Philip M Piccoli

List of Publications by Year
in descending order

82 papers	8,069 citations	61984 43 h-index	64796 79 g-index
87 all docs	87 docs citations	87 times ranked	4657 citing authors

#	Article	IF	Citations
1	Tectonic discrimination of granitoids. Bulletin of the Geological Society of America, 1989, 101, 635-643.	3.3	3,304
2	Can otolith microchemistry chart patterns of migration and habitat utilization in anadromous fishes?. Journal of Experimental Marine Biology and Ecology, 1995, 192, 15-33.	1.5	322
3	Magmatic Apatite: A Powerful, Yet Deceptive, Mineral. Elements, 2015, 11, 177-182.	0.5	232
4	Copper partitioning in a meltâ€“vaporâ€“brineâ€“magnetiteâ€“pyrrhotite assemblage. Geochimica Et Cosmochimica Acta, 2006, 70, 5583-5600.	3.9	146
5	Magnetite solubility and iron transport in magmatic-hydrothermal environments. Geochimica Et Cosmochimica Acta, 2004, 68, 4905-4914.	3.9	144
6	Comparison of accuracy, precision, and sensitivity in elemental assays of fish otoliths using the electron microprobe, proton-induced X-ray emission, and laser ablation inductively coupled plasma mass spectrometry. Canadian Journal of Fisheries and Aquatic Sciences, 1997, 54, 2068-2079.	1.4	123
7	Mapping lithospheric boundaries using Os isotopes of mantle xenoliths: An example from the North China Craton. Geochimica Et Cosmochimica Acta, 2011, 75, 3881-3902.	3.9	118
8	Alkali metals control the release of gold from volatile-rich magmas. Earth and Planetary Science Letters, 2010, 297, 50-56.	4.4	116
9	The partitioning of sulfur and chlorine between andesite melts and magmatic volatiles and the exchange coefficients of major cations. Geochimica Et Cosmochimica Acta, 2012, 89, 81-101.	3.9	116
10	Solubility and partitioning behavior of Au, Cu, Ag and reduced S in magmas. Geochimica Et Cosmochimica Acta, 2013, 112, 288-304.	3.9	115
11	The solubility of copper in high-temperature magmatic vapors: A quest for the significance of various chloride and sulfide complexes. Geochimica Et Cosmochimica Acta, 2011, 75, 2811-2827.	3.9	114
12	Magmatic sulfides and Au:Cu ratios in porphyry deposits: an experimental study of copper and gold partitioning at 850Â°C, 100 MPa in a haplogranitic meltâ€“pyrrhotiteâ€“intermediate solid solutionâ€“gold metal assemblage, at gas saturation. Lithos, 1999, 46, 573-589.	1.4	113
13	Partial Migration of Fishes as Exemplified by the Estuarineâ€Dependent White Perch. Fisheries, 2009, 34, 114-123.	0.8	112
14	Gold partitioning in melt-vapor-brine systems. Geochimica Et Cosmochimica Acta, 2005, 69, 3321-3335.	3.9	110
15	Gold and copper in volatile saturated mafic to intermediate magmas: Solubilities, partitioning, and implications for ore deposit formation. Geochimica Et Cosmochimica Acta, 2012, 91, 140-159.	3.9	110
16	Partitioning behavior of chlorine and fluorine in felsic meltâ€“fluid(s)â€“apatite systems at 50MPa and 850â€“950Â°C. Chemical Geology, 2014, 384, 94-111.	3.3	105
17	The partitioning of copper between silicate melts and two-phase aqueous fluids: An experimental investigation at 1 kbar, 800Â° C and 0.5â€...kbar, 850Â° C. Contributions To Mineralogy and Petrology, 1995, 121, 388-399.	3.1	102
18	Age- and Sex-Dependent Migrations of Striped Bass in the Hudson River as Determined by Chemical Microanalysis of Otoliths. Estuaries and Coasts, 1996, 19, 778.	1.7	89

