

Takaaki Kawazoe

List of Publications by Year in descending order

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53
papers

1,090
citations

394421

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31
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54
all docs

54
docs citations

54
times ranked

916
citing authors

#	ARTICLE	IF	CITATIONS
1	Small effect of water incorporation on dislocation mobility in olivine: Negligible creep enhancement and water-induced fabric transition in the asthenosphere. <i>Earth and Planetary Science Letters</i> , 2022, 579, 117360.	4.4	0
2	The influence of $\hat{\gamma}$ -(Al,Fe)OOH on seismic heterogeneities in Earth's lower mantle. <i>Scientific Reports</i> , 2021, 11, 12036.	3.3	12
3	Structural Study of $\hat{\gamma}$ -AlOOH Up to 29 GPa. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 1055.	2.0	8
4	Pressure Effect on Isotope Fractionation Factor. <i>Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu</i> , 2020, 30, 85-94.	0.0	0
5	Single-crystal elasticity of iron-bearing phase E and seismic detection of water in Earth's upper mantle. <i>American Mineralogist</i> , 2019, 104, 1526-1529.	1.9	7
6	Stability, composition, and crystal structure of Fe-bearing Phase E in the transition zone. <i>American Mineralogist</i> , 2019, 104, 1620-1624.	1.9	8
7	Compressional behavior and spin state of $\hat{\gamma}$ -(Al,Fe)OOH at high pressures. <i>American Mineralogist</i> , 2019, 104, 1273-1284.	1.9	22
8	Sharp 660-km discontinuity controlled by extremely narrow binary post-spinel transition. <i>Nature Geoscience</i> , 2019, 12, 869-872.	12.9	31
9	Hydrous magnesium-rich magma genesis at the top of the lower mantle. <i>Scientific Reports</i> , 2019, 9, 7420.	3.3	9
10	Activation of [100](001) slip system by water incorporation in olivine and the cause of seismic anisotropy decrease with depth in the asthenosphere. <i>American Mineralogist</i> , 2019, 104, 47-52.	1.9	5
11	Phase relations in the system Fe-Ni-Si to 200 GPa and 3900 K and implications for Earth's core. <i>Earth and Planetary Science Letters</i> , 2019, 512, 83-88.	4.4	17
12	Complete agreement of the post-spinel transition with the 660-km seismic discontinuity. <i>Scientific Reports</i> , 2018, 8, 6358.	3.3	27
13	Deformation-induced crystallographic-preferred orientation of hcp-iron: An experimental study using a deformation-DIA apparatus. <i>Earth and Planetary Science Letters</i> , 2018, 490, 151-160.	4.4	12
14	Seismically invisible water in Earth's transition zone?. <i>Earth and Planetary Science Letters</i> , 2018, 498, 9-16.	4.4	40
15	High-pressure single-crystal elasticity of wadsleyite and the seismic signature of water in the shallow transition zone. <i>Earth and Planetary Science Letters</i> , 2018, 498, 77-87.	4.4	43
16	Application of Scanning Precession Electron Diffraction in the Transmission Electron Microscope to the Characterization of Deformation in Wadsleyite and Ringwoodite. <i>Minerals (Basel, Switzerland)</i> , 2018, 8, 153.	2.0	5
17	Transition metals in the transition zone: partitioning of Ni, Co, and Zn between olivine, wadsleyite, ringwoodite, and clinoenstatite. <i>Contributions To Mineralogy and Petrology</i> , 2018, 173, 1.	3.1	1
18	Identical activation volumes of dislocation mobility in the [100](010) and [001](010) slip systems in natural olivine. <i>Geophysical Research Letters</i> , 2017, 44, 2687-2692.	4.0	5

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19	Pressure generation to 65 GPa in a Kawai-type multi-anvil apparatus with tungsten carbide anvils. <i>High Pressure Research</i> , 2017, 37, 507-515.	1.2	25
20	Synthesis and crystal structure of LiNbO ₃ -type Mg ₃ Al ₂ Si ₃ O ₁₂ : A possible indicator of shock conditions of meteorites. <i>American Mineralogist</i> , 2017, 102, 1947-1952.	1.9	14
21	Single crystal synthesis of $\hat{\Gamma}$ -(Al,Fe)OOH. <i>American Mineralogist</i> , 2017, 102, 1953-1956.	1.9	18
22	Flow behavior and microstructures of hydrous olivine aggregates at upper mantle pressures and temperatures. <i>Contributions To Mineralogy and Petrology</i> , 2017, 172, 1.	3.1	7
23	High-pressure, high-temperature deformation of dunite, eclogite, clinopyroxenite and garnetite using in situ X-ray diffraction. <i>Earth and Planetary Science Letters</i> , 2017, 473, 291-302.	4.4	10
24	The equation of state of wadsleyite solid solutions: Constraining the effects of anisotropy and crystal chemistry. <i>American Mineralogist</i> , 2017, 102, 2494-2504.	1.9	11
25	Generation of pressures over 40 GPa using Kawai-type multi-anvil press with tungsten carbide anvils. <i>Review of Scientific Instruments</i> , 2016, 87, 024501.	1.3	64
26	Temperature dependence of [100](010) and [001](010) dislocation mobility in natural olivine. <i>Earth and Planetary Science Letters</i> , 2016, 441, 81-90.	4.4	15
27	Creep strength of ringwoodite measured at pressure-temperature conditions of the lower part of the mantle transition zone using a deformation-DIA apparatus. <i>Earth and Planetary Science Letters</i> , 2016, 454, 10-19.	4.4	13
28	Coupled substitution of Fe ³⁺ and H ⁺ for Si in wadsleyite: A study by polarized infrared and Mössbauer spectroscopies and single-crystal X-ray diffraction. <i>American Mineralogist</i> , 2016, 101, 1236-1239.	1.9	6
29	Transition metals in the transition zone: Crystal chemistry of minor element substitution in wadsleyite. <i>American Mineralogist</i> , 2016, 101, 2322-2330.	1.9	7
30	Dislocation-accommodated grain boundary sliding as the major deformation mechanism of olivine in the Earth's upper mantle. <i>Science Advances</i> , 2015, 1, e1500360.	10.3	49
31	Dislocation microstructures in simple-shear-deformed wadsleyite at transition-zone conditions: Weak-beam dark-field TEM characterization of dislocations on the (010) plane. <i>American Mineralogist</i> , 2015, 100, 2749-2752.	1.9	2
32	Synthesis of large wadsleyite single crystals by solid-state recrystallization. <i>American Mineralogist</i> , 2015, 100, 2336-2339.	1.9	7
33	In situ observation of crystallographic preferred orientation of deforming olivine at high pressure and high temperature. <i>Physics of the Earth and Planetary Interiors</i> , 2015, 243, 1-21.	1.9	17
34	Crystallographic preferred orientation of wadsleyite and ringwoodite: Effects of phase transformation and water on seismic anisotropy in the mantle transition zone. <i>Earth and Planetary Science Letters</i> , 2014, 397, 133-144.	4.4	23
35	Rheology of fine-grained forsterite aggregate at deep upper mantle conditions. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 253-273.	3.4	14
36	Recent Advances in Deep Mantle Rheology. <i>Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu</i> , 2014, 24, 88-99.	0.0	1

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37	Seismic anisotropy in the mantle transition zone induced by shear deformation of wadsleyite. <i>Physics of the Earth and Planetary Interiors</i> , 2013, 216, 91-98.	1.9	46
38	A miniature cubic anvil apparatus for optical measurement under high pressure. <i>Review of Scientific Instruments</i> , 2012, 83, 035111.	1.3	1
39	Change of olivine a-axis alignment induced by water: Origin of seismic anisotropy in subduction zones. <i>Earth and Planetary Science Letters</i> , 2012, 317-318, 111-119.	4.4	34
40	Superplasticity in hydrous melt-bearing dunite: Implications for shear localization in Earth's upper mantle. <i>Earth and Planetary Science Letters</i> , 2012, 335-336, 59-71.	4.4	17
41	High pressure synthesis at 10 GPa and 1400 K using a small cubic anvil apparatus with a multi-anvil 6-6 system. <i>High Pressure Research</i> , 2012, 32, 347-353.	1.2	0
42	High pressure and temperature fabric transitions in olivine and variations in upper mantle seismic anisotropy. <i>Earth and Planetary Science Letters</i> , 2011, 304, 55-63.	4.4	97
43	In situ stress-strain measurements in a deformation-DIA apparatus at P-T conditions of the upper part of the mantle transition zone. <i>American Mineralogist</i> , 2011, 96, 1665-1672.	1.9	23
44	Technical development of simple shear deformation experiments using a deformation-DIA apparatus. <i>Journal of Earth Science (Wuhan, China)</i> , 2010, 21, 523-531.	3.2	14
45	Preliminary deformation experiment of ringwoodite at 20 GPa and 1 700 K using a D-DIA apparatus. <i>Journal of Earth Science (Wuhan, China)</i> , 2010, 21, 517-522.	3.2	13
46	Shear deformation of polycrystalline wadsleyite up to 2100 K at 14-17 GPa using a rotational Drickamer apparatus (RDA). <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	28
47	Deformation experiment at P-T conditions of the mantle transition zone using D-DIA apparatus. <i>Physics of the Earth and Planetary Interiors</i> , 2010, 183, 190-195.	1.9	18
48	Stress relaxation experiments of olivine under conditions of subducted slab in Earth's deep upper mantle. <i>Physics of the Earth and Planetary Interiors</i> , 2010, 183, 164-174.	1.9	8
49	Pressure generation to 25 GPa using a cubic anvil apparatus with a multi-anvil 6-6 assembly. <i>High Pressure Research</i> , 2010, 30, 167-174.	1.2	28
50	Shear deformation of dry polycrystalline olivine under deep upper mantle conditions using a rotational Drickamer apparatus (RDA). <i>Physics of the Earth and Planetary Interiors</i> , 2009, 174, 128-137.	1.9	79
51	Plastic deformation of wadsleyite and olivine at high-pressure and high-temperature using a rotational Drickamer apparatus (RDA). <i>Physics of the Earth and Planetary Interiors</i> , 2008, 170, 156-169.	1.9	57
52	Reaction between liquid iron and (Mg,Fe)SiO ₃ -perovskite and solubilities of Si and O in molten iron at 27 GPa. <i>Physics and Chemistry of Minerals</i> , 2006, 33, 227-234.	0.8	22
53	Absence of density crossover between basalt and peridotite in the cold slabs passing through 660 km discontinuity. <i>Geophysical Research Letters</i> , 2004, 31, .	4.0	50