Max W Schmidt

List of Publications by Year
in descending order

87 papers	10,257 citations	53794 45 h-index	49909 87 g-index
88 all docs	88 docs citations	88 times ranked	5919 citing authors

#	Article	IF	Citations
1	Experimentally based water budgets for dehydrating slabs and consequences for arc magma generation. Earth and Planetary Science Letters, 1998, 163, 361-379.	4.4	1,907
2	Amphibole composition in tonalite as a function of pressure: an experimental calibration of the Al-in-hornblende barometer. Contributions To Mineralogy and Petrology, 1992, 110, 304-310.	3.1	1,187
3	Trace element signature of subduction-zone fluids, melts and supercritical liquids at 120â€“180â€‰km depth. Nature, 2005, 437, 724-727.	27.8	1,099
4	Petrology of Subducted Slabs. Annual Review of Earth and Planetary Sciences, 2002, 30, 207-235.	11.0	511
5	Melting and dissolution of subducting crust at high pressures: the key role of white mica. Earth and Planetary Science Letters, 2004, 228, 65-84.	4.4	380
6	Redox freezing and melting in the Earthâ€™s deep mantle resulting from carbonâ€“iron redox coupling. Nature, 2011, 472, 209-212.	27.8	373
7	H2O transport and release in subduction zones: Experimental constraints on basaltic and andesitic systems. Journal of Geophysical Research, 1995, 100, 22299-22314.	3.3	350
8	The dependence of Nb and Ta rutileâ€“melt partitioning on melt composition and Nb/Ta fractionation during subduction processes. Earth and Planetary Science Letters, 2004, 226, 415-432.	4.4	224
9	Melting of carbonated pelites at 2.5â€“5.0ÂGPa, silicateâ€“carbonatite liquid immiscibility, and potassiumâ€“carbon metasomatism of the mantle. Earth and Planetary Science Letters, 2008, 267, 17-31.	4.4	209
10	Mars: A New Core-Crystallization Regime. Science, 2007, 316, 1323-1325.	12.6	205
11	The Melting of Carbonated Pelites from 70 to 700â€‰km Depth. Journal of Petrology, 2011, 52, 765-789.	2.8	201
12	The global systematics of primitive arc melts. Geochemistry, Geophysics, Geosystems, 2017, 18, 2817-2854.	2.5	166
13	The roles of flux- and decompression melting and their respective fractionation lines for continental crust formation: Evidence from the Kohistan arc. Earth and Planetary Science Letters, 2011, 303, 25-36.	4.4	156
14	Epidote in calcalkaline magmas; an experimental study of stability, phase relationships, and the role of epidote in magmatic evolution. American Mineralogist, 1996, 81, 462-474.	1.9	142
15	Element Partitioning between Immiscible Carbonatite and Silicate Melts for Dry and H2O-bearing Systems at 1â€“3 GPa. Journal of Petrology, 2013, 54, 2301-2338.	2.8	138
16	The stability of lawsonite and zoisite at high pressures: Experiments in CASH to 92 kbar and implications for the presence of hydrous phases in subducted lithosphere. Earth and Planetary Science Letters, 1994, 124, 105-118.	4.4	135
17	Element Partitioning: The Role of Melt Structure and Composition. Science, 2006, 312, 1646-1650.	12.6	108
18	Lawsonite; upper pressure stability and formation of higher density hydrous phases. American Mineralogist, 1995, 80, 1286-1292.	1.9	102

