

Terry Plank

List of Publications by Year in descending order

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106
papers

15,988
citations

30047

54
h-index

34964

98
g-index

109
all docs

109
docs citations

109
times ranked

7473
citing authors

#	ARTICLE	IF	CITATIONS
1	The chemical composition of subducting sediment and its consequences for the crust and mantle. <i>Chemical Geology</i> , 1998, 145, 325-394.	1.4	3,091
2	Element transport from slab to volcanic front at the Mariana arc. <i>Journal of Geophysical Research</i> , 1997, 102, 14991-15019.	3.3	1,204
3	Constraints from Thorium/Lanthanum on Sediment Recycling at Subduction Zones and the Evolution of the Continents. <i>Journal of Petrology</i> , 2005, 46, 921-944.	1.1	870
4	Tracing trace elements from sediment input to volcanic output at subduction zones. <i>Nature</i> , 1993, 362, 739-743.	13.7	647
5	Constraints on the depths and temperatures of basaltic magma generation on Earth and other terrestrial planets using new thermobarometers for mafic magmas. <i>Earth and Planetary Science Letters</i> , 2009, 279, 20-33.	1.8	587
6	Petrological Systematics of Mid-Ocean Ridge Basalts: Constraints on Melt Generation Beneath Ocean Ridges. <i>Geophysical Monograph Series</i> , 0, , 183-280.	0.1	493
7	The Hf ^ε -Nd isotopic composition of marine sediments. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 5903-5926.	1.6	449
8	An evaluation of the global variations in the major element chemistry of arc basalts. <i>Earth and Planetary Science Letters</i> , 1988, 90, 349-370.	1.8	436
9	Composition of altered oceanic crust at ODP Sites 801 and 1149. <i>Geochemistry, Geophysics, Geosystems</i> , 2003, 4, n/a-n/a.	1.0	422
10	Why do mafic arc magmas contain ~1/4wt% water on average?. <i>Earth and Planetary Science Letters</i> , 2013, 364, 168-179.	1.8	409
11	Dehydration and melting experiments constrain the fate of subducted sediments. <i>Geochemistry, Geophysics, Geosystems</i> , 2000, 1, n/a-n/a.	1.0	360
12	Dy/Dy*: Variations Arising from Mantle Sources and Petrogenetic Processes. <i>Journal of Petrology</i> , 2013, 54, 525-537.	1.1	281
13	The Chemical Composition of Subducting Sediments. , 2014, , 607-629.		277
14	The Role of Water in Generating the Calc-alkaline Trend: New Volatile Data for Aleutian Magmas and a New Tholeiitic Index. <i>Journal of Petrology</i> , 2010, 51, 2411-2444.	1.1	271
15	Subducting carbon. <i>Nature</i> , 2019, 574, 343-352.	13.7	250
16	Effects of the melting regime on the composition of the oceanic crust. <i>Journal of Geophysical Research</i> , 1992, 97, 19749-19770.	3.3	245
17	A mantle melting profile across the Basin and Range, SW USA. <i>Journal of Geophysical Research</i> , 2002, 107, ECV 5-1-ECV 5-21.	3.3	244
18	Mantle melting as a function of water content beneath back-arc basins. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	240

