

# Maxim V Portnyagin

## List of Publications by Year in descending order

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107  
papers

3,633  
citations

136950

32  
h-index

144013

57  
g-index

107  
all docs

107  
docs citations

107  
times ranked

2546  
citing authors

#	ARTICLE	IF	CITATIONS
1	Chlorine isotope behavior in subduction zone settings revealed by olivine-hosted melt inclusions from the Central America Volcanic Arc. <i>Earth and Planetary Science Letters</i> , 2022, 581, 117414.	4.4	2
2	Large-magnitude (VEI 7) explosive silicic eruption preserved a Lower Miocene habitat at the Ipolytarná <sup>3</sup> c Fossil Site, North Hungary. <i>Scientific Reports</i> , 2022, 12, .	3.3	4
3	Major and trace element composition of olivine from magnesian skarns and silicate marbles. <i>American Mineralogist</i> , 2021, 106, 206-215.	1.9	9
4	Land-sea correlations in the Eastern Mediterranean region over the past c. 800 kyr based on macro- and cryptotephra from ODP Site 964 (Ionian Basin). <i>Quaternary Science Reviews</i> , 2021, 255, 106811.	3.0	7
5	The first continuous late Pleistocene tephra record from Kamchatka Peninsula (NW Pacific) and its volcanological and paleogeographic implications. <i>Quaternary Science Reviews</i> , 2021, 257, 106838.	3.0	14
6	Gigantic eruption of a Carpathian volcano marks the largest Miocene transgression of Eastern Paratethys. <i>Earth and Planetary Science Letters</i> , 2021, 563, 116890.	4.4	6
7	<sup>40</sup> Ar/ <sup>39</sup> Ar ages and bulk-rock chemistry of the lower submarine units of the central and western Aleutian Arc. <i>Lithos</i> , 2021, 392-393, 106147.	1.4	0
8	Papanin Ridge and Ojin Rise Seamounts (Northwest Pacific): Dual Hotspot Tracks Formed by the Shatsky Plume. <i>Geochemistry, Geophysics, Geosystems</i> , 2021, 22, e2021GC009847.	2.5	6
9	In situ quantification of the nitrogen content of olivine-hosted melt inclusions from Klyuchevskoy volcano (Kamchatka): Implications for nitrogen recycling at subduction zones. <i>Chemical Geology</i> , 2021, 582, 120456.	3.3	5
10	A latest Pleistocene and Holocene composite tephrostratigraphic framework for northeastern North America. <i>Quaternary Science Reviews</i> , 2021, 272, 107242.	3.0	9
11	Tephrochronological dating of paleoearthquakes in active volcanic arcs: A case of the Eastern Volcanic Front on the Kamchatka Peninsula (northwest Pacific). <i>Journal of Quaternary Science</i> , 2020, 35, 349-361.	2.1	9
12	Middle to late Pleistocene record of explosive volcanic eruptions in marine sediments offshore Kamchatka (Meiji Rise, NW Pacific). <i>Journal of Quaternary Science</i> , 2020, 35, 362-379.	2.1	11
13	Detailed tephrochronology and composition of major Holocene eruptions from Avachinsky, Kozelsky, and Koryaksky volcanoes in Kamchatka. <i>Journal of Volcanology and Geothermal Research</i> , 2020, 408, 107088.	2.1	9
14	Amphibole record of the 1964 plinian and following dome-forming eruptions of Shiveluch volcano, Kamchatka. <i>Journal of Volcanology and Geothermal Research</i> , 2020, 407, 107108.	2.1	6
15	Composition, crystallization conditions and genesis of sulfide-saturated parental melts of olivine-phyric rocks from Kamchatsky Mys (Kamchatka, Russia). <i>Lithos</i> , 2020, 370-371, 105657.	1.4	5
16	Coseismic coastal subsidence associated with unusually wide rupture of prehistoric earthquakes on the Kamchatka subduction zone: A record in buried erosional scarps and tsunami deposits. <i>Quaternary Science Reviews</i> , 2020, 233, 106171.	3.0	19
17	Identification of Icelandic tephra from the last two millennia in the White Sea region (Vodoprovodnoe peat bog, northwestern Russia). <i>Journal of Quaternary Science</i> , 2020, 35, 493-504.	2.1	6
18	Estimation of CO <sub>2</sub> Content in the Gas Phase of Melt Inclusions Using Raman Spectroscopy: Case Study of Inclusions in Olivine from the Karymsky Volcano (Kamchatka). <i>Russian Geology and Geophysics</i> , 2020, 61, 600-610.	0.7	10

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19	Chlorine in the Earth's Mantle as an Indicator of the Global Recycling of Oceanic Crust. <i>Russian Geology and Geophysics</i> , 2020, 61, 937-950.	0.7	5
20	TephraKam: geochemical database of glass compositions in tephra and welded tuffs from the Kamchatka volcanic arc (northwestern Pacific). <i>Earth System Science Data</i> , 2020, 12, 469-486.	9.9	28
21	Composition of Volcanic Tuffs, Neotectonics, and Structure of the Upper Sedimentary Cover of the Osborn Plateau (Indian Ocean). <i>Oceanology</i> , 2020, 60, 691-703.	1.2	1
22	Deep hydrous mantle reservoir provides evidence for crustal recycling before 3.3 billion years ago. <i>Nature</i> , 2019, 571, 555-559.	27.8	64
23	Geological Studies in the Eastern Indian Ocean: Cruise SO258/1 of the R/V Sonne (Germany) with the Participation of Russian Researchers. <i>Oceanology</i> , 2019, 59, 276-278.	1.2	3
24	Compositions and Formation Conditions of Primitive Magmas of the Karymsky Volcanic Center, Kamchatka: Evidence from Melt Inclusions and Trace-Element Thermobarometry. <i>Petrology</i> , 2019, 27, 243-264.	0.9	15
25	New Olivine Reference Material for <i>In Situ</i> Microanalysis. <i>Geostandards and Geoanalytical Research</i> , 2019, 43, 453-473.	3.1	77
26	Long-Lasting Influence of the Discovery Plume on Tholeiitic Magmatism in the South Atlantic: Data on Basalts Recovered by Hole 513a, DSDP Leg 71. <i>Geochemistry International</i> , 2019, 57, 113-133.	0.7	1
27	Dehydration of melt inclusions in olivine and implications for the origin of silica-undersaturated island-arc melts. <i>Earth and Planetary Science Letters</i> , 2019, 517, 95-105.	4.4	32
28	Tephra layers of large explosive eruptions of Baitoushan/Changbaishan Volcano in the Japan Sea sediments. <i>Quaternary International</i> , 2019, 519, 200-214.	1.5	9
29	New Data on the Geology of Osborn Plateau, Indian Ocean. <i>Doklady Earth Sciences</i> , 2019, 489, 1469-1473.	0.7	0
30	Tephra and Cryptotephra on the East European Plain - new geochronological perspectives. , 2019, , .		0
31	Constraints on lithosphere-asthenosphere melt mixing in basaltic intraplate volcanism from olivine melt inclusions from southern Payenia, Argentina. <i>Lithos</i> , 2018, 310-311, 225-240.	1.4	3
32	Coupling of Redox Conditions of Mantle Melting and Copper and Sulfur Contents in Primary Magmas of the Tolbachinsky Dol (Kamchatka) and Juan de Fuca Ridge (Pacific Ocean). <i>Petrology</i> , 2018, 26, 145-166.	0.9	15
33	First identification of cryptotephra from the Kamchatka Peninsula in a Greenland ice core: Implications of a widespread marker deposit that links Greenland to the Pacific northwest. <i>Quaternary Science Reviews</i> , 2018, 181, 200-206.	3.0	32
34	Unexpected HIMU-type late-stage volcanism on the Walvis Ridge. <i>Earth and Planetary Science Letters</i> , 2018, 492, 251-263.	4.4	34
35	Reprint of Silicate-sulfide liquid immiscibility in modern arc basalt (Tolbachik volcano, Kamchatka): Part II. Composition, liquidus assemblage and fractionation of the silicate melt. <i>Chemical Geology</i> , 2018, 478, 112-130.	3.3	7
36	Belingwe komatiites (2.7 Ga) originate from a plume with moderate water content, as inferred from inclusions in olivine. <i>Chemical Geology</i> , 2018, 478, 39-59.	3.3	20