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19	Experiments on CaCO3-MgCO3 solid solutions at high pressure and temperature. American Mineralogist, 2006, 91, 435-440.	1.9	102
20	Permeability of asthenospheric mantle and melt extraction rates at mid-ocean ridges. Nature, 2009, 462, 209-212.	27.8	97
21	Melting of carbonated pelites at 8â€“13ÂGPa: generating K-rich carbonatites for mantle metasomatism. Contributions To Mineralogy and Petrology, 2011, 162, 169-191.	3.1	97
22	Melting of Amphibole-bearing Wehrlites: an Experimental Study on the Origin of Ultra-calcic Nepheline-normative Melts. Journal of Petrology, 2006, 47, 481-504.	2.8	95
23	A common origin of carbonatite magmas. Geology, 2017, 45, 507-510.	4.4	83
24	Petrogenesis of Pyroxenites and Melt Infiltrations in the Ultramafic Complex of Beni Bousera, Northern Morocco. Journal of Petrology, 2011, 52, 1679-1735.	2.8	75
25	A rocking multianvil: elimination of chemical segregation in fluid-saturated high-pressure experiments. Geochimica Et Cosmochimica Acta, 2004, 68, 1889-1899.	3.9	73
26	Melting of pelitic sediments at subarc depths: 1. Flux vs. fluid-absent melting and a parameterization of melt productivity. Chemical Geology, 2015, 404, 150-167.	3.3	71
27	Synthesis, crystal structure, and phase relations of AlSiO₃OH, a high-pressure hydrous phase. American Mineralogist, 1998, 83, 881-888.	1.9	69
28	Experimental evidence for the absence of iron isotope fractionation between metal and silicate liquids at 1GPa and 1250â€“1300Â°C and its cosmochemical consequences. Geochimica Et Cosmochimica Acta, 2012, 93, 164-181.	3.9	67
29	Fractional crystallization of high-K arc magmas: biotite- versus amphibole-dominated fractionation series in the Dariv Igneous Complex, Western Mongolia. Contributions To Mineralogy and Petrology, 2014, 168, 1.	3.1	67
30	A novel approach to determine high-pressure high-temperature fluid and melt compositions using diamond-trap experiments. American Mineralogist, 2004, 89, 1078-1086.	1.9	66
31	Formation and Accretion History of Terrestrial Planets from Runaway Growth through to Late Time: Implications for Orbital Eccentricity. Astrophysical Journal, 2008, 685, 1247-1261.	4.5	64
32	Asthenospheric kimberlites: Volatile contents and bulk compositions at 7 GPa. Earth and Planetary Science Letters, 2017, 474, 309-321.	4.4	64
33	The stability of Feâ€“Ni carbides in the Earth's mantle: Evidence for a low Feâ€“Niâ€“C melt fraction in the deep mantle. Earth and Planetary Science Letters, 2014, 388, 211-221.	4.4	62
34	Experimental evidence for Mo isotope fractionation between metal and silicate liquids. Earth and Planetary Science Letters, 2013, 379, 38-48.	4.4	61
35	TTG-type plutonic rocks formed in a modern arc batholith by hydrous fractionation in the lower arc crust. Contributions To Mineralogy and Petrology, 2013, 166, 1099-1118.	3.1	55
36	The U/Pb ratio of the Earth's mantleâ€”A signature of late volatile addition. Earth and Planetary Science Letters, 2013, 362, 237-245.	4.4	54

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37	Experimental determination of the Si isotope fractionation factor between liquid metal and liquid silicate. Earth and Planetary Science Letters, 2014, 387, 55-66.	4.4	54
38	Element partitioning between immiscible carbonatiteâ€“kamafugite melts with application to the Italian ultrapotassic suite. Chemical Geology, 2012, 320-321, 96-112.	3.3	53
39	High-pressure behavior of kyanite; decomposition of kyanite into stishovite and corundum. American Mineralogist, 1997, 82, 460-466.	1.9	52
40	A model for the viscosity of rhyolite as a function of H2O-content and pressure: A calibration based on centrifuge piston cylinder experiments. Geochimica Et Cosmochimica Acta, 2008, 72, 6103-6123.	3.9	52
41	Element partitioning during carbonated pelite melting at 8, 13 and 22GPa and the sediment signature in the EM mantle components. Earth and Planetary Science Letters, 2012, 327-328, 84-96.	4.4	51
42	Fractional crystallization of Si-undersaturated alkaline magmas leading to unmixing of carbonatites on Brava Island (Cape Verde) and a general model of carbonatite genesis in alkaline magma suites. Contributions To Mineralogy and Petrology, 2016, 171, 1.	3.1	51
43	High-pressure behavior of kyanite; compressibility and structural deformations. American Mineralogist, 1997, 82, 452-459.	1.9	48
44	Magma and fluid percolation in arc to forearc mantle: Evidence from Sapat (Kohistan, Northern) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 46	1.4	46
45	Melting of phase D in the lower mantle and implications for recycling and storage of H 2 O in the deep mantle. Geochimica Et Cosmochimica Acta, 2014, 145, 72-88.	3.9	45
46	Experimental determination of Ra mineral/melt partitioning for feldspars and 226Ra-disequilibrium crystallization ages of plagioclase and alkali-feldspar. Earth and Planetary Science Letters, 2009, 280, 137-148.	4.4	42
47	Settling and compaction of olivine in basaltic magmas: an experimental study on the time scales of cumulate formation. Contributions To Mineralogy and Petrology, 2012, 164, 959-976.	3.1	41
48	High-pressure behaviour of lawsonite: a phase transition at 8.6 GPa. European Journal of Mineralogy, 2000, 12, 721-733.	1.3	39
49	Uâ€“Pb zircon dating of the Gruf Complex: disclosing the late Variscan granulitic lower crust of Europe stranded in the Central Alps. Contributions To Mineralogy and Petrology, 2012, 163, 353-378.	3.1	39
50	Thermoelastic properties of (Mg0.64Fe0.36)O ferropericlase based on in situ X-ray diffraction to 26.7GPa and 2173K. Physics of the Earth and Planetary Interiors, 2005, 151, 163-176.	1.9	38
51	Melting of pelitic sediments at subarc depths: 2. Melt chemistry, viscosities and a parameterization of melt composition. Chemical Geology, 2015, 404, 168-182.	3.3	38
52	Liquidus surfaces of ultracalcic primitive melts: formation conditions and sources. Contributions To Mineralogy and Petrology, 2004, 148, 201-215.	3.1	37
53	The composition of liquids coexisting with dense hydrous magnesium silicates at 11â€“13.5GPa and the endpoints of the solidi in the MgOâ€“SiO2â€“H2O system. Geochimica Et Cosmochimica Acta, 2007, 71, 3348-3360.	3.9	35
54	Natural moissanite (SiC) â€“ a low temperature mineral formed from highly fractionated ultra-reducing COH-fluids. Progress in Earth and Planetary Science, 2014, 1, .	3.0	35

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55	Carbonatites in oceanic hotspots. Geology, 2018, 46, 435-438.	4.4	35
56	Phlogopite- and clinopyroxene-dominated fractional crystallization of an alkaline primitive melt: petrology and mineral chemistry of the Dariv Igneous Complex, Western Mongolia. Contributions To Mineralogy and Petrology, 2014, 167, 1.	3.1	34
57	Melting of siderite to 20GPa and thermodynamic properties of FeCO3-melt. Chemical Geology, 2015, 400, 34-43.	3.3	34
58	Platinum partitioning between metal and silicate melts: Core formation, late veneer and the nanonuggets issue. Geochimica Et Cosmochimica Acta, 2015, 162, 183-201.	3.9	34
59	Nitrogen Solubility in Core Materials. Geophysical Research Letters, 2018, 45, 7434-7443.	4.0	26
60	The almost lithophile character of nitrogen during core formation. Earth and Planetary Science Letters, 2019, 510, 186-197.	4.4	26
61	Synthesis and characterization of white micas in the join muscoviteâ€“aluminoceladonite. American Mineralogist, 2001, 86, 555-565.	1.9	25
62	Ultra-reducing conditions in average mantle peridotites and in podiform chromitites: a thermodynamic model for moissanite (SiC) formation. Contributions To Mineralogy and Petrology, 2016, 171, 1.	3.1	25
63	A comment on ?Calcic amphibole equilibria and a new amphibole ? plagioclase geothermometer? by J.D. Blundy and T.J.B. Holland (Contrib Mineral Petrol (1990) 104: 208?224). Contributions To Mineralogy and Petrology, 1992, 111, 273-278.	3.1	24
64	Crystal structure, high-pressure, and high-temperature behavior of carbonates in the K₂Mg(CO₃)₂â€“Na₂Mg(CO₃)₂join. American Mineralogist, 2015, 100, 2458-2467.	1.9	22
65	Carbon partitioning between metal and silicate melts during Earth accretion. Earth and Planetary Science Letters, 2021, 554, 116659.	4.4	17
66	Solid solution behaviour of CaSiO3 and MgSiO3 perovskites. Physics and Chemistry of Minerals, 2011, 38, 311-319.	0.8	16
67	The temperature and compositional dependence of disordering in Fe-bearing dolomites. American Mineralogist, 2012, 97, 1676-1684.	1.9	16
68	Continuity in geochemistry and time of the Tertiary Bergell intrusion (Central Alps). Swiss Journal of Geosciences, 2014, 107, 197-222.	1.2	16
69	Fast grain growth of olivine in liquid Feâ€“S and the formation of pallasites with rounded olivine grains. Geochimica Et Cosmochimica Acta, 2015, 162, 259-275.	3.9	15
70	Experimental determination of radium partitioning between leucite and phonolite melt and 226Ra-disequilibrium crystallization ages of leucite. Chemical Geology, 2008, 255, 377-387.	3.3	14
71	The reaction talc + forsterite = enstatite + H2O revisited: Application of conventional and novel experimental techniques and derivation of revised thermodynamic properties. American Mineralogist, 2006, 91, 1081-1088.	1.9	13
72	Ra-partitioning between phlogopite and silicate melt and 226Ra/Baâ€“230Th/Ba isochrons. Lithos, 2010, 114, 121-131.	1.4	13

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73	Carbonate melts in the hydrous upper mantle. Contributions To Mineralogy and Petrology, 2020, 175, 1.	3.1	13
74	Settling and compaction of chromite cumulates employing a centrifuging piston cylinder and application to layered mafic intrusions. Contributions To Mineralogy and Petrology, 2014, 168, 1.	3.1	12
75	Experimental settling, floatation and compaction of plagioclase in basaltic melt and a revision of melt density. Contributions To Mineralogy and Petrology, 2021, 176, 1.	3.1	12
76	Minor element partitioning between fcc Fe metal and Feâ€“S liquid at high pressure: The role of crystal lattice strain. Earth and Planetary Science Letters, 2009, 284, 302-309.	4.4	11
77	Incipient boninitic arc crust built on denudated mantle: the Khantaishir ophiolite (western Mongolia). Contributions To Mineralogy and Petrology, 2017, 172, 1.	3.1	11
78	Primary petrology, mineralogy and age of the LetÅ¡eng-la-Terae kimberlite (Lesotho, Southern Africa) and parental magmas of Group-I kimberlites. Contributions To Mineralogy and Petrology, 2018, 173, 1.	3.1	11
79	Kinetic carbon isotope fractionation links graphite and diamond precipitation to reduced fluid sources. Earth and Planetary Science Letters, 2020, 529, 115848.	4.4	11
80	The melting of subducted banded iron formations. Earth and Planetary Science Letters, 2017, 476, 165-178.	4.4	10
81	Experimental Crystallization of the Lunar Magma Ocean, Initial Selenotherm and Density Stratification, and Implications for Crust Formation, Overturn and the Bulk Silicate Moon Composition. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	10
82	Mineral resorption triggers explosive mixed silicateâ€“carbonatite eruptions. Earth and Planetary Science Letters, 2019, 510, 219-230.	4.4	9
83	Trapped Liquid, Paleo-porosity and Formation Time Scale of a Chromititeâ€“(Ortho)pyroxenite Cumulate Section, Bushveld, South Africa. Journal of Petrology, 2015, 56, 2195-2222.	2.8	8
84	Melting relations in the system FeCO3â€“MgCO3 and thermodynamic modelling of Feâ€“Mg carbonate melts. Contributions To Mineralogy and Petrology, 2016, 171, 1.	3.1	8
85	Fractional crystallization of a basal lunar magma ocean: A dense melt-bearing garnetite layer above the core?. Icarus, 2022, 371, 114699.	2.5	6
86	Fluids as primary carriers of sulphur and copper in magmatic assimilation. Nature Communications, 2021, 12, 6609.	12.8	5
87	The Crustâ€“Mantle Transition of the Khantaishir Arc Ophiolite (Western Mongolia). Journal of Petrology, 2019, 60, 673-700.	2.8	4