Terry Plank

List of Publications by Year
in descending order

106 papers	15,988 citations	30070 54 h-index	34986 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. Chemical Geology, 1998, 145, 325-394.	3.3	3,091
2	Element transport from slab to volcanic front at the Mariana arc. Journal of Geophysical Research, 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. Journal of Petrology, 2005, 46, 921-944.	2.8	870
4	Tracing trace elements from sediment input to volcanic output at subduction zones. Nature, 1993, 362, 739-743.	27.8	647
5	Constraints on the depths and temperatures of basaltic magma generation on Earth and other terrestrial planets using new thermobarometers for mafic magmas. Earth and Planetary Science Letters, 2009, 279, 20-33.	4.4	587
6	Petrological Systematics of Mid-Ocean Ridge Basalts: Constraints on Melt Generation Beneath Ocean Ridges. Geophysical Monograph Series, 0, , 183-280.	0.1	493
7	The Hfâ€“Nd isotopic composition of marine sediments. Geochimica Et Cosmochimica Acta, 2011, 75, 5903-5926.	3.9	449
8	An evaluation of the global variations in the major element chemistry of arc basalts. Earth and Planetary Science Letters, 1988, 90, 349-370.	4.4	436
9	Composition of altered oceanic crust at ODP Sites 801 and 1149. Geochemistry, Geophysics, Geosystems, 2003, 4, n/a-n/a.	2.5	422
10	Why do mafic arc magmas contain â^¼4wt% water on average?. Earth and Planetary Science Letters, 2013, 364, 168-179.	4.4	409
11	Dehydration and melting experiments constrain the fate of subducted sediments. Geochemistry, Geophysics, Geosystems, 2000, 1, n/a-n/a.	2.5	360
12	Dy/Dy*: Variations Arising from Mantle Sources and Petrogenetic Processes. Journal of Petrology, 2013, 54, 525-537.	2.8	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. Journal of Petrology, 2010, 51, 2411-2444.	2.8	271
15	Subducting carbon. Nature, 2019, 574, 343-352.	27.8	250
16	Effects of the melting regime on the composition of the oceanic crust. Journal of Geophysical Research, 1992, 97, 19749-19770.	3.3	245
17	A mantle melting profile across the Basin and Range, SW USA. Journal of Geophysical Research, 2002, 107, ECV 5-1-ECV 5-21.	3.3	244
18	Mantle melting as a function of water content beneath back-arc basins. Journal of Geophysical Research, 2006, 111, .	3.3	240

#	Article	IF	Citations
19	Emerging geothermometers for estimating slab surface temperatures. Nature Geoscience, 2009, 2, 611-615.	12.9	195
20	Mantle Melting as a Function of Water Content beneath the Mariana Arc. Journal of Petrology, 2010, 51, 1711-1738.	2.8	193
21	Bubbles matter: An assessment of the contribution of vapor bubbles to melt inclusion volatile budgets. American Mineralogist, 2015, 100, 806-823.	1.9	175
22	Volatile loss from melt inclusions in pyroclasts of differing sizes. Contributions To Mineralogy and Petrology, 2013, 165, 129-153.	3.1	167
23	Near-Ultrahigh Pressure Processing of Continental Crust: Miocene Crustal Xenoliths from the Pamir. Journal of Petrology, 2005, 46, 1661-1687.	2.8	162
24	Subduction cycling of U, Th, and Pb. Earth and Planetary Science Letters, 2005, 234, 369-383.	4.4	161
25	Geochemical Fluxes During Seafloor Alteration of the Basaltic Upper Oceanic Crust: DSDP Sites 417 and 418. Geophysical Monograph Series, 0, , 19-38.	0.1	155
26	Hfâ€Nd input flux in the Izuâ€Mariana subduction zone and recycling of subducted material in the mantle. Geochemistry, Geophysics, Geosystems, 2009, 10, .	2.5	150
27	Feeding andesitic eruptions with a high-speed connection from the mantle. Nature, 2013, 500, 68-72.	27.8	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. Earth-Science Reviews, 2017, 168, 24-47.	9.1	131
29	Global variations in H₂O/Ce: 1. Slab surface temperatures beneath volcanic arcs. Geochemistry, Geophysics, Geosystems, 2012, 13, .	2.5	122
30	Chemical composition of sediments subducting at the Izu-Bonin trench. Geochemistry, Geophysics, Geosystems, 2007, 8, n/a-n/a.	2.5	109
31	NanoSIMS results from olivine-hosted melt embayments: Magma ascent rate during explosive basaltic eruptions. Journal of Volcanology and Geothermal Research, 2014, 283, 1-18.	2.1	108
32	Thermal structure and melting conditions in the mantle beneath the Basin and Range province from seismology and petrology. Geochemistry, Geophysics, Geosystems, 2016, 17, 1312-1338.	2.5	98
33	The volatile content of magmas from Arenal volcano, Costa Rica. Journal of Volcanology and Geothermal Research, 2006, 157, 94-120.	2.1	95
34	Global variations in H₂O/Ce: 2. Relationships to arc magma geochemistry and volatile fluxes. Geochemistry, Geophysics, Geosystems, 2012, 13, .	2.5	95
35	The May 2003 eruption of Anatahan volcano, Mariana Islands: Geochemical evolution of a silicic island-arc volcano. Journal of Volcanology and Geothermal Research, 2005, 146, 139-170.	2.1	94
36	Strong alongâ€arc variations in attenuation in the mantle wedge beneath Costa Rica and Nicaragua. Geochemistry, Geophysics, Geosystems, 2008, 9, .	2.5	91

