James R Hein

List of Publications by Year
in descending order

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Version: 2024-02-01

120 papers	6,604 citations	57631 44 h-index	69108 77 g-index
123 all docs	123 docs citations	123 times ranked	4132 citing authors

#	Article	IF	Citations
1	Geochemical insights into formation of enigmatic ironstones from Rio Grande rise, South Atlantic Ocean. Marine Geology, 2022, 444, 106716.	0.9	5
2	Estimates of Metals Contained in Abyssal Manganese Nodules and Ferromanganese Crusts in the Global Ocean Based on Regional Variations and Genetic Types of Nodules. , 2022, , 53-80.		5
3	Seabed mining and blue growth: exploring the potential of marine mineral deposits as a sustainable source of rare earth elements (MaREEs) (IUPAC Technical Report). Pure and Applied Chemistry, 2022, 94, 329-351.	0.9	14
4	Crystal Chemistry of Thallium in Marine Ferromanganese Deposits. ACS Earth and Space Chemistry, 2022, 6, 1269-1285.	1.2	9
5	Geochemical approach to the genesis of the Oligocene-stratiform manganese-oxide deposit, Chiatura (Georgia). Ore Geology Reviews, 2021, 128, 103910.	1.1	24
6	Progressive ocean oxygenation atÂ~2.2ÂGa inferred from geochemistry and molybdenum isotopes of the Nsuta Mn deposit, Ghana. Chemical Geology, 2021, 567, 120116.	1.4	6
7	Geochemical and mineralogical composition of ferromanganese precipitates from the southern Mariana arc: Evaluation, formation, and implications. Chemical Geology, 2021, 568, 120132.	1.4	4
8	A magnetic approach to unravelling the paleoenvironmental significance of nanometer-sized Fe hydroxide in NW Pacific ferromanganese deposits. Earth and Planetary Science Letters, 2021, 565, 116945.	1.8	10
9	Miocene Phosphatization of Rocks From the Summit of Rio Grande Rise, Southwest Atlantic Ocean. Paleoceanography and Paleoclimatology, 2021, 36, e2020PA004197.	1.3	10
10	Growth of ferromanganese crusts on bioturbated soft substrate, Tropic Seamount, northeast Atlantic ocean. Deep-Sea Research Part I: Oceanographic Research Papers, 2021, 175, 103586.	0.6	6
11	Gallium-aluminum systematics of marine hydrogenetic ferromanganese crusts: Inter-oceanic differences and fractionation during scavenging. Geochimica Et Cosmochimica Acta, 2021, 310, 187-204.	1.6	8
12	A possible link between seamount sector collapse and manganese nodule occurrence in the abyssal plains, NW Pacific Ocean. Ore Geology Reviews, 2021, 138, 104378.	1.1	12
13	Ocean Floor Manganese Deposits. , 2021, , 993-1001.		1
14	Platinum enrichment and phase associations in marine ferromanganese crusts and nodules based on a multi-method approach. Chemical Geology, 2020, 539, 119426.	1.4	31
15	Evolution of a deep-water ferromanganese nodule in the South China Sea in response to Pacific deep-water circulation and continental weathering during the Plio-Pleistocene. Quaternary Science Reviews, 2020, 229, 106106.	1.4	4
16	Geographic and Oceanographic Influences on Ferromanganese Crust Composition Along a Pacific Ocean Meridional Transect, 14 N to 14S. Geochemistry, Geophysics, Geosystems, 2020, 21, e2019GC008716.	1.0	17
17	Magnetite magnetofossils record biogeochemical remanent magnetization in hydrogenetic ferromanganese crusts. Geology, 2020, 48, 298-302.	2.0	15
18	Spectroscopic Insights Into Ferromanganese Crust Formation and Diagenesis. Geochemistry, Geophysics, Geosystems, 2020, 21, e2020GC009074.	1.0	8

