Katsuyoshi Michibayashi

List of Publications by Year
in descending order

118	3,213	172386	175177
papers	citations	29 h-index	52 g-index

121	121	121	2488
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Heterogeneity in texture and crystal fabric of intensely hydrated ultramylonitic peridotites along a transform fault, Southwest Indian Ridge. Tectonophysics, 2022, 823, 229206.	0.9	5
2	Deformation beneath Gakkel Ridge, Arctic Ocean: From mantle flow to mantle shear in a sparsely magmatic spreading zone. Tectonophysics, 2022, 822, 229186.	0.9	4
3	A shape-change model for isolated K-feldspar inclusions within a shear zone developed in the Teshima granite, Ryoke metamorphic belt, Japan: Estimation of the duration of deformation in a natural shear zone. Tectonophysics, 2022, 824, 229229.	0.9	0
4	Steady-State Microstructures of Quartz Revisited: Evaluation of Stress States in Deformation Experiments Using a Solid-Medium Apparatus. Minerals (Basel, Switzerland), 2022, 12, 329.	0.8	0
5	Peridotites with back-arc basin affinity exposed at the southwestern tip of the Mariana forearc. Progress in Earth and Planetary Science, 2022, 9, .	1.1	0
6	Upper mantle seismic anisotropy beneath the Northern Transantarctic Mountains inferred from peridotite xenoliths near Mt. Melbourne, northern Victoria Land, Antarctica. Journal of Structural Geology, 2021, 143, 104237.	1.0	1
7	Orthopyroxeneâ€“magnetite symplectite in olivine gabbros from the lower crustal Oman Ophiolite: Oman Drilling Project, Hole GT2A. Journal of Mineralogical and Petrological Sciences, 2021, 116, 170-175.	0.4	1
8	Reconfirmation of jadeite in the Sanbagawa belt of the Shibukawa region, central Japan: Occurrence within a veinlet cutting dunite. Journal of the Geological Society of Japan, 2021, 127, 59-65.	0.2	0
9	Rheological Contrast between Quartz and Coesite Generates Strain Localization in Deeply Subducted Continental Crust. Minerals (Basel, Switzerland), 2021, 11, 842.	0.8	2
10	History of Deep-sea Ocean Basement Drilling Programs and Contributions to the Earth Sciences. Journal of Geography (Chigaku Zasshi), 2021, 130, 461-482.	0.1	3
11	Crucial Scientific Issues in Earth Science Revealed Only by Mantle Drilling: Understanding the Current State of the Oceanic Plates of a Life-bearing Planet. Journal of Geography (Chigaku Zasshi), 2021, 130, 483-506.	0.1	2
12	Effects of Alteration and Cracks on the Seismic Velocity Structure of Oceanic Lithosphere Inferred From Ultrasonic Measurements of Mafic and Ultramafic Samples Collected by the Oman Drilling Project. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB021923.	1.4	5
13	Transmission Kikuchi diffraction study of submicrotexture within ultramylonitic peridotite. Physics and Chemistry of Minerals, 2021, 48, 1.	0.3	3
14	Cataclastic and crystal-plastic deformation in shallow mantle-wedge serpentinite controlled by cyclic changes in pore fluid pressures. Earth and Planetary Science Letters, 2021, 576, 117232.	1.8	5
15	Major Mineral Fraction and Physical Properties of Carbonated Peridotite (Listvenite) From ICDP Oman Drilling Project Hole BT1B Inferred From Xâ€Ray CT Core Images. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022719.	1.4	11
16	Geochemical characteristics of back-arc basin lower crust and upper mantle at final spreading stage of Shikoku Basin: an example of Mado Megamullion. Progress in Earth and Planetary Science, 2021, 8, .	1.1	16
17	Geochemical Profiles Across the Listveniteâ€Metamorphic Transition in the Basal Megathrust of the Semail Ophiolite: Results From Drilling at OmanDP Hole BT1B. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022733.	1.4	13
18	Hadal aragonite records venting of stagnant paleoseawater in the hydrated forearc mantle. Communications Earth & Environment, 2021, 2, .	2.6	6