#	Article	IF	Citations
37	Highâ€Ca boninites from the active Tonga Arc. Journal of Geophysical Research, 2010, 115, .	3.3	90
38	High water contents in basaltic magmas from IrazÃº Volcano, Costa Rica. Journal of Volcanology and Geothermal Research, 2007, 168, 68-92.	2.1	87
39	Prediction of magmatic water contents via measurement of H2O in clinopyroxene phenocrysts. Geology, 2008, 36, 799.	4.4	87
40	Melting during late-stage rifting in Afar is hot and deep. Nature, 2013, 499, 70-73.	27.8	85
41	CO2 flux emissions from the Earthâ€™s most actively degassing volcanoes, 2005â€“2015. Scientific Reports, 2019, 9, 5442.	3.3	84
42	Mantle temperature variations beneath back-arc spreading centers inferred from seismology, petrology, and bathymetry. Earth and Planetary Science Letters, 2006, 248, 30-42.	4.4	80
43	Volatiles in Magmas. , 2015, , 163-183.		80
44	The wet Nicaraguan slab. Geophysical Research Letters, 2003, 30, .	4.0	78
45	Nicaraguan volcanoes record paleoceanographic changes accompanying closure of the Panama gateway. Geology, 2002, 30, 1087.	4.4	77
46	Magnesium isotopic composition of altered oceanic crust and the global Mg cycle. Geochimica Et Cosmochimica Acta, 2018, 238, 357-373.	3.9	74
47	Reconciling mantle attenuation-temperature relationships from seismology, petrology, and laboratory measurements. Geochemistry, Geophysics, Geosystems, 2014, 15, 3521-3542.	2.5	71
48	Magma decompression rates during explosive eruptions of KÄ«lauea volcano, Hawaii, recorded by melt embayments. Bulletin of Volcanology, 2016, 78, 1.	3.0	67
49	Lithium isotopic composition of marine sediments. Geochemistry, Geophysics, Geosystems, 2006, 7, n/a-n/a.	2.5	65
50	Zoisite-aqueous fluid trace element partitioning with implications for subduction zone fluid composition. Chemical Geology, 2007, 239, 250-265.	3.3	65
51	Assessing the utility of thallium and thallium isotopes for tracing subduction zone inputs to the Mariana arc. Chemical Geology, 2013, 345, 139-149.	3.3	63
52	Magnesium isotopic composition of subducting marine sediments. Chemical Geology, 2017, 466, 15-31.	3.3	63
53	Along-Arc Variations in the Pre-Eruptive H2O Contents of Mariana Arc Magmas Inferred from Fractionation Paths. Journal of Petrology, 2011, 52, 257-278.	2.8	62
54	Magma decompression rate correlates with explosivity at basaltic volcanoes â€” Constraints from water diffusion in olivine. Journal of Volcanology and Geothermal Research, 2019, 387, 106664.	2.1	62

#	Article	IF	Citations
55	An Assessment of Clinopyroxene as a Recorder of Magmatic Water and Magma Ascent Rate. Journal of Petrology, 2016, 57, 1865-1886.	2.8	61
56	Interplay of crystal fractionation, sulfide saturation and oxygen fugacity on the iron isotope composition of arc lavas: An example from the Marianas. Geochimica Et Cosmochimica Acta, 2018, 226, 224-243.	3.9	60
57	Tracking along-arc sediment inputs to the Aleutian arc using thallium isotopes. Geochimica Et Cosmochimica Acta, 2016, 181, 217-237.	3.9	56
58	One hundred million years of mantle geochemical history suggest the retiring of mantle plumes is premature. Earth and Planetary Science Letters, 2008, 275, 285-295.	4.4	55
59	Lithosphere versus asthenosphere mantle sources at the Big Pine Volcanic Field, California. Geochemistry, Geophysics, Geosystems, 2012, 13, .	2.5	52
60	Dispersed ash in deeply buried sediment from the northwest Pacific Ocean: An example from the Izuâ€“Bonin arc (ODP Site 1149). Earth and Planetary Science Letters, 2009, 284, 639-648.	4.4	49
61	Variations in melting dynamics and mantle compositions along the Eastern Volcanic Zone of the Gakkel Ridge: insights from olivine-hosted melt inclusions. Contributions To Mineralogy and Petrology, 2014, 167, 1.	3.1	49
62	Site-specific hydrogen diffusion rates during clinopyroxene dehydration. Contributions To Mineralogy and Petrology, 2016, 171, 1.	3.1	49
63	Arc lavas on both sides of a trench: Slab window effects at the Solomon Islands triple junction, SW Pacific. Earth and Planetary Science Letters, 2009, 279, 293-302.	4.4	46
64	Astoria Fan sediments, DSDP site 174, Cascadia Basin: Hfâ€“Ndâ€“Pb constraints on provenance and outburst flooding. Chemical Geology, 2006, 233, 276-292.	3.3	45
65	Sources of Fe to the equatorial Pacific Ocean from the Holocene to Miocene. Earth and Planetary Science Letters, 2008, 270, 258-270.	4.4	45
66	When does eruption run-up begin? Multidisciplinary insight from the 1999 eruption of Shishaldin volcano. Earth and Planetary Science Letters, 2018, 486, 1-14.	4.4	45
67	Potassium isotopic heterogeneity in subducting oceanic plates. Science Advances, 2020, 6, .	10.3	42
68	The meaning of â€œmeanFâ€: Clarifying the mean extent of melting at ocean ridges. Journal of Geophysical Research, 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. Chemical Geology, 2021, 570, 120145.	3.3	40
70	Pressureâ€“temperatureâ€“time paths of sediment recycling beneath the Tongaâ€“Kermadec arc. Earth and Planetary Science Letters, 2005, 233, 195-211.	4.4	39
71	Seismic evidence of effects of water on melt transport in the Lau back-arc mantle. Nature, 2015, 518, 395-398.	27.8	39
72	Water-in-olivine magma ascent chronometry: Every crystal is a clock. Journal of Volcanology and Geothermal Research, 2020, 398, 106872.	2.1	39

#	Article	IF	Citations
73	Rates of dehydration of olivines from San Carlos and Kilauea Iki. Geochimica Et Cosmochimica Acta, 2018, 242, 165-190.	3.9	38
74	Thallium elemental behavior and stable isotope fractionation during magmatic processes. Chemical Geology, 2017, 448, 71-83.	3.3	36
75	Origin of negative cerium anomalies in subduction-related volcanic samples: Constraints from Ce and Nd isotopes. Chemical Geology, 2018, 500, 46-63.	3.3	34
76	Stable vanadium isotopes as a redox proxy in magmatic systems?. Geochemical Perspectives Letters, 2017, , 75-84.	5.0	33
77	Barium isotope systematics of subduction zones. Geochimica Et Cosmochimica Acta, 2020, 275, 1-18.	3.9	32
78	Trace element and U-series systematics for 1963-1965 tephras from IrazÃº Volcano, Costa Rica: implications for magma generation processes and transit times. Geochimica Et Cosmochimica Acta, 1998, 62, 2689-2699.	3.9	31
79	Magmatic water content controls the pre-eruptive depth of arc magmas. Science, 2022, 375, 1169-1172.	12.6	31
80	A preliminary assessment of the symmetry of source composition and melting dynamics across the Azores plume. Geochemistry, Geophysics, Geosystems, 2010, 11, .	2.5	29
81	Seamounts in the Subduction Factory. Oceanography, 2010, 23, 176-181.	1.0	28
82	Olivine-Hosted Melt Inclusions: A Microscopic Perspective on a Complex Magmatic World. Annual Review of Earth and Planetary Sciences, 2021, 49, 465-494.	11.0	27
83	Multiple major faults at the Japan Trench: Chemostratigraphy of the plate boundary at IODP Exp. 343: JFAST. Earth and Planetary Science Letters, 2015, 423, 57-66.	4.4	24
84	Geochemical Earth Reference Model (GERM): description of the initiative. Chemical Geology, 1998, 145, 153-159.	3.3	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^{Â°}Nâ€“10^{Â°}N East Pacific Rise as resolved by combined geochemical and geological observations. Geochemistry, Geophysics, Geosystems, 2013, 14, 2547-2574.	2.5	19
87	Episodic Volcanism and Hot Mantle: Implications for Volcanic Hazard Studies at the Proposed Nuclear Waste Repository at Yucca Mountain, Nevada. GSA Today, 2002, 12, 4.	2.0	19
88	The oceanic crust as a bioreactor. Geophysical Monograph Series, 2004, , 325-341.	0.1	17
89	Linking Subsurface to Surface Using Gas Emission and Melt Inclusion Data at Mount Cleveland Volcano, Alaska. Geochemistry, Geophysics, Geosystems, 2020, 21, e2019GC008882.	2.5	16
90	Thermochemical evolution of the subâ€arc mantle due to backâ€arc spreading. Journal of Geophysical Research, 2012, 117, .	3.3	15

#	Article	IF	Citations
91	Volcanic activity and gas emissions along the South Sandwich Arc. Bulletin of Volcanology, 2021, 83, 1.	3.0	14
92	The brine of the Earth. Nature, 1996, 380, 202-203.	27.8	13
93	The whole-block approach to measuring hydrogen diffusivity in nominally anhydrous minerals. American Mineralogist, 2015, 100, 837-851.	1.9	13
94	The Ins and Outs of Water in Olivine-Hosted Melt Inclusions: Hygrometer vs. Speedometer. Frontiers in Earth Science, 2021, 9, .	1.8	12
95	Leg 185 Synthesis: Sampling the Oldest Crust in the Ocean Basins to Understand Earthâ€™s Geodynamic and Geochemical Fluxes. , 0, , .		12
96	Magma Pressure-Temperature-Time Paths During Mafic Explosive Eruptions. Frontiers in Earth Science, 2020, 8, .	1.8	11
97	The ups and downs of sediments. Nature Geoscience, 2008, 1, 17-18.	12.9	9
98	Constraints on the sulfur subduction cycle in Central America from sulfur isotope compositions of volcanic gases. Chemical Geology, 2022, 588, 120627.	3.3	7
99	Volcanic seismicity beneath Chuginadak Island, Alaska (Cleveland and Tana volcanoes): Implications for magma dynamics and eruption forecasting. Journal of Volcanology and Geothermal Research, 2021, 412, 107182.	2.1	4
100	Correction to â€œLithium isotopic composition of marine sedimentsâ€• Geochemistry, Geophysics, Geosystems, 2006, 7, n/a-n/a.	2.5	2
101	Volcano-stimulated marine photosynthesis. Science, 2019, 365, 978-979.	12.6	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. Nature, 1994, 367, 224-225.	27.8	1
104	Subduction Zone Geochemistry. Encyclopedia of Earth Sciences Series, 2016, , 1-9.	0.1	1
105	Central American Subduction System. Eos, 2007, 88, 459.	0.1	0
106	Subduction Zone Geochemistry. Encyclopedia of Earth Sciences Series, 2018, , 1384-1392.	0.1	0