C Geoff Wheat

List of Publications by Year
in descending order

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95 papers	5,386 citations	71102 41 h-index	95266 68 g-index
97 all docs	97 docs citations	97 times ranked	3782 citing authors

#	Article	IF	Citations
1	Hydrothermal circulation through mid-ocean ridge flanks: Fluxes of heat and magnesium. Geochimica Et Cosmochimica Acta, 1994, 58, 2225-2237.	3.9	266
2	Hydrothermal recharge and discharge across 50â€‰km guided by seamounts on a young ridge flank. Nature, 2003, 421, 618-621.	27.8	224
3	Fluid and geochemical transport through oceanic crust: a transect across the eastern flank of the Juan de Fuca Ridge. Earth and Planetary Science Letters, 1999, 172, 151-165.	4.4	205
4	Composition of pore and spring waters from Baby Bare: global implications of geochemical fluxes from a ridge flank hydrothermal system. Geochimica Et Cosmochimica Acta, 2000, 64, 629-642.	3.9	195
5	Mariana blueschist mud volcanism: Implications for conditions within the subduction zone. Geology, 1999, 27, 103.	4.4	185
6	Phosphate removal by oceanic hydrothermal processes: An update of the phosphorus budget in the oceans. Geochimica Et Cosmochimica Acta, 1996, 60, 3593-3608.	3.9	167
7	Chemistry of springs across the Mariana forearc shows progressive devolatilization of the subducting plate. Geochimica Et Cosmochimica Acta, 2004, 68, 4915-4933.	3.9	155
8	Colonization of subsurface microbial observatories deployed in young ocean crust. ISME Journal, 2011, 5, 692-703.	9.8	155
9	A dynamic microbial community with high functional redundancy inhabits the cold, oxic subseafloor aquifer. ISME Journal, 2018, 12, 1-16.	9.8	148
10	Oceanic molybdenum isotope fractionation: Diagenesis and hydrothermal ridge-flank alteration. Geochemistry, Geophysics, Geosystems, 2002, 3, 1-9.	2.5	140
11	Trace element and REE composition of a low-temperature ridge-flank hydrothermal spring. Geochimica Et Cosmochimica Acta, 2002, 66, 3693-3705.	3.9	124
12	Chemistry of hot springs along the Eastern Lau Spreading Center. Geochimica Et Cosmochimica Acta, 2011, 75, 1013-1038.	3.9	121
13	Seamounts as Conduits for Massive Fluid, Heat, and Solute Fluxes on Ridge Flanks. Oceanography, 2010, 23, 74-87.	1.0	119
14	Hydrothermal circulation, Juan de Fuca Ridge eastern flank: Factors controlling basement water composition. Journal of Geophysical Research, 1994, 99, 3067-3080.	3.3	105
15	Microbial activity in the marine deep biosphere: progress and prospects. Frontiers in Microbiology, 2013, 4, 189.	3.5	98
16	Chemical composition of basement fluids within an oceanic ridge flank: Implications for along-strike and across-strike hydrothermal circulation. Journal of Geophysical Research, 2000, 105, 13437-13447.	3.3	97
17	Oxygen consumption rates in subseafloor basaltic crust derived from a reaction transport model. Nature Communications, 2013, 4, 2539.	12.8	96
18	Oceanic phosphorus imbalance: Magnitude of the mid-ocean ridge flank hydrothermal sink. Geophysical Research Letters, 2003, 30, n/a-n/a.	4.0	95

