Sven Petersen

List of Publications by Year
in descending order

105 papers	4,826 citations	117619 34 h-index	114455 63 g-index
111 all docs	111 docs citations	111 times ranked	3310 citing authors

#	Article	IF	Citations
1	The abundance of seafloor massive sulfide deposits. Geology, 2011, 39, 1155-1158.	4.4	319
2	The internal structure of an active sea-floor massive sulphide deposit. Nature, 1995, 377, 713-716.	27.8	284
3	News from the seabed â€“ Geological characteristics and resource potential of deep-sea mineral resources. Marine Policy, 2016, 70, 175-187.	3.2	245
4	Sea-Floor Tectonics and Submarine Hydrothermal Systems. , 2005, , .		192
5	Active and relict sea-floor hydrothermal mineralization at the TAG hydrothermal field, Mid-Atlantic Ridge. Economic Geology, 1993, 88, 1989-2017.	3.8	176
6	Gold-rich polymetallic sulfides from the Lau back arc and implications for the geochemistry of gold in sea-floor hydrothermal systems of the Southwest Pacific. Economic Geology, 1993, 88, 2182-2209.	3.8	152
7	Effects of temperature, sulfur, and oxygen fugacity on the composition of sphalerite from submarine hydrothermal vents. Geology, 2014, 42, 699-702.	4.4	143
8	Distribution and solubility limits of trace elements in hydrothermal black smoker sulfides: An in-situ LA-ICP-MS study. Geochimica Et Cosmochimica Acta, 2015, 159, 16-41.	3.9	143
9	Scientific rationale and international obligations for protection of active hydrothermal vent ecosystems from deep-sea mining. Marine Policy, 2018, 90, 20-28.	3.2	134
10	Physical and Chemical Processes of Seafloor Mineralization at Mid-Ocean Ridges. Geophysical Monograph Series, 0, , 115-157.	0.1	130
11	The geological setting of the ultramafic-hosted Logatchev hydrothermal field (14Â°45â€²N, Mid-Atlantic) Tj ETQq1 1 0.784314 rgBT /O	1.4	122
12	Hydrothermal exploration of mid-ocean ridges: Where might the largest sulfide deposits be forming?. Chemical Geology, 2016, 420, 114-126.	3.3	117
13	Third dimension of a presently forming VMS deposit: TAG hydrothermal mound, Mid-Atlantic Ridge, 26Â°N. Mineralium Deposita, 2000, 35, 233-259.	4.1	100
14	Tectonic structure, evolution, and the nature of oceanic core complexes and their detachment fault zones (13Â°20â€²N and 13Â°30â€²N, Mid Atlantic Ridge). Geochemistry, Geophysics, Geosystems, 2017, 18, 1451-1482.	2.5	94
15	Hybrid shallow on-axis and deep off-axis hydrothermal circulation at fast-spreading ridges. Nature, 2014, 508, 508-512.	27.8	88
16	Discovery of new hydrothermal vent sites in Bransfield Strait, Antarctica. Earth and Planetary Science Letters, 2001, 193, 395-407.	4.4	86
17	Constraints on the behavior of trace elements in the actively-forming TAG deposit, Mid-Atlantic Ridge, based on LA-ICP-MS analyses of pyrite. Chemical Geology, 2018, 498, 45-71.	3.3	86
18	Young volcanism and related hydrothermal activity at 5Â°S on the slowâ€spreading southern Midâ€Atlantic Ridge. Geochemistry, Geophysics, Geosystems, 2007, 8, .	2.5	83

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19	A model for growth of steep-sided vent structures on the Endeavour Segment of the Juan de Fuca Ridge: Results of a petrologic and geochemical study. Journal of Geophysical Research, 1999, 104, 22859-22883.	3.3	81
20	Comparison of the TAG mound and stockwork complex with Cyprus-type, massive sulfide deposits. , 0, , .		81
