

Peter B Kelemen

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9458743/publications.pdf>

Version: 2024-02-01

181
papers

21,871
citations

6254

80
h-index

9103

144
g-index

187
all docs

187
docs citations

187
times ranked

9262
citing authors

#	ARTICLE	IF	CITATIONS
1	Extraction of mid-ocean-ridge basalt from the upwelling mantle by focused flow of melt in dunite channels. <i>Nature</i> , 1995, 375, 747-753.	27.8	732
2	Trace element chemistry of zircons from oceanic crust: A method for distinguishing detrital zircon provenance. <i>Geology</i> , 2007, 35, 643.	4.4	642
3	The role of H ₂ O during crystallization of primitive arc magmas under uppermost mantle conditions and genesis of igneous pyroxenites: an experimental study. <i>Contributions To Mineralogy and Petrology</i> , 2001, 141, 643-658.	3.1	626
4	Genesis of high Mg# andesites and the continental crust. <i>Contributions To Mineralogy and Petrology</i> , 1995, 120, 1-19.	3.1	607
5	Formation of harzburgite by pervasive melt/rock reaction in the upper mantle. <i>Nature</i> , 1992, 358, 635-641.	27.8	597
6	A review of melt migration processes in the adiabatically upwelling mantle beneath oceanic spreading ridges. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 1997, 355, 283-318.	3.4	590
7	In situ carbonation of peridotite for CO ₂ storage. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 17295-17300.	7.1	523
8	Geochemistry and magmatic history of eclogites and ultramafic rocks from the Chinese continental scientific drill hole: Subduction and ultrahigh-pressure metamorphism of lower crustal cumulates. <i>Chemical Geology</i> , 2008, 247, 133-153.	3.3	504
9	Reaction Between Ultramafic Rock and Fractionating Basaltic Magma I. Phase Relations, the Origin of Calc-alkaline Magma Series, and the Formation of Discordant Dunite. <i>Journal of Petrology</i> , 1990, 31, 51-98.	2.8	493
10	Reevaluating carbon fluxes in subduction zones, what goes down, mostly comes up. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E3997-4006.	7.1	492
11	Silica enrichment in the continental upper mantle via melt/rock reaction. <i>Earth and Planetary Science Letters</i> , 1998, 164, 387-406.	4.4	476
12	Relative depletion of niobium in some arc magmas and the continental crust: partitioning of K, Nb, La and Ce during melt/rock reaction in the upper mantle. <i>Earth and Planetary Science Letters</i> , 1993, 120, 111-134.	4.4	446
13	On the conditions for lower crustal convective instability. <i>Journal of Geophysical Research</i> , 2001, 106, 6423-6446.	3.3	441
14	Permanent storage of carbon dioxide in geological reservoirs by mineral carbonation. <i>Nature Geoscience</i> , 2009, 2, 837-841.	12.9	425
15	Differentiation of the continental crust by relamination. <i>Earth and Planetary Science Letters</i> , 2011, 307, 501-516.	4.4	414
16	Crustal structure of the southeast Greenland margin from joint refraction and reflection seismic tomography. <i>Journal of Geophysical Research</i> , 2000, 105, 21591-21614.	3.3	409
17	Geochemistry of gabbro sills in the crust-mantle transition zone of the Oman ophiolite: implications for the origin of the oceanic lower crust. <i>Earth and Planetary Science Letters</i> , 1997, 146, 475-488.	4.4	386
18	High-field-strength element depletions in arc basalts due to mantle-magma interaction. <i>Nature</i> , 1990, 345, 521-524.	27.8	339