#	Article	IF	Citations
19	Mariana serpentinite mud volcanism exhumes subducted seamount materials: implications for the origin of life. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20180425.	1.6	33
20	Crustal Accretion in a Slow Spreading Backâ€Arc Basin: Insights From the Mado Megamullion Oceanic Core Complex in the Shikoku Basin. Geochemistry, Geophysics, Geosystems, 2020, 21, e2020GC009199.	1.0	15
21	High resolution Xâ€“ray computed tomography and scanning electron microscopy studies of multiphase solid inclusions in Oman podiform chromitite: implications for postâ€“entrapment modification. Journal of Mineralogical and Petrological Sciences, 2020, 115, 247-260.	0.4	5
22	On porosity determination for hard rock drilling using core samples collected by the Oman Drilling Project. Journal of the Geological Society of Japan, 2020, 126, 713-717.	0.2	2
23	Attenuated total reflection infrared (ATRâ€“IR) spectroscopy of antigorite, chrysotile, and lizardite. Journal of Mineralogical and Petrological Sciences, 2020, 115, 303-312.	0.4	2
24	Feedback of mantle metasomatism on olivine microâ€“fabric and seismic properties of the deep lithosphere. Lithos, 2019, 328-329, 43-57.	0.6	3
25	Meltâ€“fluid infiltration along detachment shear zones in oceanic core complexes: Insights from amphiboles in gabbro mylonites from the Godzilla Megamullion, Parece Vela Basin, the Philippine Sea. Lithos, 2019, 344-345, 217-231.	0.6	18
26	What Lies Beneath: The Formation and Evolution of Oceanic Lithosphere. Oceanography, 2019, 32, 138-149.	0.5	14
27	Postmagmatic Tectonic Evolution of the Outer Izuâ€Bonin Forearc Revealed by Sediment Basin Structure and Vein Microstructure Analysis: Implications for a 15 Ma Hiatus Between Pacific Plate Subduction Initiation and Forearc Extension. Geochemistry, Geophysics, Geosystems, 2019, 20, 5867-5895.	1.0	6
28	Elastic wave velocity and electrical conductivity in a brine-saturated rock and microstructure of pores. Earth, Planets and Space, 2019, 71, .	0.9	12
29	Poisson's Ratio and Auxetic Properties of Natural Rocks. Journal of Geophysical Research: Solid Earth, 2018, 123, 1161-1185.	1.4	65
30	Geodynamic implications of crustal lithologies from the southeast Mariana forearc. , 2018, 14, 1-22.		8
31	Subduction initiation and ophiolite crust: new insights from IODP drilling. International Geology Review, 2017, 59, 1439-1450.	1.1	145
32	Chemical interactions in the subduction factory: New insights from an in situ trace element and hydrogen study of the Ichinomegata and Oki-Dogo mantle xenoliths (Japan). Geochimica Et Cosmochimica Acta, 2017, 208, 234-267.	1.6	20
33	Mantle hydration along outer-rise faults inferred from serpentinite permeability. Scientific Reports, 2017, 7, 13870.	1.6	40
34	Virtual special issue: Understanding of the largest oceanic core complex on the Earth, Godzilla Megamullion. Island Arc, 2016, 25, 192-192.	0.5	1
35	The effect of a hydrous phase on Pâ€wave velocity anisotropy within a detachment shear zone in the slowâ€spreading oceanic crust: A case study from the Godzilla Megamullion, Philippine Sea. Island Arc, 2016, 25, 209-219.	0.5	7
36	High-flux plasma exposure of ultra-fine grain tungsten. International Journal of Refractory Metals and Hard Materials, 2016, 60, 28-36.	1.7	9

#	Article	IF	Citations
37	Temperature dependence of [100](010) and [001](010) dislocation mobility in natural olivine. Earth and Planetary Science Letters, 2016, 441, 81-90.	1.8	15
38	Natural olivine crystal-fabrics in the western Pacific convergence region: A new method to identify fabric type. Earth and Planetary Science Letters, 2016, 443, 70-80.	1.8	52