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19	Effect of fluid-sediment reaction on hydrothermal fluxes of major elements, eastern flank of the Juan de Fuca Ridge. Geochimica Et Cosmochimica Acta, 2002, 66, 1739-1757.	3.9	87
20	Microbial Community in Black Rust Exposed to Hot Ridge Flank Crustal Fluids. Applied and Environmental Microbiology, 2006, 72, 6789-6799.	3.1	86
21	Interâ€field variability in the microbial communities of hydrothermal vent deposits from a backâ€arc basin. Geobiology, 2012, 10, 333-346.	2.4	86
22	Massive, lowâ€temperature hydrothermal flow from a basaltic outcrop on 23 Ma seafloor of the Cocos Plate: Chemical constraints and implications. Geochemistry, Geophysics, Geosystems, 2008, 9, .	2.5	84
23	Under the sea: microbial life in volcanic oceanic crust. Nature Reviews Microbiology, 2011, 9, 703-712.	28.6	79
24	Hydrothermal plumes along the East Pacific Rise, 8Â°40â€² to 11Â°50â€²N: Plume distribution and relationship to the apparent magmatic budget. Earth and Planetary Science Letters, 1994, 128, 1-17.	4.4	78
25	Molecular taxonomy and naming of five cryptic species ofAlviniconchasnails (Gastropoda:) Tj ETQq1 1 0.784314 rgBT /Overlock	1.2	78
26	Continuous chemical monitoring with osmotically pumped water samplers: OsmoSampler design and applications. Limnology and Oceanography: Methods, 2004, 2, 102-113.	2.0	68
27	Seawater transport and reaction in upper oceanic basaltic basement: chemical data from continuous monitoring of sealed boreholes in a ridge flank environment. Earth and Planetary Science Letters, 2003, 216, 549-564.	4.4	65
28	In situ enrichment of ocean crust microbes on igneous minerals and glasses using an osmotic flow-through device. Geochemistry, Geophysics, Geosystems, 2011, 12, n/a-n/a.	2.5	65
29	Continuous sampling of hydrothermal fluids from Loihi Seamount after the 1996 event. Journal of Geophysical Research, 2000, 105, 19353-19367.	3.3	63
30	Subseafloor Ocean Crust Microbial Observatories: Development of FLOCS (FLow-through Osmo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3 2010, 27, 143-157.	2.0	63
31	Manganese and methane in hydrothermal plumes along the East Pacific Rise, 8Â°40â€² to 11Â°50â€²N. Geochimica Et Cosmochimica Acta, 1995, 59, 4147-4165.	3.9	62
32	The Deep Subsurface Biosphere in Igneous Ocean Crust: Frontier Habitats for Microbiological Exploration. Frontiers in Microbiology, 2012, 3, 8.	3.5	62
33	A distinct and active bacterial community in cold oxygenated fluids circulating beneath the western flank of the Mid-Atlantic ridge. Scientific Reports, 2016, 6, 22541.	3.3	62
34	Cool seafloor hydrothermal springs reveal global geochemical fluxes. Earth and Planetary Science Letters, 2017, 476, 179-188.	4.4	62
35	Evidence for basaltic Sr in midocean ridge-flank hydrothermal systems and implications for the global oceanic Sr isotope balance. Geochimica Et Cosmochimica Acta, 2001, 65, 4141-4153.	3.9	58
36	Heat flow through a basaltic outcrop on a sedimented young ridge flank. Geochemistry, Geophysics, Geosystems, 2004, 5, n/a-n/a.	2.5	58

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37	Long-term hydrogeochemical records in the oceanic basement and forearc prism at the Costa Rica subduction zone. Earth and Planetary Science Letters, 2009, 282, 240-251.	4.4	54
38	Subseafloor seawaterâ€basaltâ€microbe reactions: Continuous sampling of borehole fluids in a ridge flank environment. Geochemistry, Geophysics, Geosystems, 2010, 11, .	2.5	54
39	Chemical and physical diversity of hydrothermal plumes along the East Pacific Rise, 8Â°45â€²N to 11Â°50â€²N. Geophysical Research Letters, 1993, 20, 2913-2916.	4.0	48
40	Advanced instrument system for real-time and time-series microbial geochemical sampling of the deep (basaltic) crustal biosphere. Deep-Sea Research Part I: Oceanographic Research Papers, 2012, 61, 43-56.	1.4	48
41	CO2-depleted fluids from mid-ocean ridge-flank hydrothermal springs. Geochimica Et Cosmochimica Acta, 1998, 62, 2247-2252.	3.9	46
42	Borehole observations of fluid flow from South Chamorro Seamount, an active serpentinite mud volcano in the Mariana forearc. Earth and Planetary Science Letters, 2008, 267, 401-409.	4.4	41
43	Bacterial Variability within an Iron-Silica-Manganese-rich Hydrothermal Mound Located Off-axis at the Cleft Segment, Juan de Fuca Ridge. Geomicrobiology Journal, 2009, 26, 570-580.	2.0	41
44	Seawater recharge into oceanic crust: IODP Exp 327 Site U1363 Grizzly Bare outcrop. Geochemistry, Geophysics, Geosystems, 2013, 14, 1957-1972.	2.5	41
45	Discovery of Hydrothermal Vent Fields on AlarcÃ³n Rise and in Southern Pescadero Basin, Gulf of California. Geochemistry, Geophysics, Geosystems, 2018, 19, 4788-4819.	2.5	40
46	Carbon release from submarine seeps at the Costa Rica fore arc: Implications for the volatile cycle at the Central America convergent margin. Geochemistry, Geophysics, Geosystems, 2010, 11, .	2.5	39
47	Characterization of metalliferous sediment from a low-temperature hydrothermal environment on the Eastern Flank of the East Pacific Rise. Marine Geology, 2008, 250, 128-141.	2.1	38
48	Rapid nutrient load reduction during infiltration of managed aquifer recharge in an agricultural groundwater basin: Pajaro Valley, California. Hydrological Processes, 2012, 26, 2235-2247.	2.6	38
49	Assessing Marine Microbial Induced Corrosion at Santa Catalina Island, California. Frontiers in Microbiology, 2016, 7, 1679.	3.5	37
50	Venting formation fluids from deep-sea boreholes in a ridge flank setting: ODP Sites 1025 and 1026. Geochemistry, Geophysics, Geosystems, 2004, 5, .	2.5	36
51	The potential role of ridge-flank hydrothermal systems on oceanic germanium and silicon balances. Geochimica Et Cosmochimica Acta, 2005, 69, 2021-2029.	3.9	33
52	Mariana serpentinite mud volcanism exhumes subducted seamount materials: implications for the origin of life. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20180425.	3.4	33
53	Mapping the fluid flow of the Mariana Mounds ridge flank hydrothermal system: Pore water chemical tracers. Journal of Geophysical Research, 1995, 100, 8115-8131.	3.3	31
54	A global Ge isotope budget. Geochimica Et Cosmochimica Acta, 2017, 203, 265-283.	3.9	29