#	ARTICLE	IF	CITATIONS
19	Rates and Mechanisms of Mineral Carbonation in Peridotite: Natural Processes and Recipes for Enhanced, in situ CO ₂ Capture and Storage. Annual Review of Earth and Planetary Sciences, 2011, 39, 545-576.	11.0	336
20	Diapirs as the source of the sediment signature in arc lavas. Nature Geoscience, 2011, 4, 641-646.	12.9	330
21	A Detailed Geochemical Study of Island Arc Crust: the Talkeetna Arc Section, South-Central Alaska. Journal of Petrology, 2006, 47, 1051-1093.	2.8	264
22	Continental Lower Crust. Annual Review of Earth and Planetary Sciences, 2015, 43, 167-205.	11.0	260
23	A periodic shear-heating mechanism for intermediate-depth earthquakes in the mantle. Nature, 2007, 446, 787-790.	27.8	255
24	Experiments on flow focusing in soluble porous media, with applications to melt extraction from the mantle. Journal of Geophysical Research, 1995, 100, 475-496.	3.3	251
25	Causes and consequences of flow organization during melt transport: The reaction infiltration instability in compactible media. Journal of Geophysical Research, 2001, 106, 2061-2077.	3.3	235
26	Large igneous province on the US Atlantic margin and implications for magmatism during continental breakup. Nature, 1993, 364, 433-436.	27.8	227
27	Mantle thermal structure and active upwelling during continental breakup in the North Atlantic. Earth and Planetary Science Letters, 2001, 190, 251-266.	4.4	227
28	Channeling instability of upwelling melt in the mantle. Journal of Geophysical Research, 1995, 100, 20433-20450.	3.3	226
29	Recycled crust controls contrasting source compositions of Mesozoic and Cenozoic basalts in the North China Craton. Geochimica Et Cosmochimica Acta, 2008, 72, 2349-2376.	3.9	223
30	Along-strike variation in the Aleutian Island Arc: Genesis of high Mg# andesite and implications for continental crust. Geophysical Monograph Series, 2003, , 223-276.	0.1	206
31	An Overview of the Status and Challenges of CO ₂ Storage in Minerals and Geological Formations. Frontiers in Climate, 2019, 1, .	2.8	200
32	Chemical and isotopic constraints on the generation and transport of magma beneath the East Pacific Rise. Geochimica Et Cosmochimica Acta, 2002, 66, 3481-3504.	3.9	195
33	Extreme chemical variability as a consequence of channelized melt transport. Geochemistry, Geophysics, Geosystems, 2003, 4, .	2.5	193
34	Origin of thick, high-velocity igneous crust along the U.S. East Coast Margin. Journal of Geophysical Research, 1995, 100, 10077-10094.	3.3	187
35	Focused melt flow and localized deformation in the upper mantle: Juxtaposition of replacive dunite and ductile shear zones in the Josephine peridotite, SW Oregon. Journal of Geophysical Research, 1995, 100, 423-438.	3.3	185
36	Role of Arc Processes in the Formation of Continental Crust. Annual Review of Earth and Planetary Sciences, 2015, 43, 363-404.	11.0	181

#	ARTICLE	IF	CITATIONS
37	Slab melting in the Aleutians: implications of an ion probe study of clinopyroxene in primitive adakite and basalt. <i>Earth and Planetary Science Letters</i> , 1998, 158, 53-65.	4.4	180
38	Reaction Between Ultramafic Rock and Fractionating Basaltic Magma II. Experimental Investigation of Reaction Between Olivine Tholeiite and Harzburgite at 1150-1050°C and 5 kb. <i>Journal of Petrology</i> , 1990, 31, 99-134.	2.8	177
39	The seismic mid-lithosphere discontinuity. <i>Earth and Planetary Science Letters</i> , 2015, 414, 45-57.	4.4	177
40	Carbon Mineralization: From Natural Analogues to Engineered Systems. <i>Reviews in Mineralogy and Geochemistry</i> , 2013, 77, 305-360.	4.8	174
41	Reaction-driven cracking during retrograde metamorphism: Olivine hydration and carbonation. <i>Earth and Planetary Science Letters</i> , 2012, 345-348, 81-89.	4.4	173
42	Observations of Li isotopic variations in the Trinity Ophiolite: Evidence for isotopic fractionation by diffusion during mantle melting. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 735-751.	3.9	169
43	Origin of gabbro sills in the Moho transition zone of the Oman ophiolite: Implications for magma transport in the oceanic lower crust. <i>Journal of Geophysical Research</i> , 1997, 102, 27729-27749.	3.3	167
44	Synchronous formation of the metamorphic sole and igneous crust of the Semail ophiolite: New constraints on the tectonic evolution during ophiolite formation from high-precision U-Pb zircon geochronology. <i>Earth and Planetary Science Letters</i> , 2016, 451, 185-195.	4.4	154
45	Thermal structure due to solid-state flow in the mantle wedge beneath arcs. <i>Geophysical Monograph Series</i> , 2003, , 293-311.	0.1	152
46	Composition and Genesis of Depleted Mantle Peridotites from the Wadi Tayin Massif, Oman Ophiolite; Major and Trace Element Geochemistry, and Os Isotope and PGE Systematics. <i>Journal of Petrology</i> , 2010, 51, 201-227.	2.8	152
47	Depleted spinel harzburgite xenoliths in Tertiary dykes from East Greenland: Restites from high degree melting. <i>Earth and Planetary Science Letters</i> , 1998, 154, 221-235.	4.4	150
48	Structure of the SE Greenland margin from seismic reflection and refraction data: Implications for nascent spreading center subsidence and asymmetric crustal accretion during North Atlantic opening. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	146
49	Chemical and morphological changes during olivine carbonation for CO ₂ storage in the presence of NaCl and NaHCO ₃ . <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 4679.	2.8	145
50	Tectonic development of the Semail ophiolite: High-precision U-Pb zircon geochronology and Sm-Nd isotopic constraints on crustal growth and emplacement. <i>Journal of Geophysical Research: Solid Earth</i> , 2013, 118, 2085-2101.	3.4	140
51	Consistent olivine Mg# in cratonic mantle reflects Archean mantle melting to the exhaustion of orthopyroxene. <i>Geology</i> , 2007, 35, 459.	4.4	138
52	Dunite distribution in the Oman Ophiolite: Implications for melt flux through porous dunite conduits. <i>Geochemistry, Geophysics, Geosystems</i> , 2002, 3, 1-21.	2.5	137
53	Reaction path modeling of enhanced in situ CO ₂ mineralization for carbon sequestration in the peridotite of the Semail Ophiolite, Sultanate of Oman. <i>Chemical Geology</i> , 2012, 330-331, 86-100.	3.3	127
54	Geological and Geochemical Controls on Subsurface Microbial Life in the Semail Ophiolite, Oman. <i>Frontiers in Microbiology</i> , 2017, 8, 56.	3.5	126

