic composition of the silicate Earth. <i>Earth and Planetary Science Letters</i> , 2008, 269, 326-336.	4.4	37
66	Unlocking the zinc isotope systematics of iron meteorites. <i>Earth and Planetary Science Letters</i> , 2014, 400, 153-164.	4.4	37
67	Iron and zinc isotope fractionation during uptake and translocation in rice (<i>Oryza sativa</i>) grown in oxic and anoxic soils. <i>Comptes Rendus - Geoscience</i> , 2015, 347, 397-404.	1.2	37
68	Rhenium-Based Complexes and in Vivo Testing: A Brief History. <i>ChemBioChem</i> , 2020, 21, 2111-2115.	2.6	37
69	Sr, Nd, Pb and O Isotopes of Minettes from Schirmacher Oasis, East Antarctica: a Case of Mantle Metasomatism involving Subducted Continental Material. <i>Journal of Petrology</i> , 2001, 42, 1387-1400.	2.8	36
70	Cadmium isotope fractionation in the soil-cacao systems of Ecuador: a pilot field study. <i>RSC Advances</i> , 2019, 9, 34011-34022.	3.6	36
71	Tellurium isotopic composition of the early solar system—A search for effects resulting from stellar nucleosynthesis, ¹²⁶ Sn decay, and mass-independent fractionation. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 5099-5112.	3.9	35
72	Search for nucleosynthetic and radiogenic tellurium isotope anomalies in carbonaceous chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 3436-3448.	3.9	35

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73	Improvements in Cd stable isotope analysis achieved through use of liquid-liquid extraction to remove organic residues from Cd separates obtained by extraction chromatography. <i>Journal of Analytical Atomic Spectrometry</i> , 2016, 31, 319-327.	3.0	34
74	Cadmium and phosphate in coastal Antarctic seawater: Implications for Southern Ocean nutrient cycling. <i>Marine Chemistry</i> , 2008, 112, 149-157.	2.3	33
75	Controls on thallium uptake during hydrothermal alteration of the upper ocean crust. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 144, 25-42.	3.9	32
76	The Cd isotope composition of atmospheric aerosols from the Tropical Atlantic Ocean. <i>Geophysical Research Letters</i> , 2017, 44, 2932-2940.	4.0	32
77	Isotopic evidence for complex biogeochemical cycling of Cd in the eastern tropical South Pacific. <i>Earth and Planetary Science Letters</i> , 2019, 512, 134-146.	4.4	32
78	High precision isotope measurements reveal poor control of copper metabolism in Parkinsonism. <i>Metallomics</i> , 2013, 5, 125.	2.4	29
79	The geochemistry of Tl and its isotopes during magmatic and hydrothermal processes: The peralkaline Ilimaussaq complex, southwest Greenland. <i>Chemical Geology</i> , 2014, 366, 1-13.	3.3	29
80	High-precision measurements of seawater Pb isotope compositions by double spike thermal ionization mass spectrometry. <i>Analytica Chimica Acta</i> , 2015, 863, 59-69.	5.4	29
81	Thallium geochemistry in the metamorphic Lengenbach sulfide deposit, Switzerland: Thallium-isotope fractionation in a sulfide melt. <i>American Mineralogist</i> , 2014, 99, 793-803.	1.9	28
82	High Precision Zinc Stable Isotope Measurement of Certified Biological Reference Materials Using the Double Spike Technique and Multiple Collector-ICP-MS. <i>Analytical and Bioanalytical Chemistry</i> , 2017, 409, 2941-2950.	3.7	28
83	Measurement of fossil deep-sea coral Nd isotopic compositions and concentrations by TIMS as NdO ⁺ , with evaluation of cleaning protocols. <i>Chemical Geology</i> , 2014, 374-375, 128-140.	3.3	26
84	Stable isotope labeling of metal/metal oxide nanomaterials for environmental and biological tracing. <i>Nature Protocols</i> , 2019, 14, 2878-2899.	12.0	25
85	Synthesis and characterization of isotopically labeled silver nanoparticles for tracing studies. <i>Environmental Science: Nano</i> , 2014, 1, 271-283.	4.3	23
86	Nb/Zr fractionation on the Moon and the search for extinct ⁹² Nb. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 775-785.	3.9	22
87	Novel Multi-isotope Tracer Approach To Test ZnO Nanoparticle and Soluble Zn Bioavailability in Joint Soil Exposures. <i>Environmental Science & Technology</i> , 2017, 51, 12756-12763.	10.0	21
88	Variable Tl, Pb, and Cd concentrations and isotope compositions of enstatite and ordinary chondrites—Evidence for volatile element mobilization and decay of extinct ²⁰⁵ Pb. <i>Meteoritics and Planetary Science</i> , 2018, 53, 167-186.	1.6	21
89	The distribution of lead concentrations and isotope compositions in the eastern Tropical Atlantic Ocean. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 225, 36-51.	3.9	21
90	Cd/Ca ratios of in situ collected planktonic foraminiferal tests. <i>Paleoceanography</i> , 2008, 23, .	3.0	20