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19	Emerging geothermometers for estimating slab surface temperatures. <i>Nature Geoscience</i> , 2009, 2, 611-615.	5.4	195
20	Mantle Melting as a Function of Water Content beneath the Mariana Arc. <i>Journal of Petrology</i> , 2010, 51, 1711-1738.	1.1	193
21	Bubbles matter: An assessment of the contribution of vapor bubbles to melt inclusion volatile budgets. <i>American Mineralogist</i> , 2015, 100, 806-823.	0.9	175
22	Volatile loss from melt inclusions in pyroclasts of differing sizes. <i>Contributions To Mineralogy and Petrology</i> , 2013, 165, 129-153.	1.2	167
23	Near-Ultrahigh Pressure Processing of Continental Crust: Miocene Crustal Xenoliths from the Pamir. <i>Journal of Petrology</i> , 2005, 46, 1661-1687.	1.1	162
24	Subduction cycling of U, Th, and Pb. <i>Earth and Planetary Science Letters</i> , 2005, 234, 369-383.	1.8	161
25	Geochemical Fluxes During Seafloor Alteration of the Basaltic Upper Oceanic Crust: DSDP Sites 417 and 418. <i>Geophysical Monograph Series</i> , 0, , 19-38.	0.1	155
26	Hf ϵ Nd input flux in the Izu-Mariana subduction zone and recycling of subducted material in the mantle. <i>Geochemistry, Geophysics, Geosystems</i> , 2009, 10, .	1.0	150
27	Feeding andesitic eruptions with a high-speed connection from the mantle. <i>Nature</i> , 2013, 500, 68-72.	13.7	141
28	Along-arc, inter-arc and arc-to-arc variations in volcanic gas CO ₂ /S T ratios reveal dual source of carbon in arc volcanism. <i>Earth-Science Reviews</i> , 2017, 168, 24-47.	4.0	131
29	Global variations in H ₂ O/Ce: 1. Slab surface temperatures beneath volcanic arcs. <i>Geochemistry, Geophysics, Geosystems</i> , 2012, 13, .	1.0	122
30	Chemical composition of sediments subducting at the Izu-Bonin trench. <i>Geochemistry, Geophysics, Geosystems</i> , 2007, 8, n/a-n/a.	1.0	109
31	NanoSIMS results from olivine-hosted melt embayments: Magma ascent rate during explosive basaltic eruptions. <i>Journal of Volcanology and Geothermal Research</i> , 2014, 283, 1-18.	0.8	108
32	Thermal structure and melting conditions in the mantle beneath the Basin and Range province from seismology and petrology. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 1312-1338.	1.0	98
33	The volatile content of magmas from Arenal volcano, Costa Rica. <i>Journal of Volcanology and Geothermal Research</i> , 2006, 157, 94-120.	0.8	95
34	Global variations in H ₂ O/Ce: 2. Relationships to arc magma geochemistry and volatile fluxes. <i>Geochemistry, Geophysics, Geosystems</i> , 2012, 13, .	1.0	95
35	The May 2003 eruption of Anatahan volcano, Mariana Islands: Geochemical evolution of a silicic island-arc volcano. <i>Journal of Volcanology and Geothermal Research</i> , 2005, 146, 139-170.	0.8	94
36	Strong along-arc variations in attenuation in the mantle wedge beneath Costa Rica and Nicaragua. <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	1.0	91

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37	High-Ca boninites from the active Tonga Arc. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	90
38	High water contents in basaltic magmas from Irazu Volcano, Costa Rica. <i>Journal of Volcanology and Geothermal Research</i> , 2007, 168, 68-92.	0.8	87
39	Prediction of magmatic water contents via measurement of H ₂ O in clinopyroxene phenocrysts. <i>Geology</i> , 2008, 36, 799.	2.0	87
40	Melting during late-stage rifting in Afar is hot and deep. <i>Nature</i> , 2013, 499, 70-73.	13.7	85
41	CO ₂ flux emissions from the Earth's most actively degassing volcanoes, 2005–2015. <i>Scientific Reports</i> , 2019, 9, 5442.	1.6	84
42	Mantle temperature variations beneath back-arc spreading centers inferred from seismology, petrology, and bathymetry. <i>Earth and Planetary Science Letters</i> , 2006, 248, 30-42.	1.8	80
43	Volatiles in Magmas. , 2015, , 163-183.		80
44	The wet Nicaraguan slab. <i>Geophysical Research Letters</i> , 2003, 30, .	1.5	78
45	Nicaraguan volcanoes record paleoceanographic changes accompanying closure of the Panama gateway. <i>Geology</i> , 2002, 30, 1087.	2.0	77
46	Magnesium isotopic composition of altered oceanic crust and the global Mg cycle. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 238, 357-373.	1.6	74
47	Reconciling mantle attenuation-temperature relationships from seismology, petrology, and laboratory measurements. <i>Geochemistry, Geophysics, Geosystems</i> , 2014, 15, 3521-3542.	1.0	71
48	Magma decompression rates during explosive eruptions of Kilauea volcano, Hawaii, recorded by melt embayments. <i>Bulletin of Volcanology</i> , 2016, 78, 1.	1.1	67
49	Lithium isotopic composition of marine sediments. <i>Geochemistry, Geophysics, Geosystems</i> , 2006, 7, n/a-n/a.	1.0	65
50	Zoisite-aqueous fluid trace element partitioning with implications for subduction zone fluid composition. <i>Chemical Geology</i> , 2007, 239, 250-265.	1.4	65
51	Assessing the utility of thallium and thallium isotopes for tracing subduction zone inputs to the Mariana arc. <i>Chemical Geology</i> , 2013, 345, 139-149.	1.4	63
52	Magnesium isotopic composition of subducting marine sediments. <i>Chemical Geology</i> , 2017, 466, 15-31.	1.4	63
53	Along-Arc Variations in the Pre-Eruptive H ₂ O Contents of Mariana Arc Magmas Inferred from Fractionation Paths. <i>Journal of Petrology</i> , 2011, 52, 257-278.	1.1	62
54	Magma decompression rate correlates with explosivity at basaltic volcanoes – Constraints from water diffusion in olivine. <i>Journal of Volcanology and Geothermal Research</i> , 2019, 387, 106664.	0.8	62

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55	An Assessment of Clinopyroxene as a Recorder of Magmatic Water and Magma Ascent Rate. <i>Journal of Petrology</i> , 2016, 57, 1865-1886.	1.1	61
56	Interplay of crystal fractionation, sulfide saturation and oxygen fugacity on the iron isotope composition of arc lavas: An example from the Marianas. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 226, 224-243.	1.6	60
57	Tracking along-arc sediment inputs to the Aleutian arc using thallium isotopes. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 181, 217-237.	1.6	56
58	One hundred million years of mantle geochemical history suggest the retiring of mantle plumes is premature. <i>Earth and Planetary Science Letters</i> , 2008, 275, 285-295.	1.8	55
59	Lithosphere versus asthenosphere mantle sources at the Big Pine Volcanic Field, California. <i>Geochemistry, Geophysics, Geosystems</i> , 2012, 13, .	1.0	52
60	Dispersed ash in deeply buried sediment from the northwest Pacific Ocean: An example from the Izu Bonin arc (ODP Site 1149). <i>Earth and Planetary Science Letters</i> , 2009, 284, 639-648.	1.8	49
61	Variations in melting dynamics and mantle compositions along the Eastern Volcanic Zone of the Gakkel Ridge: insights from olivine-hosted melt inclusions. <i>Contributions To Mineralogy and Petrology</i> , 2014, 167, 1.	1.2	49
62	Site-specific hydrogen diffusion rates during clinopyroxene dehydration. <i>Contributions To Mineralogy and Petrology</i> , 2016, 171, 1.	1.2	49
63	Arc lavas on both sides of a trench: Slab window effects at the Solomon Islands triple junction, SW Pacific. <i>Earth and Planetary Science Letters</i> , 2009, 279, 293-302.	1.8	46
64	Astoria Fan sediments, DSDP site 174, Cascadia Basin: Hf-Nd-Pb constraints on provenance and outburst flooding. <i>Chemical Geology</i> , 2006, 233, 276-292.	1.4	45
65	Sources of Fe to the equatorial Pacific Ocean from the Holocene to Miocene. <i>Earth and Planetary Science Letters</i> , 2008, 270, 258-270.	1.8	45
66	When does eruption run-up begin? Multidisciplinary insight from the 1999 eruption of Shishaldin volcano. <i>Earth and Planetary Science Letters</i> , 2018, 486, 1-14.	1.8	45
67	Potassium isotopic heterogeneity in subducting oceanic plates. <i>Science Advances</i> , 2020, 6, .	4.7	42
68	The meaning of \bar{F} : Clarifying the mean extent of melting at ocean ridges. <i>Journal of Geophysical Research</i> , 1995, 100, 15045-15052.	3.3	41
69	Silicate melt inclusions in the new millennium: A review of recommended practices for preparation, analysis, and data presentation. <i>Chemical Geology</i> , 2021, 570, 120145.	1.4	40
70	Pressure-temperature-time paths of sediment recycling beneath the Tonga-Kermadec arc. <i>Earth and Planetary Science Letters</i> , 2005, 233, 195-211.	1.8	39
71	Seismic evidence of effects of water on melt transport in the Lau back-arc mantle. <i>Nature</i> , 2015, 518, 395-398.	13.7	39
72	Water-in-olivine magma ascent chronometry: Every crystal is a clock. <i>Journal of Volcanology and Geothermal Research</i> , 2020, 398, 106872.	0.8	39