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19	The distribution of rare earth elements between monzogranitic melt and the aqueous volatile phase in experimental investigations at 800 Â°C and 200 MPa. Contributions To Mineralogy and Petrology, 2000, 140, 251-262.	3.1	89
20	The partitioning behavior of As and Au in S-free and S-bearing magmatic assemblages. Geochimica Et Cosmochimica Acta, 2007, 71, 1764-1782.	3.9	89
21	Gold solubility, speciation, and partitioning as a function of HCl in the brine-silicate melt-metallic gold system at 800Â°C and 100 MPa. Geochimica Et Cosmochimica Acta, 2002, 66, 3719-3732.	3.9	88
22	Secular mantle oxidation across the Archean-Proterozoic boundary: Evidence from V partitioning in komatiites and picrites. Geochimica Et Cosmochimica Acta, 2019, 250, 49-75.	3.9	88
23	Chemical heterogeneity in the upper mantle recorded by peridotites and chromitites from the Shetland Ophiolite Complex, Scotland. Earth and Planetary Science Letters, 2012, 333-334, 226-237.	4.4	77
24	Processes controlling highly siderophile element fractionations in xenolithic peridotites and their influence on Os isotopes. Earth and Planetary Science Letters, 2010, 297, 287-297.	4.4	75
25	Gold and copper partitioning in magmatic-hydrothermal systems at 800Â°C and 100MPa. Geochimica Et Cosmochimica Acta, 2011, 75, 2470-2482.	3.9	74
26	Molybdenum, tungsten and manganese partitioning in the system pyrrhotiteâ€“Feâ€“Sâ€“O meltâ€“rhyolite melt: Impact of sulfide segregation on arc magma evolution. Geochimica Et Cosmochimica Acta, 2011, 75, 7018-7030.	3.9	74
27	187Osâ€“186Os systematics of Osâ€“Irâ€“Ru alloy grains from southwestern Oregon. Earth and Planetary Science Letters, 2005, 230, 211-226.	4.4	70
28	Hydrogen-alkali exchange between silicate melts and two-phase aqueous mixtures: an experimental investigation. Contributions To Mineralogy and Petrology, 1997, 128, 114-126.	3.1	67
29	The behavior of chalcophile elements during magmatic differentiation as observed in Kilauea Iki lava lake, Hawaii. Geochimica Et Cosmochimica Acta, 2017, 210, 71-96.	3.9	66
30	Alkali exchange equilibria between a silicate melt and coexisting magmatic volatile phase: an experimental study at 800Â°C and 100 MPa. Geochimica Et Cosmochimica Acta, 2003, 67, 1415-1427.	3.9	62
31	The effect of crystal-melt partitioning on the budgets of Cu, Au, and Ag. American Mineralogist, 2008, 93, 1437-1448.	1.9	59
32	Eclogiteâ€“high-pressure granulite metamorphism records early collision in West Gondwana: new data from the Southern BrasÃ¼a Belt, Brazil. Journal of the Geological Society, 2009, 166, 1013-1032.	2.1	59
33	In situ monazite (Uâ€“Th)â€“Pb ages from the Southern BrasÃ¼a Belt, Brazil: constraints on the highâ€temperature retrograde evolution of HP granulites. Journal of Metamorphic Geology, 2012, 30, 81-112.	3.4	57
34	Patterns of migration in Hudson River striped bass as determined by otolith microchemistry. Fisheries Research, 2003, 63, 245-259.	1.7	54
35	Decoding polyphase migmatites using geochronology and phase equilibria modelling. Journal of Metamorphic Geology, 2015, 33, 203-230.	3.4	54
36	From Source to Sink: Petrogenesis of Cretaceous Anatectic Granites from the Fosdick Migmatiteâ€“Granite Complex, West Antarctica. Journal of Petrology, 2016, 57, 1241-1278.	2.8	53

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37	Fluid generation and evolution during exhumation of deeply subducted <scp>UHP</scp> continental crust: Petrogenesis of composite graniteâ€“quartz veins in the Sulu belt, China. Journal of Metamorphic Geology, 2017, 35, 601-629.	3.4	53
38	Highly siderophile element systematics of the 3.3Ga Weltevreden komatiites, South Africa: Implications for early Earth history. Earth and Planetary Science Letters, 2011, 311, 253-263.	4.4	51
39	Magmatic Processes in the Development of Porphyry-Type Ore Systems. , 2005, , .		51
40	Chemical and chronologic complexity in the convecting upper mantle: Evidence from the Taitao ophiolite, southern Chile. Geochimica Et Cosmochimica Acta, 2009, 73, 5793-5819.	3.9	48
41	Fractionation of the platinum-group elments and Re during crystallization of basalt in Kilauea Iki Lava Lake, Hawaii. Chemical Geology, 2009, 260, 196-210.	3.3	47
42	The partitioning of Cu, Au and Mo between liquid and vapor at magmatic temperatures and its implications for the genesis of magmatic-hydrothermal ore deposits. Geochimica Et Cosmochimica Acta, 2017, 207, 81-101.	3.9	47
43	An experimental study of the partitioning of copper between pyrrhotite and a high silica rhyolitic melt. Economic Geology, 1993, 88, 901-915.	3.8	46
44	The partitioning behavior of silver in a vaporâ€“brineâ€“rhyolite melt assemblage. Geochimica Et Cosmochimica Acta, 2008, 72, 1638-1659.	3.9	42
45	Estimation of aqueous HCl and Cl concentrations in felsic systems. Lithos, 1999, 46, 591-604.	1.4	39
46	Pâ€“Tâ€“t evolution of pelitic gneiss from the basement underlying the Northwestern Ordos Basin, North China Craton, and the tectonic implications. Precambrian Research, 2016, 276, 67-84.	2.7	39
47	Reaction rind formation in the Catalina Schist: Deciphering a history of mechanical mixing and metasomatic alteration. Chemical Geology, 2014, 384, 47-61.	3.3	37
48	Challenges in constraining the Pâ€“T conditions of mafic granulites: An example from the northern Transâ€North China Orogen. Journal of Metamorphic Geology, 2018, 36, 739-768.	3.4	36
49	Experimental determination of Au solubility in rhyolite melt and magnetite: Constraints on magmatic Au budgets. American Mineralogist, 2003, 88, 1644-1651.	1.9	35
50	A mÃ©lange of subduction temperatures: Evidence from Zr-in-rutile thermometry for strengthening of the subduction interface. Earth and Planetary Science Letters, 2018, 482, 525-535.	4.4	34
51	Up-estuary dispersal of young-of-the-year bay anchovy Anchoa mitchilli in the Chesapeake Bay: inferences from microprobe analysis of strontium in otoliths. Marine Ecology - Progress Series, 2000, 208, 217-227.	1.9	32
52	Phase Equilibrium Modeling of MTâ€“UHP Eclogite: a Case Study of Coesite Eclogite at Yangkou Bay, Sulu Belt, Eastern China. Journal of Petrology, 2018, 59, 1253-1280.	2.8	28
53	Elemental fingerprinting of Kenya Rift Valley ochre deposits for provenance studies of rock art and archaeological pigments. Quaternary International, 2017, 430, 42-59.	1.5	27
54	Rapid analysis of trinitite with nuclear forensic applications for post-detonation material analyses. Journal of Radioanalytical and Nuclear Chemistry, 2014, 302, 57-67.	1.5	25