39	Mica-dominated seismic properties of mid-crust beneath west Yunnan (China) and geodynamic implications. Tectonophysics, 2016, 677-678, 324-338.	0.9	15
40	Meltâ€rock interactions and fabric development of peridotites from North Pond in the Kane area, Midâ€Atlantic Ridge: Implications of microstructural and petrological analyses of peridotite samples from IODP Hole U1382A. Geochemistry, Geophysics, Geosystems, 2016, 17, 2298-2322.	1.0	8
41	S-wave velocities and anisotropy of typical rocks from Yunkai metamorphic complex and constraints on the composition of the crust beneath Southern China. Tectonophysics, 2016, 686, 27-50.	0.9	11
42	Physical properties and seismic structure of <scp>Izu</scp>â€<scp>B</scp>oninâ€<scp>M</scp>ariana foreâ€arc crust: Results from IODP <scp>E</scp>xpedition 352 and comparison with oceanic crust. Geochemistry, Geophysics, Geosystems, 2016, 17, 4973-4991.	1.0	15
43	Effects of olivine fabric, meltâ€rock reaction, and hydration on the seismic properties of peridotites: Insight from the Luobusha ophiolite in the Tibetan Plateau. Journal of Geophysical Research: Solid Earth, 2016, 121, 3300-3323.	1.4	13
44	Olivine Crystallographic Fabrics and Their P-wave Velocity Structures within Peridotites in the Uppermost Mantle. Journal of Geography (Chigaku Zasshi), 2015, 124, 397-409.	0.1	7
45	A multi-technique analysis of deuterium trapping and near-surface precipitate growth in plasma-exposed tungsten. Journal of Applied Physics, 2015, 118, 073301.	1.1	18
46	Magnitude and symmetry of seismic anisotropy in micaâ€and amphiboleâ€bearing metamorphic rocks and implications for tectonic interpretation of seismic data from the southeast Tibetan Plateau. Journal of Geophysical Research: Solid Earth, 2015, 120, 6404-6430.	1.4	91
47	Deformation microstructures of glaucophane and lawsonite in experimentally deformed blueschists: Implications for intermediateâ€depth intraplate earthquakes. Journal of Geophysical Research: Solid Earth, 2015, 120, 1229-1242.	1.4	18
48	Reply to comment by Nozaka (2014) on â€œDehydration breakdown of antigorite and the formation of B-type olivine CPOâ€. Earth and Planetary Science Letters, 2014, 408, 406-407.	1.8	1
49	Flow in the uppermost mantle during back-arc spreading revealed by Ichinomegata peridotite xenoliths, NE Japan. Lithos, 2014, 189, 89-104.	0.6	16
50	Rheological properties of the detachment shear zone of an oceanic core complex inferred by plagioclase flow law: Godzilla Megamullion, Parece Vela back-arc basin, Philippine Sea. Earth and Planetary Science Letters, 2014, 408, 16-23.	1.8	13
51	Dehydration breakdown of antigorite and the formation of B-type olivine CPO. Earth and Planetary Science Letters, 2014, 387, 67-76.	1.8	37
52	A new method for calculating seismic velocities in rocks containing strongly dimensionally anisotropic mineral grains and its application to antigorite-bearing serpentinite mylonites. Earth and Planetary Science Letters, 2014, 391, 24-35.	1.8	17
53	Influence of mineral fraction on the rheological properties of forsteriteâ€‰+â€‰enstatite during grain size sensitive creep: 3. Application of grain growth and flow laws on peridotite ultramylonite. Journal of Geophysical Research: Solid Earth, 2014, 119, 840-857.	1.4	32
54	Antigoriteâ€induced seismic anisotropy and implications for deformation in subduction zones and the Tibetan Plateau. Journal of Geophysical Research: Solid Earth, 2014, 119, 2068-2099.	1.4	31

#	Article	IF	Citations
55	Plagioclase preferred orientation and induced seismic anisotropy in mafic igneous rocks. Journal of Geophysical Research: Solid Earth, 2014, 119, 8064-8088.	1.4	33
56	Corrigendum to "A database of plagioclase crystal preferred orientations (CPO) and microstructures â€“ implications for CPO origin, strength, symmetry and seismic anisotropy in gabbroic rocks" published in Solid Earth, 4, 511â€“542, 2013. Solid Earth, 2014, 5, 509-509.	1.2	0
57	Deformation fabrics of natural blueschists and implications for seismic anisotropy in subducting oceanic crust. Physics of the Earth and Planetary Interiors, 2013, 222, 8-21.	0.7	33
58	Olivine fabric evolution in a hydrated ductile shear zone at the Moho Transition Zone, Oman Ophiolite. Earth and Planetary Science Letters, 2013, 377-378, 299-310.	1.8	37
59	Rheological contrast between glaucophane and lawsonite in naturally deformed blueschist from <scp>D</scp>iablo <scp>R</scp>ange, <scp>C</scp>alifornia. Island Arc, 2013, 22, 63-73.	0.5	26
60	The earliest mantle fabrics formed during subduction zone infancy. Earth and Planetary Science Letters, 2013, 377-378, 106-113.	1.8	13
61	Progressive deformation partitioning and recrystallization of olivine in the lithospheric mantle. Tectonophysics, 2013, 587, 79-88.	0.9	8
62	A new calibration of seismic velocities, anisotropy, fabrics, and elastic moduli of amphiboleâ€rich rocks. Journal of Geophysical Research: Solid Earth, 2013, 118, 4699-4728.	1.4	77
63	A database of plagioclase crystal preferred orientations (CPO) and microstructures â€“ implications for CPO origin, strength, symmetry and seismic anisotropy in gabbroic rocks. Solid Earth, 2013, 4, 511-542.	1.2	58
64	A serpentinite-hosted ecosystem in the Southern Mariana Forearc. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2831-2835.	3.3	107
65	Seismic properties of peridotite xenoliths as a clue to imaging the lithospheric mantle beneath NE Tasmania, Australia. Tectonophysics, 2012, 522-523, 218-223.	0.9	9
66	Solutionâ€precipitation of K-feldspar in deformed granitoids and its relationship to the distribution of water. Tectonophysics, 2012, 532-535, 175-185.	0.9	24
67	Grain growth kinetics and the effect of crystallographic anisotropy on normal grain growth of quartz. Physics and Chemistry of Minerals, 2012, 39, 213-218.	0.3	4
68	Olivine fabrics: a key to explore upper mantle structure. Ganseki Kobutsu Kagaku, 2012, 41, 267-274.	0.1	3
69	Seismic velocity in antigorite-bearing serpentinite mylonites. Geological Society Special Publication, 2011, 360, 97-112.	0.8	15
70	Drilling constraints on lithospheric accretion and evolution at Atlantis Massif, Mid-Atlantic Ridge 30Â°N. Journal of Geophysical Research, 2011, 116, .	3.3	112
71	Direct evidence for upper mantle structure in the NW Pacific Plate: Microstructural analysis of a petit-spot peridotite xenolith. Earth and Planetary Science Letters, 2011, 302, 194-202.	1.8	28
72	Seismic anisotropy of the uppermost mantle beneath the Rio Grande rift: Evidence from Kilbourne Hole peridotite xenoliths, New Mexico. Earth and Planetary Science Letters, 2011, 311, 172-181.	1.8	24

#	Article	IF	Citations
73	Rheological contrast between garnet and clinopyroxene in the mantle wedge: An example from Higashi-akaishi peridotite mass, SW Japan. Physics of the Earth and Planetary Interiors, 2011, 184, 14-33.	0.7	22
74	Relicts of deformed lithospheric mantle within serpentinites and weathered peridotites from the Godzilla Megamullion, Parece Vela Backâ€arc Basin, Philippine Sea. Island Arc, 2011, 20, 174-187.	0.5	16
75	Subduction related antigorite CPO patterns from forearc mantle in the Sanbagawa belt, southwest Japan. Journal of Structural Geology, 2011, 33, 1436-1445.	1.0	36
76	Deformation and hydrothermal metamorphism of gabbroic rocks within the Godzilla Megamullion, Parece Vela Basin, Philippine Sea. Lithos, 2011, 124, 185-199.	0.6	30
77	Water content of the mantle xenoliths from Kimberley and implications for explaining textural variations in cratonic roots. Geological Journal, 2011, 46, 173-182.	0.6	15
78	Effect of grain growth on cation exchange between dunite and fluid: implications for chemical homogenization in the upper mantle. Contributions To Mineralogy and Petrology, 2010, 160, 339-357.	1.2	4
79	Exsolution of dolomite and application of calciteâ€“dolomite solvus geothermometry in highâ€grade marbles: an example from Skallevikshalsen, East Antarctica. Journal of Metamorphic Geology, 2010, 28, 509-526.	1.6	16
80	Amphibolitization within the lower crust in the termination area of the Godzilla Megamullion, an oceanic core complex in the Parece Vela Basin. Island Arc, 2010, 19, 718-730.	0.5	17
81	Two Contrasting Fabric Patterns of Olivine Observed in Garnet and Spinel Peridotite from a Mantle-derived Ultramafic Mass Enclosed in Felsic Granulite, the Moldanubian Zone, Czech Republic. Journal of Petrology, 2010, 51, 101-123.	1.1	24
82	Grain-size-sensitive deformation of upper greenschist- to lower amphibolite-facies metacherts from a low-P/high-T metamorphic belt. Tectonophysics, 2010, 492, 141-149.	0.9	11
83	Uppermost mantle anisotropy beneath the southern Laurentian margin: Evidence from Knippa peridotite xenoliths, Texas. Geophysical Research Letters, 2010, 37, .	1.5	12
84	Spatial variations in antigorite fabric across a serpentinite subduction channel: Insights from the Ohmachi Seamount, Izu-Bonin frontal arc. Earth and Planetary Science Letters, 2010, 299, 196-206.	1.8	55
85	Determination of slip system in olivine based on crystallographic preferred orientation and subgrain-rotation axis: examples from Ichinomegata peridotite xenoliths, Oga peninsula, Akita prefecture. Journal of the Geological Society of Japan, 2009, 115, 288-291.	0.2	6
86	Trench-parallel anisotropy produced by serpentine deformation in the hydrated mantle wedge. Nature, 2009, 461, 1114-1117.	13.7	203
87	P- and S-wave velocities of the lowermost crustal rocks from the Kohistan arc: Implications for seismic Moho discontinuity attributed to abundant garnet. Tectonophysics, 2009, 467, 44-54.	0.9	31
88	Peridotites from a ductile shear zone within backâ€arc lithospheric mantle, southern Mariana Trench: Results of a Shinkai 6500 dive. Geochemistry, Geophysics, Geosystems, 2009, 10, .	1.0	36
89	Rock seismic anisotropy of the lowâ€velocity zone beneath the volcanic front in the mantle wedge. Geophysical Research Letters, 2009, 36, .	1.5	17
90	Shearing within lower crust during progressive retrogression: Structural analysis of gabbroic rocks from the Godzilla Mullion, an oceanic core complex in the Parece Vela backarc basin. Tectonophysics, 2008, 457, 183-196.	0.9	47

#	Article	IF	Citations
91	B-type olivine fabrics developed in the fore-arc side of the mantle wedge along a subducting slab. Earth and Planetary Science Letters, 2008, 272, 747-757.	1.8	50
92	Hydration due to high-T brittle failure within in situ oceanic crust, 30Â°N Mid-Atlantic Ridge. Earth and Planetary Science Letters, 2008, 275, 348-354.	1.8	22
93	Undoped ZnO phosphor with high luminescence efficiency grown by thermal oxidation. Journal of Applied Physics, 2008, 104, 073512.	1.1	5
94	Structure Sensitivity and Elastic Anisotropy within Peridotites. Journal of Geography (Chigaku) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 622	0.1	9
95	Oceanic core complexes and crustal accretion at slow-spreading ridges. Geology, 2007, 35, 623.	2.0	302
96	Variable microstructure of peridotite samples from the southern Mariana Trench: Evidence of a complex tectonic evolution. Tectonophysics, 2007, 444, 111-118.	0.9	43
97	Development of a shear band cleavage as a result of strain partitioning. Journal of Structural Geology, 2007, 29, 1070-1082.	1.0	11
98	Seismic anisotropy in the uppermost mantle, back-arc region of the northeast Japan arc: Petrophysical analyses of Ichinomegata peridotite xenoliths. Geophysical Research Letters, 2006, 33, n/a-n/a.	1.5	26
