Tomoo Katsura

List of Publications by Year
in descending order

212 papers	8,800 citations	44069 48 h-index	51608 86 g-index
219 all docs	219 docs citations	219 times ranked	4157 citing authors

#	Article	IF	Citations
1	The system Mg₂SiO₄â€Fe₂SiO₄ at high pressures and temperatures: Precise determination of stabilities of olivine, modified spinel, and spinel. Journal of Geophysical Research, 1989, 94, 15663-15670.	3.3	633
2	Adiabatic temperature profile in the mantle. Physics of the Earth and Planetary Interiors, 2010, 183, 212-218.	1.9	373
3	Olivine-wadsleyite transition in the system (Mg,Fe)2SiO4. Journal of Geophysical Research, 2004, 109, .	3.3	272
4	Hydrous olivine unable to account for conductivity anomaly at the top of the asthenosphere. Nature, 2006, 443, 973-976.	27.8	258
5	The Postspinel Phase Boundary in Mg2SiO4 Determined by in Situ X-ray Diffraction. Science, 1998, 279, 1698-1700.	12.6	251
6	Mineralogy of subducted basaltic crust (MORB) from 25 to 37 GPa, and chemical heterogeneity of the lower mantle. Earth and Planetary Science Letters, 2001, 190, 57-63.	4.4	233
7	Post-spinel transition in Mg2SiO4 determined by high Pâ€"T in situ X-ray diffractometry. Physics of the Earth and Planetary Interiors, 2003, 136, 11-24.	1.9	210
8	Core formation in planetesimals triggered by permeable flow. Nature, 2003, 422, 154-157.	27.8	199
9	A temperature profile of the mantle transition zone. Geophysical Research Letters, 1989, 16, 425-428.	4.0	198
10	The effect of water on the electrical conductivity of olivine aggregates and its implications for the electrical structure of the upper mantle. Earth and Planetary Science Letters, 2009, 288, 291-300.	4.4	194
11	Dry mantle transition zone inferred from the conductivity of wadsleyite and ringwoodite. Nature, 2008, 451, 326-329.	27.8	190
12	High-pressure synthesis of the cubic perovskite BaRuO ₃ and evolution of ferromagnetism in ARuO ₃ (A = Ca, Sr, Ba) ruthenates. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 7115-7119.	7.1	171
13	Sound velocities and elastic properties of Fe-bearing wadsleyite and ringwoodite. Journal of Geophysical Research, 1998, 103, 20819-20825.	3.3	146
14	Small effect of water on upper-mantle rheology based on silicon self-diffusion coefficients. Nature, 2013, 498, 213-215.	27.8	141
15	A large-volume high-pressure and high-temperature apparatus for in situ X-ray observation, â€˜SPEED-Mk.IIâ€™. Physics of the Earth and Planetary Interiors, 2004, 143-144, 497-506.	1.9	126
16	Electrical Conductivity of Mantle Minerals: Role of Water in Conductivity Anomalies. Annual Review of Earth and Planetary Sciences, 2013, 41, 605-628.	11.0	122
17	Single-crystal elasticity of ringwoodite to high pressures and high temperatures: implications for 520 km seismic discontinuity. Physics of the Earth and Planetary Interiors, 2003, 136, 41-66.	1.9	116
18	Electrical conductivity of basaltic and carbonatite melt-bearing peridotites at high pressures: Implications for melt distribution and melt fraction in the upper mantle. Earth and Planetary Science Letters, 2010, 295, 593-602.	4.4	113

#	Article	IF	Citations
19	Electrical conductivity of silicate perovskite at lower-mantle conditions. Nature, 1998, 395, 493-495.	27.8	101
20	A Simple Derivation of the Birchâ€"Murnaghan Equations of State (EOSs) and Comparison with EOSs Derived from Other Definitions of Finite Strain. Minerals (Basel, Switzerland), 2019, 9, 745.	2.0	101
21	Melting and subsolidus phase relations in the MgSiO3MgCO3 system at high pressures: implications to evolution of the Earth's atmosphere. Earth and Planetary Science Letters, 1990, 99, 110-117.	4.4	99
22	Melting experiments of mantle materials under lower mantle conditions with implications for magma ocean differentiation. Physics of the Earth and Planetary Interiors, 2004, 143-144, 397-406.	1.9	93
23	Phase relations of natural phlogopite with and without enstatite up to 8 GPa: implication for mantle metasomatism. Earth and Planetary Science Letters, 1997, 146, 511-526.	4.4	92