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55	Copper partitioning between felsic melt and H2Oâ€“CO2 bearing saline fluids. Geochimica Et Cosmochimica Acta, 2015, 148, 81-99.	3.9	25
56	K-feldspar-muscovite-andalusite-quartz-brine phase equilibria: an experimental study at 25 to 60 MPa and 400 to 550Â°C. Geochimica Et Cosmochimica Acta, 1998, 62, 3717-3727.	3.9	24
57	AN EVALUATION OF THE EFFECT OF COPPER ON THE ESTIMATION OF SULFUR FUGACITY (fS2) FROM PYRRHOTITE COMPOSITION. Economic Geology, 2010, 105, 1163-1169.	3.8	24
58	An evaluation of synthetic fluid inclusions for the purpose of trapping equilibrated, coexisting, immiscible fluid phases at magmatic conditions. American Mineralogist, 2007, 92, 124-138.	1.9	23
59	Partial melting of ultrahigh-pressure eclogite by omphacite-breakdown facilitates exhumation of deeply-subducted crust. Earth and Planetary Science Letters, 2021, 554, 116664.	4.4	20
60	Synthesis and crystal chemistry of microporous titanates K (Ti,M)8O16 where M=Scâ€“Ni. Journal of Solid State Chemistry, 2014, 220, 45-53.	2.9	18
61	Partial migration in introduced wild chinook salmon (Oncorhynchus tshawytscha) of southern Chile. Estuarine, Coastal and Shelf Science, 2014, 149, 87-95.	2.1	18
62	In Situ Determination of First-Row Transition Metal, Ga and Ge Abundances in Geological Materials via Medium-Resolution LA-ICP-MS. Geostandards and Geoanalytical Research, 2011, 35, 253-273.	3.1	17
63	Photoluminescence of Visible and NIRâ€Emitting Lanthanideâ€Doped Bismuthâ€Organic Materials. Chemistry - A European Journal, 2018, 24, 5630-5636.	3.3	16
64	Assessing Pâ€T variability in mÃ©lange blocks from the Catalina Schist: Is there differential movement at the subduction interface?. Journal of Metamorphic Geology, 2021, 39, 271-295.	3.4	15
65	Four-dimensional thermal evolution of the East African Orogen: accessory phase petrochronology of crustal profiles through the Tanzanian Craton and Mozambique Belt, northeastern Tanzania. Contributions To Mineralogy and Petrology, 2020, 175, 1.	3.1	14
66	Partitioning of indium between ferromagnesian minerals and a silicate melt. Chemical Geology, 2018, 500, 30-45.	3.3	13
67	Carryover effects of early growth and river flow on partial migration in striped bass Morone saxatilis. Marine Ecology - Progress Series, 2015, 541, 179-194.	1.9	13
68	Periodicity of strontium: Calcium across annuli further validates otolith-ageing for Atlantic bluefin tuna (Thunnus thynnus). Fisheries Research, 2016, 177, 13-17.	1.7	12
69	Contrasting CW and CCW tectono-metamorphic belts in the eastern Himalayan syntaxis: quantification of Pâ€“Tâ€“t paths and tectonic interpretation. Gondwana Research, 2020, 79, 1-26.	6.0	12
70	Characterization of biotite and amphibole compositions in granites. Contributions To Mineralogy and Petrology, 2022, 177, 1.	3.1	12
71	Evidence for oxidation at the base of the nakhlite pile by reduction of sulfate salts at the time of lava emplacement. Geochimica Et Cosmochimica Acta, 2018, 239, 186-197.	3.9	11
72	Evolution of structure and superconductivity in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mrow><mml:mi>Ba</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub><mml:mo>(</mml:mo></mml:mrow></mml:math>Physical Review B, 2018, 97, .	3.2	11

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73	40Ar/39Ar thermochronology of high-pressure granulite nappes in the southern Brasilia Belt, Brazil: Implications for Nappe Exhumation. Numerische Mathematik, 2010, 310, 1294-1332.	1.4	8
74	Ecological carryover effects associated with partial migration in white perch (Morone americana) within the Hudson River Estuary. Estuarine, Coastal and Shelf Science, 2018, 200, 277-288.	2.1	8
75	Constraints on the Formation of Granite-Related Indium Deposits. Economic Geology, 2019, 114, 993-1003.	3.8	7
76	Molybdenum contents of sulfides in ancient glacial diamictites: Implications for molybdenum delivery to the oceans prior to the Great Oxidation Event. Geochimica Et Cosmochimica Acta, 2020, 278, 30-50.	3.9	7
77	A Novel Approach to Identifying Mantleâ€Equilibrated Zircon by Using Trace Element Chemistry. Geochemistry, Geophysics, Geosystems, 2020, 21, e2020GC009230.	2.5	5
78	Meter-Scale Chemical and Isotopic Heterogeneities in the Oceanic Mantle, Leka Ophiolite Complex, Norway. Journal of Petrology, 2021, 62, .	2.8	5
79	Fast Li-Ion Conduction in Spinel-Structured Solids. Molecules, 2021, 26, 2625.	3.8	4
80	Interpreting magmatic processes from accessory phases: titaniteâ€"a small-scale recorder of large-scale processes. , 2000, , .		0
81	Origin and age of metal veins in Canyon Diablo graphite nodules. Meteoritics and Planetary Science, 2020, 55, 771-780.	1.6	0
82	Olivine + Quartz + Water Â± HCl At Mid-Crustal Conditions: Controls On the Growth of Fibrous Talc As Determined From Hydrothermal Diamond Anvil Cell EXPERIMENTS. Canadian Mineralogist, 2017, 55, 101-113.	1.0	0