#	ARTICLE	IF	CITATIONS
55	Formation of lower continental crust by relamination of buoyant arc lavas and plutons. <i>Nature Geoscience</i> , 2016, 9, 197-205.	12.9	125
56	Arc-parallel flow within the mantle wedge: Evidence from the accreted Talkeetna arc, south central Alaska. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	122
57	Geochemistry and petrology of listvenite in the Samail ophiolite, Sultanate of Oman: Complete carbonation of peridotite during ophiolite emplacement. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 160, 70-90.	3.9	121
58	Major element heterogeneity in the mantle source of the North Atlantic igneous province. <i>Earth and Planetary Science Letters</i> , 2000, 184, 251-268.	4.4	120
59	Assimilation of Ultramafic Rock in Subduction-Related Magmatic Arcs. <i>Journal of Geology</i> , 1986, 94, 829-843.	1.4	118
60	Rapid crustal accretion and magma assimilation in the Oman-U.A.E. ophiolite: High precision U-Pb zircon geochronology of the gabbroic crust. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	118
61	Stability of arc lower crust: Insights from the Talkeetna arc section, south central Alaska, and the seismic structure of modern arcs. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	115
62	Methods for resolving the origin of large igneous provinces from crustal seismology. <i>Journal of Geophysical Research</i> , 2002, 107, ECV 1-1-ECV 1-27.	3.3	113
63	A Felsic End to Bushveld Differentiation. <i>Journal of Petrology</i> , 2010, 51, 1891-1912.	2.8	111
64	A simple model of reaction-induced cracking applied to serpentinization and carbonation of peridotite. <i>Earth and Planetary Science Letters</i> , 2010, 291, 215-227.	4.4	109
65	Relationship between seismic P-wave velocity and the composition of anhydrous igneous and meta-igneous rocks. <i>Geochemistry, Geophysics, Geosystems</i> , 2003, 4, n/a-n/a.	2.5	105
66	Petrogenesis of the crust-mantle transition zone and the origin of lower crustal wehrlite in the Oman ophiolite. <i>Geochemistry, Geophysics, Geosystems</i> , 2001, 2, n/a-n/a.	2.5	102
67	Modern water/rock reactions in Oman hyperalkaline peridotite aquifers and implications for microbial habitability. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 179, 217-241.	3.9	102
68	Microstructural and Rheological Evolution of a Mantle Shear Zone. <i>Journal of Petrology</i> , 2010, 51, 43-53.	2.8	100
69	Composition and structure of the central Aleutian island arc from arc-parallel wide-angle seismic data. <i>Geochemistry, Geophysics, Geosystems</i> , 2004, 5, n/a-n/a.	2.5	98
70	Three-dimensional flow and reaction in porous media: Implications for the Earth's mantle and sedimentary basins. <i>Journal of Geophysical Research</i> , 1997, 102, 14821-14833.	3.3	96
71	The Role of Subducted Basalt in the Source of Island Arc Magmas: Evidence from Seafloor Lavas of the Western Aleutians. <i>Journal of Petrology</i> , 2015, 56, 441-492.	2.8	96
72	Ambient weathering of magnesium oxide for CO2 removal from air. <i>Nature Communications</i> , 2020, 11, 3299.	12.8	95

#	ARTICLE	IF	CITATIONS
73	Evolution of olivine lattice preferred orientation during simple shear in the mantle. <i>Earth and Planetary Science Letters</i> , 2008, 272, 501-512.	4.4	94
74	Continental crust generated in oceanic arcs. <i>Nature Geoscience</i> , 2015, 8, 321-327.	12.9	94
75	Deep continental roots and cratons. <i>Nature</i> , 2021, 596, 199-210.	27.8	93
76	Melt migration through the oceanic lower crust: a constraint from melt percolation modeling with finite solid diffusion. <i>Earth and Planetary Science Letters</i> , 1998, 156, 1-11.	4.4	92
77	Trench-Parallel Anisotropy Produced by Foundering of Arc Lower Crust. <i>Science</i> , 2007, 317, 108-111.	12.6	92
78	Magmatic development of an intra-oceanic arc: High-precision U-Pb zircon and whole-rock isotopic analyses from the accreted Talkeetna arc, south-central Alaska. <i>Bulletin of the Geological Society of America</i> , 2007, 119, 1168-1184.	3.3	91
79	Engineered carbon mineralization in ultramafic rocks for CO ₂ removal from air: Review and new insights. <i>Chemical Geology</i> , 2020, 550, 119628.	3.3	90
80	Consequences of diffuse and channelled porous melt migration on uranium series disequilibria. <i>Geochimica Et Cosmochimica Acta</i> , 2002, 66, 4133-4148.	3.9	89
81	Crustal Evolution of the Mid-Atlantic Ridge near the Fifteen-Twenty Fracture Zone in the last 5 Ma. <i>Geochemistry, Geophysics, Geosystems</i> , 2003, 4, .	2.5	81
82	Spatial distribution of melt conduits in the mantle beneath oceanic spreading ridges: Observations from the Ingalls and Oman ophiolites. <i>Geochemistry, Geophysics, Geosystems</i> , 2000, 1, n/a-n/a.	2.5	79
83	Osmium isotope systematics of the Proterozoic and Phanerozoic ophiolitic chromitites: In situ ion probe analysis of primary Os-rich PGM. <i>Earth and Planetary Science Letters</i> , 2006, 245, 777-791.	4.4	78
84	Coexisting serpentine and quartz from carbonate-bearing serpentinized peridotite in the Samail Ophiolite, Oman. <i>Contributions To Mineralogy and Petrology</i> , 2012, 164, 821-837.	3.1	77
85	Ultra-depleted, shallow cratonic mantle beneath West Greenland: dunitic xenoliths from Ubekendt Ejlund. <i>Contributions To Mineralogy and Petrology</i> , 2006, 152, 335-347.	3.1	76
86	The Case for Reactive Crystallization at Mid-Ocean Ridges. <i>Journal of Petrology</i> , 2010, 51, 1913-1940.	2.8	76
87	Assimilation of peridotite in zoned calc-alkaline plutonic complexes: evidence from the Big Jim complex, Washington Cascades. <i>Contributions To Mineralogy and Petrology</i> , 1986, 94, 12-28.	3.1	75
88	Reconstruction of the Talkeetna intraoceanic arc of Alaska through thermobarometry. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	75
89	Cooling rates in the lower crust of the Oman ophiolite: Ca in olivine, revisited. <i>Earth and Planetary Science Letters</i> , 2008, 267, 69-82.	4.4	74
90	Variation of cooling rate with depth in lower crust formed at an oceanic spreading ridge: Plagioclase crystal size distributions in gabbros from the Oman ophiolite. <i>Geochemistry, Geophysics, Geosystems</i> , 2001, 2, n/a-n/a.	2.5	73

