

# Nobumasa Funamori

## List of Publications by Year in descending order

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60  
papers

2,465  
citations

186265

28  
h-index

189892

50  
g-index

60  
all docs

60  
docs citations

60  
times ranked

1709  
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermoelastic properties of MgSiO <sub>3</sub> perovskite determined by in situ X ray observations up to 30 GPa and 2000 K. Journal of Geophysical Research, 1996, 101, 8257-8269.	3.3	196
2	Sixfold-Coordinated Amorphous Polymorph of $\text{SiO}_2$ under High Pressure. Physical Review Letters, 2008, 101, 255502.	7.8	174
3	High-pressure structural transformation of $\text{SiO}_2$ up to 100 GPa. Physical Review B, 2010, 82, .	3.2	138
4	High-Pressure Transformation of Al <sub>2</sub> O <sub>3</sub> . Science, 1997, 278, 1109-1111.	12.6	132
5	Lattice strains in crystals under uniaxial stress field. Journal of Applied Physics, 1996, 80, 739-746.	2.5	109
6	High pressure and high temperature in situ X-ray observation of MgSiO <sub>3</sub> Perovskite under lower mantle conditions. Geophysical Research Letters, 1993, 20, 387-390.	4.0	99
7	High-pressure transformations in MgAl <sub>2</sub> O <sub>4</sub> . Journal of Geophysical Research, 1998, 103, 20813-20818.	3.3	95
8	Helium penetrates into silica glass and reduces its compressibility. Nature Communications, 2011, 2, 345.	12.8	88
9	High-pressure and high-temperature in situ x-ray Diffraction study of iron to above 30 Gpa using MA8-type apparatus. Geophysical Research Letters, 1996, 23, 953-956.	4.0	87
10	Deviatoric stress measurement under uniaxial compression by a powder x-ray diffraction method. Journal of Applied Physics, 1994, 75, 4327-4331.	2.5	84
11	Garnet-perovskite transformation under conditions of the Earth's lower mantle: an analytical transmission electron microscopy study. Physics of the Earth and Planetary Interiors, 1999, 116, 117-131.	1.9	84
12	Thermal expansivity of MgSiO <sub>3</sub> perovskite under high pressures up to 20 GPa. Geophysical Research Letters, 1995, 22, 1005-1008.	4.0	80
13	Pressure-Induced Structural Change of Liquid Silicon. Physical Review Letters, 2002, 88, 255508.	7.8	78
14	Exploratory studies of silicate melt structure at high pressures and temperatures by in situ X-ray diffraction. Journal of Geophysical Research, 2004, 109, .	3.3	78
15	Compression behavior of densified $\text{SiO}_2$ glass. Physical Review B, 2011, 84, .	3.2	57
16	Stability of the Liquid State of Imidazolium-Based Ionic Liquids under High Pressure at Room Temperature. Journal of Physical Chemistry B, 2015, 119, 8146-8153.	2.6	56
17	Mineral assemblages of basalt in the lower mantle. Journal of Geophysical Research, 2000, 105, 26037-26043.	3.3	53
18	A cubic boron nitride gasket for diamond-anvil experiments. Review of Scientific Instruments, 2008, 79, 053903.	1.3	53

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19	Amorphization of Serpentine at High Pressure and High Temperature. <i>Science</i> , 1996, 272, 1468-1470.	12.6	50
20	Transformation in Garnet from Orthorhombic Perovskite to LiNbO <sub>3</sub> Phase on Release of Pressure. <i>Science</i> , 1997, 275, 513-515.	12.6	50
21	Structural transformation of liquid tellurium at high pressures and temperatures. <i>Physical Review B</i> , 2001, 65, .	3.2	48
22	Broadening of x-ray powder diffraction lines under nonhydrostatic stress. <i>Journal of Applied Physics</i> , 1997, 82, 142-146.	2.5	42
23	High-pressure and high-temperature phase relations in diopside CaMgSi <sub>2</sub> O <sub>6</sub> . <i>Physics of the Earth and Planetary Interiors</i> , 1997, 104, 363-370.	1.9	41
24	Density contrast between silicate melts and crystals in the deep mantle: An integrated view based on static-compression data. <i>Earth and Planetary Science Letters</i> , 2010, 295, 435-440.	4.4	32
25	Towards a consensus on the pressure and composition dependence of sound velocity in the liquid Fe-FeS system. <i>Physics of the Earth and Planetary Interiors</i> , 2016, 257, 230-239.	1.9	31
26	Post-garnet transition in a natural pyrope: a multi-anvil study based on in situ X-ray diffraction and transmission electron microscopy. <i>Physics of the Earth and Planetary Interiors</i> , 2000, 122, 175-186.	1.9	30
27	Pressure dependence of the structure of liquid group 14 elements. <i>Journal of Physics Condensed Matter</i> , 2004, 16, S989-S996.	1.8	29
28	Enhanced plasticity of silica glass at high pressure. <i>Physical Review B</i> , 2015, 91, .	3.2	28
29	Analytical electron microscopy of the garnet-perovskite transformation in a laser-heated diamond anvil cell. <i>Geophysical Monograph Series</i> , 1998, , 409-417.	0.1	27
30	Differential strain and residual anisotropy in silica glass. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	25
31	In situ X-ray experiment on the structure of hydrous Mg-silicate melt under high pressure and high temperature. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	24
32	Chemical composition of the lower mantle inferred from the equation of state of MgSiO <sub>3</sub> perovskite. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 1996, 354, 1371-1384.	3.4	22
33	Anomalous behavior of cristobalite in helium under high pressure. <i>Physics and Chemistry of Minerals</i> , 2013, 40, 3-10.	0.8	22
34	Pressure-induced structural change of intermediate-range order in poly(4-methyl-1-pentene) melt. <i>Physical Review E</i> , 2012, 85, 021807.	2.1	21
35	High-pressure <i>in situ</i> density measurement of low-Z noncrystalline materials with a diamond-anvil cell by an x-ray absorption method. <i>Review of Scientific Instruments</i> , 2008, 79, 073906.	1.3	18
36	High-pressure glass formation of a series of 1-alkyl-3-methylimidazolium bis(trifluoromethanesulfonyl)imide homologues. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 199-205.	2.8	15

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37	High-pressure <i>in situ</i> structure measurement of low-Z noncrystalline materials with a diamond-anvil cell by an x-ray diffraction method. Review of Scientific Instruments, 2010, 81, 043906.	1.3	14
38	Long Periodic Structure of a Room-Temperature Ionic Liquid by High-Pressure Small-Angle X-Ray Scattering and Wide-Angle X-Ray Scattering: 1-Decyl-3-Methylimidazolium Chloride. ChemPhysChem, 2018, 19, 1441-1447.	1.8	13
39	Coexistence of two states in optically homogeneous silica glass during the transformation in short-range order. Physical Review B, 2018, 98, .	3.2	13
40	Effect of sulfur on sound velocity of liquid iron under Martian core conditions. Nature Communications, 2020, 11, 1954.	12.8	13
41	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
42	Sato and Funamori Reply:. Physical Review Letters, 2009, 102, .	7.8	11
43	Crystal structures and stabilities of cristobalite-helium phases at high pressures. American Mineralogist, 2014, 99, 184-189.	1.9	11
44	Solving the problem of inconsistency in the reported equations of state for h-BN. High Pressure Research, 2015, 35, 123-129.	1.2	11
45	Post-PbCl <sub>2</sub> phase transformation of TeO <sub>2</sub> . Physical Review B, 2005, 72, .	3.2	10
46	Equation of state of silicate melts with densified intermediate-range order at the pressure condition of the Earth's deep upper mantle. Physics and Chemistry of Minerals, 2013, 40, 299-307.	0.8	10
47	X-ray and Neutron Study on the Structure of Hydrous SiO <sub>2</sub> Glass up to 10 GPa. