

Donald B Dingwell

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3991453/publications.pdf>

Version: 2024-02-01

451
papers

23,952
citations

8181

76
h-index

15266

126
g-index

471
all docs

471
docs citations

471
times ranked

8299
citing authors

#	ARTICLE	IF	CITATIONS
1	Viscosity of magmatic liquids: A model. <i>Earth and Planetary Science Letters</i> , 2008, 271, 123-134.	4.4	1,257
2	Relaxation in silicate melts. <i>European Journal of Mineralogy</i> , 1990, 2, 427-451.	1.3	454
3	Repeated fracture and healing of silicic magma generate flow banding and earthquakes?. <i>Geology</i> , 2003, 31, 1089.	4.4	334
4	Structural relaxation in silicate melts and non-Newtonian melt rheology in geologic processes. <i>Physics and Chemistry of Minerals</i> , 1989, 16, 508.	0.8	311
5	Volcanic Dilemma—Flow or Blow?. <i>Science</i> , 1996, 273, 1054-1055.	12.6	310
6	Magma fragmentation by rapid decompression. <i>Nature</i> , 1996, 380, 146-148.	27.8	289
7	The Preparation and Preliminary Characterisation of Eight Geological MPI-DING Reference Glasses for In-Situ Microanalysis. <i>Geostandards and Geoanalytical Research</i> , 2000, 24, 87-133.	3.1	286
8	H ₂ O solubility in haplogranitic melts; compositional, pressure, and temperature dependence. <i>American Mineralogist</i> , 1995, 80, 94-108.	1.9	281
9	The trigger mechanism of low-frequency earthquakes on Montserrat. <i>Journal of Volcanology and Geothermal Research</i> , 2006, 153, 37-50.	2.1	257
10	Peraluminous viscosity maxima in Na ₂ O—Al ₂ O ₃ —SiO ₂ liquids: The role of triclusters in tectosilicate melts. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 2605-2612.	3.9	254
11	Non-Newtonian rheology of igneous melts at high stresses and strain rates: Experimental results for rhyolite, andesite, basalt, and nephelinite. <i>Journal of Geophysical Research</i> , 1990, 95, 15695-15701.	3.3	244
12	Kimberlite ascent by assimilation-fuelled buoyancy. <i>Nature</i> , 2012, 481, 352-356.	27.8	238
13	The fragmentation threshold of pyroclastic rocks. <i>Earth and Planetary Science Letters</i> , 2004, 226, 139-148.	4.4	230
14	Fault textures in volcanic conduits: evidence for seismic trigger mechanisms during silicic eruptions. <i>Bulletin of Volcanology</i> , 2005, 67, 370-387.	3.0	215
15	Trace Element Partitioning in Immiscible Silicate-Carbonate Liquid Systems: an Initial Experimental Study Using a Centrifuge Autoclave. <i>Journal of Petrology</i> , 1998, 39, 2095-2104.	2.8	213
16	The effect of water on the viscosity of a haplogranitic melt under P-T-X conditions relevant to silicic volcanism. <i>Contributions To Mineralogy and Petrology</i> , 1996, 124, 19-28.	3.1	211
17	Rapid ascent of rhyolitic magma at Chait�n volcano, Chile. <i>Nature</i> , 2009, 461, 780-783.	27.8	210
18	Near-infrared spectroscopic determination of water species in glasses of the system MAiSi ₃ O ₈ (M = Li, Tj ETQqO 0.0,rgBT /Overlock 10	3.3	204

#	ARTICLE	IF	CITATIONS
19	Permeability and degassing of dome lavas undergoing rapid decompression: An experimental determination. <i>Bulletin of Volcanology</i> , 2005, 67, 526-538.	3.0	189
20	Non-Arrhenian multicomponent melt viscosity: a model. <i>Earth and Planetary Science Letters</i> , 2003, 208, 337-349.	4.4	188
21	Experimental petrochemistry of some highly siderophile elements at high temperatures, and some implications for core formation and the mantle's early history. <i>Chemical Geology</i> , 1995, 120, 255-273.	3.3	187
22	Partitioning of elements between silicate melt and immiscible fluoride, chloride, carbonate, phosphate and sulfate melts, with implications to the origin of natrocarbonatite. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 79, 20-40.	3.9	177
23	Viscosity of hydrous Etna basalt: implications for Plinian-style basaltic eruptions. <i>Bulletin of Volcanology</i> , 2003, 65, 8-14.	3.0	176
24	Partitioning of lanthanides and Y between immiscible silicate and fluoride melts, fluorite and cryolite and the origin of the lanthanide tetrad effect in igneous rocks. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 2847-2860.	3.9	175
25	Shear viscosities of CaO-Al ₂ O ₃ -SiO ₂ and MgO-Al ₂ O ₃ -SiO ₂ liquids: Implications for the structural role of aluminium and the degree of polymerisation of synthetic and natural aluminosilicate melts. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 5169-5188.	3.9	172
26	The rheology of crystal-bearing basaltic magmas from Stromboli and Etna. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 3214-3236.	3.9	166
27	Non-Newtonian rheological law for highly crystalline dome lavas. <i>Geology</i> , 2007, 35, 843.	4.4	164
28	Seismogenic lavas and explosive eruption forecasting. <i>Nature</i> , 2008, 453, 507-510.	27.8	161
29	Viscosity, fragility, and configurational entropy of melts along the join SiO ₂ -NaAlSi ₃ O ₈ . <i>American Mineralogist</i> , 1997, 82, 979-990.	1.9	159
30	Microstructural controls on the physical and mechanical properties of edifice-forming andesites at Volc��n de Colima, Mexico. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 2925-2963.	3.4	155
31	Effect of alkalis, phosphorus, and water on the surface tension of haplogranite melt. <i>American Mineralogist</i> , 2000, 85, 33-40.	1.9	152
32	Glass transition temperatures of natural hydrous melts: a relationship with shear viscosity and implications for the welding process. <i>Journal of Volcanology and Geothermal Research</i> , 2005, 142, 105-118.	2.1	150
33	Fluorine in silicate glasses: A multinuclear nuclear magnetic resonance study. <i>Geochimica Et Cosmochimica Acta</i> , 1992, 56, 701-707.	3.9	144
34	Liquid Immiscibility and the Evolution of Basaltic Magma. <i>Journal of Petrology</i> , 2007, 48, 2187-2210.	2.8	140
35	Solubilities of Pt and Rh in a haplobasaltic silicate melt at 1300��C. <i>Geochimica Et Cosmochimica Acta</i> , 1999, 63, 2439-2449.	3.9	138
36	The combined effects of water and fluorine on the viscosity of silicic magmas. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 5159-5168.	3.9	135

#	ARTICLE	IF	CITATIONS
37	The effect of oxidation state on the viscosity of melts in the system Na ₂ O-FeO-Fe ₂ O ₃ -SiO ₂ . <i>Geochimica Et Cosmochimica Acta</i> , 1987, 51, 195-205.	3.9	132
38	Effects of F, B ₂ O ₃ and P ₂ O ₅ on the solubility of water in haplogranite melts compared to natural silicate melts. <i>Contributions To Mineralogy and Petrology</i> , 1993, 113, 492-501.	3.1	132
39	Permeability control on magma fragmentation. <i>Geology</i> , 2008, 36, 399.	4.4	130
40	A rheological investigation of vesicular rhyolite. <i>Journal of Volcanology and Geothermal Research</i> , 1992, 50, 307-322.	2.1	129
41	Water solubility in aluminosilicate melts of haplogranite composition at 2 kbar. <i>Chemical Geology</i> , 1992, 96, 289-302.	3.3	126
42	An expanded non-Arrhenian model for silicate melt viscosity: A treatment for metaluminous, peraluminous and peralkaline liquids. <i>Chemical Geology</i> , 2006, 229, 42-56.	3.3	126
43	The influence of excess alkalis on the viscosity of a haplogranitic melt. <i>American Mineralogist</i> , 1995, 80, 297-304.	1.9	124
44	The onset of non-Newtonian rheology of silicate melts. <i>Physics and Chemistry of Minerals</i> , 1990, 17, 125.	0.8	116
45	The influence of thermal-stressing (up to 1000°C) on the physical, mechanical, and chemical properties of siliceous-aggregate, high-strength concrete. <i>Construction and Building Materials</i> , 2013, 42, 248-265.	7.2	114
46	The viscous-brittle transition of crystal-bearing silicic melt: Direct observation of magma rupture and healing. <i>Geology</i> , 2012, 40, 611-614.	4.4	113
47	Volcanic ash melting under conditions relevant to ash turbine interactions. <i>Nature Communications</i> , 2016, 7, 10795.	12.8	113
48	Immiscible silicate liquid partition coefficients: implications for crystal-melt element partitioning and basalt petrogenesis. <i>Contributions To Mineralogy and Petrology</i> , 2006, 152, 685-702.	3.1	109
49	Viscosities of melts in the Na ₂ O-FeO-Fe ₂ O ₃ -SiO ₂ system and factors controlling relative viscosities of fully polymerized silicate melts. <i>Geochimica Et Cosmochimica Acta</i> , 1988, 52, 395-403.	3.9	107
50	Reconstructing magma failure and the degassing network of dome-building eruptions. <i>Geology</i> , 2013, 41, 515-518.	4.4	106
51	Three fragmentation mechanisms for highly viscous magma under rapid decompression. <i>Journal of Volcanology and Geothermal Research</i> , 2000, 100, 413-421.	2.1	102
52	Fragmentation efficiency of explosive volcanic eruptions: A study of experimentally generated pyroclasts. <i>Journal of Volcanology and Geothermal Research</i> , 2006, 153, 125-135.	2.1	101
53	Rheological properties of dome lavas: Case study of Unzen volcano. <i>Earth and Planetary Science Letters</i> , 2009, 279, 263-272.	4.4	101
54	Mechanical behaviour and failure modes in the Whakaari (White Island volcano) hydrothermal system, New Zealand. <i>Journal of Volcanology and Geothermal Research</i> , 2015, 295, 26-42.	2.1	101