#	ARTICLE	IF	CITATIONS
91	Periodic Formation of Magma Fractures and Generation of Layered Gabbros in the Lower Crust Beneath Oceanic Spreading Ridges. <i>Geophysical Monograph Series</i> , 0, , 267-289.	0.1	71
92	Carbonation rates of peridotite in the Samail Ophiolite, Sultanate of Oman, constrained through ¹⁴ C dating and stable isotopes. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 126, 371-397.	3.9	70
93	Subduction erosion of the Jurassic Talkeetna-Bonanza arc and the Mesozoic accretionary tectonics of western North America. <i>Geology</i> , 2005, 33, 881.	4.4	67
94	Stratigraphic and geochemical evolution of an oceanic arc upper crustal section: The Jurassic Talkeetna Volcanic Formation, south-central Alaska. <i>Bulletin of the Geological Society of America</i> , 2005, 117, 902.	3.3	66
95	Low temperature hydrogen production during experimental hydration of partially-serpentinized dunite. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 209, 161-183.	3.9	62
96	Intermediate to felsic middle crust in the accreted Talkeetna arc, the Alaska Peninsula and Kodiak Island, Alaska: An analogue for low-velocity middle crust in modern arcs. <i>Tectonics</i> , 2010, 29, .	2.8	59
97	Buoyancy of the continental upper mantle. <i>Geochemistry, Geophysics, Geosystems</i> , 2003, 4, .	2.5	58
98	Gravity anomalies and crustal structure at the southeast Greenland margin. <i>Journal of Geophysical Research</i> , 2001, 106, 8853-8870.	3.3	57
99	The petrogenesis of ultramafic rocks in the > 3.7 Ga Isua supracrustal belt, southern West Greenland: Geochemical evidence for two distinct magmatic cumulate trends. <i>Gondwana Research</i> , 2015, 28, 565-580.	6.0	57
100	Rhenium-osmium isotope systematics and platinum group element concentrations in oceanic crust. <i>Geology</i> , 2012, 40, 199-202.	4.4	50
101	Spatial variations in cooling rate in the mantle section of the Samail ophiolite in Oman: Implications for formation of lithosphere at mid-ocean ridges. <i>Earth and Planetary Science Letters</i> , 2017, 465, 134-144.	4.4	48
102	Nonvolcanic seafloor spreading and corner-flow rotation accommodated by extensional faulting at 15°N on the Mid-Atlantic Ridge: A structural synthesis of ODP Leg 209. <i>Geochemistry, Geophysics, Geosystems</i> , 2007, 8, n/a-n/a.	2.5	47
103	The influence of water and LPO on the initiation and evolution of mantle shear zones. <i>Earth and Planetary Science Letters</i> , 2013, 375, 222-233.	4.4	47
104	Potential for offsetting diamond mine carbon emissions through mineral carbonation of processed kimberlite: an assessment of De Beers mine sites in South Africa and Canada. <i>Mineralogy and Petrology</i> , 2018, 112, 755-765.	1.1	47
105	Elucidating the differences in the carbon mineralization behaviors of calcium and magnesium bearing aluminosilicates and magnesium silicates for CO ₂ storage. <i>Fuel</i> , 2020, 277, 117900.	6.4	47
106	Osmium isotopes in the Wiedemann Fjord mantle xenoliths: A unique record of cratonic mantle formation by melt depletion in the Archaean. <i>Geochemistry, Geophysics, Geosystems</i> , 2001, 2, n/a-n/a.	2.5	46
107	Post-breakup basaltic magmatism along the East Greenland Tertiary rifted margin. <i>Earth and Planetary Science Letters</i> , 1998, 160, 845-862.	4.4	45
108	Microstructures in Hole 1274A peridotites, ODP Leg 209, Mid-Atlantic Ridge: Tracking the fate of melts percolating in peridotite as the lithosphere is intercepted. <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	2.5	42

#	ARTICLE	IF	CITATIONS
109	A gold-bearing horizon in the Kap Edvard Holm Complex, East Greenland. <i>Economic Geology</i> , 1995, 90, 1288-1300.	3.8	41
110	Fluid rock interactions on residual mantle peridotites overlain by shallow oceanic limestones: Insights from Wadi Fins, Sultanate of Oman. <i>Chemical Geology</i> , 2018, 498, 139-149.	3.3	40
111	Trace elements in clinopyroxenes from Aleutian xenoliths: Implications for primitive subduction magmatism in an island arc. <i>Earth and Planetary Science Letters</i> , 2007, 256, 617-632.	4.4	39
112	The thermal structure of continental crust in active orogens: insight from Miocene eclogite and granulite xenoliths of the Pamir Mountains. <i>Journal of Metamorphic Geology</i> , 2012, 30, 413-434.	3.4	39
113	Formation of Plagioclase Lherzolite and Associated Dunite "Harzburgite" Lherzolite Sequences by Multiple Episodes of Melt Percolation and Melt "Rock Reaction: an Example from the Trinity Ophiolite, California, USA. <i>Journal of Petrology</i> , 2016, 57, 815-838.	2.8	38
114	Near-solidus melts of MORB + 4 wt% H ₂ O at 0.8–2.8 GPa applied to issues of subduction magmatism and continent formation. <i>Contributions To Mineralogy and Petrology</i> , 2018, 173, 1.	3.1	38
115	Significance of the concentration gradients associated with dunite bodies in the Josephine and Trinity ophiolites. <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	2.5	36
116	Ultramafic Rock Carbonation: Constraints From Listvenite Core BT1B, Oman Drilling Project. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB019060.	3.4	34
117	Peridotite enclaves hosted by Mesoarchaean TTG-suite orthogneisses in the Fiskefjord region of southern West Greenland. <i>GeoResJ</i> , 2015, 7, 22-34.	1.4	33
118	Iron transformations during low temperature alteration of variably serpentinized rocks from the Samail ophiolite, Oman. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 222, 704-728.	3.9	30
119	In situ carbon mineralization in ultramafic rocks: Natural processes and possible engineered methods. <i>Energy Procedia</i> , 2018, 146, 92-102.	1.8	30
120	Sr and O isotopes in western Aleutian seafloor lavas: Implications for the source of fluids and trace element character of arc volcanic rocks. <i>Earth and Planetary Science Letters</i> , 2017, 475, 169-180.	4.4	28
121	Oxygen fugacity at the base of the Talkeetna arc, Alaska. <i>Contributions To Mineralogy and Petrology</i> , 2019, 174, 1.	3.1	28
122	Multitracer determination of apparent groundwater ages in peridotite aquifers within the Samail ophiolite, Sultanate of Oman. <i>Earth and Planetary Science Letters</i> , 2019, 516, 37-48.	4.4	28
123	Accessing the Subsurface Biosphere Within Rocks Undergoing Active Low Temperature Serpentinization in the Samail Ophiolite (Oman Drilling Project). <i>Journal of Geophysical Research G: Biogeosciences</i> , 2021, 126, e2021JG006315.	3.0	27
124	Evolution of the Kap Edvard Holm Complex: a Mafic Intrusion at a Rifted Continental Margin. <i>Journal of Petrology</i> , 1996, 37, 497-519.	2.8	26
125	Highly depleted cratonic mantle in West Greenland extending into diamond stability field in the Proterozoic. <i>Lithos</i> , 2013, 168-169, 160-172.	1.4	26
126	Distinctly different parental magmas for calc-alkaline plutons and tholeiitic lavas in the central and eastern Aleutian arc. <i>Earth and Planetary Science Letters</i> , 2015, 431, 119-126.	4.4	26