24	Experimental investigation on dolomite dissociation into aragonite+magnesite up to 8.5 GPa. Earth and Planetary Science Letters, 2001, 184, 529-534.	4.4	89
25	In situObservation of ilmenite-perovskite phase transition in MgSiO3using synchrotron radiation. Geophysical Research Letters, 2001, 28, 835-838.	4.0	83
26	Connectivity of molten Fe alloy in peridotite based on in situ electrical conductivity measurements: implications for core formation in terrestrial planets. Earth and Planetary Science Letters, 2004, 222, 625-643.	4.4	80
27	A nearly water-saturated mantle transition zone inferred from mineral viscosity. Science Advances, 2017, 3, e1603024.	10.3	79
28	High-pressure transformation of pyrope (Mg3Al2Si3O12) in a sintered diamond cubic anvil assembly. Geophysical Research Letters, 1998, 25, 821-824.	4.0	75
29	Electrical conductivity measurement of granulite under mid- to lower crustal pressure-temperature conditions. Geophysical Journal International, 2004, 157, 79-86.	2.4	72
30	Synthesis of paracrystalline diamond. Nature, 2021, 599, 605-610.	27.8	70
31	Reactions between molten iron and silicate melts at high pressure: Implications for the chemical evolution of Earth's core. Journal of Geophysical Research, 1995, 100, 5901-5910.	3.3	67
32	High silicon self-diffusion coefficient in dry forsterite. Earth and Planetary Science Letters, 2012, 345-348, 95-103.	4.4	67
33	Determination of Feâ€Mg partitioning between perovskite and magnesiowÃ¼stite. Geophysical Research Letters, 1996, 23, 2005-2008.	4.0	66
34	High-pressure synthesis of ultraincompressible hard rhenium nitride pernitride Re2(N2)(N)2 stable at ambient conditions. Nature Communications, 2019, 10, 2994.	12.8	65
35	Phase relationships and equations of state for FeS at high pressures and temperatures and implications for the internal structure of Mars. Physics of the Earth and Planetary Interiors, 2004, 143-144, 469-479.	1.9	64
36	Generation of pressures over 40 GPa using Kawai-type multi-anvil press with tungsten carbide anvils. Review of Scientific Instruments, 2016, 87, 024501.	1.3	64

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37	Electrical conductivity of wadsleyite as a function of temperature and water content. Physics of the Earth and Planetary Interiors, 2009, 174, 10-18.	1.9	62
38	Electrical conductivity of majorite garnet and its implications for electrical structure in the mantle transition zone. Physics of the Earth and Planetary Interiors, 2008, 170, 193-200.	1.9	61
39	Pressureâ€“temperature cartography of Feâ€“Sâ€“Si immiscible system. Geochimica Et Cosmochimica Acta, 2010, 74, 3659-3667.	3.9	60
40	The temperature-pressure-volume equation of state of platinum. Journal of Applied Physics, 2009, 105, .	2.5	59
41	High pressure generation using scaled-up Kawai-cell. Physics of the Earth and Planetary Interiors, 2011, 189, 92-108.	1.9	59
42	Thermal diffusivity of olivine under upper mantle conditions. Geophysical Journal International, 1995, 122, 63-69.	2.4	57
43	Spinelâ€“garnet lherzolite transition in the system CaO-MgO-Al2O3-SiO2 revisited: an in situ X-ray study. Geochimica Et Cosmochimica Acta, 2002, 66, 2109-2121.	3.9	56
44	Thermoelastic properties of the high-pressure phase of SnO 2 determined by in situ X-ray observations up to 30 GPa and 1400 K. Physics and Chemistry of Minerals, 2000, 27, 618-622.	0.8	55
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55	Electrical conductivity of dry and hydrous NaAlSi3O8 glasses and liquids at high pressures. Contributions To Mineralogy and Petrology, 2011, 162, 501-513.	3.1	44
56	Experimental determination of melt interconnectivity and electrical conductivity in the upper mantle. Earth and Planetary Science Letters, 2017, 463, 286-297.	4.4	44
57	Detailed Structures of Hexagonal Diamond (lonsdaleite) and Wurtzite-type BN. Japanese Journal of Applied Physics, 2003, 42, 1694-1704.	1.5	43
58	Effect of iron content on electrical conductivity of ringwoodite, with implications for electrical structure in the transition zone. Physics of the Earth and Planetary Interiors, 2009, 174, 3-9.	1.9	43