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55	New isotope constraints on the Mg oceanic budget point to cryptic modern dolomite formation. Nature Communications, 2019, 10, 5646.	12.8	29
56	Conditions and mechanism for the formation of iron-rich Montmorillonite in deep sea sediments (Costa Rica margin): Coupling high resolution mineralogical characterization and geochemical modeling. Geochimica Et Cosmochimica Acta, 2011, 75, 1397-1410.	3.9	28
57	Mariana Forearc Serpentinite Mud Volcanoes Harbor Novel Communities of ExtremophilicArchaea. Geomicrobiology Journal, 2013, 30, 430-441.	2.0	28
58	Hydrothermal flow through the Mariana Mounds: Dissolution of amorphous silica and degradation of organic matter on a mid-ocean ridge flank. Geochimica Et Cosmochimica Acta, 1994, 58, 2461-2475.	3.9	27
59	Germanium in midâ€ocean ridge flank hydrothermal fluids. Geochemistry, Geophysics, Geosystems, 2008, 9, .	2.5	27
60	Characterizing Microbial Community and Geochemical Dynamics at Hydrothermal Vents Using Osmotically Driven Continuous Fluid Samplers. Environmental Science & Technology, 2013, 47, 4399-4407.	10.0	27
61	Cross-hole tracer experiment reveals rapid fluid flow and low effective porosity in the upper oceanic crust. Earth and Planetary Science Letters, 2016, 450, 355-365.	4.4	27
62	Barium geochemistry in sediment pore waters and formation waters of the oceanic crust on the eastern flank of the Juan de Fuca Ridge (ODP Leg 168). Geochemistry, Geophysics, Geosystems, 2001, 2, n/a-n/a.	2.5	26
63	Nitrate dynamics within the Pajaro River, a nutrient-rich, losing stream. Journal of the North American Benthological Society, 2007, 26, 191-206.	3.1	25
64	Chemical plumes from low-temperature hydrothermal venting on the eastern flank of the Juan de Fuca Ridge. Journal of Geophysical Research, 1997, 102, 15433-15446.	3.3	24
65	A geological and geophysical investigation of Baby Bare, locus of a ridge flank hydrothermal system in the Cascadia Basin. Journal of Geophysical Research, 2000, 105, 23557-23568.	3.3	24
66	Mineralogical characterization and genesis of hydrothermal Mn oxides from the flank of the Juan the Fuca Ridge. American Mineralogist, 2004, 89, 1807-1815.	1.9	24
67	Fluid flow and waterâ€“rock interaction across the active Nankai Trough subduction zone forearc revealed by boron isotope geochemistry. Geochimica Et Cosmochimica Acta, 2016, 193, 100-118.	3.9	24
68	Groundwater seepage into northern San Francisco Bay: Implications for dissolved metals budgets. Water Resources Research, 2002, 38, 12-1-12-19.	4.2	19
69	SULFIDE FORMATION RELATED TO CHANGES IN THE HYDROTHERMAL SYSTEM ON LOIHI SEAMOUNT, HAWAI'I, FOLLOWING THE SEISMIC EVENT IN 1996. Canadian Mineralogist, 2003, 41, 457-472.	1.0	19
70	Hydrothermal seepage patterns above a buried basement ridge, eastern flank of the Juan de Fuca Ridge. Journal of Geophysical Research, 2004, 109, .	3.3	19
71	Fluid sources and pathways of the Costa Rica erosional convergent margin. Geochemistry, Geophysics, Geosystems, 2010, 11, .	2.5	19
72	Temperature and Redox Effect on Mineral Colonization in Juan de Fuca Ridge Flank Subsurface Crustal Fluids. Frontiers in Microbiology, 2016, 7, 396.	3.5	19