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91	High precision ¹⁴² Ce/ ¹⁴⁰ Ce stable isotope measurements of purified materials with a focus on CeO ₂ nanoparticles. Journal of Analytical Atomic Spectrometry, 2016, 31, 297-302.	3.0	20
92	Tellurium isotope compositions of calcium–aluminum–rich inclusions. Meteoritics and Planetary Science, 2009, 44, 971-984.	1.6	18
93	Tracing the Agulhas leakage with lead isotopes. Geophysical Research Letters, 2015, 42, 8515-8521.	4.0	18
94	Thallium Isotopes and Their Application to Problems in Earth and Environmental Science. Advances in Isotope Geochemistry, 2012, , 247-269.	1.4	18
95	An inter-laboratory comparison of high precision stable isotope ratio measurements for nanoparticle tracing in biological samples. Journal of Analytical Atomic Spectrometry, 2014, 29, 471-477.	3.0	17
96	Fe and O isotope composition of meteorite fusion crusts: Possible natural analogues to chondrule formation?. Meteoritics and Planetary Science, 2015, 50, 229-242.	1.6	17
97	Interactions of dissolved CO ₂ with cadmium isotopes in the Southern Ocean. Marine Chemistry, 2017, 195, 105-121.	2.3	17
98	A highly sensitive HPLC method for the determination of Th and U concentrations in geological samples. Chemical Geology, 1995, 119, 1-12.	3.3	15
99	Determination of major and trace element variability in healthy human urine by ICP-QMS and specific gravity normalisation. RSC Advances, 2018, 8, 38022-38035.	3.6	14
100	Zinc stable isotopes in urine as diagnostic for cancer of secretory organs. Metallomics, 2021, 13, .	2.4	12
101	Zinc stable isotope analysis reveals Zn dyshomeostasis in benign tumours, breast cancer, and adjacent histologically normal tissue. Metallomics, 2021, 13, .	2.4	12
102	The cadmium-phosphate relationship in brine: biological versus physical control over micronutrients in sea ice environments. Antarctic Science, 2010, 22, 11.	0.9	11
103	Thallium Mass Fraction and Stable Isotope Ratios of Sixteen Geological Reference Materials. Geostandards and Geoanalytical Research, 2018, 42, 339-360.	3.1	11
104	Assessment of coupled Zn concentration and natural stable isotope analyses of urine as a novel probe of Zn status. Metallomics, 2019, 11, 1506-1517.	2.4	11
105	A highly sensitive MC-ICPMS method for Cd/Ca analyses of foraminiferal tests. Journal of Analytical Atomic Spectrometry, 2007, 22, 1275.	3.0	10
106	Cold-water corals as archives of seawater Zn and Cu isotopes. Chemical Geology, 2021, 578, 120304.	3.3	10
107	A new low-level HPLC technique for quantitative determination of niobium in rocks. Chemical Geology, 1994, 113, 61-69.	3.3	9
108	Stable Isotope Analysis by Multiple Collector ICP-MS. , 2004, , 692-725.		9

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109	Evaluation of Optimized Procedures for High-Precision Lead Isotope Analyses of Seawater by Multiple Collector Inductively Coupled Plasma Mass Spectrometry. <i>Analytical Chemistry</i> , 2020, 92, 11232-11241.	6.5	8
110	Postprandial zinc stable isotope response in human blood serum. <i>Metallomics</i> , 2020, 12, 1380-1388.	2.4	7
111	Comment on "The isotopic composition of cadmium in the water column of the South China Sea". <i>Geochimica Et Cosmochimica Acta</i> , 2014, 134, 335-338.	3.9	5
112	High-sensitivity tracing of stable isotope labeled Ag nanoparticles in environmental samples using MC-ICP-MS. <i>Journal of Analytical Atomic Spectrometry</i> , 2019, 34, 1173-1183.	3.0	5
113	The dissipation of the solar nebula constrained by impacts and core cooling in planetesimals. <i>Nature Astronomy</i> , 2022, 6, 812-818.	10.1	4
114	Tracing the Earth's evolution. <i>Nature</i> , 2000, 407, 848-849.	27.8	3
115	New methods for determination of the mass-independent and mass-dependent platinum isotope compositions of iron meteorites by MC-ICP-MS. <i>Journal of Analytical Atomic Spectrometry</i> , 2022, 37, 783-794.	3.0	3
116	18 Investigation and Application of Thallium Isotope Fractionation. , 2017, , 759-798.		2
117	ZnO Nanomaterials and Ionic Zn Partition within Wastewater Sludge Investigated by Isotopic Labeling. <i>Global Challenges</i> , 2022, 6, 2100091.	3.6	2
118	Corrigendum to "Isotopic evidence for complex biogeochemical cycling of Cd in the eastern tropical South Pacific" [Earth Planet. Sci. Lett. 512 (2019) 134-146]. <i>Earth and Planetary Science Letters</i> , 2019, 524, 115752.	4.4	0