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37	Holocene tephra from the Chukchi-Alaskan margin, Arctic Ocean: Implications for sediment chronostratigraphy and volcanic history. <i>Quaternary Geochronology</i> , 2018, 45, 85-97.	1.4	11
38	Immiscible sulfide melts in primitive oceanic magmas: Evidence and implications from picrite lavas (Eastern Kamchatka, Russia). <i>American Mineralogist</i> , 2018, 103, 886-898.	1.9	29
39	The source of platinum group elements in basalts of the ophiolite complex of the Kamchatsky Mys Peninsula (Eastern Kamchatka). <i>Russian Geology and Geophysics</i> , 2018, 59, 1592-1602.	0.7	8
40	Ultramafic-Mafic Assemblage of Plutonic Rocks and Hornblende Schists of Shirshov Rise, Bering Sea, and Stalemate Ridge, Northwest Pacific: Geodynamic Interpretations of Geochemical Data. <i>Petrology</i> , 2018, 26, 492-514.	0.9	8
41	Large-magnitude Pauzhetka caldera-forming eruption in Kamchatka: Astrochronologic age, composition and tephra dispersal. <i>Journal of Volcanology and Geothermal Research</i> , 2018, 366, 1-12.	2.1	17
42	Chromium spinel in Late Quaternary volcanic rocks from Kamchatka: Implications for spatial compositional variability of subarc mantle and its oxidation state. <i>Lithos</i> , 2018, 322, 212-224.	1.4	23
43	Widespread tephra layers in the Bering Sea sediments: distal clues to large explosive eruptions from the Aleutian volcanic arc. <i>Bulletin of Volcanology</i> , 2018, 80, 1.	3.0	8
44	Volatile contents of primitive bubble-bearing melt inclusions from Klyuchevskoy volcano, Kamchatka: Comparison of volatile contents determined by mass-balance versus experimental homogenization. <i>Journal of Volcanology and Geothermal Research</i> , 2018, 358, 124-131.	2.1	22
45	Geochemistry of deep Manihiki Plateau crust: Implications for compositional diversity of large igneous provinces in the Western Pacific and their genetic link. <i>Chemical Geology</i> , 2018, 493, 553-566.	3.3	18
46	The Composition of Volcanic Ash and the Dynamics of the 2013-2016 Zhupanovsky Volcano Eruption. <i>Journal of Volcanology and Seismology</i> , 2018, 12, 155-171.	0.7	7
47	Experimental calibration and implications of olivine-melt vanadium oxybarometry for hydrous basaltic arc magmas. <i>American Mineralogist</i> , 2018, 103, 369-383.	1.9	32
48	Boninite-like intraplate magmas from Manihiki Plateau require ultra-depleted and enriched source components. <i>Nature Communications</i> , 2017, 8, 14322.	12.8	37
49	A full holocene tephrochronology for the Kamchatsky Peninsula region: Applications from Kamchatka to North America. <i>Quaternary Science Reviews</i> , 2017, 168, 101-122.	3.0	34
50	Late Glacial to Holocene paleoenvironmental change on the northwestern Pacific seaboard, Kamchatka Peninsula (Russia). <i>Quaternary Science Reviews</i> , 2017, 157, 14-28.	3.0	27
51	Silicate-sulfide liquid immiscibility in modern arc basalt (Tolbachik volcano, Kamchatka): Part II. Composition, liquidus assemblage and fractionation of the silicate melt. <i>Chemical Geology</i> , 2017, 471, 92-110.	3.3	35
52	Sr and O isotopes in western Aleutian seafloor lavas: Implications for the source of fluids and trace element character of arc volcanic rocks. <i>Earth and Planetary Science Letters</i> , 2017, 475, 169-180.	4.4	28
53	The role and conditions of second-stage mantle melting in the generation of low-Ti tholeiites and boninites: the case of the Manihiki Plateau and the Troodos ophiolite. <i>Contributions To Mineralogy and Petrology</i> , 2017, 172, 1.	3.1	33
54	Copper partitioning between olivine and melt inclusions and its content in primitive island-arc magmas of Kamchatka. <i>Petrology</i> , 2017, 25, 419-432.	0.9	18

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55	The Eyjafjallajökull AD 2010 eruption and the preservation of medium-sized eruptions in marine surface sediment offshore southern Iceland. <i>Quaternary Research</i> , 2017, 87, 386-406.	1.7	0
56	Can magmatic water contents be estimated from clinopyroxene phenocrysts in some lavas? A case study with implications for the origin of the Azores Islands. <i>Chemical Geology</i> , 2017, 466, 436-445.	3.3	12
57	Composition and conditions of formation of the parental melts of Jurassic dolerites of southwestern Crimea: Evidence from melt inclusions in olivine phenocrysts. <i>Petrology</i> , 2017, 25, 272-303.	0.9	5
58	Initial H <sub>2</sub> O content and conditions of parent magma origin for Gorely volcano (Southern Kamchatka) estimated by trace element thermobarometry. <i>Doklady Earth Sciences</i> , 2017, 472, 100-103.	0.7	8
59	Komatiites reveal a hydrous Archaean deep-mantle reservoir. <i>Nature</i> , 2016, 531, 628-632.	27.8	137
60	Tephra layers of in the quaternary deposits of the Sea of Okhotsk: Distribution, composition, age and volcanic sources. <i>Quaternary International</i> , 2016, 425, 248-272.	1.5	15
61	Dynamics of extrusive dome growth and variations in chemical and mineralogical composition of Young Shiveluch andesites in 2001–2013. <i>Journal of Volcanology and Seismology</i> , 2016, 10, 360-381.	0.7	5
62	Mineral composition of tephra layers in the Quaternary deposits of the Sea of Okhotsk: Heavy minerals associations and their geochemistry. <i>Geochemistry International</i> , 2016, 54, 167-196.	0.7	4
63	Tephra without Borders: Far-Reaching Clues into Past Explosive Eruptions. <i>Frontiers in Earth Science</i> , 2015, 3, .	1.8	44
64	Quantification of the CO <sub>2</sub> budget and H <sub>2</sub> O–CO <sub>2</sub> systematics in subduction-zone magmas through the experimental hydration of melt inclusions in olivine at high H <sub>2</sub> O pressure. <i>Earth and Planetary Science Letters</i> , 2015, 425, 1-11.	4.4	75
65	Tephra from andesitic Shiveluch volcano, Kamchatka, NW Pacific: chronology of explosive eruptions and geochemical fingerprinting of volcanic glass. <i>International Journal of Earth Sciences</i> , 2015, 104, 1459-1482.	1.8	49
66	The Role of Subducted Basalt in the Source of Island Arc Magmas: Evidence from Seafloor Lavas of the Western Aleutians. <i>Journal of Petrology</i> , 2015, 56, 441-492.	2.8	96
67	Olivine Major and Trace Element Compositions in Southern Payenia Basalts, Argentina: Evidence for Pyroxenite–Peridotite Melt Mixing in a Back-arc Setting. <i>Journal of Petrology</i> , 2015, 56, 1495-1518.	2.8	51
68	Geochemistry of the late Holocene rocks from the Tolbachik volcanic field, Kamchatka: Quantitative modelling of subduction-related open magmatic systems. <i>Journal of Volcanology and Geothermal Research</i> , 2015, 307, 133-155.	2.1	53
69	Volcanic ash layers in Lake El'gygytgyn: eight new regionally significant chronostratigraphic markers for western Beringia. <i>Climate of the Past</i> , 2014, 10, 1041-1062.	3.4	12
70	Contrasting compositional trends of rocks and olivine-hosted melt inclusions from Cerro Negro volcano (Central America): implications for decompression-driven fractionation of hydrous magmas. <i>International Journal of Earth Sciences</i> , 2014, 103, 1963-1982.	1.8	15
71	Petrology and geochemistry of plutonic rocks in the Northwest Pacific Ocean and their geodynamic interpretation. <i>Geochemistry International</i> , 2014, 52, 179-196.	0.7	3
72	Contrasting conditions of rift and off-rift silicic magma origin on Iceland. <i>Geophysical Research Letters</i> , 2014, 41, 5813-5820.	4.0	22