21	Mineralogy and trace element geochemistry of sulfide minerals from the Wocan Hydrothermal Field on the slow-spreading Carlsberg Ridge, Indian Ocean. Ore Geology Reviews, 2017, 84, 1-19.	2.7	79
22	Constraints on Water Depth of Massive Sulfide Formation: Evidence from Modern Seafloor Hydrothermal Systems in Arc-Related Settings. Economic Geology, 2014, 109, 2079-2101.	3.8	78
23	Submarine Gold Mineralization Near Lihir Island, New Ireland Fore-Arc, Papua New Guinea. Economic Geology, 2002, 97, 1795-1813.	3.8	66
24	Rifting under steamâ€"How rift magmatism triggers methane venting from sedimentary basins. Geology, 2016, 44, 767-770.	4.4	59
25	Drilling Shallow-Water Massive Sulfides at the Palinuro Volcanic Complex, Aeolian Island Arc, Italy. Economic Geology, 2014, 109, 2129-2158.	3.8	58
26	Geological fate of seafloor massive sulphides at the TAG hydrothermal field (Mid-Atlantic Ridge). Ore Geology Reviews, 2019, 107, 903-925.	2.7	56
27	Diking, young volcanism and diffuse hydrothermal activity on the southern Mid-Atlantic Ridge: The Lilliput field at 9Â°33â€²S. Marine Geology, 2009, 266, 52-64.	2.1	55
28	Hydrothermal precipitates associated with bimodal volcanism in the Central Bransfield Strait, Antarctica. Mineralium Deposita, 2004, 39, 358-379.	4.1	50
29	Microbial metalâ€sulfide oxidation in inactive hydrothermal vent chimneys suggested by metagenomic and metaproteomic analyses. Environmental Microbiology, 2019, 21, 682-701.	3.8	50
30	Feâ€"Si-oxyhydroxide deposits at a slow-spreading centre with thickened oceanic crust: The Lilliput hydrothermal field (9Â°33â€²S, Mid-Atlantic Ridge). Chemical Geology, 2010, 278, 186-200.	3.3	48
31	Oxidative dissolution of hydrothermal mixed-sulphide ore: An assessment of current knowledge in relation to seafloor massive sulphide mining. Ore Geology Reviews, 2017, 86, 309-337.	2.7	46
32	The physicochemical habitat of <i>Sclerolinum</i> sp. at Hook Ridge hydrothermal vent, Bransfield Strait, Antarctica. Limnology and Oceanography, 2005, 50, 598-606.	3.1	45
33	Linking geology, fluid chemistry, and microbial activity of basaltâ€and ultramaficâ€hosted deepâ€sea hydrothermal vent environments. Geobiology, 2013, 11, 340-355.	2.4	44
34	Hydrothermalism in the Tyrrhenian Sea: Inorganic and microbial sulfur cycling as revealed by geochemical and multiple sulfur isotope data. Chemical Geology, 2011, 280, 217-231.	3.3	42
35	Widespread Occurrence of Two Carbon Fixation Pathways in Tubeworm Endosymbionts: Lessons from Hydrothermal Vent Associated Tubeworms from the Mediterranean Sea. Frontiers in Microbiology, 2012, 3, 423.	3.5	38
36	Mineralogy and geochemistry of hydrothermal precipitates from Kairei hydrothermal field, Central Indian Ridge. Marine Geology, 2014, 354, 69-80.	2.1	37

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37	Divining gold in seafloor polymetallic massive sulfide systems. Mineralium Deposita, 2019, 54, 789-820.	4.1	36
38	Hot vents in an ice-cold ocean: Indications for phase separation at the southernmost area of hydrothermal activity, Bransfield Strait, Antarctica. Earth and Planetary Science Letters, 2001, 193, 381-394.	4.4	34
39	Biosignatures present in a hydrothermal massive sulfide from the Mid-Atlantic Ridge. Geobiology, 2007, 5, 435-450.	2.4	34
40	Marine Mineral Exploration With Controlled Source Electromagnetics at the TAG Hydrothermal Field, 26Â°N Midâ€Atlantic Ridge. Geophysical Research Letters, 2019, 46, 5808-5816.	4.0	34
41	Subsea mining moves closer to shore. Nature Geoscience, 2017, 10, 158-159.	12.9	33