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73	Cool, alkaline serpentinite formation fluid regime with scarce microbial habitability and possible abiotic synthesis beneath the South Chamorro Seamount. Progress in Earth and Planetary Science, 2018, 5, .	3.0	19
74	Fluid transport and reaction processes within a serpentinite mud volcano: South Chamorro Seamount. Geochimica Et Cosmochimica Acta, 2020, 269, 413-428.	3.9	19
75	Microbial response to oil enrichment in Gulf of Mexico sediment measured using a novel long-term benthic lander system. Elementa, 2017, 5, .	3.2	19
76	Spatial and temporal distribution of dissolved oxygen in Crater Lake,Oregon. Limnology and Oceanography, 1996, 41, 722-731.	3.1	18
77	Ecology of Subseafloor Crustal Biofilms. Frontiers in Microbiology, 2019, 10, 1983.	3.5	18
78	Geology and Fluid Discharge at Dorado Outcrop, a Low Temperature Ridgeâ€Flank Hydrothermal System. Geochemistry, Geophysics, Geosystems, 2019, 20, 487-504.	2.5	18
79	Subseafloor Crossâ€Hole Tracer Experiment Reveals Hydrologic Properties, Heterogeneities, and Reactions in Slowâ€Spreading Oceanic Crust. Geochemistry, Geophysics, Geosystems, 2020, 21, e2019GC008804.	2.5	17
80	Petrology of Baby Bare and Mama Bare lavas. Geophysical Research Letters, 1998, 25, 117-120.	4.0	15
81	Clusters of deep-sea egg-brooding octopods associated with warm fluid discharge: An ill-fated fragment of a larger, discrete population?. Deep-Sea Research Part I: Oceanographic Research Papers, 2018, 135, 1-8.	1.4	13
82	Spatial variation of subduction zone fluids during progressive subduction: Insights from Serpentinite Mud Volcanoes. Geochimica Et Cosmochimica Acta, 2022, 319, 118-134.	3.9	13
83	Continuous Dynamics of Dissolved Methane Over 2 Years and its Carbon Isotopes (Î´¹³C,) Tj ETQq1 1 0.784314 rgBT /Ov Biogeosciences, 2021, 126, e2020JG006038.	3.0	12
84	Hydrothermal fluid circulation through the sediment of Crater Lake, Oregon: Pore water and heat flow constraints. Journal of Geophysical Research, 1998, 103, 9931-9944.	3.3	11
85	CORK-Lite: Bringing Legacy Boreholes Back to Life. Scientific Drilling, 0, 14, 39-43.	0.6	11
86	Influences of the Tonga Subduction Zone on seafloor massive sulfide deposits along the Eastern Lau Spreading Center and Valu Fa Ridge. Geochimica Et Cosmochimica Acta, 2017, 215, 214-246.	3.9	10
87	Seawater recharge along an eastern bounding fault in Middle Valley, northern Juan de Fuca Ridge. Geophysical Research Letters, 2007, 34, .	4.0	9
88	Carbon cycling in low temperature hydrothermal systems: The Dorado Outcrop. Geochimica Et Cosmochimica Acta, 2019, 264, 1-12.	3.9	9
89	Microbeâ€mineral biogeography from multiâ€year incubations in oceanic crust at North Pond, <scp>Midâ€Atlantic</scp> Ridge. Environmental Microbiology, 2021, 23, 3923-3936.	3.8	8
90	Subseafloor Fluid and Chemical Fluxes Along a Buriedâ€Basement Ridge on the Eastern Flank of the Juan de Fuca Ridge. Geochemistry, Geophysics, Geosystems, 2019, 20, 4922-4938.	2.5	7

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91	Evidence for Lowâ€Temperature Diffuse Venting at North Pond, Western Flank of the Midâ€Atlantic Ridge. Geochemistry, Geophysics, Geosystems, 2019, 20, 2572-2584.	2.5	6
92	Fluctuation in deep groundwater chemistry and microbial community and their impact on corrosion of stainless-steels. Science of the Total Environment, 2022, 824, 153965.	8.0	5
93	Changing Brine Inputs Into Hydrothermal Fluids: Southern Cleft Segment, Juan de Fuca Ridge. Geochemistry, Geophysics, Geosystems, 2020, 21, e2020GC009360.	2.5	4
94	A new high-temperature borehole fluid sampler: the Multi-Temperature Fluid Sampler. Scientific Drilling, 0, 28, 43-48.	0.6	1
95	Geothermal heating and episodic cold-seawater intrusions into an isolated ridge-flank basin near the Mid-Atlantic Ridge. Communications Earth & Environment, 2021, 2, .	6.8	0