Dmitri A Ionov

List of Publications by Year
in descending order

111	7,946	30070 54	48315 88
papers	citations	h-index	g-index

115	115	115	3518
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nbî—¸Ta-rich mantle amphiboles and micas: Implications for subduction-related metasomatic trace element fractionations. Earth and Planetary Science Letters, 1995, 131, 341-356.	4.4	367
2	Carbonated peridotite xenoliths from Spitsbergen: implications for trace element signature of mantle carbonate metasomatism. Earth and Planetary Science Letters, 1993, 119, 283-297.	4.4	344
3	Volatile-bearing minerals and lithophile trace elements in the upper mantle. Chemical Geology, 1997, 141, 153-184.	3.3	307
4	Mechanisms and Sources of Mantle Metasomatism: Major and Trace Element Compositions of Peridotite Xenoliths from Spitsbergen in the Context of Numerical Modelling. Journal of Petrology, 2002, 43, 2219-2259.	2.8	301
5	Reâ€“Os isotope systematics and platinum group element fractionation during mantle melt extraction: a study of massif and xenolith peridotite suites. Chemical Geology, 2004, 208, 29-59.	3.3	290
6	Partial melting and melt percolation in the mantle: The message from Fe isotopes. Earth and Planetary Science Letters, 2007, 259, 119-133.	4.4	257
7	Variations of Li and Mg isotope ratios in bulk chondrites and mantle xenoliths. Geochimica Et Cosmochimica Acta, 2011, 75, 5247-5268.	3.9	252
8	Li isotope fractionation in peridotites and mafic melts. Geochimica Et Cosmochimica Acta, 2007, 71, 202-218.	3.9	236
9	Composition of the Lithospheric Mantle in the Siberian Craton: New Constraints from Fresh Peridotites in the Udachnaya-East Kimberlite. Journal of Petrology, 2010, 51, 2177-2210.	2.8	177
10	Metasomatism-induced Melting in Mantle Xenoliths from Mongolia. Journal of Petrology, 1994, 35, 753-785.	2.8	163
11	Deformation and Fluid-Rock Interaction in the Supra-subduction Mantle: Microstructures and Water Contents in Peridotite Xenoliths from the Avacha Volcano, Kamchatka. Journal of Petrology, 2010, 51, 363-394.	2.8	150
12	Lithium elemental and isotopic disequilibrium in minerals from peridotite xenoliths from far-east Russia: Product of recent melt/fluidâ€“rock reaction. Earth and Planetary Science Letters, 2007, 256, 278-293.	4.4	141
13	Metasomatism in lithospheric mantle roots: Constraints from whole-rock and mineral chemical composition of deformed peridotite xenoliths from kimberlite pipe Udachnaya. Lithos, 2013, 160-161, 201-215.	1.4	138
14	Garnet Peridotite Xenoliths from the Vitim Volcanic Field, Baikal Region: the Nature of the Garnet--Spinel Peridotite Transition Zone in the Continental Mantle. Journal of Petrology, 1993, 34, 1141-1175.	2.8	136
15	Petrology of Mantle Wedge Lithosphere: New Data on Supra-Subduction Zone Peridotite Xenoliths from the Andesitic Avacha Volcano, Kamchatka. Journal of Petrology, 2010, 51, 327-361.	2.8	133
16	High water contents in the Siberian cratonic mantle linked to metasomatism: An FTIR study of Udachnaya peridotite xenoliths. Geochimica Et Cosmochimica Acta, 2014, 137, 159-187.	3.9	126
17	Carbonate-bearing mantle peridotite xenoliths from Spitsbergen: phase relationships, mineral compositions and trace-element residence. Contributions To Mineralogy and Petrology, 1996, 125, 375-392.	3.1	124
18	HFSE residence and Nb/Ta ratios in metasomatised, rutile-bearing mantle peridotites. Earth and Planetary Science Letters, 2002, 199, 49-65.	4.4	120

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19	Origin of Fe-rich lherzolites and wehrlites from Tok, SE Siberia by reactive melt percolation in refractory mantle peridotites. Contributions To Mineralogy and Petrology, 2005, 150, 335-353.	3.1	120