42	Hydrothermal activity at Hook Ridge in the Central Bransfield Basin, Antarctica. Geo-Marine Letters, 1998, 18, 277-284.	1.1	31
43	PGE distribution in massive sulfides from the PACMANUS hydrothermal field, eastern Manus basin, Papua New Guinea: implications for PGE enrichment in some ancient volcanogenic massive sulfide deposits. Mineralium Deposita, 2004, 39, 784-792.	4.1	30
44	Fault geometry and permeability contrast control vent temperatures at the Logatchev 1 hydrothermal field, Mid-Atlantic Ridge. Geology, 2015, 43, 51-54.	4.4	30
45	Inorganic and biogenic As-sulfide precipitation at seafloor hydrothermal fields. Marine Geology, 2013, 342, 28-38.	2.1	29
46	Genesis of corrugated fault surfaces by strain localization recorded at oceanic detachments. Earth and Planetary Science Letters, 2018, 498, 116-128.	4.4	29
47	Electrical properties of seafloor massive sulfides. Geo-Marine Letters, 2016, 36, 235-245.	1.1	27
48	Trace Metal Distribution in Sulfide Minerals from Ultramafic-Hosted Hydrothermal Systems: Examples from the Kairei Vent Field, Central Indian Ridge. Minerals (Basel, Switzerland), 2018, 8, 526.	2.0	27
49	Mineralization and Alteration of a Modern Seafloor Massive Sulfide Deposit Hosted in Mafic Volcaniclastic Rocks. Economic Geology, 2019, 114, 857-896.	3.8	27
50	Geochemistry of vent fluid particles formed during initial hydrothermal fluid-seawater mixing along the Mid-Atlantic Ridge. Geochemistry, Geophysics, Geosystems, 2011, 12, n/a-n/a.	2.5	26
51	Highâ€resolution magnetics reveal the deep structure of a volcanicâ€arcâ€related basaltâ€hosted hydrothermal site (<scp>P</scp>alinuro, <scp>T</scp>yrrhenian <scp>S</scp>ea). Geochemistry, Geophysics, Geosystems, 2015, 16, 1950-1961.	2.5	26
52	A self-potential investigation of submarine massive sulfides: Palinuro Seamount, Tyrrhenian Sea. Geophysics, 2017, 82, A51-A56.	2.6	25
53	Shallow Drilling of Seafloor Hydrothermal Systems Using the BGS Rockdrill: Conical Seamount (New) Tj ETQq1 1 0.784314 rgBT /Overlo Geotechnology, 2005, 23, 175-193.	2.1	24
54	PGE fractionation in seafloor hydrothermal systems: examples from mafic- and ultramafic-hosted hydrothermal fields at the slow-spreading Mid-Atlantic Ridge. Mineralium Deposita, 2007, 42, 423-431.	4.1	24

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55	Early depositional history of metalliferous sediments in the Atlantis II Deep of the Red Sea: Evidence from rare earth element geochemistry. Geochimica Et Cosmochimica Acta, 2014, 126, 146-168.	3.9	24
56	Mineral chemistry, bulk rock geochemistry, and Sâ€isotope signature of lodeâ€gold mineralization in the BÃ©tarÃ© Oya gold district, southâ€east Cameroon. Geological Journal, 2018, 53, 2579-2596.	1.3	24
57	Modern Seafloor Hydrothermal Systems: New Perspectives on Ancient Ore-Forming Processes. Elements, 2018, 14, 307-312.	0.5	24
58	First direct observation of coseismic slip and seafloor rupture along a submarine normal fault and implications for fault slip history. Earth and Planetary Science Letters, 2016, 450, 96-107.	4.4	21
59	The Daxi Vent Field: An active mafic-hosted hydrothermal system at a non-transform offset on the slow-spreading Carlsberg Ridge, 6Â°48â€²N. Ore Geology Reviews, 2021, 129, 103888.	2.7	21
60	Geochemistry and sulfurÂ–isotopic composition of the TAG hydrothermal mound, Mid-Atlantic Ridge, 26Â°N. , 0, , .		21
61	Heat flow and mineralogy of TAG Relict High-Temperature Hydrothermal Zones: Mid-Atlantic Ridge 26Â°N, 45Â°W. Geophysical Research Letters, 1996, 23, 3507-3510.	4.0	20
62	Modern Sea-Floor Massive Sulfides and Base Metal Resources<subtitle>Toward an Estimate of Global Sea-Floor Massive Sulfide Potential</subtitle>. , 2010, , .		20
63	Textural and mineralogical changes associated with the incipient hydrothermal alteration of glassy dacite at the submarine PACMANUS hydrothermal system, eastern Manus Basin. Journal of Volcanology and Geothermal Research, 2007, 160, 23-41.	2.1	19
64	New insights into the mineralogy of the <scp>A</scp>tlantis II <scp>D</scp>eep metalliferous sediments, <scp>R</scp>ed <scp>S</scp>ea. Geochemistry, Geophysics, Geosystems, 2015, 16, 4449-4478.	2.5	19
65	Physico-chemical properties of newly discovered hydrothermal plumes above the Southern Mid-Atlantic Ridge (13Â°-33Â°S). Deep-Sea Research Part I: Oceanographic Research Papers, 2019, 148, 34-52.	1.4	19
66	Comparison between magmatic activity and gold mineralization at Conical Seamount and Lihir Island, Papua New Guinea. Mineralogy and Petrology, 2003, 79, 259-283.	1.1	18
67	The 6â€“8 Aug 2019 eruption of â€˜Volcano Fâ€™ in the Tofua Arc, Tonga. Journal of Volcanology and Geothermal Research, 2020, 390, 106695.	2.1	18
68	Atacamite and paratacamite from the ultramafic-hosted Logatchev seafloor vent field (14Â°45â€²N,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	3.3	17
69	Explosion craters associated with shallow submarine gas venting off Panarea island, Italy. Bulletin of Volcanology, 2012, 74, 1937-1944.	3.0	17
70	Trace metal distribution in the Atlantis II Deep (Red Sea) sediments. Chemical Geology, 2014, 386, 80-100.	3.3	16
71	Structural Control, Evolution, and Accumulation Rates of Massive Sulfides in the TAG Hydrothermal Field. Geochemistry, Geophysics, Geosystems, 2020, 21, e2020GC009185.	2.5	16
72	Shallow Seismicity and the Classification of Structures in the Lau Backâ€Arc Basin. Geochemistry, Geophysics, Geosystems, 2020, 21, e2020GC008924.	2.5	16

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73	Petrology of hydrothermal mineralization: a vertical section through the TAG mound. , 0, , .		16
74	Faulting and offâ€axis submarine massive sulfide accumulation at slow spreading midâ€ocean ridges: A numerical modeling perspective. Geochemistry, Geophysics, Geosystems, 2017, 18, 2305-2320.	2.5	15
75	Shallow Submarine Hydrothermal Systems in the Aeolian Volcanic Arc, Italy. Eos, 2009, 90, 110-111.	0.1	14
76	Controls on the seafloor exposure of detachment fault surfaces. Earth and Planetary Science Letters, 2019, 506, 381-387.	4.4	13
77	XRD Identification of Ore Minerals during Cruises: Refinement of Extraction Procedure with Sodium Acetate Buffer. Minerals (Basel, Switzerland), 2020, 10, 160.	2.0	13
78	Detachment tectonics at Mid-Atlantic Ridge 26Â°N. Scientific Reports, 2019, 9, 11830.	3.3	12
79	Submarine Gold Mineralization Near Lihir Island, New Ireland Fore-Arc, Papua New Guinea. Economic Geology, 2002, 97, 1795-1813.	3.8	12
80	Fluid inclusion studies as a guide to the temperature regime within the TAG hydrothermal mound, 26Â°N, MidÂ–Atlantic Ridge. , 0, , .		12
81	Geological, Mineralogical and Textural Impacts on the Distribution of Environmentally Toxic Trace Elements in Seafloor Massive Sulfide Occurrences. Minerals (Basel, Switzerland), 2019, 9, 162.	2.0	11