59	Pressure generation and investigation of the post-perovskite transformation in MgGeO3 by squeezing the Kawai-cell equipped with sintered diamond anvils. Earth and Planetary Science Letters, 2010, 293, 84-89.	4.4	43
60	A Breakthrough in Pressure Generation by a Kawai-Type Multi-Anvil Apparatus with Tungsten Carbide Anvils. Engineering, 2019, 5, 434-440.	6.7	43
61	Effect of iron content on electrical conductivity of ferropericlase with implications for the spin transition pressure. Journal of Geophysical Research, 2011, 116, .	3.3	42
62	Electrical conductivity anisotropy in partially molten peridotite under shear deformation. Earth and Planetary Science Letters, 2014, 405, 98-109.	4.4	42
63	Boron-doped diamond heater and its application to large-volume, high-pressure, and high-temperature experiments. Review of Scientific Instruments, 2009, 80, 023907.	1.3	41
64	New constraints on upper mantle creep mechanism inferred from silicon grain-boundary diffusion rates. Earth and Planetary Science Letters, 2016, 433, 350-359.	4.4	41
65	Determination of the phase boundary between theB1andB2phases in NaCl byin situx-ray diffraction. Physical Review B, 2003, 68, .	3.2	40
66	Re-evaluation of electrical conductivity of anhydrous and hydrous wadsleyite. Earth and Planetary Science Letters, 2012, 337-338, 56-67.	4.4	40
67	Phase Relations in the System MgSiO₃â€Al₂O₃ up to 2300ÂK at Lower Mantle Pressures. Journal of Geophysical Research: Solid Earth, 2017, 122, 7775-7788.	3.4	40
68	Thermal expansion of Mg2SiO4ringwoodite at high pressures. Journal of Geophysical Research, 2004, 109, .	3.3	39
69	Thermal expansion of forsterite at high pressures determined by in situ X-ray diffraction: The adiabatic geotherm in the upper mantle. Physics of the Earth and Planetary Interiors, 2009, 174, 86-92.	1.9	39
70	Texture of (Mg,Fe)SiO3 perovskite and ferro-periclase aggregate: Implications for rheology of the lower mantle. Physics of the Earth and Planetary Interiors, 2009, 174, 138-144.	1.9	39
71	Pâ€Vâ€T relations of MgSiO₃ perovskite determined by in situ Xâ€ray diffraction using a largeâ€volume highâ€pressure apparatus. Geophysical Research Letters, 2009, 36, .	4.0	39
72	Sulfur: a new solvent-catalyst for diamond synthesis under high-pressure and high-temperature conditions. Journal of Crystal Growth, 2001, 223, 189-194.	1.5	38

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73	Aluminum substitution mechanisms in perovskite-type MgSiO3: an investigation by Rietveld analysis. Physics and Chemistry of Minerals, 2007, 34, 257-267.	0.8	37
74	Silicon and magnesium diffusion in a single crystal of MgSiO₃perovskite. Journal of Geophysical Research, 2011, 116, .	3.3	37
75	Tourmaline breakdown in a pelitic system: implications for boron cycling through subduction zones. Contributions To Mineralogy and Petrology, 2007, 155, 19-32.	3.1	36
76	Performance of semi-sintered ceramics as pressure-transmitting media up to 30ÂGPa. High Pressure Research, 2010, 30, 443-450.	1.2	36
77	High water solubility of ringwoodite at mantle transition zone temperature. Earth and Planetary Science Letters, 2020, 531, 115987.	4.4	34
78	A Revised Adiabatic Temperature Profile for the Mantle. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	34
79	Pressure dependence of electrical conductivity of (Mg,Fe)SiO3 ilmenite. Physics and Chemistry of Minerals, 2007, 34, 249-255.	0.8	33
80	Pressure-Induced Emission Enhancement and Multicolor Emission for 1,2,3,4-Tetraphenyl-1,3-cyclopentadiene: Controlled Structure Evolution. Journal of Physical Chemistry Letters, 2019, 10, 5557-5562.	4.6	33
81	Growth of large (1 mm) MgSiO3 perovskite single crystals: A thermal gradient method at ultrahigh pressure. American Mineralogist, 2007, 92, 1744-1749.	1.9	32
82	Rapid decrease of MgAlO2.5 component in bridgmanite with pressure. Geochemical Perspectives Letters, 0, , 12-18.	5.0	32
83	Systematic study of hydrogen incorporation into Fe-free wadsleyite. Physics and Chemistry of Minerals, 2011, 38, 75-84.	0.8	31
84	Sharp 660-km discontinuity controlled by extremely narrow binary post-spinel transition. Nature Geoscience, 2019, 12, 869-872.	12.9	31
