Satoru Urakawa

List of Publications by Year
in descending order

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45 papers	2,206 citations	257450 24 h-index	233421 45 g-index
45 all docs	45 docs citations	45 times ranked	1430 citing authors

#	Article	IF	Citations
1	The Postspinel Phase Boundary in Mg2SiO4 Determined by in Situ X-ray Diffraction. Science, 1998, 279, 1698-1700.	12.6	251
2	The Phase Boundary Between agr- and beta-Mg2SiO4 Determined by in Situ X-ray Observation. Science, 1994, 265, 1202-1203.	12.6	217
3	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
4	In-situ measurement of viscosity and density of carbonate melts at high pressure. Earth and Planetary Science Letters, 1996, 143, 207-215.	4.4	201
5	SPring-8 Beamlines for High Pressure Science with Multi-Anvil Apparatus.. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 1998, 7, 1484-1486.	0.0	144
6	Ponded melt at the boundary between the lithosphere and asthenosphere. Nature Geoscience, 2013, 6, 1041-1044.	12.9	144
7	In situObservation of ilmenite-perovskite phase transition in MgSiO3using synchrotron radiation. Geophysical Research Letters, 2001, 28, 835-838.	4.0	83
8	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
9	Measurement of hydrous peridotite magma density at high pressure using the X-ray absorption method. Earth and Planetary Science Letters, 2009, 287, 293-297.	4.4	63
10	The effect of temperature, pressure, and sulfur content on viscosity of the Feâ€“FeS melt. Earth and Planetary Science Letters, 2001, 190, 93-101.	4.4	61
11	Synchrotron radiation study on the high-pressure and high-temperature phase relations of KAlSi3O8. Physics and Chemistry of Minerals, 1994, 21, 387.	0.8	60
12	Mechanisms and kinetics of the post-spinel transformation in Mg2SiO4. Physics of the Earth and Planetary Interiors, 2002, 129, 153-171.	1.9	56
13	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
14	Density of dry peridotite magma at high pressure using an X-ray absorption method. American Mineralogist, 2010, 95, 144-147.	1.9	43
15	Density of carbonated peridotite magma at high pressure using an X-ray absorption method. American Mineralogist, 2011, 96, 553-557.	1.9	39
16	Pressure and Composition Effects on Sound Velocity and Density of Coreâ€Forming Liquids: Implication to Core Compositions of Terrestrial Planets. Journal of Geophysical Research E: Planets, 2019, 124, 2272-2293.	3.6	39
17	Formation of metastable assemblages and mechanisms of the grain-size reduction in the Postspinel transformation of Mg2SiO4. Geophysical Research Letters, 2000, 27, 807-810.	4.0	35
18	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.	4.4	35

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19	Radiographic study on the viscosity of the Fe-FeS melts at the pressure of 5 to 7 GPa. American Mineralogist, 2001, 86, 578-582.	1.9	34
20	Density measurement of liquid FeS at high pressures using synchrotron X-ray absorption. American Mineralogist, 2011, 96, 864-868.	1.9	33
21	Viscosity change and structural transition of Molten Fe at 5 GPa. Geophysical Research Letters, 2002, 29, 68-1-68-3.	4.0	32
22	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.	1.9	31
23	Experimental study on the phase relations in the system Fe-Ni-O-S up to 15 GPa. Geophysical Monograph Series, 1987, , 95-111.	0.1	27
24	Structure of Molten Iron Sulfide under Pressure.. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 1998, 7, 286-288.	0.0	24
25	In situ X-ray experiment on the structure of hydrous Mg-silicate melt under high pressure and high temperature. Geophysical Research Letters, 2007, 34, .	4.0	24
26	Thermoelastic properties of liquid Feâ€€ revealed by sound velocity and density measurements at high pressure. Journal of Geophysical Research: Solid Earth, 2016, 121, 7984-7995.	3.4	24
27	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.	1.9	23
28	Partitioning of Ni between magnesiowÃ¼stite and metal at high pressure: implications for core-mantle equilibrium. Earth and Planetary Science Letters, 1991, 105, 293-313.	4.4	19
29	Sound velocity and elastic properties of Feâ€“Ni and Feâ€“Niâ€“C liquids at high pressure. Physics and Chemistry of Minerals, 2016, 43, 229-236.	0.8	19
30	Viscosity of liquid sulfur under high pressure. Journal of Physics Condensed Matter, 2004, 16, 1707-1714.	1.8	17
31	Development of high pressure apparatus for X-ray microtomography at SPring-8. Journal of Physics: Conference Series, 2010, 215, 012026.	0.4	14
32	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
33	In situ X-ray diffraction study on pressure-induced structural changes in hydrous forsterite and enstatite melts. Earth and Planetary Science Letters, 2011, 308, 115-123.	4.4	12
34	Interfacial tension of Feâ€“Si liquid at high pressure: Implications for liquid Fe-alloy droplet size in magma oceans. Physics of the Earth and Planetary Interiors, 2012, 202-203, 1-6.	1.9	10
35	X-ray and Neutron Study on the Structure of Hydrous SiO2 Glass up to 10 GPa. Minerals (Basel,) Tj ETQq1 1 0.784314 rgBT /Overlock	2.0	9
36	High-pressure X-ray diffraction study on the structure of NaCl melt using synchrotron radiation. American Mineralogist, 1999, 84, 341-344.	1.9	8

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37	Interfacial tension measurement of Ni-S liquid using high-pressure X-ray micro-tomography. High Pressure Research, 2008, 28, 327-334.	1.2	8
38	Pressure-induced structure change of molten KCl. High Pressure Research, 1996, 14, 375-382.	1.2	7
39	X ray diffraction analysis of molten KCl and KBr under pressure: Pressure-induced structural transition in melt. Geophysical Monograph Series, 1998, , 241-248.	0.1	5
40	High-Pressure Phase Relationships for FeS. High Pressure Research, 2002, 22, 491-494.	1.2	5
41	Phase relationships of the system Fe-Ni-S and structure of the high-pressure phase of (Fe1â˜'xNix)3S2. Physics of the Earth and Planetary Interiors, 2018, 277, 30-37.	1.9	3
42	Sound velocity and density of liquid Ni68S32 under pressure using ultrasonic and X-ray absorption with tomography methods. Comptes Rendus - Geoscience, 2019, 351, 163-170.	1.2	2
43	Stability of (Mg,Fe)₁₄Si₅O₂₄ AT 17 GP_a and 1800Â°C and its partitioning behavior of transition elements. Geophysical Research Letters, 1990, 17, 2457-2460.	4.0	1
44	Synchrotron radiation study on the phase relations of KAlSi3O8. AIP Conference Proceedings, 1994, , .	0.4	1
45	Density and elastic properties of liquid gallium up to 10 GPa using X-ray absorption method combined with externally heated diamond anvil cell. High Pressure Research, 2021, 41, 379-391.	1.2	1