#	ARTICLE	IF	CITATIONS
55	Thermodynamic and rheological properties of rhyolite and andesite melts. Contributions To Mineralogy and Petrology, 1993, 113, 572-581.	3.1	98
56	The evolution of pore connectivity in volcanic rocks. Earth and Planetary Science Letters, 2017, 462, 99-109.	4.4	96
57	The equivalence of enthalpy and shear stress relaxation in rhyolitic obsidians and quantification of the liquid-glass transition in volcanic processes. Journal of Volcanology and Geothermal Research, 1995, 68, 297-306.	2.1	94
58	Heterogeneity: The key to failure forecasting. Scientific Reports, 2015, 5, 13259.	3.3	94
59	Melt densities for leucogranites and granitic pegmatites: Partial molar volumes for SiO ₂ , Al ₂ O ₃ , Na ₂ O, K ₂ O, Li ₂ O, Rb ₂ O, Cs ₂ O, MgO, CaO, SrO, BaO, B ₂ O ₃ , P ₂ O ₅ , F ₂ O ⁻¹ , TiO ₂ , Nb ₂ O ₅ , Ta ₂ O ₅ , and WO ₃ . Geochimica Et Cosmochimica Acta, 1995, 59, 4645-4652.	3.9	92
60	A multidisciplinary approach to quantify the permeability of the Whakaari/White Island volcanic hydrothermal system (Taupo Volcanic Zone, New Zealand). Journal of Volcanology and Geothermal Research, 2017, 332, 88-108.	2.1	92
61	Enhancement of magma mixing efficiency by chaotic dynamics: an experimental study. Contributions To Mineralogy and Petrology, 2011, 161, 863-881.	3.1	91
62	Volcanic sintering: Timescales of viscous densification and strength recovery. Geophysical Research Letters, 2013, 40, 5658-5664.	4.0	91
63	Chemical diffusivities of 18 trace elements in granitoid melts. Geochimica Et Cosmochimica Acta, 1999, 63, 2599-2610.	3.9	90
64	The effect of phosphorus on the iron redox ratio, viscosity, and density of an evolved ferro-basalt. Contributions To Mineralogy and Petrology, 1994, 117, 293-304.	3.1	88
65	Aggregation-dominated ash settling from the Eyjafjallajökull volcanic cloud illuminated by field and laboratory high-speed imaging. Geology, 2011, 39, 891-894.	4.4	88
66	The origin of reaction textures in mantle peridotite xenoliths from Sal Island, Cape Verde: the case for "œmetasomatism" by the host lava. Contributions To Mineralogy and Petrology, 2006, 151, 681-697.	3.1	87
67	Viscosity of peridotite liquid. Earth and Planetary Science Letters, 2004, 226, 127-138.	4.4	86
68	Magmatic architecture of dome-building eruptions at Volcãjn de Colima, Mexico. Bulletin of Volcanology, 2012, 74, 249-260.	3.0	85
69	The variable influence of P ₂ O ₅ on the viscosity of melts of differing alkali/aluminium ratio: Implications for the structural role of phosphorus in silicate melts. Geochimica Et Cosmochimica Acta, 1996, 60, 4107-4121.	3.9	83
70	The viscosity of trachytes, and comparison with basalts, phonolites, and rhyolites. Chemical Geology, 2004, 213, 49-61.	3.3	83
71	Viscosity-temperature relationships in the system Na ₂ Si ₂ O ₅ -Na ₄ Al ₂ O ₅ . Geochimica Et Cosmochimica Acta, 1986, 50, 1261-1265.	3.9	82
72	The solubility of rhenium in silicate melts: Implications for the geochemical properties of rhenium at high temperatures. Geochimica Et Cosmochimica Acta, 2001, 65, 2161-2170.	3.9	82

#	ARTICLE	IF	CITATIONS
73	Explosive energy during volcanic eruptions from fractal analysis of pyroclasts. <i>Earth and Planetary Science Letters</i> , 2006, 248, 800-807.	4.4	82
74	Thermal weakening of the carbonate basement under Mt. Etna volcano (Italy): Implications for volcano instability. <i>Journal of Volcanology and Geothermal Research</i> , 2013, 250, 42-60.	2.1	81
75	The dry and hydrous viscosities of alkaline melts from Vesuvius and Phlegrean Fields. <i>Chemical Geology</i> , 2003, 202, 23-38.	3.3	80
76	Lava flow rheology: A comparison of morphological and petrological methods. <i>Earth and Planetary Science Letters</i> , 2013, 384, 109-120.	4.4	79
77	Effects of structural relaxation on cationic tracer diffusion in silicate melts. <i>Chemical Geology</i> , 1990, 82, 209-216.	3.3	78
78	Experimental peridotite melt reaction at one atmosphere: a textural and chemical study. <i>Contributions To Mineralogy and Petrology</i> , 2008, 155, 199-214.	3.1	78
79	Experimental generation of volcanic lightning. <i>Geology</i> , 2014, 42, 79-82.	4.4	78
80	Effects of water and fluorine on the viscosity of albite melt at high pressure: a preliminary investigation. <i>Earth and Planetary Science Letters</i> , 1985, 74, 266-274.	4.4	77
81	Nonlinear composition dependence of molar volume of melts in the $\text{CaO}-\text{Al}_2\text{O}_3-\text{SiO}_2$ system. <i>Geochimica Et Cosmochimica Acta</i> , 1995, 59, 3685-3695.	3.9	77
82	The viscosities of dry and hydrous XAlSi_3O_8 (X=Li, Na, K, Ca _{0.5} , Mg _{0.5}) melts. <i>Chemical Geology</i> , 2001, 174, 115-132.	3.3	77
83	A compositional tipping point governing the mobilization and eruption style of rhyolitic magma. <i>Nature</i> , 2017, 552, 235-238.	27.8	77
84	Non-linear properties of supercooled liquids in the system $\text{Na}_2\text{O}-\text{SiO}_2$. <i>Chemical Geology</i> , 1994, 116, 1-16.	3.3	76
85	Conduit implosion during Vulcanian eruptions. <i>Geology</i> , 2005, 33, 581.	4.4	76
86	Timescales of spherulite crystallization in obsidian inferred from water concentration profiles. <i>American Mineralogist</i> , 2008, 93, 1816-1822.	1.9	76
87	Evaluation of a relaxation geospeedometer for volcanic glasses. <i>Chemical Geology</i> , 1995, 125, 137-148.	3.3	75
88	Trace element mobility during magma mixing: Preliminary experimental results. <i>Chemical Geology</i> , 2008, 256, 146-157.	3.3	75
89	Densities of melts in the $\text{CaO}-\text{MgO}-\text{Al}_2\text{O}_3-\text{SiO}_2$ system. <i>American Mineralogist</i> , 1999, 84, 465-476.	1.9	74
90	V oxidation state and coordination number in silicate glasses by XAS. <i>American Mineralogist</i> , 2004, 89, 1640-1646.	1.9	74

#	ARTICLE	IF	CITATIONS
91	Tracking the permeable porous network during strain-dependent magmatic flow. <i>Journal of Volcanology and Geothermal Research</i> , 2013, 260, 117-126.	2.1	74
92	Volcanic drumbeat seismicity caused by stick-slip motion and magmatic frictional melting. <i>Nature Geoscience</i> , 2014, 7, 438-442.	12.9	74
93	Universal scaling of fluid permeability during volcanic welding and sediment diagenesis. <i>Geology</i> , 2016, 44, 219-222.	4.4	74
94	Thermophysical properties and cyclic lifetime of plasma sprayed SrAl ₁₂ O ₁₉ for thermal barrier coating applications. <i>Journal of the American Ceramic Society</i> , 2020, 103, 5599-5611.	3.8	74
95	Predicting shear viscosity during volcanic processes at the glass transition: a calorimetric calibration. <i>Earth and Planetary Science Letters</i> , 2002, 198, 417-427.	4.4	73
96	Transport Properties of Magmas: Diffusion and Rheology. <i>Elements</i> , 2006, 2, 281-286.	0.5	73
97	SO ₂ sequestration in large volcanic eruptions: High-temperature scavenging by tephra. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 110, 58-69.	3.9	73
98	Nonisothermal viscous sintering of volcanic ash. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 8792-8804.	3.4	71
99	Melt densities in the CaO-FeO-Fe ₂ O ₃ -SiO ₂ system and the compositional dependence of the partial molar volume of ferric iron in silicate melts. <i>Geochimica Et Cosmochimica Acta</i> , 1988, 52, 2815-2825.	3.9	69
100	Melt densities in the Na ₂ O-FeO-Fe ₂ O ₃ -SiO ₂ system and the partial molar volume of tetrahedrally-coordinated ferric iron in silicate melts. <i>Geochimica Et Cosmochimica Acta</i> , 1988, 52, 2467-2475.	3.9	68
101	X-ray absorption study of Ti-bearing silicate glasses. <i>Physics and Chemistry of Minerals</i> , 1994, 21, 501.	0.8	68
102	Energy consumption by magmatic fragmentation and pyroclast ejection during Vulcanian eruptions. <i>Earth and Planetary Science Letters</i> , 2010, 291, 60-69.	4.4	68
103	Heated gas bubbles enrich, crystallize, dry, phosphorylate and encapsulate prebiotic molecules. <i>Nature Chemistry</i> , 2019, 11, 779-788.	13.6	66
104	Hydrothermal alteration of surficial rocks at Solfatara (Campi Flegrei): Petrophysical properties and implications for phreatic eruption processes. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 320, 128-143.	2.1	65
105	Tube pumices as strain markers of the ductile–brittle transition during magma fragmentation. <i>Nature</i> , 1999, 402, 650-653.	27.8	64
106	The Solubility of H ₂ O in Melts in the System SiO ₂ -Al ₂ O ₃ -Na ₂ O-K ₂ O at 1 to 2 Kbars. <i>Journal of Geology</i> , 1984, 92, 387-395.	1.4	63
107	Surface tension driven processes densify and retain permeability in magma and lava. <i>Earth and Planetary Science Letters</i> , 2016, 433, 116-124.	4.4	63
108	Fragmentation of foamed silicic melts: an experimental study. <i>Earth and Planetary Science Letters</i> , 2000, 178, 47-58.	4.4	62

#	ARTICLE	IF	CITATIONS
109	Hyperquenched volcanic glass from Loihi Seamount, Hawaii. <i>Earth and Planetary Science Letters</i> , 2008, 270, 54-62.	4.4	62
110	Strength and permeability recovery of tuffisite-bearing andesite. <i>Solid Earth</i> , 2012, 3, 191-198.	2.8	62
111	Frequency dependent rheology of vesicular rhyolite. <i>Journal of Geophysical Research</i> , 1993, 98, 6477-6487.	3.3	61
112	Viscosity and glass transition temperature of hydrous melts in the system $\text{CaAl}_2\text{Si}_2\text{O}_8\text{-CaMgSi}_2\text{O}_6$. <i>Chemical Geology</i> , 2008, 256, 203-215.	3.3	61
113	Viscosity measurements of crystallizing andesite from $\langle \text{sc} \rangle T \langle / \text{sc} \rangle$ ungarahua volcano () Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	2.5	61
114	Temperature-dependent thermal expansivities of silicate melts: The system anorthite-diopside. <i>Geochimica Et Cosmochimica Acta</i> , 1992, 56, 689-699.	3.9	60
115	Parametrization of viscosity-temperature relations of aluminosilicate melts. <i>Chemical Geology</i> , 1996, 128, 155-163.	3.3	60
116	Temperature dependence of Pt and Rh solubilities in a haplobasaltic melt. <i>Geochimica Et Cosmochimica Acta</i> , 2003, 67, 123-131.	3.9	60
117	Cooling rate correction of paleointensity determination for volcanic glasses by relaxation geospeedometry. <i>Earth and Planetary Science Letters</i> , 2006, 243, 282-292.	4.4	59
118	Extreme frictional processes in the volcanic conduit of Mount St. Helens (USA) during the 2004-2008 eruption. <i>Journal of Structural Geology</i> , 2012, 38, 61-76.	2.3	59
119	The rheology of peralkaline rhyolites from Pantelleria Island. <i>Journal of Volcanology and Geothermal Research</i> , 2013, 249, 201-216.	2.1	59
120	Microlites and "nanolites" in rhyolitic glass: microstructural and chemical characterization. <i>Bulletin of Volcanology</i> , 1996, 57, 631-640.	3.0	58
121	An experimental facility for the investigation of magma fragmentation by rapid decompression. <i>Bulletin of Volcanology</i> , 1996, 58, 411-416.	3.0	58
122	Rheological and thermodynamic behaviors of different calcium aluminosilicate melts with the same non-bridging oxygen content. <i>Journal of Non-Crystalline Solids</i> , 2004, 336, 179-188.	3.1	58
123	How tough is tuff in the event of fire?. <i>Geology</i> , 2012, 40, 311-314.	4.4	58
124	Thermal properties of vesicular rhyolite. <i>Journal of Volcanology and Geothermal Research</i> , 1994, 60, 179-191.	2.1	57
125	Melt viscosities in the system Na-Fe-Si-O-F-Cl; contrasting effects of F and Cl in alkaline melts. <i>American Mineralogist</i> , 1998, 83, 1016-1021.	1.9	57
126	Heterogeneities in magma chambers: Insights from the behavior of major and minor elements during mixing experiments with natural alkaline melts. <i>Chemical Geology</i> , 2008, 256, 131-145.	3.3	57

#	ARTICLE	IF	CITATIONS
127	The porosity of pyroclasts as an indicator of volcanic explosivity. <i>Journal of Volcanology and Geothermal Research</i> , 2011, 203, 168-174.	2.1	57
128	Fusion characteristics of volcanic ash relevant to aviation hazards. <i>Geophysical Research Letters</i> , 2014, 41, 2326-2333.	4.0	57
129	The effect of oxygen fugacity on the rheological evolution of crystallizing basaltic melts. <i>Earth and Planetary Science Letters</i> , 2018, 487, 21-32.	4.4	57
130	Density of some titanium-bearing silicate liquids and the compositional dependence of the partial molar volume of TiO ₂ . <i>Geochimica Et Cosmochimica Acta</i> , 1992, 56, 3403-3407.	3.9	56
131	Viscoelasticity of crystal- and bubble-bearing rhyolite melts. <i>Physics of the Earth and Planetary Interiors</i> , 1994, 83, 83-99.	1.9	56
132	Multicomponent diffusion in ternary silicate melts in the system K ₂ O-Al ₂ O ₃ -SiO ₂ : I. Experimental measurements. <i>Geochimica Et Cosmochimica Acta</i> , 1995, 59, 255-264.	3.9	56
133	Solubility of tungsten in a haplobasaltic melt as a function of temperature and oxygen fugacity. <i>Geochimica Et Cosmochimica Acta</i> , 1996, 60, 1171-1180.	3.9	56
134	Viscosity of a Teide phonolite in the welding interval. <i>Journal of Volcanology and Geothermal Research</i> , 2000, 103, 239-245.	2.1	56
135	Effect of aluminum on Ti-coordination in silicate glasses: A XANES study. <i>American Mineralogist</i> , 2000, 85, 108-117.	1.9	56
136	Magma fragmentation speed: an experimental determination. <i>Journal of Volcanology and Geothermal Research</i> , 2004, 129, 109-123.	2.1	56
137	XAS determination of the Fe local environment and oxidation state in phonolite glasses. <i>American Mineralogist</i> , 2011, 96, 631-636.	1.9	56
138	Novel thermal barrier coatings repel and resist molten silicate deposits. <i>Scripta Materialia</i> , 2019, 163, 71-76.	5.2	56
139	The effect of P ₂ O ₅ on the viscosity of haplogranitic liquid. <i>European Journal of Mineralogy</i> , 1993, 5, 133-140.	1.3	56
140	The solubility of H ₂ O in peralkaline and peraluminous granitic melts. <i>American Mineralogist</i> , 1997, 82, 434-437.	1.9	55
141	The glass transition in hydrous granitic melts. <i>Physics of the Earth and Planetary Interiors</i> , 1998, 107, 1-8.	1.9	55
142	The thermal history of a spatter-fed lava flow: the 8-ka pantellerite flow of Mayor Island, New Zealand. <i>Bulletin of Volcanology</i> , 2002, 64, 410-422.	3.0	55
143	The thermal stability of Eyjafjallajökull ash versus turbine ingestion test sands. <i>Journal of Applied Volcanology</i> , 2014, 3, .	2.0	55
144	Increase in radon emission due to rock failure: An experimental study. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	53

#	ARTICLE	IF	CITATIONS
145	Approximate chemical analysis of volcanic glasses using Raman spectroscopy. <i>Journal of Raman Spectroscopy</i> , 2015, 46, 1235-1244.	2.5	53
146	The solubility and oxidation state of nickel in silicate melt at low oxygen fugacities: Results using a mechanically assisted equilibration technique. <i>Geochimica Et Cosmochimica Acta</i> , 1994, 58, 1967-1974.	3.9	52
147	Multicomponent diffusion in ternary silicate melts in the system K ₂ O-Al ₂ O ₃ -SiO ₂ : II. Mechanisms, systematics, and geological applications. <i>Geochimica Et Cosmochimica Acta</i> , 1995, 59, 265-277.	3.9	52
148	Thermal vesiculation during volcanic eruptions. <i>Nature</i> , 2015, 528, 544-547.	27.8	52
149	Thermo-rheological magma control on the impact of highly fluid lava flows at Mt. Nyiragongo. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	51
150	Physical properties of CaAl ₂ Si ₂ O ₈ -CaMgSi ₂ O ₆ -FeO-Fe ₂ O ₃ melts: Analogues for extra-terrestrial basalt. <i>Chemical Geology</i> , 2013, 346, 93-105.	3.3	51
151	In situ thermal characterization of cooling/crystallizing lavas during rheology measurements and implications for lava flow emplacement. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 195, 244-258.	3.9	51
152	Cooling dynamics of spatter-fed phonolite obsidian flows on Tenerife, Canary Islands. <i>Journal of Volcanology and Geothermal Research</i> , 2001, 105, 323-342.	2.1	50
153	Siderophile elements in silicate melts – A review of the mechanically assisted equilibration technique and the nanonugget issue. <i>Chemical Geology</i> , 2008, 248, 119-139.	3.3	50
154	Time-scales of recent Phlegrean Fields eruptions inferred from the application of a diffusive fractionation™ model of trace elements. <i>Bulletin of Volcanology</i> , 2010, 72, 431-447.	3.0	50
155	HCl uptake by volcanic ash in the high temperature eruption plume: Mechanistic insights. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 144, 188-201.	3.9	50
156	Multiparametric observation of volcanic lightning: Sakurajima Volcano, Japan. <i>Geophysical Research Letters</i> , 2016, 43, 4221-4228.	4.0	50
157	Viscosity of microlite-bearing rhyolitic obsidians: an experimental study. <i>Bulletin of Volcanology</i> , 1996, 58, 298-309.	3.0	49
158	Field-based density measurements as tool to identify preeruption dome structure: set-up and first results from Unzen volcano, Japan. <i>Journal of Volcanology and Geothermal Research</i> , 2005, 141, 65-75.	2.1	49
159	Dynamics of explosive volcanism at Unzen volcano: an experimental contribution. <i>Bulletin of Volcanology</i> , 2006, 69, 175-187.	3.0	49
160	The Brittle-Ductile Transition in High-Level Granitic Magmas: Material Constraints. <i>Journal of Petrology</i> , 1997, 38, 1635-1644.	2.8	48
161	Influence of the fragmentation process on the dynamics of Vulcanian eruptions: An experimental approach. <i>Earth and Planetary Science Letters</i> , 2011, 302, 51-59.	4.4	48
162	Viscous flow behavior of tholeiitic and alkaline Fe-rich martian basalts. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 124, 348-365.	3.9	48