20	Spinel peridotite xenoliths from the Atsagin-Dush volcano, Dariganga lava plateau, Mongolia: a record of partial melting and cryptic metasomatism in the upper mantle. Contributions To Mineralogy and Petrology, 1997, 126, 345-364.	3.1	109
21	The oxidation state of subcontinental mantle: oxygen thermobarometry of mantle xenoliths from central Asia. Contributions To Mineralogy and Petrology, 1992, 111, 179-193.	3.1	104
22	Deformation, static recrystallization, and reactive melt transport in shallow subcontinental mantle xenoliths (Tok Cenozoic volcanic field, SE Siberia). Earth and Planetary Science Letters, 2008, 272, 65-77.	4.4	104
23	Trace element distribution in calciteâ€“dolomite carbonatites from Spitskop: inferences for differentiation of carbonatite magmas and the origin of carbonates in mantle xenoliths. Earth and Planetary Science Letters, 2002, 198, 495-510.	4.4	103
24	Content and isotopic composition of sulphur in ultramafic xenoliths from central Asia. Earth and Planetary Science Letters, 1992, 111, 269-286.	4.4	99
25	Calcium isotopic fractionation in mantle peridotites by melting and metasomatism and Ca isotope composition of the Bulk Silicate Earth. Earth and Planetary Science Letters, 2017, 474, 128-137.	4.4	98
26	Thermal state, oxygen fugacity and Cî—¸Oî—¸H fluid speciation in cratonic lithospheric mantle: New data on peridotite xenoliths from the Udachnaya kimberlite, Siberia. Earth and Planetary Science Letters, 2012, 357-358, 99-110.	4.4	97
27	The provenance of fertile off-craton lithospheric mantle: Srâ€“Nd isotope and chemical composition of garnet and spinel peridotite xenoliths from Vitim, Siberia. Chemical Geology, 2005, 217, 41-75.	3.3	96
28	Lithium abundances and isotopic compositions in mantle xenoliths from subduction and intra-plate settings: Mantle sources vs. eruption histories. Earth and Planetary Science Letters, 2008, 266, 316-331.	4.4	96
29	The origin of coarse garnet peridotites in cratonic lithosphere: new data on xenoliths from the Udachnaya kimberlite, central Siberia. Contributions To Mineralogy and Petrology, 2013, 165, 1225-1242.	3.1	91
30	Oxidising agents in sub-arc mantle melts link slab devolatilisation and arc magmas. Nature Communications, 2018, 9, 3500.	12.8	91
31	Petrology and geochemistry of xenoliths from the Northern Baltic shield: evidence for partial melting and metasomatism in the lower crust beneath an Archaean terrane. Lithos, 1995, 36, 157-184.	1.4	82
32	Peridotite xenoliths in alkali basalts from the Sikhote-Alin, southeastern Siberia, Russia: trace-element signatures of mantle beneath a convergent continental margin. Chemical Geology, 1995, 120, 275-294.	3.3	79
33	Feldsparâ€“Ti-oxide metasomatism in off-cratonic continental and oceanic upper mantle. Earth and Planetary Science Letters, 1999, 165, 37-44.	4.4	79
34	Chemical Variations in Peridotite Xenoliths from Vitim, Siberia: Inferences for REE and Hf Behaviour in the Garnet-Facies Upper Mantle. Journal of Petrology, 2004, 45, 343-367.	2.8	78
35	Nickel and helium evidence for melt above the coreâ€“mantle boundary. Nature, 2013, 493, 393-397.	27.8	77
36	New Olivine Reference Material for In Situ Microanalysis. Geostandards and Geoanalytical Research, 2019, 43, 453-473.	3.1	77

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37	Mantle structure and rifting processes in the Baikalâ€“Mongolia region: geophysical data and evidence from xenoliths in volcanic rocks. Tectonophysics, 2002, 351, 41-60.	2.2	74