85	Thermal diffusivity of silica glass at pressures up to 9 GPa. Physics and Chemistry of Minerals, 1993, 20, 201.	0.8	30
86	No interconnection of ferroâ€periclase in postâ€spinel phase inferred from conductivity measurement. Geophysical Research Letters, 2008, 35, .	4.0	30
87	Ordering in double carbonates and implications for processes at subduction zones. Contributions To Mineralogy and Petrology, 2011, 161, 439-450.	3.1	30
88	Silicate diffusion in alkali-carbonatite and hydrous melts at 16.5 and 24 GPa: Implication for the melt transport by dissolutionâ€"precipitation in the transition zone and uppermost lower mantle. Physics of the Earth and Planetary Interiors, 2013, 225, 1-11.	1.9	30
89	Elastic properties of iron-bearing wadsleyite to 17.7GPa: Implications for mantle mineral models. Physics of the Earth and Planetary Interiors, 2014, 228, 92-96.	1.9	30
90	Determination of high-pressure phase equilibria of Fe2O3 using the Kawai-type apparatus equipped with sintered diamond anvils. American Mineralogist, 2009, 94, 205-209.	1.9	29

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91	Precise determination of elastic constants by high-resolution inelastic X-ray scattering. Journal of Synchrotron Radiation, 2008, 15, 618-623.	2.4	28
92	Stishovite single-crystal growth and application to silicon self-diffusion measurements. American Mineralogist, 2010, 95, 135-143.	1.9	28
93	<i>P</i>â€<i>V</i>â€<i>T</i> relations of wadsleyite determined by in situ Xâ€ray diffraction in a largeâ€volume highâ€pressure apparatus. Geophysical Research Letters, 2009, 36, .	4.0	27
94	Complete agreement of the post-spinel transition with the 660-km seismic discontinuity. Scientific Reports, 2018, 8, 6358.	3.3	27
95	Electrical conductivity measurement of gneiss under mid- to lower crustal Pâ€"T conditions. Tectonophysics, 2007, 434, 93-101.	2.2	26
96	Stability of Magnesite under the Lower Mantle Conditions.. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 1991, 67, 57-60.	3.8	25
97	Temperature dependence of elastic moduli of Î²-(Mg, Fe)2SiO4. Geophysical Research Letters, 2004, 31, .	4.0	25
98	No effect of water on oxygen selfâ€diffusion rate in forsterite. Journal of Geophysical Research: Solid Earth, 2014, 119, 7598-7606.	3.4	25
99	Pressure generation to 65â€…GPa in a Kawai-type multi-anvil apparatus with tungsten carbide anvils. High Pressure Research, 2017, 37, 507-515.	1.2	25
100	Mg lattice diffusion in iron-free olivine and implications to conductivity anomaly in the oceanic asthenosphere. Earth and Planetary Science Letters, 2018, 484, 204-212.	4.4	24
101	Temperature derivatives of elastic moduli of (Mg0.91Fe0.09)2SiO4 modified spinel. Physics of the Earth and Planetary Interiors, 2001, 124, 163-166.	1.9	23
102	Nucleation process of an M2 earthquake in a deep gold mine in South Africa inferred from onâ€fault foreshock activity. Journal of Geophysical Research: Solid Earth, 2015, 120, 5574-5594.	3.4	23
103	The Effect of Water on Ionic Conductivity in Olivine. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB019313.	3.4	22
104	Electrical conductivity measurements of brucite under crustal pressure and temperature conditions. Earth, Planets and Space, 2007, 59, 645-648.	2.5	21
105	A new 6-axis apparatus to squeeze the Kawai-cell of sintered diamond cubes. Physics of the Earth and Planetary Interiors, 2009, 174, 264-269.	1.9	21
106	Reply to Comments on â€œElectrical conductivity of wadsleyite as a function of temperature and water contentâ€• by Manthilake et al.. Physics of the Earth and Planetary Interiors, 2009, 174, 22-23.	1.9	21
107	Single crystal growth of wadsleyite. American Mineralogist, 2009, 94, 1130-1136.	1.9	21
108	Temperature dependence of the elastic moduli of ringwoodite. Physics of the Earth and Planetary Interiors, 2005, 148, 353-359.	1.9	19

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109	Electrical conductivity ofFeTiO3ilmenite at high temperature and high pressure. Physical Review B, 2006, 73, .	3.2	19