82	Magnetic and Gravity Surface Geometry Inverse Modeling of the TAG Active Mound. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022228.	3.4	11
83	Tectonic and magmatic controls on hydrothermal activity in the Woodlark Basin. Geochemistry, Geophysics, Geosystems, 2012, 13, .	2.5	9
84	Geological mapping of the Menez Gwen segment at 37Â°50â€²N on the Mid-Atlantic Ridge: Implications for accretion mechanisms and associated hydrothermal activity at slow-spreading mid-ocean ridges. Marine Geology, 2019, 412, 107-122.	2.1	9
85	Technology developments in the exploration and evaluation of deep-sea mineral resources. Annales Des Mines - ResponsabilitÃ© Et Environnement, 2017, NÂ° 85, 14-18.	0.1	9
86	The submarine tectono-magmatic framework of Cu-Au endowment in the Tabar-to-Feni island chain, PNG. Ore Geology Reviews, 2020, 121, 103491.	2.7	8
87	P-wave velocity measurements for preliminary assessments of the mineralization in seafloor massive sulfide mini-cores during drilling operations. Engineering Geology, 2017, 226, 316-325.	6.3	7
88	Siting of gold and characteristics of gold-bearing massive sulfides from the interior of the felsic-hosted PACMANUS massive sulfide deposit, eastern Manus basin (PNG). , 2005, , 623-626.		7
89	Seabed Mining. Springer Geology, 2018, , 481-502.	0.3	6
90	The Discovery and Preliminary Geological and Faunal Descriptions of Three New SteinahÃ³ll Vent Sites, Reykjanes Ridge, Iceland. Frontiers in Marine Science, 2021, 8, .	2.5	6

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91	SANTORY: SANTORiniâ€™s Seafloor Volcanic ObservatorY. Frontiers in Marine Science, 2022, 9, .	2.5	6
92	Hydrothermalism. Encyclopedia of Earth Sciences Series, 2016, , 344-357.	0.1	5
93	Estimating the metal content of SMS deposits. , 2011, , .		4
94	Factors controlling precious and base-metal enrichments at the ultramafic-hosted Logatchev hydrothermal field, 14Â°45â€²N on the MAR: New insights from cruise M60/3. , 2005, , 679-682.		4
95	Are modern seafloor massive sulfide deposits a possible resource for mankind: Lessons learned from shallow drilling operations. , 2011, , .		3
96	Texture, mineralogy and geochemistry of hydrothermally altered submarine volcanics recovered southeast of Cheshire Seamount, western Woodlark Basin. Marine Geology, 2014, 347, 69-84.	2.1	3
97	Magnetic susceptibility measurements of seafloor massive sulphide mini-core samples for deep-sea mining applications. Quarterly Journal of Engineering Geology and Hydrogeology, 2017, 50, 88-93.	1.4	3
98	Deepâ€sea electric and magnetic surveys over active and inactive basaltâ€hosted hydrothermal sites of the TAG Segment (26Â°, MAR): An optimal combination for seafloor massive sulfide exploration. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022082.	3.4	3
99	Volcanogenic Massive Sulfides. , 2014, , 1-9.		3
100	Seafloor massive sulfide deposits: Continuing efforts toward a global estimate of seafloor massive sulfides. , 2015, , .		1
101	Marine Mineral Resources. , 2015, , 1-9.		1
102	Arsenian pyrite-bearing altered volcanics dredged SE of Cheshire Seamount, western Woodlark Basin, Papua New Guinea. Neues Jahrbuch Fur Mineralogie, Abhandlungen, 2013, 190, 327-340.	0.3	0
103	Volcanogenic Massive Sulfides. Encyclopedia of Earth Sciences Series, 2016, , 917-923.	0.1	0
104	Modelling the geometry of the Trans-Atlantic Geotraverse seafloor massive sulphide deposit through magnetic surface geometry inversion. , 2020, , .		0
105	Hydrothermalism. , 2015, , 1-20.		0