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73	Rates of dehydration of olivines from San Carlos and Kilauea Iki. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 242, 165-190.	1.6	38
74	Thallium elemental behavior and stable isotope fractionation during magmatic processes. <i>Chemical Geology</i> , 2017, 448, 71-83.	1.4	36
75	Origin of negative cerium anomalies in subduction-related volcanic samples: Constraints from Ce and Nd isotopes. <i>Chemical Geology</i> , 2018, 500, 46-63.	1.4	34
76	Stable vanadium isotopes as a redox proxy in magmatic systems?. <i>Geochemical Perspectives Letters</i> , 2017, , 75-84.	1.0	33
77	Barium isotope systematics of subduction zones. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 275, 1-18.	1.6	32
78	Trace element and U-series systematics for 1963-1965 tephra from Irazu Volcano, Costa Rica: implications for magma generation processes and transit times. <i>Geochimica Et Cosmochimica Acta</i> , 1998, 62, 2689-2699.	1.6	31
79	Magmatic water content controls the pre-eruptive depth of arc magmas. <i>Science</i> , 2022, 375, 1169-1172.	6.0	31
80	A preliminary assessment of the symmetry of source composition and melting dynamics across the Azores plume. <i>Geochemistry, Geophysics, Geosystems</i> , 2010, 11, .	1.0	29
81	Seamounts in the Subduction Factory. <i>Oceanography</i> , 2010, 23, 176-181.	0.5	28
82	Olivine-Hosted Melt Inclusions: A Microscopic Perspective on a Complex Magmatic World. <i>Annual Review of Earth and Planetary Sciences</i> , 2021, 49, 465-494.	4.6	27
83	Multiple major faults at the Japan Trench: Chemostratigraphy of the plate boundary at IODP Exp. 343: JFAST. <i>Earth and Planetary Science Letters</i> , 2015, 423, 57-66.	1.8	24
84	Geochemical Earth Reference Model (GERM): description of the initiative. <i>Chemical Geology</i> , 1998, 145, 153-159.	1.4	23
85	Geochemistry of Sediments in the Argo Abyssal Plain at Site 765: A Continental Margin Reference Section for Sediment Recycling in Subduction Zones. , 0, , .		20
86	Recent volcanic accretion at 9°N–10°N East Pacific Rise as resolved by combined geochemical and geological observations. <i>Geochemistry, Geophysics, Geosystems</i> , 2013, 14, 2547-2574.	1.0	19
87	Episodic Volcanism and Hot Mantle: Implications for Volcanic Hazard Studies at the Proposed Nuclear Waste Repository at Yucca Mountain, Nevada. <i>GSA Today</i> , 2002, 12, 4.	1.1	19
88	The oceanic crust as a bioreactor. <i>Geophysical Monograph Series</i> , 2004, , 325-341.	0.1	17
89	Linking Subsurface to Surface Using Gas Emission and Melt Inclusion Data at Mount Cleveland Volcano, Alaska. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2019GC008882.	1.0	16
90	Thermochemical evolution of the subarc mantle due to backarc spreading. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	15

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91	Volcanic activity and gas emissions along the South Sandwich Arc. <i>Bulletin of Volcanology</i> , 2021, 83, 1.	1.1	14
92	The brine of the Earth. <i>Nature</i> , 1996, 380, 202-203.	13.7	13
93	The whole-block approach to measuring hydrogen diffusivity in nominally anhydrous minerals. <i>American Mineralogist</i> , 2015, 100, 837-851.	0.9	13
94	The Ins and Outs of Water in Olivine-Hosted Melt Inclusions: Hygrometer vs. Speedometer. <i>Frontiers in Earth Science</i> , 2021, 9, .	0.8	12
95	Leg 185 Synthesis: Sampling the Oldest Crust in the Ocean Basins to Understand Earth's Geodynamic and Geochemical Fluxes. , 0, , .		12
96	Magma Pressure-Temperature-Time Paths During Mafic Explosive Eruptions. <i>Frontiers in Earth Science</i> , 2020, 8, .	0.8	11
97	The ups and downs of sediments. <i>Nature Geoscience</i> , 2008, 1, 17-18.	5.4	9
98	Constraints on the sulfur subduction cycle in Central America from sulfur isotope compositions of volcanic gases. <i>Chemical Geology</i> , 2022, 588, 120627.	1.4	7
99	Volcanic seismicity beneath Chuginadak Island, Alaska (Cleveland and Tana volcanoes): Implications for magma dynamics and eruption forecasting. <i>Journal of Volcanology and Geothermal Research</i> , 2021, 412, 107182.	0.8	4
100	Correction to "Lithium isotopic composition of marine sediments". <i>Geochemistry, Geophysics, Geosystems</i> , 2006, 7, n/a-n/a.	1.0	2
101	Volcano-stimulated marine photosynthesis. <i>Science</i> , 2019, 365, 978-979.	6.0	2
102	Low-Temperature Alteration and Subsequent Reheating of Shallow Oceanic Crust at Hole 765D, Argo Abyssal Plain. , 0, , .		2
103	A view from the Sunda arc. <i>Nature</i> , 1994, 367, 224-225.	13.7	1
104	Subduction Zone Geochemistry. <i>Encyclopedia of Earth Sciences Series</i> , 2016, , 1-9.	0.1	1
105	Central American Subduction System. <i>Eos</i> , 2007, 88, 459.	0.1	0
106	Subduction Zone Geochemistry. <i>Encyclopedia of Earth Sciences Series</i> , 2018, , 1384-1392.	0.1	0