#	ARTICLE	IF	CITATIONS
127	Genesis of high Mg# andesites and the continental crust. <i>Contributions To Mineralogy and Petrology</i> , 1995, 120, 1-19.	3.1	26
128	Investigation of the strength contrast at the Moho: A case study from the Oman Ophiolite. <i>Geology</i> , 2010, 38, 679-682.	4.4	25
129	Thermochronology of the Talkeetna intraoceanic arc of Alaska: Ar/Ar, U Th /He, Sm Nd , and Lu ^{Hf} dating. <i>Tectonics</i> , 2011, 30, .	2.8	25
130	Phase-Field Modeling of Reaction-Driven Cracking: Determining Conditions for Extensive Olivine Serpentinization. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB018614.	3.4	25
131	Zircon fission-track ages from the Gasherbrum Diorite, Karakoram Range, northern Pakistan. <i>Geology</i> , 1989, 17, 1044.	4.4	24
132	Lipid Biomarker Record of the Serpentinite-Hosted Ecosystem of the Samail Ophiolite, Oman and Implications for the Search for Biosignatures on Mars. <i>Astrobiology</i> , 2020, 20, 830-845.	3.0	23
133	Measurement of Volume Change and Mass Transfer During Serpentinization: Insights From the Oman Drilling Project. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB018877.	3.4	23
134	High-Precision U ^{Pb} Zircon Dating of Late Magmatism in the Samail Ophiolite: A Record of Subduction Initiation. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB020758.	3.4	22
135	Low-Temperature Hydrogen Formation During Aqueous Alteration of Serpentinized Peridotite in the Samail Ophiolite. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB021981.	3.4	22
136	U-Pb geochronology of volcanic rocks from the Jurassic Talkeetna Formation and detrital zircons from prearc and postarc sequences: Implications for the age of magmatism and inheritance in the Talkeetna arc. , 2007, , 253-271.		21
137	On the hydration of olivine in ultramafic rocks: Implications from Fe isotopes in serpentinites. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 215, 105-121.	3.9	21
138	Constraints on the composition of the Aleutian arc lower crust from $\langle V_P \rangle$ / $\langle V_S \rangle$. <i>Geophysical Research Letters</i> , 2013, 40, 2579-2584.	4.0	20
139	A Poroelastic Model of Serpentinization: Exploring the Interplay Between Rheology, Surface Energy, Reaction, and Fluid Flow. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 8653-8675.	3.4	20
140	Trapped Melt in the Josephine Peridotite: Implications for Permeability and Melt Extraction in the Upper Mantle. <i>Journal of Petrology</i> , 2010, 51, 185-200.	2.8	19
141	Major element mobility during serpentinization, oxidation and weathering of mantle peridotite at low temperatures. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20180433.	3.4	19
142	A Mg Isotopic Perspective on the Mobility of Magnesium During Serpentinization and Carbonation of the Oman Ophiolite. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB020237.	3.4	19
143	Geochemical, Biological, and Clumped Isotopologue Evidence for Substantial Microbial Methane Production Under Carbon Limitation in Serpentinites of the Samail Ophiolite, Oman. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2021, 126, e2020JG006025.	3.0	19
144	Scientific Drilling and Related Research in the Samail Ophiolite, Sultanate of Oman. <i>Scientific Drilling</i> , 0, 15, 64-71.	0.6	18

#	ARTICLE	IF	CITATIONS
145	Brittle Deformation of Carbonated Peridotite—Insights From Listvenites of the Samail Ophiolite (Oman Drilling Project Hole BT1B). <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB020199.	3.4	17
146	Competition Between Crystallization-Induced Expansion and Creep Compaction During Gypsum Formation, and Implications for Serpentinization. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 5372-5393.	3.4	16
147	Permeability Profiles Across the Crust-Mantle Sections in the Oman Drilling Project Inferred From Dry and Wet Resistivity Data. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB018698.	3.4	16
148	Characteristics, Origins, and Biosignature Preservation Potential of Carbonate-Bearing Rocks Within and Outside of Jezero Crater. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2021JE006898.	3.6	16
149	Initial Results From the Oman Drilling Project Multi-Borehole Observatory: Petrogenesis and Ongoing Alteration of Mantle Peridotite in the Weathering Horizon. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022729.	3.4	16
150	Gold and platinum-group element mineralization in the Kruuse Fjord gabbro complex, East Greenland. <i>Economic Geology</i> , 1997, 92, 490-501.	3.8	15
151	Crustal Structure of the Greenland-Iceland Ridge from Joint Refraction and Reflection Seismic Tomography. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB019847.	3.4	15
152	The Origin of the Land under the Sea. <i>Scientific American</i> , 2009, 300, 52-57.	1.0	14
153	Lattice-preferred orientation and microstructure of peridotites from ODP Hole 1274A (15°39'N), Mid-Atlantic Ridge: Testing models of mantle upwelling and tectonic exhumation. <i>Earth and Planetary Science Letters</i> , 2011, 301, 199-212.	4.4	14
154	Melt viscosity, temperature and transport processes, Troodos ophiolite, Cyprus. <i>Earth and Planetary Science Letters</i> , 2002, 201, 337-352.	4.4	13
155	Geochemical Profiles Across the Listvenite-Metamorphic Transition in the Basal Megathrust of the Samail Ophiolite: Results From Drilling at OmanDP Hole BT1B. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022733.	3.4	13
156	The Composition of the Lower Oceanic Crust in the Wadi Khafifah Section of the Southern Samail (Oman) Ophiolite. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB021986.	3.4	12
157	Timing of Magnetite Growth Associated With Peridotite-Hosted Carbonate Veins in the SE Samail Ophiolite, Wadi Fins, Oman. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB018632.	3.4	11
158	Major Mineral Fraction and Physical Properties of Carbonated Peridotite (Listvenite) From ICDP Oman Drilling Project Hole BT1B Inferred From X-Ray CT Core Images. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022719.	3.4	11
159	Deep Sourced Fluids for Peridotite Carbonation in the Shallow Mantle Wedge of a Fossil Subduction Zone: Sr and C Isotope Profiles of OmanDP Hole BT1B. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, .	3.4	11
160	Listvenite Formation During Mass Transfer into the Leading Edge of the Mantle Wedge: Initial Results from Oman Drilling Project Hole BT1B. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, .	3.4	11
161	Magmatic and metamorphic evolution of the oceanic crust in the western flank of the MAR crest zone at 15°44'N: Investigation of cores from sites 1275B and 1275D, JOIDES resolution Leg 209. <i>Petrology</i> , 2008, 16, 353-375.	0.9	10
162	Applications and limitations of U-Th disequilibria systematics for determining ages of carbonate alteration minerals in peridotite. <i>Chemical Geology</i> , 2015, 412, 151-166.	3.3	10