#	ARTICLE	IF	CITATIONS
163	Models for the estimation of Fe^{3+}/Fe^{tot} ratio in terrestrial and extraterrestrial alkali- and iron-rich silicate glasses using Raman spectroscopy. <i>American Mineralogist</i> , 2016, 101, 943-952.	1.9	48
164	The Density of Titanium(IV) Oxide Liquid. <i>Journal of the American Ceramic Society</i> , 1991, 74, 2718-2719.	3.8	47
165	Cooling rates of hyaloclastites: applications of relaxation geospeedometry to undersea volcanic deposits. <i>Bulletin of Volcanology</i> , 2000, 61, 527-536.	3.0	47
166	Experimental constraints on phreatic eruption processes at Whakaari (White Island volcano). <i>Journal of Volcanology and Geothermal Research</i> , 2015, 302, 150-162.	2.1	47
167	Sintering of viscous droplets under surface tension. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2016, 472, 20150780.	2.1	47
168	Rhyolite magma degassing: an experimental study of melt vesiculation. <i>Bulletin of Volcanology</i> , 1996, 57, 587-601.	3.0	46
169	The cooling of frontal flow ramps: a calorimetric study on the Rocche Rosse rhyolite flow, Lipari, Aeolian Islands, Italy. <i>Terra Nova</i> , 2001, 13, 157-164.	2.1	46
170	Viscous heating in rhyolite: An in situ experimental determination. <i>Earth and Planetary Science Letters</i> , 2008, 275, 121-126.	4.4	46
171	Experimental generation of volcanic pseudotachylytes: Constraining rheology. <i>Journal of Structural Geology</i> , 2012, 38, 222-233.	2.3	46
172	Permeability of compacting porous lavas. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 1605-1622.	3.4	46
173	Viscosity data for hydrous peraluminous granitic melts; comparison with a metaluminous model. <i>American Mineralogist</i> , 1998, 83, 236-239.	1.9	45
174	Structure, structural relaxation and ion diffusion in sodium disilicate melts. <i>Europhysics Letters</i> , 2002, 59, 708-713.	2.0	45
175	The influence of H ₂ O and CO ₂ on the glass transition temperature: insights into the effects of volatiles on magma viscosity. <i>European Journal of Mineralogy</i> , 2007, 19, 657-669.	1.3	45
176	Wetting and Spreading of Molten Volcanic Ash in Jet Engines. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1878-1884.	4.6	45
177	The rheological evolution of the 2014/2015 eruption at Holuhraun, central Iceland. <i>Bulletin of Volcanology</i> , 2017, 79, 1.	3.0	45
178	Determination of silicate liquid thermal expansivity using dilatometry and calorimetry. <i>European Journal of Mineralogy</i> , 1992, 4, 95-104.	1.3	45
179	Multicomponent diffusion in the molten system $K_2O-Na_2O-Al_2O_3-SiO_2-H_2O$. <i>American Mineralogist</i> , 1998, 83, 685-699.	1.9	44
180	The rheological evolution of alkaline Vesuvius magmas and comparison with alkaline series from the Phlegrean Fields, Etna, Stromboli and Teide. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 6613-6630.	3.9	44

#	ARTICLE	IF	CITATIONS
181	Interactions between rhyolitic and basaltic melts unraveled by chaotic mixing experiments. <i>Chemical Geology</i> , 2013, 346, 199-212.	3.3	44
182	Deformation of foamed rhyolites under internal and external stresses: an experimental investigation. <i>Bulletin of Volcanology</i> , 1993, 55, 147-154.	3.0	43
183	Volcanic edifice weakening via devolatilization reactions. <i>Geophysical Journal International</i> , 2011, 186, 1073-1077.	2.4	43
184	Can nanolites enhance eruption explosivity?. <i>Geology</i> , 2020, 48, 997-1001.	4.4	43
185	India-Asia collision as a driver of atmospheric CO ₂ in the Cenozoic. <i>Nature Communications</i> , 2021, 12, 3891.	12.8	43
186	The influence of trace amounts of water on the viscosity of rhyolites. <i>Bulletin of Volcanology</i> , 1998, 60, 89-97.	3.0	42
187	Effect of oxygen fugacity on the glass transition, viscosity and structure of silica- and iron-rich magmatic melts. <i>Journal of Non-Crystalline Solids</i> , 2017, 470, 78-85.	3.1	42
188	Chemical diffusivity of boron in melts of haplogranitic composition. <i>Geochimica Et Cosmochimica Acta</i> , 1993, 57, 1741-1751.	3.9	41
189	Granite and granitic pegmatite melts: volumes and viscosities. <i>Earth and Environmental Science Transactions of the Royal Society of Edinburgh</i> , 1996, 87, 65-72.	0.3	41
190	Cooling rates of basaltic hyaloclastites and pillow lava glasses from the HSDP2 drill core. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 1052-1066.	3.9	41
191	Cooling rate variation in natural volcanic glasses from Tenerife, Canary Islands. <i>Contributions To Mineralogy and Petrology</i> , 1996, 125, 151-160.	3.1	40
192	Thermal history of Hawaiian pāhoehoe lava crusts at the glass transition: implications for flow rheology and emplacement. <i>Earth and Planetary Science Letters</i> , 2004, 228, 343-353.	4.4	40
193	Experimental volcanology on eruptive products of Unzen volcano. <i>Journal of Volcanology and Geothermal Research</i> , 2008, 175, 110-119.	2.1	40
194	Determination of trace-element partitioning between fluid and melt using LA-ICP-MS analysis of synthetic fluid inclusions in glass. <i>European Journal of Mineralogy</i> , 1999, 11, 415-426.	1.3	40
195	The temperature dependence of the speciation of water in NaAlSi ₃ O ₈ -KAlSi ₃ O ₈ melts: an application of fictive temperatures derived from synthetic fluid-inclusions. <i>Contributions To Mineralogy and Petrology</i> , 1995, 122, 1-10.	3.1	39
196	Tensile strengths of hydrous vesicular glasses; an experimental study. <i>American Mineralogist</i> , 1996, 81, 1148-1154.	1.9	39
197	Abrasion in pyroclastic density currents: Insights from tumbling experiments. <i>Physics and Chemistry of the Earth</i> , 2012, 45-46, 33-39.	2.9	39
198	Time evolution of chemical exchanges during mixing of rhyolitic and basaltic melts. <i>Contributions To Mineralogy and Petrology</i> , 2013, 166, 615-638.	3.1	39

#	ARTICLE	IF	CITATIONS
199	Concentration variance decay during magma mixing: a volcanic chronometer. <i>Scientific Reports</i> , 2015, 5, 14225.	3.3	39
200	Topological inversions in coalescing granular media control fluid-flow regimes. <i>Physical Review E</i> , 2017, 96, 033113.	2.1	39
201	Does an inter-flaw length control the accuracy of rupture forecasting in geological materials?. <i>Earth and Planetary Science Letters</i> , 2017, 475, 181-189.	4.4	39
202	Combined effusive-explosive silicic volcanism straddles the multiphase viscous-to-brittle transition. <i>Nature Communications</i> , 2018, 9, 4696.	12.8	39
203	Shear Rate-Dependent Disequilibrium Rheology and Dynamics of Basalt Solidification. <i>Geophysical Research Letters</i> , 2018, 45, 6466-6475.	4.0	39
204	Mineral chemistry of igneous melanite garnets from analcite-bearing volcanic rocks, Alberta, Canada. <i>Contributions To Mineralogy and Petrology</i> , 1985, 90, 29-35.	3.1	38
205	Multidisciplinary constraints of hydrothermal explosions based on the 2013 Gengissig lake events, Kverkfjall volcano, Iceland. <i>Earth and Planetary Science Letters</i> , 2016, 434, 308-319.	4.4	38
206	Experimental investigations on the explosivity of steam-driven eruptions: A case study of Solfatara volcano (Campi Flegrei). <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 7996-8014.	3.4	38
207	Physical properties of volcanic lightning: Constraints from magnetotelluric and video observations at Sakurajima volcano, Japan. <i>Earth and Planetary Science Letters</i> , 2016, 444, 45-55.	4.4	38
208	Oxygen fugacity dependence of Os solubility in haplobasaltic melt. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 742-756.	3.9	37
209	The space and time complexity of chaotic mixing of silicate melts: Implications for igneous petrology. <i>Lithos</i> , 2012, 155, 326-340.	1.4	37
210	Impact interaction of in-flight high-energy molten volcanic ash droplets with jet engines. <i>Acta Materialia</i> , 2019, 171, 119-131.	7.9	37
211	Recent experimental progress in the physical description of silicic magma relevant to explosive volcanism. <i>Geological Society Special Publication</i> , 1998, 145, 9-26.	1.3	36
212	Experimental fragmentation of crystal- and vesicle-bearing silicic melts. <i>Bulletin of Volcanology</i> , 2001, 63, 398-405.	3.0	36
213	Grain-size characteristics of experimental pyroclasts of 1980 Mount St. Helens cryptodome dacite: effects of pressure drop and temperature. <i>Bulletin of Volcanology</i> , 2003, 65, 90-104.	3.0	36
214	Decoupled convection cells from mixing experiments with alkaline melts from Phlegrean Fields. <i>Chemical Geology</i> , 2004, 213, 227-251.	3.3	36
215	Spine growth and seismogenic faulting at Mt. Unzen, Japan. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 4034-4054.	3.4	36
216	Effect of boron, phosphorus and fluorine on shear stress relaxation in haplogranite melts. <i>European Journal of Mineralogy</i> , 1993, 5, 409-426.	1.3	36

#	ARTICLE	IF	CITATIONS
217	Centrifuge-assisted falling-sphere viscometry. <i>European Journal of Mineralogy</i> , 1996, 8, 507-514.	1.3	36
218	Tektite cooling rates: Calorimetric relaxation geospeedometry applied to a natural glass. <i>Geochimica Et Cosmochimica Acta</i> , 1996, 60, 1099-1103.	3.9	35
219	The kinetic fragility of natural silicate melts. <i>Journal of Physics Condensed Matter</i> , 2003, 15, S945-S954.	1.8	35
220	Viscous heating in silicate melts: An experimental and numerical comparison. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	35
221	Hazard map for volcanic ballistic impacts at Popocatepetl volcano (Mexico). <i>Bulletin of Volcanology</i> , 2012, 74, 2155-2169.	3.0	35
222	A Branched Magma Feeder System during the 1669 Eruption of Mt Etna: Evidence from a Time-integrated Study of Zoned Olivine Phenocryst Populations. <i>Journal of Petrology</i> , 2017, 58, 443-472.	2.8	35
223	Estimation of CMAS infiltration depth in EB-PVD TBCs: A new constraint model supported with experimental approach. <i>Journal of the European Ceramic Society</i> , 2019, 39, 2936-2945.	5.7	35
224	Pressure-induced coordination change of Ti in silicate glass: a XANES study. <i>Physics and Chemistry of Minerals</i> , 1994, 21, 510.	0.8	34
225	Physical properties of the 1980 Mount St. Helens cryptodome magma. <i>Bulletin of Volcanology</i> , 1997, 59, 103-111.	3.0	34
226	Vesiculation and Quenching During Surtseyan Eruptions at Hunga Tonga—Hunga Ha'apai Volcano, Tonga. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 3762-3779.	3.4	34
227	Non-linear temperature dependence of liquid volumes in the system albite-anorthite-diopside. <i>Contributions To Mineralogy and Petrology</i> , 1992, 111, 61-73.	3.1	33
228	A volume temperature relationship for liquid GeO ₂ and some geophysically relevant derived parameters for network liquids. <i>Physics and Chemistry of Minerals</i> , 1993, 19, 445.	0.8	33
229	Numerical modelling of stress generation and microfracturing of vesicle walls in glassy rocks. <i>Journal of Volcanology and Geothermal Research</i> , 1996, 73, 33-46.	2.1	33
230	Physical parameterization of Strombolian eruptions via experimentally validated modeling of high-speed observations. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	33
231	Saltation threshold for pyroclasts at various bed-slopes: Wind tunnel measurements. <i>Journal of Volcanology and Geothermal Research</i> , 2014, 278-279, 14-24.	2.1	33
232	The influence of alkaline-earth oxides (BeO, MgO, CaO, SrO, BaO) on the viscosity of a haplogranitic melt: systematics of non-Arrhenian behaviour. <i>European Journal of Mineralogy</i> , 1996, 8, 371-382.	1.3	33
233	Trace Element Partitioning in Immiscible Silicate-Carbonate Liquid Systems: an Initial Experimental Study Using a Centrifuge Autoclave. <i>Journal of Petrology</i> , 1998, 39, 2095-2104.	2.8	32
234	Evidence for Al/Si tetrahedral network in aluminosilicate glasses from AlK-edge x-ray-absorption spectroscopy. <i>Physical Review B</i> , 1999, 60, 9216-9219.	3.2	31

#	ARTICLE	IF	CITATIONS
235	Heat capacities of haplogranitic glasses and liquids. <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 1985-1994.	3.9	31
236	Viscosity of high-K basalt from the 5th April 2003 Stromboli paroxysmal explosion. <i>Chemical Geology</i> , 2009, 260, 278-285.	3.3	31
237	On the slow decompressive response of volatile- and crystal-bearing magmas: An analogue experimental investigation. <i>Earth and Planetary Science Letters</i> , 2016, 433, 44-53.	4.4	31
238	Chemical diffusion of fluorine in melts in the system Na ₂ OAl ₂ O ₃ SiO ₂ . <i>Earth and Planetary Science Letters</i> , 1985, 73, 377-384.	4.4	30
239	Temperature dependence of elastic P- and S-wave velocities in porous Mt. Unzen dacite. <i>Journal of Volcanology and Geothermal Research</i> , 2006, 153, 136-147.	2.1	30
240	Quantification of magma ascent rate through rockfall monitoring at the growing/collapsing lava dome of Volc�n de Colima, Mexico. <i>Solid Earth</i> , 2013, 4, 201-213.	2.8	30
241	Viscosity and Anelasticity of Melts.. <i>AGU Reference Shelf</i> , 0, , 209-217.	0.6	30
242	The effect of the [Na/(Na+K)] ratio on Fe speciation in phonolitic glasses. <i>American Mineralogist</i> , 2015, 100, 1610-1619.	1.9	30
243	Size limits for rounding of volcanic ash particles heated by lightning. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 1977-1989.	3.4	30
244	The dynamics of volcanic jets: Temporal evolution of particles exit velocity from shock�tube experiments. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 6031-6045.	3.4	30
245	A general model for welding of ash particles in volcanic systems validated using in situ X-ray tomography. <i>Earth and Planetary Science Letters</i> , 2019, 525, 115726.	4.4	30
246	High-load, high-temperature deformation apparatus for synthetic and natural silicate melts. <i>Review of Scientific Instruments</i> , 2007, 78, 075102.	1.3	28
247	Stability of volcanic ash aggregates and break-up processes. <i>Scientific Reports</i> , 2017, 7, 7440.	3.3	28
248	Compressibility of titanosilicate melts. <i>Contributions To Mineralogy and Petrology</i> , 1994, 118, 157-168.	3.1	27
249	Experimental and analytical modeling of basaltic ash explosions at Mount Etna, Italy, 2001. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	27
250	Shallow magma�driven Strombolian eruptions at Mt. Yasur volcano, Vanuatu. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	27
251	Dune bedforms produced by dilute pyroclastic density currents from the August 2006 eruption of Tungurahua volcano, Ecuador. <i>Bulletin of Volcanology</i> , 2013, 75, 762.	3.0	27
252	Raman spectra of Martian glass analogues: A tool to approximate their chemical composition. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 740-752.	3.6	27

#	ARTICLE	IF	CITATIONS
253	Plasma sprayed 18mol% YO _{1.5} stabilized hafnia as potential thermal barrier coating. <i>Ceramics International</i> , 2021, 47, 14515-14526.	4.8	27
254	Compositional dependence of H ₂ O solubility along the joins NaAlSi ₃ O ₈ -KAlSi ₃ O ₈ , NaAlSi ₃ O ₈ -LiAlSi ₃ O ₈ , and KAlSi ₃ O ₈ -LiAlSi ₃ O ₈ . <i>American Mineralogist</i> , 1996, 81, 452-461.	1.9	26
255	Viscosity-temperature behaviour of dry melts in the Qz-Ab-Or system. <i>Chemical Geology</i> , 2001, 174, 133-142.	3.3	26
256	Modelling the non-Arrhenian rheology of silicate melts: Numerical considerations. <i>European Journal of Mineralogy</i> , 2002, 14, 417-428.	1.3	26
257	Europium oxidation state and local structure in silicate glasses. <i>American Mineralogist</i> , 2012, 97, 918-929.	1.9	26
258	Laboratory simulations of tensile fracture development in a volcanic conduit via cyclic magma pressurisation. <i>Earth and Planetary Science Letters</i> , 2012, 349-350, 231-239.	4.4	26
259	Relaxation of concentration variance: A new tool to measure chemical element mobility during mixing of magmas. <i>Chemical Geology</i> , 2013, 335, 8-23.	3.3	26
260	High and highly variable cooling rates during pyroclastic eruptions on Axial Seamount, Juan de Fuca Ridge. <i>Journal of Volcanology and Geothermal Research</i> , 2013, 253, 54-64.	2.1	26
261	The Grizzly Lake complex (Yellowstone Volcano, USA): Mixing between basalt and rhyolite unraveled by microanalysis and X-ray microtomography. <i>Lithos</i> , 2016, 260, 457-474.	1.4	26
262	Experimental volcanic ash aggregation: Internal structuring of accretionary lapilli and the role of liquid bonding. <i>Earth and Planetary Science Letters</i> , 2016, 433, 232-240.	4.4	26
263	Sedimentology and geomorphology of the deposits from the August 2006 pyroclastic density currents at Tungurahua volcano, Ecuador. <i>Bulletin of Volcanology</i> , 2013, 75, 765.	3.0	25
264	Influence of cooling rate on thermoremanence of magnetite grains: Identifying the role of different magnetic domain states. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 1599-1606.	3.4	25
265	A frictional law for volcanic ash gouge. <i>Earth and Planetary Science Letters</i> , 2014, 400, 177-183.	4.4	25
266	Fault rheology beyond frictional melting. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 9276-9280.	7.1	25
267	Volcanic Ash Activates the NLRP3 Inflammasome in Murine and Human Macrophages. <i>Frontiers in Immunology</i> , 2017, 8, 2000.	4.8	25
268	Chemical diffusion of fluorine in jadeite melt at high pressure. <i>Geochimica Et Cosmochimica Acta</i> , 1984, 48, 2517-2525.	3.9	24
269	High-temperature densities of some mantle melts. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 3111-3119.	3.9	24
270	Liquid unmixing kinetics and the extent of immiscibility in the system K ₂ O-CaO-FeO-Al ₂ O ₃ -SiO ₂ . <i>Chemical Geology</i> , 2008, 256, 119-130.	3.3	24

#	ARTICLE	IF	CITATIONS
271	A cooling rate bias in paleointensity determination from volcanic glass: An experimental demonstration. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	24
272	A general viscosity model of Campi Flegrei (Italy) melts. <i>Chemical Geology</i> , 2011, 290, 50-59.	3.3	24
273	Volcanic edifice weakening via decarbonation: A self-limiting process?. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	24
274	Syn-eruptive, soft-sediment deformation of deposits from dilute pyroclastic density current: triggers from granular shear, dynamic pore pressure, ballistic impacts and shock waves. <i>Solid Earth</i> , 2015, 6, 553-572.	2.8	24
275	Actinide diffusion in a haplogranitic melt: Effects of temperature, water content, and pressure. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 2237-2246.	3.9	23
276	Seismogenic frictional melting in the magmatic column. <i>Solid Earth</i> , 2014, 5, 199-208.	2.8	23
277	Ash aggregation enhanced by deposition and redistribution of salt on the surface of volcanic ash in eruption plumes. <i>Scientific Reports</i> , 2017, 7, 45762.	3.3	23
278	Dynamic spreading of re-melted volcanic ash bead on thermal barrier coatings. <i>Corrosion Science</i> , 2020, 170, 108659.	6.6	23
279	New insights on the origin of flow bands in obsidian. , 2005, , .		22
280	Rheological and thermodynamic behavior of calcium aluminosilicate melts within the anorthite-wollastonite-gehlenite compatibility triangle. <i>Journal of Non-Crystalline Solids</i> , 2005, 351, 499-507.	3.1	22
281	Eruptive shearing of tube pumice: pure and simple. <i>Solid Earth</i> , 2016, 7, 1383-1393.	2.8	22
282	Sintering of polydisperse viscous droplets. <i>Physical Review E</i> , 2017, 95, 033114.	2.1	22
283	Phreatic activity and hydrothermal alteration in the Valley of Desolation, Dominica, Lesser Antilles. <i>Bulletin of Volcanology</i> , 2017, 79, 1.	3.0	22
284	Thermal expansion of silicate liquids; direct determination using container-based dilatometry. <i>American Mineralogist</i> , 1999, 84, 1176-1180.	1.9	21
285	Matrix effect and partitioning of boron isotopes between immiscible Si-rich and B-rich liquids in the Si-Al-B-Ca-Na-O system: A SIMS study of glasses quenched from centrifuge experiments. <i>Chemical Geology</i> , 2005, 222, 268-280.	3.3	21
286	Water solubility and speciation in shoshonitic and latitic melt composition from Campi Flegrei Caldera (Italy). <i>Chemical Geology</i> , 2006, 229, 113-124.	3.3	21
287	Decarbonation and thermal microcracking under magmatic P-T-%CO ₂ conditions: the role of skarn substrata in promoting volcanic instability. <i>Geophysical Journal International</i> , 2013, 195, 369-380.	2.4	21
288	Crystal plasticity as an indicator of the viscous-brittle transition in magmas. <i>Nature Communications</i> , 2017, 8, 1926.	12.8	21

#	ARTICLE	IF	CITATIONS
289	The importance of crystalline phases in ice nucleation by volcanic ash. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 5451-5465.	4.9	21
290	In situ observation of the percolation threshold in multiphase magma analogues. <i>Bulletin of Volcanology</i> , 2020, 82, 32.	3.0	21
291	Density of Ga ₂ O ₃ Liquid. <i>Journal of the American Ceramic Society</i> , 1992, 75, 1656-1657.	3.8	20
292	Morphochemistry of patterns produced by mixing of rhyolitic and basaltic melts. <i>Journal of Volcanology and Geothermal Research</i> , 2013, 253, 87-96.	2.1	20
293	The effect of inflation on the morphology-derived rheological parameters of lava flows and its implications for interpreting remote sensing data - A case study on the 2014/2015 eruption at Holuhraun, Iceland. <i>Journal of Volcanology and Geothermal Research</i> , 2018, 357, 200-212.	2.1	20
294	Element partitioning between immiscible borosilicate liquids: A high-temperature centrifuge study. <i>Geochimica Et Cosmochimica Acta</i> , 2002, 66, 2603-2614.	3.9	19
295	Flow and fracturing of viscoelastic media under diffusion-driven bubble growth: An analogue experiment for eruptive volcanic conduits. <i>Earth and Planetary Science Letters</i> , 2006, 243, 771-785.	4.4	19
296	XAS investigation of rare earth elements in sodium disilicate glasses. <i>Journal of Non-Crystalline Solids</i> , 2013, 362, 162-168.	3.1	19
297	The effects of water vaporization on rock fragmentation during rapid decompression: Implications for the formation of fluidized ejecta on Mars. <i>Earth and Planetary Science Letters</i> , 2014, 385, 68-78.	4.4	19
298	Volcanic ash supports a diverse bacterial community in a marine mesocosm. <i>Geobiology</i> , 2017, 15, 453-463.	2.4	19
299	Cooling rates of lunar orange glass beads. <i>Earth and Planetary Science Letters</i> , 2018, 503, 88-94.	4.4	19
300	Chapter 2. RELAXATION IN SILICATE MELTS: SOME APPLICATIONS. , 1995, , 21-66.		18
301	Chapter 8. EXPERIMENTAL STUDIES OF BORON IN GRANITIC MELTS. , 1996, , 331-386.		18
302	Supercooled diopside melt: confirmation of temperature-dependent expansivity using container-based dilatometry. <i>Contributions To Mineralogy and Petrology</i> , 2000, 139, 127-135.	3.1	18
303	Measurement and implication of "effective" viscosity for rhyolite flow emplacement. <i>Bulletin of Volcanology</i> , 2001, 63, 227-237.	3.0	18
304	Liquid Immiscibility and Evolution of Basaltic Magma: Reply to S. A. Morse, A. R. McBirney and A. R. Philpotts. <i>Journal of Petrology</i> , 2008, 49, 2177-2186.	2.8	18
305	Europium structural environment in a sodium disilicate glass by XAS. <i>Journal of Non-Crystalline Solids</i> , 2010, 356, 1749-1753.	3.1	18
306	Outgassing: Influence on speed of magma fragmentation. <i>Journal of Geophysical Research: Solid Earth</i> , 2013, 118, 862-877.	3.4	18

#	ARTICLE	IF	CITATIONS
307	Spherulites as in-situ recorders of thermal history in lava flows. <i>Geology</i> , 2015, 43, 647-650.	4.4	18
308	Conduit margin heating and deformation during the AD 1886 basaltic Plinian eruption at Tarawera volcano, New Zealand. <i>Bulletin of Volcanology</i> , 2016, 78, 12.	3.0	18
309	Disequilibrium Rheology and Crystallization Kinetics of Basalts and Implications for the Phlegrean Volcanic District. <i>Frontiers in Earth Science</i> , 2020, 8, .	1.8	18
310	A model for permeability evolution during volcanic welding. <i>Journal of Volcanology and Geothermal Research</i> , 2021, 409, 107118.	2.1	18
311	Surface roughness affects metastable non-wetting behavior of silicate melts on thermal barrier coatings. <i>Rare Metals</i> , 2022, 41, 469-481.	7.1	18
312	Magma / Suspension Rheology. <i>Reviews in Mineralogy and Geochemistry</i> , 2022, 87, 639-720.	4.8	18
313	Volcanic conduit failure as a trigger to magma fragmentation. <i>Bulletin of Volcanology</i> , 2012, 74, 11-13.	3.0	17
314	Magma mixing enhanced by bubble segregation. <i>Solid Earth</i> , 2015, 6, 1007-1023.	2.8	17
315	An advanced rotational rheometer system for extremely fluid liquids up to 1273 K and applications to alkali carbonate melts. <i>American Mineralogist</i> , 2016, 101, 953-959.	1.9	17
316	Experimental estimates of the energy budget of hydrothermal eruptions; application to 2012 Upper Te Maari eruption, New Zealand. <i>Earth and Planetary Science Letters</i> , 2016, 452, 281-294.	4.4	17
317	Magma Mixing: History and Dynamics of an Eruption Trigger. <i>Advances in Volcanology</i> , 2017, , 123-137.	1.1	17
318	A Raman spectroscopic tool to estimate chemical composition of natural volcanic glasses. <i>Chemical Geology</i> , 2020, 556, 119819.	3.3	17
319	Permeability of polydisperse magma foam. <i>Geology</i> , 2020, 48, 536-540.	4.4	17
320	Characterising vent and crater shape changes at Stromboli: implications for risk areas. <i>Volcanica</i> , 2021, 4, 87-105.	1.8	17
321	Modelling of melt segregation processes by high-temperature centrifuging of partially molten granites-I. Melt extraction by compaction and deformation. <i>Geophysical Journal International</i> , 1996, 127, 616-626.	2.4	16
322	Influence of decompression rate on fragmentation processes: An experimental study. <i>Journal of Volcanology and Geothermal Research</i> , 2010, 193, 182-188.	2.1	16
323	Interfacial tension between immiscible liquids in the system K ₂ O-FeO-Fe ₂ O ₃ -Al ₂ O ₃ -SiO ₂ and implications for the kinetics of silicate melt unmixing. <i>American Mineralogist</i> , 2010, 95, 1679-1685.	1.9	16
324	Time-series analysis of fissure-fed multi-vent activity: a snapshot from the July 2014 eruption of Etna volcano (Italy). <i>Bulletin of Volcanology</i> , 2017, 79, 1.	3.0	16

#	ARTICLE	IF	CITATIONS
325	The effect of diffusive re-equilibration time on trace element partitioning between alkali feldspar and trachytic melts. <i>Chemical Geology</i> , 2018, 495, 50-66.	3.3	16
326	Electrification of Experimental Volcanic Jets with Varying Water Content and Temperature. <i>Geophysical Research Letters</i> , 2019, 46, 11136-11145.	4.0	16
327	SO ₂ scrubbing during percolation through rhyolitic volcanic domes. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 257, 150-162.	3.9	16
328	Pyroclastic dune bedforms: macroscale structures and lateral variations. Examples from the 2006 pyroclastic currents at Tungurahua (Ecuador). <i>Sedimentology</i> , 2019, 66, 1531-1559.	3.1	16
329	A calibrated database of Raman spectra for natural silicate glasses: implications for modelling melt physical properties. <i>Journal of Raman Spectroscopy</i> , 2020, 51, 1822-1838.	2.5	16
330	From melt to crystals: The effects of cooling on Fe Ti oxide nanolites crystallisation and melt polymerisation at oxidising conditions. <i>Chemical Geology</i> , 2021, 563, 120057.	3.3	16
331	Heat flows in rock cracks naturally optimize salt compositions for ribozymes. <i>Nature Chemistry</i> , 2021, 13, 1038-1045.	13.6	16
332	Degassing and gas percolation in basaltic magmas. <i>Earth and Planetary Science Letters</i> , 2021, 573, 117134.	4.4	16
333	Partial molar volumes of NiO and CoO liquids: implications for the pressure dependence of metal-silicate partitioning. <i>Earth and Planetary Science Letters</i> , 1999, 171, 171-183.	4.4	15
334	Experimental determination of partial molar volumes of Ga ₂ O ₃ and GeO ₂ in silicate melts: implications for the pressure dependence of metal-silicate partition coefficients. <i>Chemical Geology</i> , 2001, 174, 33-49.	3.3	15
335	High-temperature density of lanthanide-bearing Na-silicate melts: Partial molar volumes for Ce ₂ O ₃ , Pr ₂ O ₃ , Nd ₂ O ₃ , Sm ₂ O ₃ , Eu ₂ O ₃ , Gd ₂ O ₃ , Tb ₂ O ₃ , Dy ₂ O ₃ , Ho ₂ O ₃ , Er ₂ O ₃ , Tm ₂ O ₃ , and Yb ₂ O ₃ . <i>American Mineralogist</i> , 2005, 90, 1597-1605.	1.9	15
336	Magma mixing induced by particle settling. <i>Contributions To Mineralogy and Petrology</i> , 2016, 171, 96.	3.1	15
337	Earthquakes indicated magma viscosity during K ⁺ 2018 eruption. <i>Nature</i> , 2021, 592, 237-241.	27.8	15
338	Experimental constraints on volcanic ash generation and clast morphometrics in pyroclastic density currents and granular flows. <i>Volcanica</i> , 2020, 3, 263-283.	1.8	15
339	Experimental strategies for the investigation of low temperature properties in granitic and pegmatitic melts. <i>Chemical Geology</i> , 1993, 108, 19-30.	3.3	14
340	Neutron diffraction study of feldspar glasses. Mixed alkali effect. <i>Journal of Non-Crystalline Solids</i> , 1995, 191, 124-131.	3.1	14
341	The propagation and seismicity of dyke injection, new experimental evidence. <i>Geophysical Research Letters</i> , 2016, 43, 1876-1883.	4.0	14
342	Volcanic ash ice-nucleating activity can be enhanced or depressed by ash-gas interaction in the eruption plume. <i>Earth and Planetary Science Letters</i> , 2020, 551, 116587.	4.4	14

#	ARTICLE	IF	CITATIONS
343	Hydrothermal eruption dynamics reflecting vertical variations in host rock geology and geothermal alteration, Champagne Pool, Wai-o-tapu, New Zealand. <i>Bulletin of Volcanology</i> , 2020, 82, 1.	3.0	14
344	Influence of molten volcanic ash infiltration on the friability of APS thermal barrier coatings. <i>Ceramics International</i> , 2020, 46, 11364-11371.	4.8	14
345	The influence of thermal barrier coating dissolution on CMAS melt viscosities. <i>Journal of the European Ceramic Society</i> , 2021, 41, 2746-2752.	5.7	14
346	Compositional dependence of the activity of nickel in silicate melts. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 4707-4721.	3.9	13
347	Viscosities of granitic (sensu lato) melts: Influence of the anorthite component. <i>American Mineralogist</i> , 2000, 85, 1342-1348.	1.9	13
348	Temperature independent thermal expansivities of calcium aluminosilicate melts between 1150 and 1973K in the system anorthite-wollastonite-gehlenite (An-Wo-Geh): A density model. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 3059-3074.	3.9	13
349	Paleointensities of phonolitic obsidian: Influence of emplacement rotations and devitrification. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	13
350	Time scales of foam stability in shallow conduits: Insights from analogue experiments. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 4179-4194.	2.5	13
351	Raman Spectroscopy from Laboratory and Proximal to Remote Sensing: A Tool for the Volcanological Sciences. <i>Remote Sensing</i> , 2020, 12, 805.	4.0	13
352	Permeability of packs of polydisperse hard spheres. <i>Physical Review E</i> , 2021, 103, 062613.	2.1	13
353	Granitic melt viscosities. <i>Geological Society Special Publication</i> , 1999, 168, 27-38.	1.3	12
354	Analysis of source characteristics of experimental gas burst and fragmentation explosions generated by rapid decompression of volcanic rocks. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 5104-5116.	3.4	12
355	Assessment of the potential for in-plume sulphur dioxide gas-ash interactions to influence the respiratory toxicity of volcanic ash. <i>Environmental Research</i> , 2019, 179, 108798.	7.5	12
356	<i>In situ</i> granulation by thermal stress during subaqueous volcanic eruptions. <i>Geology</i> , 2019, 47, 179-182.	4.4	12
357	Mineralogical and thermal characterization of a volcanic ash: Implications for turbine interaction. <i>Journal of Volcanology and Geothermal Research</i> , 2019, 377, 43-52.	2.1	12
358	Determination of permeability using a classic Darcy water column. <i>American Journal of Physics</i> , 2020, 88, 20-24.	0.7	12
359	Novel thermal barrier coatings with hexagonal boron nitride additives resistant to molten volcanic ash wetting. <i>Corrosion Science</i> , 2020, 168, 108587.	6.6	12
360	Silicate ash-resistant novel thermal barrier coatings in gas turbines. <i>Corrosion Science</i> , 2022, 194, 109929.	6.6	12

#	ARTICLE	IF	CITATIONS
361	Sulfur as a binding agent of aggregates in explosive eruptions. <i>Bulletin of Volcanology</i> , 2014, 76, 871.	3.0	11
362	Variability in composition and physical properties of the sedimentary basement of Mt Etna, Italy. <i>Journal of Volcanology and Geothermal Research</i> , 2015, 302, 102-116.	2.1	11
363	Hydrothermal activity and subsoil complexity: implication for degassing processes at Solfatara crater, Campi Flegrei caldera. <i>Bulletin of Volcanology</i> , 2017, 79, 1.	3.0	11
364	Aggregation in particle rich environments: a textural study of examples from volcanic eruptions, meteorite impacts, and fluidized bed processing. <i>Bulletin of Volcanology</i> , 2018, 80, 32.	3.0	11
365	Frictional melt homogenisation during fault slip: Geochemical, textural and rheological fingerprints. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 255, 265-288.	3.9	11
366	Quantifying Microstructural Evolution in Moving Magma. <i>Frontiers in Earth Science</i> , 2020, 8, .	1.8	11
367	Chapter 4. VISCOELASTICITY. , 1995, , 95-120.		10
368	Thermal expansivities of supercooled haplobasaltic liquids. <i>Geochimica Et Cosmochimica Acta</i> , 2002, 66, 2231-2238.	3.9	10
369	Temperature-dependent thermal expansivities of multicomponent natural melts between 993 and 1803 K. <i>Chemical Geology</i> , 2006, 229, 10-27.	3.3	10
370	Eruption and emplacement timescales of ignimbrite super-eruptions from thermo-kinetics of glass shards. <i>Frontiers in Earth Science</i> , 2015, 3, .	1.8	10
371	Flow and fragmentation patterns in the silicic feeder system and related deposits in the Paran-Etendeka Magmatic Province, So Marcos, South Brazil. <i>Journal of Volcanology and Geothermal Research</i> , 2018, 358, 149-164.	2.1	10
372	Tailoring the initial characterization of fully stabilized HfO ₂ with Y ₂ O ₃ /Ta ₂ O ₅ . <i>Journal of Alloys and Compounds</i> , 2021, 867, 159113.	5.5	10
373	The Brittle-Ductile Transition in High-Level Granitic Magmas: Material Constraints. <i>Journal of Petrology</i> , 1997, 38, 1635-1644.	2.8	10
374	The roles of microlites and phenocrysts during degassing of silicic magma. <i>Earth and Planetary Science Letters</i> , 2022, 577, 117264.	4.4	10
375	Paleointensities on 8 ka obsidian from Mayor Island, New Zealand. <i>Solid Earth</i> , 2011, 2, 259-270.	2.8	9
376	Vesiculation in rhyolite at low H_2O contents: A thermodynamic model. <i>Geochemistry, Geophysics, Geosystems</i> , 2015, 16, 4292-4310.	2.5	9
377	Dynamic elastic moduli during isotropic densification of initially granular media. <i>Geophysical Journal International</i> , 2016, 204, 1721-1728.	2.4	9
378	Friendly fire: Engineering a fort wall in the Iron Age. <i>Journal of Archaeological Science</i> , 2016, 67, 7-13.	2.4	9

#	ARTICLE	IF	CITATIONS
379	Diversity of soluble salt concentrations on volcanic ash aggregates from a variety of eruption types and deposits. <i>Bulletin of Volcanology</i> , 2019, 81, 1.	3.0	9
380	Microstructures and Properties of Sm ₂ (Zr _{0.7} Ce _{0.3}) ₂ O ₇ /8YSZ Double-Ceramic-Layer Thermal Barrier Coatings Deposited by Atmospheric Plasma Spraying. <i>Journal of Thermal Spray Technology</i> , 2019, 28, 986-999.	3.1	9
381	A rotating autoclave for centrifuge studies: falling sphere viscometry. <i>European Journal of Mineralogy</i> , 1997, 9, 345-350.	1.3	9
382	Decrypting Magma Mixing in Igneous Systems. <i>Reviews in Mineralogy and Geochemistry</i> , 2022, 87, 607-638.	4.8	9
383	Dynamics of strong and fragile glass formers and a scaling procedure for the temperature dependence of the viscosity. <i>Zeitschrift Fur Elektrotechnik Und Elektrochemie</i> , 1996, 100, 1402-1407.	0.9	8
384	Seismological analysis of conduit dynamics in fragmentation experiments. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 2215-2229.	3.4	8
385	Spatial analysis of Mount St. Helens tephra leachate compositions: implications for future sampling strategies. <i>Bulletin of Volcanology</i> , 2015, 77, 60.	3.0	8
386	Release characteristics of overpressurised gas from complex vents: implications for volcanic hazards. <i>Bulletin of Volcanology</i> , 2020, 82, 68.	3.0	8
387	Effects of the dissolution of thermal barrier coating materials on the viscosity of remelted volcanic ash. <i>American Mineralogist</i> , 2020, 105, 1104-1107.	1.9	8
388	Geochemistry and petrogenesis of the post-collisional high-K calc-alkaline magmatic rocks in Tengchong, SE Tibet. <i>Journal of Asian Earth Sciences</i> , 2020, 193, 104309.	2.3	8
389	Magma Fragmentation. <i>Reviews in Mineralogy and Geochemistry</i> , 2022, 87, 767-800.	4.8	8
390	Models for Viscosity of Geological Melts. <i>Reviews in Mineralogy and Geochemistry</i> , 2022, 87, 841-885.	4.8	8
391	A high-temperature Brillouin scattering study on four compositions of haplogranitic glasses and melts: High-frequency elastic behavior through the glass transition. <i>American Mineralogist</i> , 2013, 98, 367-375.	1.9	7
392	Local geology controlled the feasibility of vitrifying Iron Age buildings. <i>Scientific Reports</i> , 2017, 7, 40028.	3.3	7
393	Experimental study of monazite solubility in haplogranitic melts: a new model for peraluminous and peralkaline melts. <i>European Journal of Mineralogy</i> , 2019, 31, 49-59.	1.3	7
394	Fall-experiments on Merapi basaltic andesite and constraints on the generation of pyroclastic surges. <i>EEarth</i> , 2007, 2, 1-5.	0.8	7
395	Impact vesiculation – a new trigger for volcanic bubble growth and degassing. <i>EEarth Discussions</i> , 2007, 2, 151-167.	0.3	7
396	Development and Testing of a Glass Waste Form for the Immobilization of Plutonium. <i>Materials Research Society Symposia Proceedings</i> , 1996, 465, 1229.	0.1	6