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19	Effects of Phosphatization on the Mineral Associations and Speciation of Pb in Ferromanganese Crusts. ACS Earth and Space Chemistry, 2020, 4, 1515-1526.	1.2	8
20	Changes in sediment source areas to the Amerasia Basin, Arctic Ocean, over the past 5.5 million years based on radiogenic isotopes (Sr, Nd, Pb) of detritus from ferromanganese crusts. Marine Geology, 2020, 428, 106280.	0.9	2
21	Deep-ocean polymetallic nodules as a resource for critical materials. Nature Reviews Earth & Environment, 2020, 1, 158-169.	12.2	179
22	Ferromanganese crusts as recorders of marine dissolved oxygen. Earth and Planetary Science Letters, 2020, 533, 116057.	1.8	13
23	Geochemistry and origins of carbonate fluorapatite in seamount Fe Mn crusts from the Pacific Ocean. Marine Geology, 2020, 423, 106135.	0.9	19
24	Genesis and Evolution of Ferromanganese Crusts from the Summit of Rio Grande Rise, Southwest Atlantic Ocean. Minerals (Basel, Switzerland), 2020, 10, 349.	0.8	37
25	A framework for understanding Mo isotope records of Archean and Paleoproterozoic Fe- and Mn-rich sedimentary rocks: Insights from modern marine hydrothermal Fe-Mn oxides. Geochimica Et Cosmochimica Acta, 2020, 280, 221-236.	1.6	17
26	Multidisciplinary Scientific Cruise to the Rio Grande Rise. Frontiers in Marine Science, 2019, 6, .	1.2	17
27	Tectonic and paleoceanographic conditions during the formation of ferromanganese nodules from the northern South China Sea based on the high-resolution geochemistry, mineralogy and isotopes. Marine Geology, 2019, 410, 146-163.	0.9	22
28	Mineralization at Oceanic Transform Faults and Fracture Zones. , 2019, , 105-118.		4
29	Formation and Occurrence of Ferromanganese Crusts: Earth's Storehouse for Critical Metals. Elements, 2018, 14, 313-318.	0.5	43
30	Ferromanganese Crusts and Nodules: Rocks That Grow. Encyclopedia of Earth Sciences Series, 2018, , 477-483.	0.1	3
31	Distance-gradient-based variogram and Kriging to evaluate cobalt-rich crust deposits on seamounts. Ore Geology Reviews, 2017, 84, 218-227.	1.1	15
32	Composition and genesis of ferromanganese deposits from the northern South China Sea. Journal of Asian Earth Sciences, 2017, 138, 110-128.	1.0	41
33	Marine Ferromanganese Encrustations: Archives of Changing Oceans. Elements, 2017, 13, 177-182.	0.5	64
34	Arctic Deep Water Ferromanganeseâ€Oxide Deposits Reflect the Unique Characteristics of the Arctic Ocean. Geochemistry, Geophysics, Geosystems, 2017, 18, 3771-3800.	1.0	41
35	Fe-Mn oxide indications in the feeder and mound zone of the Jurassic Mn-carbonate ore deposit, ÃšrkÃºt, Hungary. Ore Geology Reviews, 2017, 86, 839-855.	1.1	8
36	Composition and characteristics of the ferromanganese crusts from the western Arctic Ocean. Ore Geology Reviews, 2017, 87, 88-99.	1.1	43

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37	Formation of Fe-Mn crusts within a continental margin environment. Ore Geology Reviews, 2017, 87, 25-40.	1.1	62
38	Cobalt-Rich Ferromanganese Crusts in the Pacific. , 2017, , 239-279.		39
39	Marine Phosphorites as Potential Resources for Heavy Rare Earth Elements and Yttrium. Minerals (Basel, Switzerland), 2016, 6, 88.	0.8	57
40	Mineral and chemostratigraphy of a Toarcian black shale hosting Mn-carbonate microbialites (ÃšrkÃºt,) Tj ETQq0 0 0 rgBT /Overlock 10 T	1.0	27
41	Phosphorites, Coâ€rich Mn nodules, and Feâ€Mn crusts from Galicia Bank, NE Atlantic: Reflections of Cenozoic tectonics and paleoceanography. Geochemistry, Geophysics, Geosystems, 2016, 17, 346-374.	1.0	57
42	Controls on ferromanganese crust composition and reconnaissance resource potential, Ninetyeast Ridge, Indian Ocean. Deep-Sea Research Part I: Oceanographic Research Papers, 2016, 110, 1-19.	0.6	62
43	Cobalt-rich Manganese Crusts. Encyclopedia of Earth Sciences Series, 2016, , 113-117.	0.1	0
44	Ferromanganese Crusts and Nodules, Rocks that Grow. Encyclopedia of Earth Sciences Series, 2016, , 1-7.	0.1	1
45	Critical metals in manganese nodules from the Cook Islands EEZ, abundances and distributions. Ore Geology Reviews, 2015, 68, 97-116.	1.1	115
46	Persistence of deeply sourced iron in the Pacific Ocean. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1292-1297.	3.3	49
47	The evolution of climatically driven weathering inputs into the western Arctic Ocean since the late Miocene: Radiogenic isotope evidence. Earth and Planetary Science Letters, 2015, 419, 111-124.	1.8	16
48	Fractionation of the geochemical twins Zrâ€“Hf and Nbâ€“Ta during scavenging from seawater by hydrogenetic ferromanganese crusts. Geochimica Et Cosmochimica Acta, 2014, 140, 468-487.	1.6	56
49	Co-Rich Manganese Crusts. , 2014, , 1-7.		2
50	A Srâ€“Nd isotopic study of sand-sized sediment provenance and transport for the San Francisco Bay coastal system. Marine Geology, 2013, 345, 143-153.	0.9	19
51	Deep-sea Fe-Mn Crusts from the Northeast Atlantic Ocean: Composition and Resource Considerations. Marine Georesources and Geotechnology, 2013, 31, 40-70.	1.2	54
52	Deep-ocean mineral deposits as a source of critical metals for high- and green-technology applications: Comparison with land-based resources. Ore Geology Reviews, 2013, 51, 1-14.	1.1	700
53	Sand sources and transport pathways for the San Francisco Bay coastal system, based on X-ray diffraction mineralogy. Marine Geology, 2013, 345, 154-169.	0.9	16
54	Integration of bed characteristics, geochemical tracers, current measurements, and numerical modeling for assessing the provenance of beach sand in the San Francisco Bay Coastal System. Marine Geology, 2013, 336, 120-145.	0.9	17

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55	Integration of bed characteristics, geochemical tracers, current measurements, and numerical modeling for assessing the provenance of beach sand in the San Francisco Bay Coastal System. Marine Geology, 2013, 345, 181-206.	0.9	24
56	New age for ferromanganese crust 109Dâ€C and implications for isotopic records of lead, neodymium, hafnium, and thallium in the Pliocene Indian Ocean. Paleoceanography, 2011, 26, .	3.0	28
57	The molecular mechanism of Mo isotope fractionation during adsorption to birnessite. Geochimica Et Cosmochimica Acta, 2011, 75, 5019-5031.	1.6	97
58	Early Pleistocene origin of reefs around Lanai, Hawaii. Earth and Planetary Science Letters, 2010, 290, 331-339.	1.8	15
59	Geophysical investigation of seamounts near the Ogasawara Fracture Zone, western Pacific. Earth, Planets and Space, 2009, 61, 319-331.	0.9	10
60	Thallium isotope evidence for a permanent increase in marine organic carbon export in the early Eocene. Earth and Planetary Science Letters, 2009, 278, 297-307.	1.8	106
61	Coral reef evolution on rapidly subsiding margins. Global and Planetary Change, 2009, 66, 129-148.	1.6	63
62	Seamount Characteristics and Mine-Site Model Applied to Exploration- and Mining-Lease-Block Selection for Cobalt-Rich Ferromanganese Crusts. Marine Georesources and Geotechnology, 2009, 27, 160-176.	1.2	85
63	Diffuse flow hydrothermal manganese mineralization along the active Mariana and southern Izuâ€Bonin arc system, western Pacific. Journal of Geophysical Research, 2008, 113, .	3.3	83
64	Seawater osmium isotope evidence for a middle Miocene flood basalt event in ferromanganese crust records. Earth and Planetary Science Letters, 2008, 273, 175-183.	1.8	33
65	Metalliferous Sediment and a Silica-Hematite Deposit within the Blanco Fracture Zone, Northeast Pacific. Marine Georesources and Geotechnology, 2008, 26, 317-339.	1.2	29
66	Lithium contents and isotopic compositions of ferromanganese deposits from the global ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 2007, 54, 1147-1162.	0.6	52
67	Barite-forming environments along a rifted continental margin, Southern California Borderland. Deep-Sea Research Part II: Topical Studies in Oceanography, 2007, 54, 1327-1349.	0.6	49
68	Methanogenic calcite, 13C-depleted bivalve shells, and gas hydrate from a mud volcano offshore southern California. Geology, 2006, 34, 109.	2.0	58
69	A porous silica rock (â€œtripoliâ€) in the footwall of the Jurassic ÃšrkÃºt manganese deposit, Hungary: Composition, and origin through carbonate dissolution. Sedimentary Geology, 2005, 177, 87-96.	1.0	7
70	Sub-seafloor acoustic characterization of seamounts near the Ogasawara Fracture Zone in the western Pacific using chirp (3â€“7kHz) subbottom profiles. Deep-Sea Research Part I: Oceanographic Research Papers, 2005, 52, 1932-1956.	0.6	15
71	Deep and bottom water export from the Southern Ocean to the Pacific over the past 38 million years. Paleoceanography, 2004, 19, n/a-n/a.	3.0	72
72	New constraints on the sources and behavior of neodymium and hafnium in seawater from Pacific Ocean ferromanganese crusts. Geochimica Et Cosmochimica Acta, 2004, 68, 3827-3843.	1.6	113

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73	Tracing the history of submarine hydrothermal inputs and the significance of hydrothermal hafnium for the seawater budgetâ€"a combined Pbâ€"Hfâ€"Nd isotope approach. Earth and Planetary Science Letters, 2004, 222, 259-273.	1.8	50
74	Geology and Hydrogeology of the Cook Islands. Developments in Sedimentology, 2004, 54, 503-535.	0.5	4
75	Uptake of elements from seawater by ferromanganese crusts: solid-phase associations and seawater speciation. Marine Geology, 2003, 198, 331-351.	0.9	376
76	Global occurrence of tellurium-rich ferromanganese crusts and a model for the enrichment of tellurium. Geochimica Et Cosmochimica Acta, 2003, 67, 1117-1127.	1.6	146
77	Lead isotopes in North Pacific deep water â€" implications for past changes in input sources and circulation patterns. Earth and Planetary Science Letters, 2003, 209, 149-164.	1.8	44
78	Clay-mineral suites, sources, and inferred dispersal routes: Southern California continental shelf. Marine Environmental Research, 2003, 56, 79-102.	1.1	16
79	North Atlantic Deep Water export to the Southern Ocean over the past 14 Myr: Evidence from Nd and Pb isotopes in ferromanganese crusts. Paleoceanography, 2002, 17, 12-1-12-9.	3.0	129
80	Growth response of a deep-water ferromanganese crust to evolution of the Neogene Indian Ocean. Marine Geology, 2000, 162, 529-540.	0.9	36
81	Changes in erosion and ocean circulation recorded in the Hf isotopic compositions of North Atlantic and Indian Ocean ferromanganese crusts. Earth and Planetary Science Letters, 2000, 181, 315-325.	1.8	65
82	DIAGENETIC EVOLUTION OF SEAMOUNT PHOSPHORITE. , 2000, , 245-256.		6
83	Stable isotope, chemical, and mineral compositions of the Middle Proterozoic Lijiaying Mn deposit, Shaanxi Province, China. Ore Geology Reviews, 1999, 15, 55-69.	1.1	9
84	Composition and origin of Early Cambrian Tiantaishan phosphoriteâ€"Mn carbonate ores, Shaanxi Province, China. Ore Geology Reviews, 1999, 15, 95-134.	1.1	44
85	Ordovician reef-hosted Jiaodingshan Mnâ€"Co deposit and Dawashan Mn deposit, Sichuan Province, China. Ore Geology Reviews, 1999, 15, 135-151.	1.1	15
86	Hafnium Isotope Stratigraphy of Ferromanganese Crusts. Science, 1999, 285, 1052-1054.	6.0	95
87	Influence of substrate rocks on Feâ€"Mn crust composition. Deep-Sea Research Part I: Oceanographic Research Papers, 1999, 46, 855-875.	0.6	36
88	Actual timing of neodymium isotopic variations recorded by FeMn crusts in the western North Atlantic. Earth and Planetary Science Letters, 1999, 171, 149-156.	1.8	72
89	Osmium isotope variations in the oceans recorded by FeMn crusts. Earth and Planetary Science Letters, 1999, 171, 185-197.	1.8	95
90	Iron and manganese oxide mineralization in the Pacific. Geological Society Special Publication, 1997, 119, 123-138.	0.8	145

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91	Climate and Ocean Dynamics and the Lead Isotopic Records in Pacific Ferromanganese Crusts. Science, 1997, 277, 913-918.	6.0	122
92	Mineralogy and stable isotopes of black shale-hosted manganese ores, southwestern Taurides, Turkey. Economic Geology, 1997, 92, 733-744.	1.8	18
93	Comparison of the partitioning behaviours of yttrium, rare earth elements, and titanium between hydrogenetic marine ferromanganese crusts and seawater. Geochimica Et Cosmochimica Acta, 1996, 60, 1709-1725.	1.6	504
94	Hydrothermal mineralization along submarine rift zones, Hawaii. Marine Georesources and Geotechnology, 1996, 14, 177-203.	1.2	51
95	Composition and origin of hydrothermal ironstones from central Pacific seamounts. Geochimica Et Cosmochimica Acta, 1994, 58, 179-189.	1.6	92
96	Diagenesis of diatomite from the Kolubara Coal Basin, BaroÅ¡evac, Serbia. Geological Journal, 1994, 29, 209-217.	0.6	2
97	Hydrothermal palygorskite and ferromanganese mineralization at a central California margin fracture zone. Marine Geology, 1993, 115, 47-65.	0.9	21
98	Two Major Cenozoic Episodes of Phosphogenesis Recorded in Equatorial Pacific Seamount Deposits. Paleoceanography, 1993, 8, 293-311.	3.0	136
99	Central Pacific Cobalt-Rich Ferromanganese Crusts: Historical Perspective and Regional Variability. Earth Science Series, 1992, , 261-283.	0.3	29
100	Variations in the Fineâ€Scale Composition of a Central Pacific Ferromanganese Crust: Paleoceanographic Implications. Paleoceanography, 1992, 7, 63-77.	3.0	87
101	Geochronology and subsurface stratigraphy of Pukapuka and Rakahanga atolls, Cook Islands: Late Quaternary reef growth and sea level history. Palaeogeography, Palaeoclimatology, Palaeoecology, 1992, 91, 377-394.	1.0	36
102	Dolomitization of Quaternary reef limestone, Aitutaki, Cook Islands. Sedimentology, 1992, 39, 645-661.	1.6	21
103	Siliceous Deposits of the Tethys and Pacific Regions. , 1989, , 1-17.		0
104	Cobalt- and platinum-rich ferromanganese crusts and associated substrate rocks from the Marshall Islands. Marine Geology, 1988, 78, 255-283.	0.9	122
105	Sr and Nd isotopic variations in ferromanganese crusts from the Central Pacific: Implications for age and source provenance. Geochimica Et Cosmochimica Acta, 1988, 52, 2229-2233.	1.6	37
106	Bacterially mediated diagenetic origin for chert-hosted manganese deposits in the Franciscan Complex, California Coast Ranges. Geology, 1987, 15, 722.	2.0	65
107	Ferromanganese crusts from Necker Ridge, Horizon Guyot and S.P. Lee Guyot: Geological considerations. Marine Geology, 1985, 69, 25-54.	0.9	73
108	Chapter 3 Comparisons Between Open-Ocean and Continental Margin Chert Sequences. Developments in Sedimentology, 1983, 36, 25-43.	0.5	18

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109	Chapter 10 Petrology and Geochemistry of Cretaceous and Paleogene Cherts From Western Costa Rica. Developments in Sedimentology, 1983, , 143-174.	0.5	23
110	Sources, Dispersal, and Clay Mineral Composition of Fine-Grained Sediment off Central and Northern California. Journal of Geology, 1980, 88, 541-566.	0.7	101
111	Origin of Iron-Rich Montmorillonite from the Manganese Nodule Belt of the North Equatorial Pacific. Clays and Clay Minerals, 1979, 27, 185-194.	0.6	90
112	Mineralogy and Diagenesis of Surface Sediments from DOMES Areas A, B, and C. , 1979, , 365-396.		16
113	Clay mineralogy, fine-grained sediment dispersal, and inferred current patterns, lower Cook Inlet and Kodiak shelf, Alaska. Sedimentary Geology, 1979, 24, 291-306.	1.0	18
114	Origin of authigenic carbonates in sediment from the deep Bering Sea. Sedimentology, 1979, 26, 681-705.	1.6	57
115	Diagenesis of late Cenozoic diatomaceous deposits and formation of the bottom simulating reflector in the southern Bering Sea*. Sedimentology, 1978, 25, 155-181.	1.6	218
116	Diagenesis and distribution of late Cenozoic volcanic sediment in the southern Bering Sea. Bulletin of the Geological Society of America, 1978, 89, 197.	1.6	77
117	Meiji sediment tongue: North Pacific evidence for limited movement between the Pacific and North American plates. Bulletin of the Geological Society of America, 1977, 88, 1567.	1.6	43
118	Deep-sea Sediment Source Areas: Implications of Variable Rates of Movement between California and the Pacific Plate. Nature, 1973, 241, 40-41.	13.7	17
119	Lithified carbonate sediment and zeolitic tuff in basalts, Mid-Atlantic Ridge. Sedimentology, 1973, 20, 399-410.	1.6	7
120	Increasing rate of movement with time between California and the Pacific Plate: From Delgada Submarine Fan source areas. Journal of Geophysical Research, 1973, 78, 7752-7762.	3.3	47