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73	Two-stage evolution of mantle peridotites from the Stalemate Fracture Zone, northwestern Pacific. <i>Geochemistry International</i> , 2013, 51, 683-695.	0.7	6
74	Early Holocene M-6 explosive eruption from Plosky volcanic massif (Kamchatka) and its tephra as a link between terrestrial and marine paleoenvironmental records. <i>International Journal of Earth Sciences</i> , 2013, 102, 1673-1699.	1.8	55
75	Volcanic structure and composition of Old Shiveluch volcano, Kamchatka. <i>Journal of Volcanology and Geothermal Research</i> , 2013, 263, 193-208.	2.1	26
76	Marker tephra layers in the late quaternary deposits of the Sea of Okhotsk as evidence of catastrophic eruptions in the Nemo caldera complex (Onekotan Island, Kuril Islands). <i>Stratigraphy and Geological Correlation</i> , 2013, 21, 553-571.	0.8	9
77	Identification of a widespread Kamchatkan tephra: A middle Pleistocene tie-point between Arctic and Pacific paleoclimatic records. <i>Geophysical Research Letters</i> , 2013, 40, 3538-3543.	4.0	30
78	Bowers Ridge (Bering Sea): An Oligocene-Early Miocene island arc. <i>Geology</i> , 2012, 40, 687-690.	4.4	29
79	Along and across arc geochemical variations in NW Central America: Evidence for involvement of lithospheric pyroxenite. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 84, 459-491.	3.9	39
80	H <sub>2</sub> O-rich melt inclusions in fayalitic olivine from Hekla volcano: Implications for phase relationships in silicic systems and driving forces of explosive volcanism on Iceland. <i>Earth and Planetary Science Letters</i> , 2012, 357-358, 337-346.	4.4	36
81	Silicification of peridotites at the stalemate fracture zone (Northwestern Pacific): Reconstruction of the conditions of low-temperature weathering and tectonic interpretation. <i>Petrology</i> , 2012, 20, 21-39.	0.9	13
82	Kliuchevskoi volcano diary. <i>International Journal of Earth Sciences</i> , 2012, 101, 195-195.	1.8	4
83	Volcanic CO <sub>2</sub> output at the Central American subduction zone inferred from melt inclusions in olivine crystals from mafic tephra. <i>Geochemistry, Geophysics, Geosystems</i> , 2011, 12, n/a-n/a.	2.5	33
84	H <sub>2</sub> O and CO <sub>2</sub> in parental magmas of Kliuchevskoi volcano inferred from study of melt and fluid inclusions in olivine. <i>Russian Geology and Geophysics</i> , 2011, 52, 1353-1367.	0.7	35
85	The origin and evolution of the parental magmas of frontal volcanoes in Kamchatka: Evidence from magmatic inclusions in olivine from Zhupanovsky volcano. <i>Geochemistry International</i> , 2011, 49, 743-767.	0.7	14
86	Composition and evolution of the melts erupted in 1996 at Karymskoe Lake, Eastern Kamchatka: Evidence from inclusions in minerals. <i>Geochemistry International</i> , 2011, 49, 1085-1110.	0.7	9
87	Geology and petrology of the lava complex of Young Shiveluch Volcano, Kamchatka. <i>Petrology</i> , 2011, 19, 134-166.	0.9	38
88	Large-volume silicic volcanism in Kamchatka: Ar-Ar and U-Pb ages, isotopic, and geochemical characteristics of major pre-Holocene caldera-forming eruptions. <i>Journal of Volcanology and Geothermal Research</i> , 2010, 189, 57-80.	2.1	91
89	Solubility of H <sub>2</sub> O- and CO <sub>2</sub> -bearing fluids in tholeiitic basalts at pressures up to 500MPa. <i>Chemical Geology</i> , 2010, 277, 115-125.	3.3	175
90	The origin of hydrous, high- <sup>18</sup> O voluminous volcanism: diverse oxygen isotope values and high magmatic water contents within the volcanic record of Klyuchevskoy volcano, Kamchatka, Russia. <i>Contributions To Mineralogy and Petrology</i> , 2009, 157, 209-230.	3.1	104

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91	Ultra-depleted melts from Kamchatkan ophiolites: Evidence for the interaction of the Hawaiian plume with an oceanic spreading center in the Cretaceous?. <i>Earth and Planetary Science Letters</i> , 2009, 287, 194-204.	4.4	26
92	Subduction cycling of volatiles and trace elements through the Central American volcanic arc: evidence from melt inclusions. <i>Contributions To Mineralogy and Petrology</i> , 2008, 155, 433-456.	3.1	125
93	Mantle temperature control on composition of arc magmas along the Central Kamchatka Depression. <i>Geology</i> , 2008, 36, 519.	4.4	33
94	Formation conditions of allivalites, olivine-anorthite crystal enclaves, in the volcanics of the Kuril-Kamchatka arc. <i>Petrology</i> , 2008, 16, 232-260.	0.9	12
95	Experimental evidence for rapid water exchange between melt inclusions in olivine and host magma. <i>Earth and Planetary Science Letters</i> , 2008, 272, 541-552.	4.4	214
96	Mid-Cretaceous Hawaiian tholeiites preserved in Kamchatka. <i>Geology</i> , 2008, 36, 903.	4.4	48
97	Constraints on mantle melting and composition and nature of slab components in volcanic arcs from volatiles (H <sub>2</sub> O, S, Cl, F) and trace elements in melt inclusions from the Kamchatka Arc. <i>Earth and Planetary Science Letters</i> , 2007, 255, 53-69.	4.4	274
98	Drastic shift in lava geochemistry in the volcanic-front to rear-arc region of the Southern Kamchatkan subduction zone: Evidence for the transition from slab surface dehydration to sediment melting. <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 452-480.	3.9	108
99	Geochemistry of primitive lavas of the Central Kamchatka Depression: Magma generation at the edge of the Pacific Plate. <i>Geophysical Monograph Series</i> , 2007, , 199-239.	0.1	36
100	Chemical composition and crystallization conditions of trachybasalts from the Dzhida field, Southern Baikal volcanic area: Evidence from melt and fluid inclusions. <i>Geochemistry International</i> , 2006, 44, 286-295.	0.7	8
101	Transition from arc to oceanic magmatism at the Kamchatka-Aleutian junction. <i>Geology</i> , 2005, 33, 25.	4.4	81
102	Oxygen isotope evidence for slab melting in modern and ancient subduction zones. <i>Earth and Planetary Science Letters</i> , 2005, 235, 480-496.	4.4	217
103	FTIR Spectrum of Phenocryst Olivine as an Indicator of Silica Saturation in Magmas. <i>Journal of Petrology</i> , 2004, 46, 603-614.	2.8	56
104	Electrical stimulation of quadriceps during rehabilitation following proximal femoral fracture. <i>International Journal of Rehabilitation Research</i> , 2002, 25, 61-63.	1.3	5
105	Fluid bubbles in melt inclusions and pillow-rim glasses: high-temperature precursors to hydrothermal fluids?. <i>Chemical Geology</i> , 2002, 183, 349-364.	3.3	54
106	Petrogenesis of Olivine-phyric Basalts from the Aphanasey Nikitin Rise: Evidence for Contamination by Cratonic Lower Continental Crust. <i>Journal of Petrology</i> , 2001, 42, 277-319.	2.8	50
107	Coexistence of two distinct mantle sources during formation of ophiolites: a case study of primitive pillow-lavas from the lowest part of the volcanic section of the Troodos Ophiolite, Cyprus. <i>Contributions To Mineralogy and Petrology</i> , 1997, 128, 287-301.	3.1	56