#	ARTICLE	IF	CITATIONS
397	Chapter 13. MELT VISCOSITY AND DIFFUSION UNDER ELEVATED PRESSURES. , 1998, , 397-424.		6
398	A novel apparatus for the simulation of eruptive gas-rock interactions. Bulletin of Volcanology, 2015, 77, 1.	3.0	6
399	When Does Magma Break?. Advances in Volcanology, 2017, , 171-184.	1.1	6
400	Diffusion of F and Cl in dry rhyodacitic melt. American Mineralogist, 2019, 104, 1689-1699.	1.9	6
401	Volcanic ash generation: Effects of componentry, particle size and conduit geometry on size-reduction processes. Earth and Planetary Science Letters, 2019, 514, 13-27.	4.4	6
402	The Fragility of VolcÃ¡n de Colimaâ€™A Material Constraint. Active Volcanoes of the World, 2019, , 241-266.	1.4	6
403	Rapid alteration of fractured volcanic conduits beneath Mt Unzen. Bulletin of Volcanology, 2021, 83, 1.	3.0	6
404	The force required to operate the plunger on a French press. American Journal of Physics, 2021, 89, 769-775.	0.7	6
405	The Influence of Chemical and Mineral Compositions on the Parameterization of Immersion Freezing by Volcanic Ash Particles. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033356.	3.3	6
406	Long-term observation of electrical discharges during persistent Vulcanian activity. Earth and Planetary Science Letters, 2021, 570, 117084.	4.4	6
407	Stratigraphic reconstruction of the VÃ¡ti breccia at Krafla volcano (Iceland): insights into pre-eruptive conditions priming explosive eruptions in geothermal areas. Bulletin of Volcanology, 2021, 83, 81.	3.0	6
408	Pre-Eruptive Conditions and Dynamics Recorded in Banded Pumices from the El Abrigo Caldera-Forming Eruption (Tenerife, Canary Islands). Journal of Petrology, 2022, 63, .	2.8	6
409	Interparticle and Brownian forces controlling particle aggregation and rheology of silicate melts containing platinum-group element particles. Scientific Reports, 2022, 12, .	3.3	6
410	Modelling of melt segregation processes by high-temperature centrifuging of partially molten granites-II. Rayleigh-Taylor instability and sedimentation. Geophysical Journal International, 1996, 127, 627-634.	2.4	5
411	Chaotic Mixing in the System Earth: Mixing Granitic and Basaltic Liquids. , 2010, , .		5
412	Intrinsic proton dynamics in hydrous silicate melts as seen by quasielastic neutron scattering at elevated temperature and pressure. Chemical Geology, 2017, 461, 152-159.	3.3	5
413	A feedback mechanism between crystals and bubbles in a RuO ₂ -bearing melt. Journal of Non-Crystalline Solids, 2022, 582, 121456.	3.1	5
414	A partial molar volume for La ₂ O ₃ in silicate melts. Journal of Non-Crystalline Solids, 2006, 352, 304-314.	3.1	4

#	ARTICLE	IF	CITATIONS
415	A partial molar volume for ZnO in silicate melts. <i>American Mineralogist</i> , 2006, 91, 366-374.	1.9	4
416	Revisiting the lacquer peels method with pyroclastic deposits: sediment plates, a precise, fine scale imaging method and powerful outreach tool. <i>Journal of Applied Volcanology</i> , 2018, 7, .	2.0	4
417	Hydrothermal eruptions at unstable crater lakes: Insights from the Boiling Lake, Dominica, Lesser Antilles. <i>Journal of Volcanology and Geothermal Research</i> , 2019, 381, 101-118.	2.1	4
418	Determination of water speciation in hydrous haplogranitic glasses with partial Raman spectra. <i>Chemical Geology</i> , 2020, 553, 119793.	3.3	4
419	Petrophysical characterisation of volcanic ejecta to constrain subsurface lithological heterogeneities: implications for edifice stability at basaltic volcanoes. <i>Volcanica</i> , 2021, 4, 41-66.	1.8	4
420	Linking gas and particle ejection dynamics to boundary conditions in scaled shock-tube experiments. <i>Bulletin of Volcanology</i> , 2021, 83, 53.	3.0	4
421	A model for the kinetics of high-temperature reactions between polydisperse volcanic ash and SO ₂ gas. <i>American Mineralogist</i> , 2021, 106, 1319-1332.	1.9	4
422	The effect of halogens (F, Cl) on the near-liquidus crystallinity of a hydrous trachyte melt. <i>American Mineralogist</i> , 2022, 107, 1007-1017.	1.9	4
423	A novel method for the quantitative morphometric characterization of soluble salts on volcanic ash. <i>Bulletin of Volcanology</i> , 2022, 84, 1.	3.0	4
424	Hot Sintering of Melts, Glasses and Magmas. <i>Reviews in Mineralogy and Geochemistry</i> , 2022, 87, 801-840.	4.8	4
425	Inflated pyroclasts in proximal fallout deposits reveal abrupt transitions in eruption behaviour. <i>Nature Communications</i> , 2022, 13, .	12.8	4
426	Europium structural role in silicate glasses: Reduction kinetics at low oxygen fugacity. <i>Journal of Physics: Conference Series</i> , 2009, 190, 012179.	0.4	3
427	Interfacial tension between immiscible liquids in alkaline earth â€“ boron oxide binary systems. <i>Journal of Non-Crystalline Solids</i> , 2010, 356, 1163-1167.	3.1	3
428	A viscousâ€“brittle transition in eruptions through clay suspensions. <i>Geophysical Research Letters</i> , 2017, 44, 4806-4813.	4.0	3
429	Forecasting Multiphase Magma Failure at the Laboratory Scale Using Acoustic Emission Data. <i>Frontiers in Earth Science</i> , 2018, 6, .	1.8	3
430	Rheological change and degassing during a trachytic Vulcanian eruption at Kilian Volcano, ChaÃˆne des Puy, France. <i>Bulletin of Volcanology</i> , 2020, 82, 1.	3.0	3
431	Host Rock Variability Powers the Diversity of Steamâ€“Driven Eruptions. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL089025.	4.0	3
432	Complex geometry of volcanic vents and asymmetric particle ejection: experimental insights. <i>Bulletin of Volcanology</i> , 2022, 84, .	3.0	3

#	ARTICLE	IF	CITATIONS
433	Solubility of Water in Albite-Melt Determined by the Weight Loss Method: A Discussion. <i>Journal of Geology</i> , 1987, 95, 583-584.	1.4	2
434	Reply to: Comment on: Supercooled diopside melt: confirmation of temperature-dependent expansivity using container-based dilatometry by J. Gottsmann and D.B. Dingwell. <i>Contributions To Mineralogy and Petrology</i> , 2002, 142, 759-762.	3.1	2
435	The feasibility of vitrifying a sandstone enclosure in the British Iron Age. <i>Journal of Archaeological Science: Reports</i> , 2015, 4, 605-612.	0.5	2
436	Trashcano: Developing a quantitative teaching tool to understand ballistics accelerated by explosive volcanic eruptions. <i>Volcanica</i> , 2018, 1, 107-126.	1.8	2
437	Vesiculation of Rhyolitic Melts Under Oscillatory Pressure. <i>Frontiers in Earth Science</i> , 2022, 10, .	1.8	2
438	Universal scaling for the permeability of random packs of overlapping and nonoverlapping particles. <i>Physical Review E</i> , 2022, 105, L043301.	2.1	2
439	Introduction to C. M. Scarfe Memorial: Special Section on Silicate Melts and Mantle Petrogenesis. <i>Journal of Geophysical Research</i> , 1990, 95, 15663-15664.	3.3	1
440	Reply to the comment by E. F. Riebling on "Glass-forming oxide melts of possible geological import revisited?". <i>Geochimica Et Cosmochimica Acta</i> , 1996, 60, 537.	3.9	1
441	Granite and granitic pegmatite melts: volumes and viscosities. , 1996, , .		1
442	Volcanic glass and its suitability to recover the ancient geomagnetic field strength. <i>Geological Society Special Publication</i> , 2015, 396, 265-276.	1.3	1
443	Novel Thermal Barrier Coatings Resistant to Molten Volcanic Ash Deposition. <i>SSRN Electronic Journal</i> , 0, , .	0.4	1
444	Fragmentation behavior of eruptive products of Popocatepetl volcano: an experimental contribution. <i>Geofisica International</i> , 2019, 58, 49-72.	0.2	1
445	Using obsidian in glass art practice. <i>Volcanica</i> , 2022, 5, 183-207.	1.8	1
446	Memorial to Christopher Martin Scarfe. <i>Journal of Geophysical Research</i> , 1990, 95, 15661-15662.	3.3	0
447	Measurement and implication of "effective" viscosity for rhyolite flow emplacement. <i>Bulletin of Volcanology</i> , 2001, 63, 362-362.	3.0	0
448	8th Silicate Melt Workshop. <i>Chemical Geology</i> , 2008, 256, 77-79.	3.3	0
449	The Peacock Medal For 2015 To Donald Bruce Dingwell. <i>Canadian Mineralogist</i> , 2016, 54, 781-783.	1.0	0
450	Fall-experiments on Merapi basaltic andesite and constraints on the generation of pyroclastic surges. <i>Earth Discussions</i> , 2006, 1, 81-96.	0.3	0

#	ARTICLE	IF	CITATIONS
451	Dynamic melting behavior of volcanic ash subjected to thermal shock relevant to aviation hazards. Journal of Volcanology and Geothermal Research, 2022, 429, 107597.	2.1	0