110	Extreme conditions research using the large-volume press at the P61B endstation, PETRA III. Journal of Synchrotron Radiation, 2022, 29, 409-423.	2.4	19
111	High pressure-temperature phase relations of basaltic crust up to mid-mantle conditions. Earth and Planetary Science Letters, 2022, 584, 117472.	4.4	18
112	Temperature derivatives of elastic moduli of MgSiO3perovskite. Geophysical Research Letters, 2004, 31, .	4.0	17
113	Pressless split-sphere apparatus equipped with scaled-up Kawai-cell for mineralogical studies at 10-20 GPa. American Mineralogist, 2011, 96, 541-548.	1.9	17
114	Increase of the oxygen vacancy component in bridgmanite with temperature. Earth and Planetary Science Letters, 2019, 505, 141-151.	4.4	17
115	Aluminum Nitride Crystal Growth from an Alâˆ'N System at 6.0 GPa and 1800 Â°C. Crystal Growth and Design, 2010, 10, 2563-2570.	3.0	16
116	Electrical conductivity of the oceanic asthenosphere and its interpretation based on laboratory measurements. Tectonophysics, 2017, 717, 162-181.	2.2	16
117	Metal/silicate partitioning of Mn, Co, and Ni at high-pressures and high temperatures and implications for core formation in a deep magma ocean. Geophysical Monograph Series, 1998, , 215-225.	0.1	15
118	Decomposition of brucite up to 20 GPa: evidence for high MgO-solubility in the liquid phase. European Journal of Mineralogy, 2005, 17, 261-267.	1.3	15
119	Temperature dependence of [100](010) and [001](010) dislocation mobility in natural olivine. Earth and Planetary Science Letters, 2016, 441, 81-90.	4.4	15
120	Stability and Solubility of the FeAlO₃ Component in Bridgmanite at Uppermost Lower Mantle Conditions. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018447.	3.4	15
121	Depressed 660-km discontinuity caused by akimotoiteâ€"bridgmanite transition. Nature, 2022, 601, 69-73.	27.8	15
122	Synthesis and crystal structure of LiNbO3-type Mg3Al2Si3O12: A possible indicator of shock conditions of meteorites. American Mineralogist, 2017, 102, 1947-1952.	1.9	14
123	Strong correlation of oxygen vacancies in bridgmanite with Mg/Si ratio. Earth and Planetary Science Letters, 2019, 523, 115697.	4.4	14
124	Bridgmanite is nearly dry at the top of the lower mantle. Earth and Planetary Science Letters, 2021, 570, 117088.	4.4	14
125	Crystal structure of anhydrous phase X, K1.93(Mg2.02Cr0.02)Si2.00O7. Journal of Mineralogical and Petrological Sciences, 2010, 105, 303-308.	0.9	13
126	Variations in electrical conductivity of rocks above metamorphic conditions. Tectonophysics, 2011, 504, 116-121.	2.2	13

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127	Stability and bulk modulus of Ni3S, a new nickel sulfur compound, and the melting relations of the system Ni-NiS up to 10 GPa. American Mineralogist, 2011, 96, 558-565.	1.9	13
128	Crystal Structure of New Carbonâ€"Nitride-Related Material C₂N₂(CH₂). Japanese Journal of Applied Physics, 2011, 50, 095503.	1.5	13
129	Amorphous copper formation and related phenomena at ultrahigh pressure. Journal of Non-Crystalline Solids, 2001, 279, 215-218.	3.1	12
130	Hydrogen incorporation into forsterite in Mg2SiO4â€"K2Mg(CO3)2â€"H2O and Mg2SiO4â€"H2Oâ€"C at 7.5â€"14.0 GPa. Russian Geology and Geophysics, 2009, 50, 1129-1138.	0.7	12
131	Oxygen Vacancy Ordering in Aluminous Bridgmanite in the Earth's Lower Mantle. Geophysical Research Letters, 2019, 46, 8731-8740.	4.0	12
132	Electrical conductivity measurements of periclase under high pressure and high temperature. Physica B: Condensed Matter, 2010, 405, 53-56.	2.7	11
133	A rapid-quench technique for multi-anvil high-pressure-temperature experiments. Review of Scientific Instruments, 2020, 91, 065105.	1.3	11
134	The Large Volume Multi-anvil Press as a High P-T Deformation Apparatus. , 1993, , 579-599.		11
135	High-pressure generation in the Kawai-type apparatus equipped with sintered diamond anvils: application to the wurtziteâ€"rocksalt transformation in GaN. , 2005, , 451-460.		11
136	Phase boundary between perovskite and post-perovskite structures in MnGeO3 determined by in situ X-ray diffraction measurements using sintered diamond anvils. American Mineralogist, 2011, 96, 89-92.	1.9	10
