Akio Suzuki

List of Publications by Year
in descending order

122 papers	3,982 citations	94269 37 h-index	138251 58 g-index
124 all docs	124 docs citations	124 times ranked	2261 citing authors

#	Article	IF	Citations
1	Structure of basaltic glass at pressures up to 18 GPa. American Mineralogist, 2022, 107, 325-335.	0.9	2
2	Localized Deformation of Lawsonite During Cold Subduction. Journal of Geophysical Research: Solid Earth, 2022, 127, .	1.4	0
3	In situ Xâ€“ray diffraction study of the phase boundary between diaspore and Î´â€“AlOOH. Journal of Mineralogical and Petrological Sciences, 2022, 117, n/a.	0.4	0
4	Elastic properties and structures of pyrope glass under high pressures. American Mineralogist, 2021, 106, 7-14.	0.9	5
5	A unique multianvil 6â€“6 assembly for a cubic-type multianvil apparatus. Review of Scientific Instruments, 2021, 92, 025117.	0.6	0
6	The influence of Î´-(Al,Fe)OOH on seismic heterogeneities in Earthâ€™s lower mantle. Scientific Reports, 2021, 11, 12036.	1.6	12
7	Phase transitions of ScOOH under high pressure. High Pressure Research, 2021, 41, 275-289.	0.4	2
8	Structure and Density of H₂Oâ€Rich Mg₂SiO₄ Melts at High Pressure From Ab Initio Simulations. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB020365.	1.4	10
9	Effect of sulfur on sound velocity of liquid iron under Martian core conditions. Nature Communications, 2020, 11, 1954.	5.8	13
10	Effects of alkali and alkaline-earth cations on the high-pressure sound velocities of aluminosilicate glasses. Physics and Chemistry of Minerals, 2020, 47, 1.	0.3	8
11	Do SnI₄ molecules deform on heating and pressurization in the low-pressure crystalline phase?. Journal of Physics Condensed Matter, 2020, 32, 055401.	0.7	3
12	The sound velocity of wÃ¼stite at high pressures: implications for low-velocity anomalies at the base of the lower mantle. Progress in Earth and Planetary Science, 2020, 7, .	1.1	4
13	Sound velocity measurements of Îµâ€“FeOOH up to 24 GPa. Journal of Mineralogical and Petrological Sciences, 2019, 114, 155-160.	0.4	9
14	In-situ X-ray diffraction study on Î²-CrOOH at high pressure and high-temperature. High Pressure Research, 2019, 39, 499-508.	0.4	2
15	Compressional behavior and spin state of Î´-(Al,Fe)OOH at high pressures. American Mineralogist, 2019, 104, 1273-1284.	0.9	22
16	Hydrous magnesium-rich magma genesis at the top of the lower mantle. Scientific Reports, 2019, 9, 7420.	1.6	9
17	Viscosity of melt of soda melilite composition at high pressure. Journal of Mineralogical and Petrological Sciences, 2019, 114, 41-44.	0.4	1
18	Viscosity of K₂TiSi₄O₁₁ melt at high pressure. Journal of Mineralogical and Petrological Sciences, 2019, 114, 280-283.	0.4	0

#	Article	IF	Citations
19	Chemical Reactions Between Fe and H₂O up to Megabar Pressures and Implications for Water Storage in the Earth's Mantle and Core. Geophysical Research Letters, 2018, 45, 1330-1338.	1.5	42
20	Pâ€“Vâ€“T equation of state of rhodium oxyhydroxide. High Pressure Research, 2018, 38, 145-152.	0.4	4
21	Phase relationships of the system Fe-Ni-S and structure of the high-pressure phase of (Fe1âˆ’xNix)3S2. Physics of the Earth and Planetary Interiors, 2018, 277, 30-37.	0.7	3
22	Pressureâ€“induced structural changes of basaltic glass. Journal of Mineralogical and Petrological Sciences, 2018, 113, 286-292.	0.4	5
23	Effect of carbon dioxide on the viscosity of a melt of jadeite composition at high pressure. Journal of Mineralogical and Petrological Sciences, 2018, 113, 47-50.	0.4	6
24	In situ Xâ€“ray diffraction studies of hydrous aluminosilicate at high pressure and temperature. Journal of Mineralogical and Petrological Sciences, 2018, 113, 106-111.	0.4	9
25	The stability of anhydrous phase B, Mg14Si5O24, at mantle transition zone conditions. Physics and Chemistry of Minerals, 2018, 45, 523-531.	0.3	3
26	Thermal equation of state of goethite (Î±-FeOOH). High Pressure Research, 2017, 37, 193-199.	0.4	7
27	Single crystal synthesis of Î´-(Al,Fe)OOH. American Mineralogist, 2017, 102, 1953-1956.	0.9	18
28	Flow behavior and microstructures of hydrous olivine aggregates at upper mantle pressures and temperatures. Contributions To Mineralogy and Petrology, 2017, 172, 1.	1.2	7
29	Stability field of phase Egg, AlSiO₃OH at high pressure and high temperature: possible water reservoir in mantle transition zone. Journal of Mineralogical and Petrological Sciences, 2017, 112, 31-35.	0.4	24
30	Pressureâ€“volumeâ€“temperature equation of state of Îµâ€“FeOOH to 11 GPa and 700 K. Journal of Mineralogical and Petrological Sciences, 2016, 111, 420-424.	0.4	15
31	Towards a consensus on the pressure and composition dependence of sound velocity in the liquid Feâ€“S system. Physics of the Earth and Planetary Interiors, 2016, 257, 230-239.	0.7	31
32	Preface for the article collection â€œHigh-Pressure Earth and Planetary Science in the last and next decadeâ€• Progress in Earth and Planetary Science, 2016, 3, .	1.1	0
33	Thermoelastic properties of chromium oxide Cr2O3 (eskolaite) at high pressures and temperatures. Physics and Chemistry of Minerals, 2016, 43, 447-458.	0.3	11
34	Dislocation-accommodated grain boundary sliding as the major deformation mechanism of olivine in the Earthâ€™s upper mantle. Science Advances, 2015, 1, e1500360.	4.7	49
35	In situ observation of crystallographic preferred orientation of deforming olivine at high pressure and high temperature. Physics of the Earth and Planetary Interiors, 2015, 243, 1-21.	0.7	17
36	Application of X-ray radiography to study the segregation process of iron from silicate under high pressure and high temperature. High Pressure Research, 2015, 35, 130-138.	0.4	4

#	Article	IF	Citations
37	In situ observation of the pyroxene-majorite transition in Na2MgSi5O12 using synchrotron radiation and Raman spectroscopy of Na-majorite. American Mineralogist, 2015, 100, 378-384.	0.9	2
38	Speciation of and D/H partitioning between fluids and melts in silicate-D-O-H-C-N systems determined in-situ at upper mantle temperatures, pressures, and redox conditions. American Mineralogist, 2014, 99, 578-588.	0.9	17
39	Pâ€“Vâ€“T equation of state of Na-majorite to 21 GPa and 1673 K. Physics of the Earth and Planetary Interiors, 2014, 227, 68-75.	0.7	15
40	Thermal equation of state of majoritic knorringite and its significance for continental upper mantle. Journal of Geophysical Research: Solid Earth, 2014, 119, 8034-8046.	1.4	10
41	Creep behavior during the eutectoid transformation of albite: Implications for the slab deformation in the lower mantle. Earth and Planetary Science Letters, 2014, 388, 92-97.	1.8	1
42	Rheology of fineâ€grained forsterite aggregate at deep upper mantle conditions. Journal of Geophysical Research: Solid Earth, 2014, 119, 253-273.	1.4	14
43	Corrigendum to â€œEffect of water in depleted mantle on post-spinel transition and implication for 660 km seismic discontinuityâ€•[Earth Planet. Sci. Lett. 371â€“372 (2013) 103â€“111]. Earth and Planetary Science Letters, 2013, 382, 85-86.	1.8	4
44	Symmetrization driven spin transition in Îµ-FeOOH at high pressure. Earth and Planetary Science Letters, 2013, 379, 49-55.	1.8	54
45	Ponded melt at the boundary between the lithosphere and asthenosphere. Nature Geoscience, 2013, 6, 1041-1044.	5.4	144
46	Effect of water in depleted mantle on post-spinel transition and implication for 660 km seismic discontinuity. Earth and Planetary Science Letters, 2013, 371-372, 103-111.	1.8	60
47	Density of Fe-3.5 wt% C liquid at high pressure and temperature and the effect of carbon on the density of the molten iron. Physics of the Earth and Planetary Interiors, 2013, 224, 77-82.	0.7	31
48	Compression behavior of manganite. Journal of Mineralogical and Petrological Sciences, 2013, 108, 295-299.	0.4	9
49	Stability of Feâ€“Ni hydride after the reaction between Feâ€“Ni alloy and hydrous phase (Î´-AlOOH) up to 1.2Mbar: Possibility of H contribution to the core density deficit. Physics of the Earth and Planetary Interiors, 2012, 194-195, 18-24.	0.7	50
50	Superplasticity in hydrous melt-bearing dunite: Implications for shear localization in Earthâ€™s upper mantle. Earth and Planetary Science Letters, 2012, 335-336, 59-71.	1.8	17
51	On the origin of the Kamiokande experiment and neutrino astrophysics. European Physical Journal H, 2012, 37, 33-73.	0.5	5
52	Pressure and temperature dependence of the viscosity of a NaAlSi2O6 melt. Physics and Chemistry of Minerals, 2011, 38, 59-64.	0.3	35
53	Density measurements of liquid Feâ€“Si alloys at high pressure using the sinkâ€“float method. Physics and Chemistry of Minerals, 2011, 38, 801-807.	0.3	27
54	Deformation cubic anvil press and stress and strain measurements using monochromatic X-rays at high pressure and high temperature. High Pressure Research, 2011, 31, 399-406.	0.4	7

#	Article	IF	Citations
55	Density measurement of liquid FeS at high pressures using synchrotron X-ray absorption. American Mineralogist, 2011, 96, 864-868.	0.9	33
56	High-pressure X-ray diffraction study of Îµ-FeOOH. Physics and Chemistry of Minerals, 2010, 37, 153-157.	0.3	33
57	Intrusion of UHP metamorphic rocks into the upper crust of Kyrgyzian Tien-Shan: P-T path and metamorphic age of the Makbal Complex. Journal of Mineralogical and Petrological Sciences, 2010, 105, 233-250.	0.4	29
58	Diamond-Graphite Relationships in Ultrahigh-pressure Metamorphic Rocks from the Kokchetav Massif, Northern Kazakhstan. Journal of Petrology, 2010, 51, 763-783.	1.1	51
59	Designing PLANET: Neutron beamline for high-pressure material science at J-PARC. Journal of Physics: Conference Series, 2010, 215, 012025.	0.3	15
60	Density measurement of Fe₃C liquid using Xâ€ray absorption image up to 10 GPa and effect of light elements on compressibility of liquid iron. Journal of Geophysical Research, 2010, 115, .	3.3	40
61	Pressure-volume-temperature equation of state of tungsten carbide to 32 GPa and 1673 K. Journal of Applied Physics, 2010, 108, .	1.1	48
62	Density of dry peridotite magma at high pressure using an X-ray absorption method. American Mineralogist, 2010, 95, 144-147.	0.9	43
63	Density of high-Ti basalt magma at high pressure and origin of heterogeneities in the lunar mantle. Earth and Planetary Science Letters, 2010, 299, 285-289.	1.8	35
64	Kushiroite, CaAlAlSiO6: A new mineral of the pyroxene group from the ALH 85085 CH chondrite, and its genetic significance in refractory inclusions. American Mineralogist, 2009, 94, 1479-1482.	0.9	54
65	Transformation textures, mechanisms of formation of highâ€pressure minerals in shock melt veins of L6 chondrites, and pressureâ€temperature conditions of the shock events. Meteoritics and Planetary Science, 2009, 44, 1771-1786.	0.7	46
66	Measurement of hydrous peridotite magma density at high pressure using the X-ray absorption method. Earth and Planetary Science Letters, 2009, 287, 293-297.	1.8	63
67	Hydrogen partitioning between iron and ringwoodite: Implications for water transport into the Martian core. Earth and Planetary Science Letters, 2009, 287, 463-470.	1.8	44
68	In situ measurement of interfacial tension of Feâ€“S and Feâ€“P liquids under high pressure using X-ray radiography and tomography techniques. Physics of the Earth and Planetary Interiors, 2009, 174, 220-226.	0.7	23
69	Compressibility of the high-pressure polymorph of AlOOH to 17 GPa. Mineralogical Magazine, 2009, 73, 479-485.	0.6	20
70	The effect of sulfur content on density of the liquid Feâ€“S at high pressure. Physics and Chemistry of Minerals, 2008, 35, 417-423.	0.3	42
71	Thermal equation of state of Alâ€and Feâ€bearing phase D. Journal of Geophysical Research, 2008, 113, .	3.3	23
72	The 20th anniversary of SN1987A. Journal of Physics: Conference Series, 2008, 120, 072001.	0.3	4

#	Article	IF	Citations
73	Effect of structural transitions on properties of high-pressure silicate melts: 27Al NMR, glass densities, and melt viscosities. American Mineralogist, 2007, 92, 1093-1104.	0.9	111
74	Thermal equation of state of superhydrous phase B to 27GPa and 1373K. Physics of the Earth and Planetary Interiors, 2007, 164, 142-160.	0.7	30
75	In situ observation and determination of liquid immiscibility in the Feâ€Oâ€S melt at 3 GPa using a synchrotron Xâ€ray radiographic technique. Geophysical Research Letters, 2007, 34, .	1.5	14
76	Stability of carbonated magmas at the base of the Earth's upper mantle. Geophysical Research Letters, 2007, 34, .	1.5	55
77	High Pressure Experiments and the Study of the Earth's Interior. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2007, 17, 198-205.	0.1	0
78	The compressibility of Fe- and Al-bearing phase D to 30ÂGPa. Physics and Chemistry of Minerals, 2007, 34, 159-167.	0.3	27
79	Neutron diffraction study of aluminous hydroxide Î´-AlOOD. Physics and Chemistry of Minerals, 2007, 34, 657-661.	0.3	21
80	Effect of pressure on the viscosity of Fe-S and Fe-C liquids up to 16 GPa. Geophysical Research Letters, 2006, 33, .	1.5	36
81	High-temperature viscosity measurements of hydrous albite liquid using in-situ falling-sphere viscometry at 2.5 GPa. Chemical Geology, 2006, 229, 2-9.	1.4	25
82	Stability of hydrous melt at the base of the Earth's upper mantle. Nature, 2006, 439, 192-194.	13.7	165
83	Viscosity of silicate melts in CaMgSi2O6â€“NaAlSi2O6 system at high pressure. Physics and Chemistry of Minerals, 2005, 32, 140-145.	0.3	43
84	Viscosity and density measurements of melts and glasses at high pressure and temperature by using the multi-anvil apparatus and synchrotron X-ray radiation. , 2005, , 195-209.		10
85	Thermal history of the enstatite chondrites from silica polymorphs. Meteoritics and Planetary Science, 2005, 40, 855-868.	0.7	68
86	In situ X-ray diffraction study of post-spinel transformation in a peridotite mantle: Implication for the 660-km discontinuity. Earth and Planetary Science Letters, 2005, 238, 311-328.	1.8	108
87	Viscosity of peridotite liquid up to 13 GPa: Implications for magma ocean viscosities. Earth and Planetary Science Letters, 2005, 240, 589-604.	1.8	144
88	Wet subduction versus cold subduction. Geophysical Research Letters, 2005, 32, .	1.5	104
89	Density and Viscosity of Magma and Metallic Liquid at High Pressures and Temperatures. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2005, 15, 146-155.	0.1	1
90	Viscosity of liquid sulfur under high pressure. Journal of Physics Condensed Matter, 2004, 16, 1707-1714.	0.7	17

