Marian Holness

List of Publications by Year
in descending order

68 papers	3,117 citations	147801 31 h-index	161849 54 g-index
70 all docs	70 docs citations	70 times ranked	1654 citing authors

#	Article	IF	Citations
1	On the Pseudomorphing of Melt-filled Pores During the Crystallization of Migmatites. Journal of Petrology, 2008, 49, 1343-1363.	2.8	241
2	Melted Rocks under the Microscope: Microstructures and Their Interpretation. Elements, 2011, 7, 247-252.	0.5	162
3	Differentiation and Compaction in the Skaergaard Intrusion. Journal of Petrology, 2009, 50, 813-840.	2.8	144
4	Silicate Liquid Immiscibility within the Crystal Mush: Late-stage Magmatic Microstructures in the Skaergaard Intrusion, East Greenland. Journal of Petrology, 2011, 52, 175-222.	2.8	132
5	Temperature and pressure dependence of quartz-aqueous fluid dihedral angles: the control of adsorbed H2O on the permeability of quartzites. Earth and Planetary Science Letters, 1993, 117, 363-377.	4.4	129
6	Meltâ€“Solid Dihedral Angles of Common Minerals in Natural Rocks. Journal of Petrology, 2006, 47, 791-800.	2.8	104
7	Partial melting of the Appin Quartzite driven by fracture-controlled H 2 O infiltration in the aureole of the Ballachulish Igneous Complex, Scottish Highlands. Contributions To Mineralogy and Petrology, 1999, 136, 154-168.	3.1	102
8	On the Use of Changes in Dihedral Angle to Decode Late-stage Textural Evolution in Cumulates. Journal of Petrology, 2005, 46, 1565-1583.	2.8	102
9	Melt segregation from silicic crystal mushes: a critical appraisal of possible mechanisms and their microstructural record. Contributions To Mineralogy and Petrology, 2018, 173, 48.	3.1	93
10	Equilibrium dihedral angles in the system H2Oâ^'CO2â^'NaCl-calcite, and implications for fluid flow during metamorphism. Contributions To Mineralogy and Petrology, 1991, 108, 368-383.	3.1	88
11	Equilibrium dihedral angles in the system quartz-CO2H2ONaCl at 800Â°C and 1â€“15 kbar: the effects of pressure and fluid composition on the permeability of quartzites. Earth and Planetary Science Letters, 1992, 114, 171-184.	4.4	85
12	A Textural Record of Solidification and Cooling in the Skaergaard Intrusion, East Greenland. Journal of Petrology, 2007, 48, 2359-2377.	2.8	80
13	Assessing the Role of Compaction in the Formation of Adcumulates: a Microstructural Perspective. Journal of Petrology, 2017, 58, 643-673.	2.8	78
14	Dual origin of Feâ€“Tiâ€“P gabbros by immiscibility and fractional crystallization of evolved tholeiitic basalts in the Sept Iles layered intrusion. Lithos, 2012, 154, 100-114.	1.4	74
15	The Skaergaard PGE and Gold Deposit: the Result ofin situFractionation, Sulphide Saturation, and Magma Chamber-scale Precious Metal Redistribution by Immiscible Fe-rich Melt. Journal of Petrology, 2015, 56, 1643-1676.	2.8	73
16	Textures in Partially Solidified Crystalline Nodules: a Window into the Pore Structure of Slowly Cooled Mafic Intrusions. Journal of Petrology, 2007, 48, 1243-1264.	2.8	69
17	Textural Maturity of Cumulates: a Record of Chamber Filling, Liquidus Assemblage, Cooling Rate and Large-scale Convection in Mafic Layered Intrusions. Journal of Petrology, 2006, 48, 141-157.	2.8	67
18	Infiltration Metasomatism of Cumulates by Intrusive Magma Replenishment: the Wavy Horizon, Isle of Rum, Scotland. Journal of Petrology, 2007, 48, 563-587.	2.8	62