137	Peak effect in critical current density induced by oxygen deficiency in the CuBa2Ca3Cu4O10+Î´superconductor. Superconductor Science and Technology, 2000, 13, 930-934.	3.5	9
138	Water solubility in forsterite at 8â€"14 GPa. Doklady Earth Sciences, 2009, 425, 432-435.	0.7	9
139	Synthesis and characterization of strontiumâ€"calcium phosphate Î³-Ca3â^'xSrx(PO4)2 (0â‰xâ‰2). Materials Chemistry and Physics, 2010, 120, 348-350.	4.0	9
140	Si and O self-diffusion in hydrous forsterite and iron-bearing olivine from the perspective of defect chemistry. Physics and Chemistry of Minerals, 2016, 43, 119-126.	0.8	9
141	A Novel Highâ€Pressure Tin Oxynitride Sn 2 N 2 O. Chemistry - A European Journal, 2020, 26, 2187-2194.	3.3	9
142	Phase boundary between ilmenite and perovskite structures in MnGeO3 determined by in situ X-ray diffraction measurements. Physics and Chemistry of Minerals, 2007, 34, 269-273.	0.8	8
143	A Peculiar Site Preference of Boron in MgAl_{2â€"<i>x</i>}B<i>_x</i>O₄ (<i>x</i> = 0.0, 0.11, and 0.13) Spinel under Highâ€Pressure and Highâ€TemperatureÂ. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2010, 636, 472-475.	1.2	8
144	Thermal expansion of coesite determined by synchrotron powder X-ray diffraction. Physics and Chemistry of Minerals, 2018, 45, 873-881.	0.8	8

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145	Oxygen Vacancy Substitution Linked to Ferric Iron in Bridgmanite at 27ÂGPa. Geophysical Research Letters, 2020, 47, e2019GL086296.	4.0	8
146	Pressure Dependence of Proton Incorporation and Water Solubility in Olivine. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018813.	3.4	8
147	Discovery of Ternary Silicon Titanium Nitride with Spinel-Type Structure. Scientific Reports, 2020, 10, 7372.	3.3	8
148	Dissolution of Silicon and Oxygen in Molten Iron at High Pressure and Temperature.. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 1991, 67, 153-158.	3.8	7
149	Heterogeneity of Electrical Conductivity in the Oceanic Upper Mantle. , 2015, , 173-204.		7
150	Pressure, temperature, water content, and oxygen fugacity dependence of the Mg grain-boundary diffusion coefficient in forsterite. American Mineralogist, 2018, 103, 1354-1361.	1.9	7
151	A new (Mg0.5Fe0.53+)(Si0.5Al0.53+)O3 LiNbO3-type phase synthesized at lower mantle conditions. American Mineralogist, 2019, 104, 1213-1216.	1.9	7
152	Independent hydrogen incorporation in wadsleyite from oxygen fugacity and non-dissociation of H2O in the reducing mantle transition zone. Earth and Planetary Science Letters, 2021, 557, 116755.	4.4	7
153	The grain growth kinetics of bridgmanite at the topmost lower mantle. Earth and Planetary Science Letters, 2021, 561, 116820.	4.4	7
154	Direct Viscosity Measurement of Peridotite Melt to Lowerâ€Mantle Conditions: A Further Support for a Fractional Magmaâ€Ocean Solidification at the Top of the Lower Mantle. Geophysical Research Letters, 2021, 48, e2021GL094507.	4.0	7
155	Post-garnet Transition in the System MgSiO3-Al2O3.. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 1998, 7, 122-124.	0.0	7
156	Electrical conductivity of the major upper mantle minerals: a review. Russian Geology and Geophysics, 2009, 50, 1139-1145.	0.7	6
157	Crystal structure, Raman and FTIR spectroscopy, and equations of state of OH-bearing MgSiO3 akimotoite. Contributions To Mineralogy and Petrology, 2013, 166, 1375-1388.	3.1	6
158	A Complete Solid Solution with Rutileâ€Type Structure in SiO₂â€"GeO₂ System at 12ÂGPa and 1600Â°C. Journal of the American Ceramic Society, 2015, 98, 4111-4116.	3.8	6
159	Pressure dependence of transverse acoustic phonon energy in ferropericlase across the spin transition. Journal of Physics Condensed Matter, 2017, 29, 245401.	1.8	6
160	Negative activation volume of oxygen self-diffusion in forsterite. Physics of the Earth and Planetary Interiors, 2018, 275, 1-8.	1.9	6
161	Hardness of polycrystalline SiO₂ coesite. Journal of the American Ceramic Society, 2019, 102, 2251-2256.	3.8	6
162	Boron-doped diamond synthesized by chemical vapor deposition as a heating element in a multi-anvil apparatus. High Pressure Research, 2020, 40, 369-378.	1.2	6

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163	A simplified rapid-quench multi-anvil technique. Review of Scientific Instruments, 2021, 92, 113902.	1.3	6
164	ESR study of a new electron center in synthetic stishovite, a high-pressure polymorph of silica. Applied Magnetic Resonance, 2000, 18, 559-564.	1.2	5
165	Phase-relation studies of mantle minerals by in situ X-ray diffraction using multianvil apparatus. , 2007, , .		5
166	Correction to â€œP-V-T relations of the MgSiO3perovskite determined by in situ X-ray diffraction using a large-volume high-pressure apparatusâ€• Geophysical Research Letters, 2009, 36, .	4.0	5
167	High pressure generation and investigation of the spin transition of ferropericlase (Mg0.83Fe0.17)O. Journal of Physics: Conference Series, 2010, 215, 012099.	0.4	5
168	Single-crystal metastable high-temperature<i>C</i>2/<i>c</i>clinoenstatite quenched rapidly from high temperature and high pressure. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2013, 69, 541-546.	1.1	5
169	Identical activation volumes of dislocation mobility in the [100](010) and [001](010) slip systems in natural olivine. Geophysical Research Letters, 2017, 44, 2687-2692.	4.0	5
170	Activation of [100](001) slip system by water incorporation in olivine and the cause of seismic anisotropy decrease with depth in the asthenosphere. American Mineralogist, 2019, 104, 47-52.	1.9	5
171	A strip-type boron-doped diamond heater synthesized by chemical vapor deposition for large-volume presses. Review of Scientific Instruments, 2020, 91, 095108.	1.3	5
172	Asthenosphere dynamics based on the H2O dependence of element diffusivity in olivine. National Science Review, 2021, 8, nwaa278.	9.5	5
173	Microstructures and structural phase transition in (Mg,Fe)SiO3 majorite. European Journal of Mineralogy, 2002, 14, 7-14.	1.3	5
174	Rapid-quenching of high-pressure depolymerized hydrous silicate (peridotitic) glasses. Journal of Non-Crystalline Solids, 2022, 578, 121347.	3.1	5
175	Pressure Destabilizes Oxygen Vacancies in Bridgmanite. Journal of Geophysical Research: Solid Earth, 2021, 126, .	3.4	5
176	Post-spinel transition in Fe2SiO4. Geophysical Monograph Series, 1998, , 435-440.	0.1	4
177	Melting of portlandite up to 6 GPa. Physics and Chemistry of Minerals, 2000, 27, 367-370.	0.8	4
178	In situ X-ray diffraction of pyrolite to 40ÂGPa using Kawai-type apparatus with sintered diamond anvils: possibility for the existence of iron-rich metallic particles in the lower mantle. High Pressure Research, 2008, 28, 351-362.	1.2	4
179	Water Solubility in Feâ€Bearing Wadsleyite at Mantle Transition Zone Temperatures. Geophysical Research Letters, 2021, 48, e2021GL092836.	4.0	4
180	Determination of phase relations of the olivineâ€"ahrensite transition in the Mg2SiO4â€"Fe2SiO4 system at 1740ÂK using modern multi-anvil techniques. Contributions To Mineralogy and Petrology, 2021, 176, 1.	3.1	4

#	Article	IF	Citations
181	Computer Control and Measurement Systems for "SPEED-1500", a Kawai-type Multi-anvil Press for in situ X-ray Observations with Synchrotron Radiation. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2005, 15, 9-14.	0.0	4
182	Equation of state of (Mg0.8,Fe0.2)2SiO4ringwoodite from synchrotron X-ray diffraction up to 20 GPa and 1700 K. European Journal of Mineralogy, 2006, 18, 523-528.	1.3	3
183	Bond strengths of New Carbon-nitride-Related material C2N2(CH2). Journal of Physics: Conference Series, 2012, 377, 012028.	0.4	3
184	A nearly zero temperature gradient furnace system for high pressure multi-anvil experiments. High Pressure Research, 2018, 38, 243-249.	1.2	3
185	High-pressure syntheses and crystal structure analyses of a new low-density CaFe2O4-related and CaTi2O4-type MgAl2O4 phases. American Mineralogist, 2021, 106, 1105-1112.	1.9	3
186	Electrical Conductivity Measurement of Minerals at High Pressures and Temperatures.. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 1998, 7, 18-21.	0.0	3
187	Simultaneous generation of ultrahigh pressure and temperature to 50ÂGPa and 3300ÂK in multi-anvil apparatus. Review of Scientific Instruments, 2021, 92, 103902.	1.3	3
188	A New Approach Determining a Phase Transition Boundary Strictly Following a Definition of Phase Equilibrium: An Example of the Post-Spinel Transition in Mg2SiO4 System. Minerals (Basel,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 457 Td	2.0	3
189	Measurement of Thermal Diffusivity at High Pressures and High Temperatures.. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 1992, 68, 81-86.	3.8	2
190	Deviatoric stress and mean pressure in MgO compressed in a Kawai-type apparatus above 30GPa: Evidence for reduction of deviatoric stress by annealing. Journal of Physics and Chemistry of Solids, 2008, 69, 2261-2264.	4.0	2
191	High-pressure generation in the Kawai-type apparatus equipped with sintered diamond anvilsApplication to the wurtzite-rocksalt transformation in GaN. , 2005, , 451-460.		2
192	The temperature-pressure-volume equation of state of .GAMMA.-Mg2SiO4. Journal of Mineralogical and Petrological Sciences, 2004, 99, 72-75.	0.9	1
193	Electrical conductivity of mantle peridotite at the uppermost lower mantle condition. Journal of Physics: Conference Series, 2010, 215, 012102.	0.4	1
194	Why and How to Write a Highâ€Impact Review Paper: Lessons From Eight Years of Editorial Board Service to <i>Reviews of Geophysics</i>. Reviews of Geophysics, 2017, 55, 860-863.	23.0	1
195	The effect of oxygen fugacity on ionic conductivity in olivine. Geoscience Frontiers, 2022, 13, 101270.	8.4	1
196	Mantle, Electrical Conductivity, Mineralogy. , 2007, , 684-688.		1
197	ãƒžãƒ«ãƒã‚¢ãƒ³ãƒ“ãƒ«ã‚’ç”¨ã„ãŸé«˜æ¸©é«˜åœ§å®Ÿé¨“ â€”æœ€è¿‘ã®æˆæžœâ€". Ganseki Kobutsu Kagaku, 2001, 30, 102-103.	0.1	1
198	Optically stimulated luminescence (OSL) study of synthetic stishovite. Radiation Measurements, 2000, 32, 473-477.	1.4	0

#	Article	IF	Citations
199	Electrical conductivity of olivine, wadsleyite and ringwoodite. Ganseki Kobutsu Kagaku, 2009, 38, 33-38.	0.1	0
200	The System MgO-SiO₂-CO₂-H₂O at High Pressure: a Preliminary Investigation of CO₂Concentration in Mantle Fluids. Geophysical Monograph Series, 0, , 275-281.	0.1	0
201	Aluminum solubility in bridgmanite up to 3000Ââ€‹KÂâ€‹at the top lower mantle. Geoscience Frontiers, 2021, 12, 929-935.	8.4	0
202	ãƒžãƒ«ãƒã‚¢ãƒ³ãƒ“ãƒ«ã‚’ç”¨ã„ãŸé«˜æ¸©é«˜åœ§å®Ÿé¨“ â€”æ‰‹æ³•ã¨è£…ç½®â€”. Ganseki Kobutsu Kagaku, 2001, 30, 100-101.	0.1	0
203	Recent progress in large-volume high P-T in situ X-ray observation at SPring-8. Acta Crystallographica Section A: Foundations and Advances, 2005, 61, c134-c134.	0.3	0
204	Manufacture of a New 6-axis Apparatus. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2008, 18, 208-213.	0.0	0
205	The large-volume press beamline at the extension of PETRA. Acta Crystallographica Section A: Foundations and Advances, 2012, 68, s52-s52.	0.3	0
206	Element Partitioning Between High Pressure Minerals and the Coexisting Silicate Melt.. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 1998, 7, 98-100.	0.0	0
207	Phase Transition of (Mg,Fe)SiO3 Majorite.. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 1998, 7, 116-118.	0.0	0
208	Experimental geophysicsâ€"measurement of physical and chemical properties of major mantle minerals at high pressures and temperatures. Ganseki Kobutsu Kagaku, 2017, 46, 1-14.	0.1	0
209	Structure, crystal chemistry and compressibility of iron-rich silicate perovskite at pressures up to 95â€…GPa. Acta Crystallographica Section A: Foundations and Advances, 2019, 75, e262-e262.	0.1	0
210	A Plain Derivation of Birch-Murnaghan Equations of State, and Comparison with Other Equations of State. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2020, 30, 237-249.	0.0	0
211	Small effect of water incorporation on dislocation mobility in olivine: Negligible creep enhancement and water-induced fabric transition in the asthenosphere. Earth and Planetary Science Letters, 2022, 579, 117360.	4.4	0
212	Water Enhancement of Si Selfâ€Diffusion in Wadsleyite. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	0