

Donald B Dingwell

List of Publications by Year in descending order

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449
papers

23,952
citations

8159

76
h-index

15218

126
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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.	1.8	1,257
2	Relaxation in silicate melts. <i>European Journal of Mineralogy</i> , 1990, 2, 427-451.	0.4	454
3	Repeated fracture and healing of silicic magma generate flow banding and earthquakes?. <i>Geology</i> , 2003, 31, 1089.	2.0	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.	0.3	311
5	Volcanic Dilemma—Flow or Blow?. <i>Science</i> , 1996, 273, 1054-1055.	6.0	310
6	Magma fragmentation by rapid decompression. <i>Nature</i> , 1996, 380, 146-148.	13.7	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.	1.7	286
8	H ₂ O solubility in haplogranitic melts; compositional, pressure, and temperature dependence. <i>American Mineralogist</i> , 1995, 80, 94-108.	0.9	281
9	The trigger mechanism of low-frequency earthquakes on Montserrat. <i>Journal of Volcanology and Geothermal Research</i> , 2006, 153, 37-50.	0.8	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.	1.6	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.	13.7	238
13	The fragmentation threshold of pyroclastic rocks. <i>Earth and Planetary Science Letters</i> , 2004, 226, 139-148.	1.8	230
14	Fault textures in volcanic conduits: evidence for seismic trigger mechanisms during silicic eruptions. <i>Bulletin of Volcanology</i> , 2005, 67, 370-387.	1.1	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.	1.1	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.	1.2	211
17	Rapid ascent of rhyolitic magma at Chait�n volcano, Chile. <i>Nature</i> , 2009, 461, 780-783.	13.7	210
18	Near-infrared spectroscopic determination of water species in glasses of the system MAiSi ₃ O ₈ (M = Li, Tj ETQqO 0,0rgBT /Overlock 10	1.4	204

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19	Permeability and degassing of dome lavas undergoing rapid decompression: An experimental determination. <i>Bulletin of Volcanology</i> , 2005, 67, 526-538.	1.1	189
20	Non-Arrhenian multicomponent melt viscosity: a model. <i>Earth and Planetary Science Letters</i> , 2003, 208, 337-349.	1.8	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.	1.4	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.	1.6	177
23	Viscosity of hydrous Etna basalt: implications for Plinian-style basaltic eruptions. <i>Bulletin of Volcanology</i> , 2003, 65, 8-14.	1.1	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.	1.6	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.	1.6	172
26	The rheology of crystal-bearing basaltic magmas from Stromboli and Etna. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 3214-3236.	1.6	166
27	Non-Newtonian rheological law for highly crystalline dome lavas. <i>Geology</i> , 2007, 35, 843.	2.0	164
28	Seismogenic lavas and explosive eruption forecasting. <i>Nature</i> , 2008, 453, 507-510.	13.7	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.	0.9	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.	1.4	155
31	Effect of alkalis, phosphorus, and water on the surface tension of haplogranite melt. <i>American Mineralogist</i> , 2000, 85, 33-40.	0.9	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.	0.8	150
33	Fluorine in silicate glasses: A multinuclear nuclear magnetic resonance study. <i>Geochimica Et Cosmochimica Acta</i> , 1992, 56, 701-707.	1.6	144
34	Liquid Immiscibility and the Evolution of Basaltic Magma. <i>Journal of Petrology</i> , 2007, 48, 2187-2210.	1.1	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.	1.6	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.	1.6	135

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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.	1.6	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.	1.2	132
39	Permeability control on magma fragmentation. <i>Geology</i> , 2008, 36, 399.	2.0	130
40	A rheological investigation of vesicular rhyolite. <i>Journal of Volcanology and Geothermal Research</i> , 1992, 50, 307-322.	0.8	129
41	Water solubility in aluminosilicate melts of haplogranite composition at 2 kbar. <i>Chemical Geology</i> , 1992, 96, 289-302.	1.4	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.	1.4	126
43	The influence of excess alkalis on the viscosity of a haplogranitic melt. <i>American Mineralogist</i> , 1995, 80, 297-304.	0.9	124
44	The onset of non-Newtonian rheology of silicate melts. <i>Physics and Chemistry of Minerals</i> , 1990, 17, 125.	0.3	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.	3.2	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.	2.0	113
47	Volcanic ash melting under conditions relevant to ash turbine interactions. <i>Nature Communications</i> , 2016, 7, 10795.	5.8	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.	1.2	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.	1.6	107
50	Reconstructing magma failure and the degassing network of dome-building eruptions. <i>Geology</i> , 2013, 41, 515-518.	2.0	106
51	Three fragmentation mechanisms for highly viscous magma under rapid decompression. <i>Journal of Volcanology and Geothermal Research</i> , 2000, 100, 413-421.	0.8	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.	0.8	101
53	Rheological properties of dome lavas: Case study of Unzen volcano. <i>Earth and Planetary Science Letters</i> , 2009, 279, 263-272.	1.8	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.	0.8	101

