

Richard Hervig

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1385602/publications.pdf>

Version: 2024-02-01

55
papers

2,689
citations

257450

24
h-index

182427

51
g-index

55
all docs

55
docs citations

55
times ranked

2726
citing authors

#	ARTICLE	IF	CITATIONS
1	Explosive Basaltic Volcanism from Cerro Negro Volcano: Influence of Volatiles on Eruptive Style. <i>Science</i> , 1997, 277, 1639-1642.	12.6	255
2	Unifying natural and laboratory chemical weathering with interfacial dissolution–reprecipitation: A study based on the nanometer-scale chemistry of fluid–silicate interfaces. <i>Chemical Geology</i> , 2012, 294-295, 203-216.	3.3	234
3	Melt-vapor solubilities and elemental partitioning in peraluminous granite-pegmatite systems: experimental results with Macusani glass at 200 MPa. <i>Contributions To Mineralogy and Petrology</i> , 1988, 99, 360-373.	3.1	208
4	Isotopic and elemental partitioning of boron between hydrous fluid and silicate melt. <i>American Mineralogist</i> , 2002, 87, 769-774.	1.9	196
5	Lithium and boron isotopes in illite-smectite: The importance of crystal size. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 5705-5716.	3.9	162
6	Rare earth diffusion kinetics in garnet: Experimental studies and applications. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 2385-2398.	3.9	158
7	Hydrogen partitioning between nominally anhydrous upper mantle minerals and melt between 3 and 5 ÅPa and applications to hydrous peridotite partial melting. <i>Chemical Geology</i> , 2009, 262, 42-56.	3.3	154
8	Microanalysis of oxygen isotopes in insulators by secondary ion mass spectrometry. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1992, 120, 45-63.	1.8	88
9	Petrogenesis and volatile stratigraphy of the Bishop Tuff: Evidence from melt inclusion analysis. <i>Journal of Geophysical Research</i> , 1992, 97, 15129-15150.	3.3	84
10	Cause of chemical zoning in the Bishop (California) and Bandelier (New Mexico) magma chambers. <i>Earth and Planetary Science Letters</i> , 1992, 111, 97-108.	4.4	84
11	Analytical techniques for volatiles: A case study using intermediate (andesitic) glasses. <i>American Mineralogist</i> , 2002, 87, 1077-1089.	1.9	83
12	¹⁷⁶ Lu– ¹⁷⁶ Hf geochronology of garnet I: experimental determination of the diffusion kinetics of Lu ³⁺ and Hf ⁴⁺ in garnet, closure temperatures and geochronological implications. <i>Contributions To Mineralogy and Petrology</i> , 2015, 169, 1.	3.1	80
13	Boron isotope composition of coals: a potential tracer of organic contaminated fluids. <i>Applied Geochemistry</i> , 2004, 19, 1625-1636.	3.0	77
14	The influence of organic matter on the boron isotope geochemistry of the gulf coast sedimentary basin, USA. <i>Chemical Geology</i> , 2001, 174, 445-461.	3.3	72
15	Useful ion yields for Cameca IMS 3f and 6f SIMS: Limits on quantitative analysis. <i>Chemical Geology</i> , 2006, 227, 83-99.	3.3	71
16	Hydrogen partitioning between melt, clinopyroxene, and garnet at 3 ÅPa in a hydrous MORB with 6 Åwt.% H ₂ O. <i>Contributions To Mineralogy and Petrology</i> , 2008, 156, 607-625.	3.1	64
17	Lithium isotope analysis of olivine by SIMS: Calibration of a matrix effect and application to magmatic phenocrysts. <i>Chemical Geology</i> , 2009, 258, 5-16.	3.3	55
18	Chapter 2. ANALYTICAL METHODS FOR VOLATILES IN GLASSES. , 1994, , 67-122.		47

#	ARTICLE	IF	CITATIONS
19	Ultrahydrous stishovite from high-pressure hydrothermal treatment of SiO ₂ . Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20918-20922.	7.1	36
20	Analytical Methods in Diffusion Studies. Reviews in Mineralogy and Geochemistry, 2010, 72, 107-170.	4.8	35
21	Light element distributions (N, B, Li) in Baltic Basin bentonites record organic sources. Geochimica Et Cosmochimica Acta, 2013, 120, 582-599.	3.9	30
22	Hydrogen isotopic composition of the Martian mantle inferred from the newest Martian meteorite fall, Tissint. Meteoritics and Planetary Science, 2016, 51, 2073-2091.	1.6	29
23	Nitrogen incorporation in silicates and metals: Results from SIMS, EPMA, FTIR, and laser-extraction mass spectrometry. American Mineralogist, 2019, 104, 31-46.	1.9	27
24	Calibrating Ti concentrations in quartz for SIMS determinations using NIST silicate glasses and application to the TitaniQ geothermobarometer. American Mineralogist, 2011, 96, 1100-1106.	1.9	25
25	Terrestrial exposure of a fresh Martian meteorite causes rapid changes in hydrogen isotopes and water concentrations. Scientific Reports, 2018, 8, 12385.	3.3	24
26	Intracrystalline boron isotope partitioning in illite-smectite: Testing the geothermometer. American Mineralogist, 2007, 92, 1958-1965.	1.9	23
27	Neodymium diffusion in orthopyroxene: Experimental studies and applications to geological and planetary problems. Geochimica Et Cosmochimica Acta, 2011, 75, 4684-4698.	3.9	21
28	Tracing hydrocarbons in gas shale using lithium and boron isotopes: Denver Basin USA, Wattenberg Gas Field. Chemical Geology, 2015, 417, 404-413.	3.3	20
29	A deuterium-poor water reservoir in the asteroid 4 Vesta and the inner solar system. Geochimica Et Cosmochimica Acta, 2021, 297, 203-219.	3.9	19
30	Anomalous fractionation of sulfur isotopes during sputtering. Rapid Communications in Mass Spectrometry, 2002, 16, 1774-1778.	1.5	18
31	Ion Implants as Matrix-Appropriate Calibrators for Geochemical Ion Probe Analyses. Geostandards and Geoanalytical Research, 2015, 39, 265-276.	3.1	18
32	Determination of the water content and D/H ratio of the martian mantle by unraveling degassing and crystallization effects in nakhlites. Geochimica Et Cosmochimica Acta, 2019, 266, 382-415.	3.9	18
33	Crystal-size dependence of illite-smectite isotope equilibration with changing fluids. Clays and Clay Minerals, 2006, 54, 531-540.	1.3	16
34	Diffusion kinetics of Cr in spinel: Experimental studies and implications for ⁵³ Mn- ⁵³ Cr cosmochronology. Geochimica Et Cosmochimica Acta, 2016, 175, 20-35.	3.9	16
35	Determining the Elemental and Isotopic Composition of the Pre-solar Nebula from Genesis Data Analysis: The Case of Oxygen. Astrophysical Journal Letters, 2017, 851, L12.	8.3	15
36	Diffusion anisotropy of Ti in zircon and implications for Ti-in-zircon thermometry. Earth and Planetary Science Letters, 2022, 578, 117317.	4.4	15

#	ARTICLE	IF	CITATIONS
37	Analyzing nitrogen in natural and synthetic silicate glasses by secondary ion mass spectrometry. <i>Chemical Geology</i> , 2016, 447, 27-39.	3.3	13
38	Analytical Techniques for Probing Small-Scale Layers that Preserve Information on Gas-Solid Interactions. <i>Reviews in Mineralogy and Geochemistry</i> , 2018, 84, 103-175.	4.8	13
39	Magnesium isotopes of the bulk solar wind from Genesis diamond-like carbon films. <i>Meteoritics and Planetary Science</i> , 2020, 55, 352-375.	1.6	12
40	Tracking Radionuclide Fractionation in the First Atomic Explosion Using Stable Elements. <i>Analytical Chemistry</i> , 2017, 89, 9877-9883.	6.5	9
41	Nitrogen diffusion in silicate minerals, with implications for nitrogen transport and cycling in the lithosphere. <i>Chemical Geology</i> , 2019, 516, 42-58.	3.3	9
42	Water on Mars: Insights from apatite in regolith breccia Northwest Africa 7034. <i>Earth and Planetary Science Letters</i> , 2020, 552, 116597.	4.4	9
43	Normal-incidence Electron Gun alignment method for negative ion analysis on insulators by magnetic sector SIMS. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2013, 295, 50-54.	1.4	7
44	Understanding heterogeneity in Genesis diamond-like carbon film using SIMS analysis of implants. <i>Journal of Materials Science</i> , 2017, 52, 11282-11305.	3.7	7
45	Multi-mode magnesium diffusion in sanidine: Applications for geospeedometry in magmatic systems. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 298, 55-69.	3.9	6
46	Cooperative formation of porous silica and peptides on the prebiotic Earth. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	6
47	Rhyolitic and basaltic reference materials for TC/EA analysis: Investigation of water extraction and D/H ratios. <i>Chemical Geology</i> , 2021, 583, 120486.	3.3	5
48	Hydrogen Isotope Composition of a Large Silicic Magma Reservoir Preserved in Quartz-Hosted Glass Inclusions of the Bishop Tuff Plinian Eruption. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2020GC009358.	2.5	4
49	Quantifying low fluence ion implants in diamond-like carbon film by secondary ion mass spectrometry by understanding matrix effects. <i>Journal of Analytical Atomic Spectrometry</i> , 2021, 36, 194-209.	3.0	3
50	Shock-induced H loss from pyroxene and maskelynite in a Martian meteorite and the mantle source δD of enriched shergottites. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 317, 201-217.	3.9	3
51	Best Practices for Determination of Initial $^{10}Be/^{9}Be$ in Early Solar System Materials by Secondary Ion Mass Spectrometry. <i>Geostandards and Geoanalytical Research</i> , 2020, 44, 695-710.	3.1	2
52	Best Practices for Determination of Initial Be/Be in Early Solar System Materials by Secondary Ion Mass Spectrometry. <i>Geostandards and Geoanalytical Research</i> , 2020, 44, 695-710.	3.1	2
53	Secondary Ion Mass Spectrometry Reference Materials for Lithium in Carbonaceous Matrices. <i>Geostandards and Geoanalytical Research</i> , 2022, 46, 261-276.	3.1	2
54	4. Analytical Methods in Diffusion Studies. , 2010, , 107-170.		0

#	ARTICLE	IF	CITATIONS
55	4. Analytical Techniques for Probing Small-Scale Layers that Preserve Information on Gas-Solid Interactions. , 2018, , 103-176.		0