99	The effect of dynamic recrystallization on olivine fabric and seismic anisotropy: Insight from a ductile shear zone, Oman ophiolite. Earth and Planetary Science Letters, 2006, 244, 695-708.	1.8	83
100	Misorientations of garnet aggregate within a vein: an example from the Sanbagawa metamorphic belt, Japan. Journal of Metamorphic Geology, 2006, 24, 353-366.	1.6	7
101	Rapid Growth of Garnet within a Metamorphic Vein Inferred from Misorientation Angle Distribution of Garnet Porphyroblasts. AIP Conference Proceedings, 2006, , .	0.3	0
102	Structural Geology of Peridotite and Rheology of the Uppermost Mantle. Nihon Reoroji Gakkaishi, 2006, 34, 291-300.	0.2	5
103	Propagation of seismic slip from brittle to ductile crust: Evidence from pseudotachylyte of the Woodroffe thrust, central Australia. Tectonophysics, 2005, 402, 21-35.	0.9	76
104	Progressive shape evolution of a mineral inclusion under differential stress at high temperature: Example of garnet inclusions within a granulite-facies quartzite from the LÃ¼tzow-Holm Complex, East Antarctica. Journal of Geophysical Research, 2005, 110, .	3.3	13
105	The Role of Pre-existing Mechanical Anisotropy on Shear Zone Development within Oceanic Mantle Lithosphere: an Example from the Oman Ophiolite. Journal of Petrology, 2004, 45, 405-414.	1.1	136
106	Orientation contrast images of garnet in granulite-facies quartzite, LÃ¼tzow-Holm Complex, East Antarctica. Journal of the Geological Society of Japan, 2004, 110, V-VI.	0.2	6
107	Shear sense inversion in the Hilti mantle section (Oman ophiolite) and active mantle uprise. Marine Geophysical Researches, 2000, 21, 259-268.	0.5	28
108	Aswad Massif (United Arab Emirates): Archetype of the Oman-UAE ophiolite belt. , 2000, , .		8

#	Article	IF	Citations
109	AN ALGORITHM FOR THE TRANSFORMATION OF XRF IMAGES INTO MINERAL-DISTRIBUTION MAPS. Canadian Mineralogist, 2000, 38, 1283-1294.	0.3	20
110	Application of scanning X-ray analytical microscope to the petrographic characterization of a ductile shear zone: an alternative method to image microstructures. Tectonophysics, 1999, 310, 55-67.	0.9	18
111	Image Analysis of Elemental X-ray Maps Obtained by the Scanning X-ray Analytical Microscope: Transformation from X-ray Maps to Mineral Maps.. Journal of the Mineralogical Society of Japan, 1998, 27, 203-212.	0.2	3
112	The role of intragranular fracturing on grain size reduction in feldspar during mylonitization. Journal of Structural Geology, 1996, 18, 17-25.	1.0	21
113	Dynamic evolution of deformation microstructures in rocks. Physical conditions for deformation. Intergranular tensile microfractures within a mylonitized Ryoke granite: evidence for post-mylonitic deformation at the ductile-to-brittle transition.. Journal of the Geological Society of Japan, 1996, 102, 190-198.	0.2	3
114	Shape preferred orientation of rigid particles in a viscous matrix: reevaluation to determine kinematic parameters of ductile deformation. Journal of Structural Geology, 1995, 17, 115-129.	1.0	64
115	Infrared microspectroscopy analysis of water distribution in deformed and metamorphosed rocks. Tectonophysics, 1995, 245, 263-276.	0.9	80
116	Shearing during progressive retrogression in granitoids: Abrupt grain size reduction of quartz at the plastic-brittle transition for feldspar. Journal of Structural Geology, 1993, 15, 1421-1432.	1.0	28
117	Syntectonic development of a strain-independent steady-state grain size during mylonitization. Tectonophysics, 1993, 222, 151-164.	0.9	35
118	Workshop report on hard-rock drilling into mid-Cretaceous Pacific oceanic crust on the Hawaiian North Arch. Scientific Drilling, 0, 26, 47-58.	1.0	8