#	Article	IF	Citations
91	Space group and hydrogen sites of ?-AlOOH and implications for a hypothetical high-pressure form of Mg(OH)2. Physics and Chemistry of Minerals, 2004, 31, 360.	0.3	22
92	Absence of density crossover between basalt and peridotite in the cold slabs passing through 660 km discontinuity. Geophysical Research Letters, 2004, 31, .	1.5	50
93	Density of peridotite melts at high pressure. Physics and Chemistry of Minerals, 2003, 30, 449-456.	0.3	73
94	The viscosity of CaMgSi2O6 liquid at pressures up to 13GPa. Physics of the Earth and Planetary Interiors, 2003, 139, 45-54.	0.7	87
95	In situviscosity measurements of albite melt under high pressure. Journal of Physics Condensed Matter, 2002, 14, 11343-11347.	0.7	27
96	Mechanisms and kinetics of the post-spinel transformation in Mg2SiO4. Physics of the Earth and Planetary Interiors, 2002, 129, 153-171.	0.7	56
97	Viscosity change and structural transition of Molten Fe at 5 GPa. Geophysical Research Letters, 2002, 29, 68-1-68-3.	1.5	32
98	Yamato 792947, 793408 and 82038: The most primitive H chondrites, with abundant refractory inclusions. Meteoritics and Planetary Science, 2002, 37, 1417-1434.	0.7	30
99	Viscosity of albite melt at high pressure and high temperature. Physics and Chemistry of Minerals, 2002, 29, 159-165.	0.3	81
100	Neutron diffraction study of hydrous phase G: Hydrogen in the lower mantle hydrous silicate, phase G. Geophysical Research Letters, 2001, 28, 3987-3990.	1.5	18
101	Stability field of new hydrous phase, Î´-AlOOH, with implications for water transport into the deep mantle. Geophysical Research Letters, 2001, 28, 3991-3993.	1.5	91
102	The effect of temperature, pressure, and sulfur content on viscosity of the Feâ€“FeS melt. Earth and Planetary Science Letters, 2001, 190, 93-101.	1.8	61
103	Stability of dense hydrous magnesium silicate phases and water storage capacity in the transition zone and lower mantle. Physics of the Earth and Planetary Interiors, 2001, 124, 105-117.	0.7	125
104	Radiographic study on the viscosity of the Fe-FeS melts at the pressure of 5 to 7 GPa. American Mineralogist, 2001, 86, 578-582.	0.9	34
105	ãƒžãƒ«ãƒ¢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	0
106	Micro-Raman spectroscopy of small crystals.. Ganseki Kobutsu Kagaku, 2001, 30, 241-246.	0.1	1
107	A new hydrous phase Î´-AlOOH synthesized at 21 GPa and 1000 Â°C. Physics and Chemistry of Minerals, 2000, 27, 689-693.	0.3	134
108	Viscosity of the albite melt to 7 GPa at 2000 K. Earth and Planetary Science Letters, 2000, 175, 87-92.	1.8	39

#	Article	IF	Citations
109	In situ determination of the phase boundary between Wadsleyite and Ringwoodite in Mg2SiO4. Geophysical Research Letters, 2000, 27, 803-806.	1.5	121
110	Formation of metastable assemblages and mechanisms of the grain-size reduction in the Postspinel transformation of Mg2SiO4. Geophysical Research Letters, 2000, 27, 807-810.	1.5	35
111	The high-pressure and temperature equation of state of a majorite solid solution in the system of Mg 4 Si 4 O 12 -Mg 3 Al 2 Si 3 O 12. Physics and Chemistry of Minerals, 1999, 27, 3-10.	0.3	23
112	High Pressure Earth Science. Physical Properties of Silicate Melt at High Pressure.. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 1999, 9, 11-18.	0.1	2
113	Density and thermal expansion of a peridotite melt at high pressure. Physics of the Earth and Planetary Interiors, 1998, 107, 53-61.	0.7	57
114	An in situ X ray diffraction study of the Î±-Î² transformation kinetics of Mg2SiO4. Geophysical Research Letters, 1998, 25, 695-698.	1.5	24
115	Melting relations of hydrous and dry mantle compositions and the genesis of komatiites. Geophysical Research Letters, 1998, 25, 2201-2204.	1.5	33
116	Flotation of olivine and diamond in mantle melt at high pressure: Implications for fractionation in the deep mantle and ultradeep origin of diamond. Geophysical Monograph Series, 1998, , 227-239.	0.1	18
117	In Situ X Ray Observation of the Phase Transitions from .ALPHA. to .GAMMA. and from .GAMMA. to Perovskite+Periclase in Mg2SiO4.. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 1998, 7, 119-121.	0.1	4
118	Melting relations of peridotite and the density crossover in planetary mantles. Chemical Geology, 1995, 120, 207-221.	1.4	77
119	Flotation of Diamond in Mantle Melt at High Pressure. Science, 1995, 269, 216-218.	6.0	66
120	In situ X ray observation of high-pressure phase transitions of MgSiO3and thermal expansion of MgSiO3perovskite at 25 GPa by double-stage multianvil system. Journal of Geophysical Research, 1995, 100, 20475-20481.	3.3	51
121	Flotation of Olivine in the Peridotite Melt at High Pressure.. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 1993, 69, 23-28.	1.6	24
122	P-V-T equation of state of Î±-ScOOH.. High Pressure Research, 0, , 1-13.	0.4	0