#	ARTICLE	IF	CITATIONS
163	Ductile deformation during carbonation of serpentized peridotite. <i>Nature Communications</i> , 2022, 13, .	12.8	10
164	Chapter 15 Fluid and Thermal Dissolution Instabilities in Magmatic Systems. <i>International Geophysics</i> , 1994, 57, 355-379.	0.6	9
165	Reply to "Methane origin in the Samail ophiolite: Comment on "Modern water/rock reactions in Oman hyperalkaline peridotite aquifers and implications for microbial habitability" [Geochim. Cosmochim. Acta 179 (2016) 217-241]. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 197, 471-473.	3.9	9
166	High-magnesian andesite from Mount Shasta: A product of magma mixing and contamination, not a primitive melt: COMMENT AND REPLY: COMMENT. <i>Geology</i> , 2007, 35, e149-e150.	4.4	7
167	Hydrothermal Alteration of the Ocean Crust and Patterns in Mineralization With Depth as Measured by Microimaging Infrared Spectroscopy. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB021976.	3.4	7
168	Thermal History of Lithosphere Formed Beneath Fast Spreading Ridges: Constraints From the Mantle Transition Zone of the East Pacific Rise at Hess Deep and Oman Drilling Project, Wadi Zeeb, Samail Ophiolite. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, .	3.4	7
169	Reaction-Driven Cracking During Mineral Hydration, Carbonation and Oxidation. , 2013, , .		6
170	Crack geometry of serpentized peridotites inferred from onboard ultrasonic data from the Oman Drilling Project. <i>Tectonophysics</i> , 2021, 814, 228978.	2.2	6
171	Experimental Investigation of the Pressure of Crystallization of Ca(OH) ₂ : Implications for the Reactive Cracking Process. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 3448-3458.	2.5	5
172	Nanostructure of serpentinisation products: Importance for water transport and low-temperature alteration. <i>Earth and Planetary Science Letters</i> , 2021, 576, 117212.	4.4	5
173	Orogenic Lherzolites and Mantle Processes: Editorial. <i>Journal of Petrology</i> , 2001, 42, 3-4.	2.8	4
174	Focused Flow of Melt in the Upper Mantle: Extraction of MORB Beneath Oceanic Spreading Ridges. <i>Mineralogical Magazine</i> , 1994, 58A, 466-467.	1.4	3
175	Tracing Carbonate Formation, Serpentinization, and Biological Materials With Microimaging Infrared Spectroscopy in a Mars Analog System, Samail Ophiolite, Oman. <i>Earth and Space Science</i> , 2021, 8, e2021EA001637.	2.6	3
176	Geochemical Characterization of the Oman Crust-Mantle Transition Zone, OmanDP Holes CM1A and CM2B. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, .	3.4	3
177	Arc Crustal Genesis and Evolution. <i>GSA Today</i> , 2006, 16, 20.	2.0	2
178	A review of melt migration processes in the adiabatically upwelling mantle beneath oceanic spreading ridges. , 1999, , 67-102.		1
179	Characterizing Hydration of the Ocean Crust Using Shortwave Infrared Microimaging Spectroscopy of ICDP Oman Drilling Project Cores. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022676.	3.4	1
180	Shallow Mantle Composition and Dynamics: Fifth International Orogenic Lherzolite Conference: Foreword. <i>Journal of Petrology</i> , 2010, 51, 3-7.	2.8	0

#	ARTICLE	IF	CITATIONS
181	Planning the Drilling of the Samail Ophiolite in Oman. Eos, 2013, 94, 32-32.	0.1	0