38	Zn isotopic heterogeneity in the mantle: A melting control?. Earth and Planetary Science Letters, 2016, 451, 232-240.	4.4	73
39	Eight good reasons why the uppermost mantle could be magnetic. Tectonophysics, 2014, 624-625, 3-14.	2.2	72
40	Trace element distribution in peridotite xenoliths from Tok, SE Siberian craton: A record of pervasive, multi-stage metasomatism in shallow refractory mantle. Geochimica Et Cosmochimica Acta, 2006, 70, 1231-1260.	3.9	71
41	Depth of formation of subcontinental off-craton peridotites. Earth and Planetary Science Letters, 2007, 261, 620-634.	4.4	71
42	Depth, degrees and tectonic settings of mantle melting during craton formation: inferences from major and trace element compositions of spinel harzburgite xenoliths from the Udachnaya kimberlite, central Siberia. Earth and Planetary Science Letters, 2012, 359-360, 206-218.	4.4	70
43	The stable vanadium isotope composition of the mantle and mafic lavas. Earth and Planetary Science Letters, 2013, 365, 177-189.	4.4	68
44	Feldspar-bearing lherzolite xenoliths in alkali basalts from Hamar-Daban, southern Baikal region, Russia. Contributions To Mineralogy and Petrology, 1995, 122, 174-190.	3.1	65
45	Sr-Nd-Pb Isotopic Compositions of Peridotite Xenoliths from Spitsbergen: Numerical Modelling Indicates Sr-Nd Decoupling in the Mantle by Melt Percolation Metasomatism. Journal of Petrology, 2002, 43, 2261-2278.	2.8	65
46	Hf isotope compositions and HREE variations in off-craton garnet and spinel peridotite xenoliths from central Asia. Geochimica Et Cosmochimica Acta, 2005, 69, 2399-2418.	3.9	63
47	Osâ€“Hfâ€“Srâ€“Nd isotope and PGE systematics of spinel peridotite xenoliths from Tok, SE Siberian craton: Effects of pervasive metasomatism in shallow refractory mantle. Earth and Planetary Science Letters, 2006, 241, 47-64.	4.4	62
48	Post-Archean formation of the lithospheric mantle in the central Siberian craton: Reâ€“Os and PGE study of peridotite xenoliths from the Udachnaya kimberlite. Geochimica Et Cosmochimica Acta, 2015, 165, 466-483.	3.9	62
49	Compositional variations and heterogeneity in fertile lithospheric mantle: peridotite xenoliths in basalts from Tariat, Mongolia. Contributions To Mineralogy and Petrology, 2007, 154, 455-477.	3.1	59
50	Lower crustal xenoliths from Mongolia and their bearing on the nature of the deep crust beneath central Asia. Lithos, 1995, 36, 227-242.	1.4	58
51	Links between mantle metasomatism and lithium isotopes: Evidence from glass-bearing and cryptically metasomatized xenoliths from Mongolia. Earth and Planetary Science Letters, 2008, 276, 214-222.	4.4	58
52	Reworking of Archean mantle in the NE Siberian craton by carbonatite and silicate melt metasomatism: Evidence from a carbonate-bearing, dunite-to-websterite xenolith suite from the Obnazhennaya kimberlite. Geochimica Et Cosmochimica Acta, 2018, 224, 132-153.	3.9	58
53	Calcium isotopic signatures of carbonatite and silicate metasomatism, melt percolation and crustal recycling in the lithospheric mantle. Geochimica Et Cosmochimica Acta, 2019, 248, 1-13.	3.9	57
54	The magnetism of mantle xenoliths and potential implications for subâ€Moho magnetic sources. Geophysical Research Letters, 2013, 40, 105-110.	4.0	56

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55	The age and history of the lithospheric mantle of the Siberian craton: Reâ€“Os and PGE study of peridotite xenoliths from the Obnazhennaya kimberlite. Earth and Planetary Science Letters, 2015, 428, 108-119.	4.4	54
56	Chromium isotope heterogeneity in the mantle. Earth and Planetary Science Letters, 2017, 464, 103-115.	4.4	54
57	Evolution of the upper mantle beneath the southern Baikal rift zone: an Sr-Nd isotope study of xenoliths from the Bartoy volcanoes. Contributions To Mineralogy and Petrology, 1992, 111, 235-247.	3.1	53
58	Lithospheric mantle beneath the south-eastern Siberian craton: petrology of peridotite xenoliths in basalts from the Tokinsky Stanovik. Contributions To Mineralogy and Petrology, 2005, 149, 647-665.	3.1	53
59	Paleoproterozoic rejuvenation and replacement of Archaean lithosphere: Evidence from zircon Uâ€“Pb dating and Hf isotopes in crustal xenoliths at Udachnaya, Siberian craton. Earth and Planetary Science Letters, 2017, 457, 149-159.	4.4	51
60	Oxygen isotope composition of garnet and spinel peridotites in the continental mantle: Evidence from the Vitim xenolith suite, southern Siberia. Geochimica Et Cosmochimica Acta, 1994, 58, 1463-1470.	3.9	48
61	Meltâ€“ and Fluidâ€“Rock Interaction in Supra-Subduction Lithospheric Mantle: Evidence from Andesite-hosted Veined Peridotite Xenoliths. Journal of Petrology, 2013, 54, 2339-2378.	2.8	47
62	A geotherm and lithospheric section for central Mongolia (Tariat region). Geodynamic Series, 1998, , 127-153.	0.1	42
63	Silica-enriched mantle sources of subalkaline picrite-boninite-andesite island arc magmas. Geochimica Et Cosmochimica Acta, 2017, 199, 287-303.	3.9	42
64	Paleoproterozoic formation age for the Siberian cratonic mantle: Hf and Nd isotope data on refractory peridotite xenoliths from the Udachnaya kimberlite. Chemical Geology, 2015, 391, 42-55.	3.3	41
65	The development of lithospheric keels beneath the earliest continents: time constraints using PGE and Re-Os isotope systematics. Geological Society Special Publication, 2002, 199, 65-90.	1.3	38
66	Melt evolution in subarc mantle: evidence from heating experiments on spinel-hosted melt inclusions in peridotite xenoliths from the andesitic Avacha volcano (Kamchatka, Russia). Contributions To Mineralogy and Petrology, 2011, 162, 1159-1174.	3.1	37
67	Seismic velocities, anisotropy and deformation in Siberian cratonic mantle: EBSD data on xenoliths from the Udachnaya kimberlite. Earth and Planetary Science Letters, 2011, 304, 71-84.	4.4	36
68	Co-magmatic sulfides and sulfates in the Udachnaya-East pipe (Siberia): A record of the redox state and isotopic composition of sulfur in kimberlites and their mantle sources. Chemical Geology, 2017, 455, 315-330.	3.3	35
69	Discovery of whitlockite in mantle xenoliths: Inferences for water- and halogen-poor fluids and trace element residence in the terrestrial upper mantle. Earth and Planetary Science Letters, 2006, 244, 201-217.	4.4	34
70	Along-arc variations in lithospheric mantle compositions in Kamchatka, Russia: First trace element data on mantle xenoliths from the Klyuchevskoy Group volcanoes. Journal of Volcanology and Geothermal Research, 2013, 263, 122-131.	2.1	34
71	Chlorine and fluorine partition coefficients and abundances in sub-arc mantle xenoliths (Kamchatka,) Tj ETQq1 1 0.784314 rgBT /Over Geochimica Et Cosmochimica Acta, 2017, 199, 324-350.	3.9	33
72	The non-chondritic Ni isotope composition of Earthâ€™s mantle. Geochimica Et Cosmochimica Acta, 2020, 268, 405-421.	3.9	32

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73	Magnesium isotopic composition of metasomatized upper sub-arc mantle and its implications to Mg cycling in subduction zones. Geochimica Et Cosmochimica Acta, 2020, 278, 219-234.	3.9	31
74	Calcium isotope sources and fractionation during melt-rock interaction in the lithospheric mantle: Evidence from pyroxenites, wehrlites, and eclogites. Chemical Geology, 2019, 524, 272-282.	3.3	30
75	Compositional characteristics of the MORB mantle and bulk silicate earth based on spinel peridotites from the Tariat Region, Mongolia. Geochimica Et Cosmochimica Acta, 2019, 257, 206-223.	3.9	30
76	18O/16O ratios in anhydrous spinel lherzolite xenoliths from the Shavaryn-Tsaram volcano, Mongolia. Earth and Planetary Science Letters, 1987, 81, 193-202.	4.4	29
77	Tracing partial melting and subduction-related metasomatism in the Kamchatkan mantle wedge using noble gas compositions. Earth and Planetary Science Letters, 2011, 302, 121-131.	4.4	29
78	Olivine inclusions in Siberian diamonds and mantle xenoliths: Contrasting water and trace-element contents. Lithos, 2016, 265, 31-41.	1.4	26
79	Links between deformation, chemical enrichments and Li-isotope compositions in the lithospheric mantle of the central Siberian craton. Chemical Geology, 2017, 475, 105-121.	3.3	26
80	Age, provenance and Precambrian evolution of the Anabar shield from U-Pb and Lu-Hf isotope data on detrital zircons, and the history of the northern and central Siberian craton. Precambrian Research, 2017, 301, 134-144.	2.7	25
81	A new petrogenetic model for lowâ€Ca boninites: Evidence from veined subâ€arc xenoliths on meltâ€mantle interaction and melt fractionation. Geochemistry, Geophysics, Geosystems, 2012, 13, .	2.5	24
82	Redox state of deep off-craton lithospheric mantle: new data from garnet and spinel peridotites from Vitim, southern Siberia. Contributions To Mineralogy and Petrology, 2012, 164, 731-745.	3.1	23
83	Primary Silica-rich Picrite and High-Ca Boninite Melt Inclusions in Pyroxenite Veins from the Kamchatka Sub-arc Mantle. Journal of Petrology, 2016, 57, 1955-1982.	2.8	23
84	The age and origin of cratonic lithospheric mantle: Archean dunites vs. Paleoproterozoic harzburgites from the Udachnaya kimberlite, Siberian craton. Geochimica Et Cosmochimica Acta, 2020, 281, 67-90.	3.9	22
85	Archean lithospheric differentiation: Insights from Fe and Zn isotopes. Geology, 2020, 48, 1028-1032.	4.4	22
86	Precise and accurate determination of boron concentration in silicate rocks by direct isotope dilution ICP-MS: Insights into the B budget of the mantle and B behavior in magmatic systems. Chemical Geology, 2013, 354, 139-149.	3.3	19
87	Thermal and compositional anomalies in a detailed xenolith-based lithospheric mantle profile of the Siberian craton and the origin of seismic midlithosphere discontinuities. Geology, 2022, 50, 891-896.	4.4	18
88	Fe3+ partitioning systematics between orthopyroxene and garnet in mantle peridotite xenoliths and implications for thermobarometry of oxidized and reduced mantle rocks. Contributions To Mineralogy and Petrology, 2015, 169, 1.	3.1	16
89	Fluidized CO2-sulphide-silicate media as agents of mantle metasomatism and megacrysts formation: evidence from a large druse in a spinel-lherzolite xenolith. Physics of the Earth and Planetary Interiors, 1987, 45, 280-293.	1.9	14
90	Microstructures, Water Contents, and Seismic Properties of the Mantle Lithosphere Beneath the Northern Limit of the Hangay Dome, Mongolia. Geochemistry, Geophysics, Geosystems, 2019, 20, 183-207.	2.5	14

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91	Ultramafic to mafic granulites from the Larsemann Hills, East Antarctica: Geochemistry and tectonic implications. Journal of Asian Earth Sciences, 2017, 145, 679-690.	2.3	13
92	Vanadium isotope composition of the Bulk Silicate Earth: Constraints from peridotites and komatiites. Geochimica Et Cosmochimica Acta, 2019, 259, 288-301.	3.9	13
93	Potassium distribution and isotope composition in the lithospheric mantle in relation to global Earthâ€™s reservoirs. Geochimica Et Cosmochimica Acta, 2021, 309, 151-170.	3.9	13
94	The Provenance of the Lithospheric Mantle in Continental Collision Zones: Petrology and Geochemistry of Peridotites in the Ultenâ€“Nonsberg Zone (Eastern Alps). Journal of Petrology, 2017, 58, 1451-1472.	2.8	12
95	Rapid Determination of Trace Element Compositions in Peridotites by <scp>LA</scp>â€<scp>ICP</scp>â€<scp>MS</scp> Using an Albite Fusion Method. Geostandards and Geoanalytical Research, 2019, 43, 93-111.	3.1	12
96	Mantle and Recycled Oceanic Crustal Components in Mantle Xenoliths From Northeastern China and their Mantle Sources. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018232.	3.4	12
97	Ca-Sr isotope and chemical evidence for distinct sources of carbonatite and silicate mantle metasomatism. Geochimica Et Cosmochimica Acta, 2021, 312, 158-179.	3.9	10
98	Content of sulphur in different mantle reservoirs: Reply to comment on the paper â€˜Content and isotopic composition of sulphur in ultramafic xenoliths from central Asiaâ€™. Earth and Planetary Science Letters, 1993, 119, 635-640.	4.4	9
99	Three-Dimensional Imaging of Sulfides in Silicate Rocks at Submicron Resolution with Multiphoton Microscopy. Microscopy and Microanalysis, 2011, 17, 937-943.	0.4	8
100	Paleoproterozoic melt-depleted lithospheric mantle in the Khanka block, far eastern Russia: Inferences for mobile belts bordering the North China and Siberian cratons. Geochimica Et Cosmochimica Acta, 2020, 270, 95-111.	3.9	8
101	Effects of Oxygen Fugacity on Hydroxyl Incorporation in Garnet at 1â€“3ÂGPa and 800â€“1000Â°C and Implications for Water Storage in the Mantle. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	8
102	Carbonated Big Mantle Wedge Extending to the NE Edge of the Stagnant Pacific Slab: Constraints from Late Mesozoic-Cenozoic Basalts from Far Eastern Russia. Journal of Earth Science (Wuhan, China), 2022, 33, 121-132.	3.2	7
103	A mantle origin for sulfates in the unusual â€œsaltyâ€•Udachnaya-East kimberlite from sulfur abundances, speciation and their relationship with groundmass carbonates. Bulletin - Societie Geologique De France, 2017, 188, 6.	2.2	6
104	Oxygen isotope (Î´18O, Î”â€²17O) insights into continental mantle evolution since the Archean. Nature Communications, 2022, 13, .	12.8	6
105	Kyanite-bearing eclogite xenoliths from the Udachnaya kimberlite, Siberian craton, Russia. Bulletin - Societie Geologique De France, 2017, 188, 7.	2.2	4
106	Decoupled water and iron enrichments in the cratonic mantle: A study on peridotite xenoliths from Tok, SE Siberian Craton. American Mineralogist, 2020, 105, 803-819.	1.9	4
107	Determination of Nb, Ta, Zr and Hf in Micro-Phases at Low Concentrations by EPMA. Mikrochimica Acta, 2002, 139, 83-91.	5.0	3
108	Metasomatism-controlled hydrogen distribution in the Spitsbergen upper mantle. American Mineralogist, 2020, 105, 1326-1341.	1.9	3

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109	XENOLITHS OF BIOTITE-GARNET-ORTHOPYROXENE ROCKS FROM A DIKE-LIKE DIATREME ON YELOVYY ISLAND, WHITE SEA. International Geology Review, 1990, 32, 905-915.	2.1	2
110	Lost in interpretation: Facts and misconceptions about the mantle of the Siberian craton. A comment on: â€œComposition of the lithospheric mantle in the northern part of Siberian craton: Constraints from peridotites in the Obnazhennaya kimberliteâ€•by. Lithos, 2018, 314-315, 683-687.	1.4	2
111	An introduction to the special issue of the BSGF. Bulletin - Societie Geologique De France, 2017, 188, E1.	2.2	2