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19	Textural analysis of magmatic enclaves from the Kameni Islands, Santorini, Greece. Journal of Volcanology and Geothermal Research, 2006, 154, 89-102.	2.1	59
20	Spatial Constraints on Magma Chamber Replenishment Events from Textural Observations of Cumulates: the Rum Layered Intrusion, Scotland. Journal of Petrology, 2005, 46, 1585-1601.	2.8	51
21	P-T-X effects on equilibrium carbonate-H2O-CO2-NaCl dihedral angles: constraints on carbonate permeability and the role of deformation during fluid infiltration. Contributions To Mineralogy and Petrology, 1995, 119, 301-313.	3.1	50
22	Quartz recrystallization and fluid flow during contact metamorphism: a cathodoluminescence study. Geofluids, 2001, 1, 215-228.	0.7	48
23	The effect of feldspar on quartz-H2Oâ^'CO2 dihedral angles at 4 kbar, with consequences for the behaviour of aqueous fluids in migmatites. Contributions To Mineralogy and Petrology, 1995, 118, 356-364.	3.1	41
24	Fluid flow paths and mechanisms of fluid infiltration in carbonates during contact metamorphism: the Beinn an Dubhaich aureole, Skye. Journal of Metamorphic Geology, 1997, 15, 59-70.	3.4	41
25	Contact metamorphism and anatexis of Torridonian arkose by minor intrusions of the Rum Igneous Complex, Inner Hebrides, Scotland. Geological Magazine, 1999, 136, 527-542.	1.5	41
26	The effect of crystallization time on plagioclase grain shape in dolerites. Contributions To Mineralogy and Petrology, 2014, 168, 1.	3.1	41
27	On the kinetics of textural equilibration in forsterite marbles. Contributions To Mineralogy and Petrology, 1991, 108, 356-367.	3.1	39
28	The role of crystal frameworks in the preservation of enclaves during magma mixing. Earth and Planetary Science Letters, 2006, 248, 787-799.	4.4	36
29	Magma chambers versus mush zones: constraining the architecture of sub-volcanic plumbing systems from microstructural analysis of crystalline enclaves. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180006.	3.4	36
30	Toward an understanding of disequilibrium dihedral angles in mafic rocks. Journal of Geophysical Research, 2012, 117, .	3.3	35
31	Crystallization of Interstitial Liquid and Latent Heat Buffering in Solidifying Gabbros: Skaergaard Intrusion, Greenland. Journal of Petrology, 2014, 55, 1389-1427.	2.8	34
32	A granite?gabbro complex from Madagascar: constraints on melting of the lower crust. Contributions To Mineralogy and Petrology, 2003, 145, 585-599.	3.1	32
33	The Unit 12 allivalite, Eastern Layered Intrusion, Isle of Rum: a textural and geochemical study of an open-system magma chamber. Geological Magazine, 2009, 146, 437-450.	1.5	32
34	Lateral Reactive Infiltration in a Vertical Gabbroic Crystal Mush, Skaergaard Intrusion, East Greenland. Journal of Petrology, 2013, 54, 985-1016.	2.8	31
35	The rates and extent of textural equilibration in high-temperature fluid-bearing systems. Chemical Geology, 2000, 162, 137-153.	3.3	29
36	Disequilibrium dihedral angles in dolerite sills: A new proxy for cooling rate. Geology, 2012, 40, 795-798.	4.4	29

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37	Crystal settling and convection in the Shiant Isles Main Sill. Contributions To Mineralogy and Petrology, 2017, 172, 7.	3.1	29
38	Metamorphism and Fluid Infiltration of the Calc-silicate Aureole of the Beinn an Dubhaich Granite, Skye. Journal of Petrology, 1992, 33, 1261-1293.	2.8	27
39	Growth and albitization of K-feldspar in crystalline rocks in the shallow crust: a tracer for fluid circulation during exhumation?. Geofluids, 2003, 3, 89-102.	0.7	27
40	Textural immaturity of cumulates as an indicator of magma chamber processes: infiltration and crystal accumulation in the Rum Eastern Layered Intrusion. Journal of the Geological Society, 2007, 164, 529-539.	2.1	26
41	Melting and melt segregation in the aureole of the Glenmore Plug, Ardnamurchan. Journal of Metamorphic Geology, 2005, 23, 29-43.	3.4	25
42	Quantitative textural analysis of packings of elongate crystals. Contributions To Mineralogy and Petrology, 2008, 156, 413-429.	3.1	24
43	Melt-rich segregations in the Skaergaard Marginal Border Series: Tearing of a vertical silicate mush. Lithos, 2010, 119, 181-192.	1.4	24
44	The Earliest History of the Skaergaard Magma Chamber: a Textural and Geochemical Study of the Cambridge Drill Core. Journal of Petrology, 2015, 56, 1199-1227.	2.8	24
45	Disequilibrium Dihedral Angles in Layered Intrusions: a Microstructural Record of Fractionation. Journal of Petrology, 2013, 54, 2067-2093.	2.8	23
46	Controls on the mechanisms of fluid infiltration and front advection during regional metamorphism: a stable isotope and textural study of retrograde Dalradian rocks of the SW Scottish Highlands. Journal of Metamorphic Geology, 1994, 12, 249-260.	3.4	22
47	The aureole of the Rum Tertiary Igneous Complex, Scotland. Journal of the Geological Society, 2003, 160, 15-27.	2.1	22
48	The Thickness of the Mushy Layer on the Floor of the Skaergaard Magma Chamber at Apatite Saturation. Journal of Petrology, 2017, 58, 909-932.	2.8	21
49	The peridotite plugs of Rum: Crystal settling and fabric development in magma conduits. Lithos, 2012, 134-135, 23-40.	1.4	20
50	Local deformation in compacting flows: development of pressure shadows. Earth and Planetary Science Letters, 2000, 180, 169-184.	4.4	18
51	The Creation and Evolution of Crystal Mush in the Upper Zone of the Rustenburg Layered Suite, Bushveld Complex, South Africa. Journal of Petrology, 2019, 60, 1523-1542.	2.8	18
52	Insights into continental rift-related magma chambers: Cognate nodules from the Kula Volcanic Province, Western Turkey. Journal of Volcanology and Geothermal Research, 2006, 153, 241-261.	2.1	17
53	Palaeohydrology of the calcsilicate aureole of the Beinn an Dubhaich granite, Skye, Scotland: a stable isotopic study. Journal of Metamorphic Geology, 1997, 15, 71-83.	3.4	16
54	Information about open-system magma chambers derived from textures in magmatic enclaves: the Kameni Islands, Santorini, Greece. Geological Magazine, 2005, 142, 637-649.	1.5	15

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55	Interstitial magmatic scapolite in glass-bearing crystalline nodules from the Kula Volcanic Province, Western Turkey. Mineralogical Magazine, 2008, 72, 1243-1259.	1.4	13
56	Early mafic magmatism and crustal anatexis on the Isle of Rum: evidence from the Am MÃm intrusion breccia. Geological Magazine, 2009, 146, 368-381.	1.5	13
57	Microstructures and Late-Stage Magmatic Processes in Layered Mafic Intrusions: Symplectites from the Sept Iles Intrusion, Quebec, Canada. Journal of Petrology, 2020, 61, .	2.8	13
58	Geochemical self-organization of olivine-grade contact metamorphosed chert nodules in dolomite marble, Kilchrist, Skye. Journal of Metamorphic Geology, 1997, 15, 765-775.	3.4	12
59	Contrasting rock permeability in the aureole of the Ballachulish igneous complex, Scottish Highlands: the influence of surface energy?. Contributions To Mineralogy and Petrology, 1998, 131, 86-94.	3.1	12
60	Metasomatism and self-organization of dolerite dyke-marble contacts: Beinn an Dubhaich, Skye. Journal of Metamorphic Geology, 2000, 18, 103-118.	3.4	11
61	Orientation of Tabular Mafic Intrusions Controls Convective Vigour and Crystallization Style. Journal of Petrology, 2017, 58, 2035-2053.	2.8	11
62	Spherulitic textures formed during crystallization of partially melted arkose, Rum, Scotland. Geological Magazine, 2002, 139, 651-663.	1.5	10
63	Response to Comment by McBirney, Boudreau and Marsh. Journal of Petrology, 2009, 50, 97-102.	2.8	9
64	Contact Metamorphism of Precambrian Gneiss by the Skaergaard Intrusion. Journal of Petrology, 2014, 55, 1595-1617.	2.8	8
65	Imprinted textures on apatite: A guide to paleoporosity and metamorphic recrystallization. Geology, 2006, 34, 897.	4.4	6
66	The campsite dykes: A window into the early post-solidification history of the Skaergaard Intrusion, East Greenland. Lithos, 2013, 182-183, 134-149.	1.4	6
67	GEOCHEMISTRY: How Melted Rock Migrates. Science, 2006, 314, 934-935.	12.6	3
68	Growth and albitisation of K-feldspar in crystalline rocks in theshallow crust: a new kind of porosity?. Journal of Geochemical Exploration, 2003, 78-79, 173-177.	3.2	2