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55	Thermodynamic and rheological properties of rhyolite and andesite melts. Contributions To Mineralogy and Petrology, 1993, 113, 572-581.	1.2	98
56	The evolution of pore connectivity in volcanic rocks. Earth and Planetary Science Letters, 2017, 462, 99-109.	1.8	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.	0.8	94
58	Heterogeneity: The key to failure forecasting. Scientific Reports, 2015, 5, 13259.	1.6	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.	1.6	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.	0.8	92
61	Enhancement of magma mixing efficiency by chaotic dynamics: an experimental study. Contributions To Mineralogy and Petrology, 2011, 161, 863-881.	1.2	91
62	Volcanic sintering: Timescales of viscous densification and strength recovery. Geophysical Research Letters, 2013, 40, 5658-5664.	1.5	91
63	Chemical diffusivities of 18 trace elements in granitoid melts. Geochimica Et Cosmochimica Acta, 1999, 63, 2599-2610.	1.6	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.	1.2	88
65	Aggregation-dominated ash settling from the Eyjafjallajökull volcanic cloud illuminated by field and laboratory high-speed imaging. Geology, 2011, 39, 891-894.	2.0	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.	1.2	87
67	Viscosity of peridotite liquid. Earth and Planetary Science Letters, 2004, 226, 127-138.	1.8	86
68	Magmatic architecture of dome-building eruptions at Volcãjn de Colima, Mexico. Bulletin of Volcanology, 2012, 74, 249-260.	1.1	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.	1.6	83
70	The viscosity of trachytes, and comparison with basalts, phonolites, and rhyolites. Chemical Geology, 2004, 213, 49-61.	1.4	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.	1.6	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.	1.6	82

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73	Explosive energy during volcanic eruptions from fractal analysis of pyroclasts. <i>Earth and Planetary Science Letters</i> , 2006, 248, 800-807.	1.8	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.	0.8	81
75	The dry and hydrous viscosities of alkaline melts from Vesuvius and Phlegrean Fields. <i>Chemical Geology</i> , 2003, 202, 23-38.	1.4	80
76	Lava flow rheology: A comparison of morphological and petrological methods. <i>Earth and Planetary Science Letters</i> , 2013, 384, 109-120.	1.8	79
77	Effects of structural relaxation on cationic tracer diffusion in silicate melts. <i>Chemical Geology</i> , 1990, 82, 209-216.	1.4	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.	1.2	78
79	Experimental generation of volcanic lightning. <i>Geology</i> , 2014, 42, 79-82.	2.0	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.	1.8	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.	1.6	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.	1.4	77
83	A compositional tipping point governing the mobilization and eruption style of rhyolitic magma. <i>Nature</i> , 2017, 552, 235-238.	13.7	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.	1.4	76
85	Conduit implosion during Vulcanian eruptions. <i>Geology</i> , 2005, 33, 581.	2.0	76
86	Timescales of spherulite crystallization in obsidian inferred from water concentration profiles. <i>American Mineralogist</i> , 2008, 93, 1816-1822.	0.9	76
87	Evaluation of a relaxation geospeedometer for volcanic glasses. <i>Chemical Geology</i> , 1995, 125, 137-148.	1.4	75
88	Trace element mobility during magma mixing: Preliminary experimental results. <i>Chemical Geology</i> , 2008, 256, 146-157.	1.4	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.	0.9	74
90	V oxidation state and coordination number in silicate glasses by XAS. <i>American Mineralogist</i> , 2004, 89, 1640-1646.	0.9	74

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91	Tracking the permeable porous network during strain-dependent magmatic flow. <i>Journal of Volcanology and Geothermal Research</i> , 2013, 260, 117-126.	0.8	74
92	Volcanic drumbeat seismicity caused by stick-slip motion and magmatic frictional melting. <i>Nature Geoscience</i> , 2014, 7, 438-442.	5.4	74
93	Universal scaling of fluid permeability during volcanic welding and sediment diagenesis. <i>Geology</i> , 2016, 44, 219-222.	2.0	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.	1.9	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.	1.8	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.	1.6	73
98	Nonisothermal viscous sintering of volcanic ash. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 8792-8804.	1.4	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.	1.6	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.	1.6	68
101	X-ray absorption study of Ti-bearing silicate glasses. <i>Physics and Chemistry of Minerals</i> , 1994, 21, 501.	0.3	68
102	Energy consumption by magmatic fragmentation and pyroclast ejection during Vulcanian eruptions. <i>Earth and Planetary Science Letters</i> , 2010, 291, 60-69.	1.8	68
103	Heated gas bubbles enrich, crystallize, dry, phosphorylate and encapsulate prebiotic molecules. <i>Nature Chemistry</i> , 2019, 11, 779-788.	6.6	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.	0.8	65
105	Tube pumices as strain markers of the ductile–brittle transition during magma fragmentation. <i>Nature</i> , 1999, 402, 650-653.	13.7	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.	0.7	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.	1.8	63
108	Fragmentation of foamed silicic melts: an experimental study. <i>Earth and Planetary Science Letters</i> , 2000, 178, 47-58.	1.8	62

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109	Hyperquenched volcanic glass from Loihi Seamount, Hawaii. <i>Earth and Planetary Science Letters</i> , 2008, 270, 54-62.	1.8	62
110	Strength and permeability recovery of tuffisite-bearing andesite. <i>Solid Earth</i> , 2012, 3, 191-198.	1.2	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.	1.4	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	1.0	61
114	Temperature-dependent thermal expansivities of silicate melts: The system anorthite-diopside. <i>Geochimica Et Cosmochimica Acta</i> , 1992, 56, 689-699.	1.6	60
115	Parametrization of viscosity-temperature relations of aluminosilicate melts. <i>Chemical Geology</i> , 1996, 128, 155-163.	1.4	60
116	Temperature dependence of Pt and Rh solubilities in a haplobasaltic melt. <i>Geochimica Et Cosmochimica Acta</i> , 2003, 67, 123-131.	1.6	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.	1.8	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.	1.0	59
119	The rheology of peralkaline rhyolites from Pantelleria Island. <i>Journal of Volcanology and Geothermal Research</i> , 2013, 249, 201-216.	0.8	59
120	Microlites and "nanolites" in rhyolitic glass: microstructural and chemical characterization. <i>Bulletin of Volcanology</i> , 1996, 57, 631-640.	1.1	58
121	An experimental facility for the investigation of magma fragmentation by rapid decompression. <i>Bulletin of Volcanology</i> , 1996, 58, 411-416.	1.1	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.	1.5	58
123	How tough is tuff in the event of fire?. <i>Geology</i> , 2012, 40, 311-314.	2.0	58
124	Thermal properties of vesicular rhyolite. <i>Journal of Volcanology and Geothermal Research</i> , 1994, 60, 179-191.	0.8	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.	0.9	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.	1.4	57

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127	The porosity of pyroclasts as an indicator of volcanic explosivity. <i>Journal of Volcanology and Geothermal Research</i> , 2011, 203, 168-174.	0.8	57
128	Fusion characteristics of volcanic ash relevant to aviation hazards. <i>Geophysical Research Letters</i> , 2014, 41, 2326-2333.	1.5	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.	1.8	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.	1.6	56
131	Viscoelasticity of crystal- and bubble-bearing rhyolite melts. <i>Physics of the Earth and Planetary Interiors</i> , 1994, 83, 83-99.	0.7	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.	1.6	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.	1.6	56
134	Viscosity of a Teide phonolite in the welding interval. <i>Journal of Volcanology and Geothermal Research</i> , 2000, 103, 239-245.	0.8	56
135	Effect of aluminum on Ti-coordination in silicate glasses: A XANES study. <i>American Mineralogist</i> , 2000, 85, 108-117.	0.9	56
136	Magma fragmentation speed: an experimental determination. <i>Journal of Volcanology and Geothermal Research</i> , 2004, 129, 109-123.	0.8	56
137	XAS determination of the Fe local environment and oxidation state in phonolite glasses. <i>American Mineralogist</i> , 2011, 96, 631-636.	0.9	56
138	Novel thermal barrier coatings repel and resist molten silicate deposits. <i>Scripta Materialia</i> , 2019, 163, 71-76.	2.6	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.	0.4	56
140	The solubility of H ₂ O in peralkaline and peraluminous granitic melts. <i>American Mineralogist</i> , 1997, 82, 434-437.	0.9	55
141	The glass transition in hydrous granitic melts. <i>Physics of the Earth and Planetary Interiors</i> , 1998, 107, 1-8.	0.7	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.	1.1	55
143	The thermal stability of Eyjafjallajökull ash versus turbine ingestion test sands. <i>Journal of Applied Volcanology</i> , 2014, 3, .	0.7	55
144	Increase in radon emission due to rock failure: An experimental study. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	53

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145	Approximate chemical analysis of volcanic glasses using Raman spectroscopy. <i>Journal of Raman Spectroscopy</i> , 2015, 46, 1235-1244.	1.2	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.	1.6	52
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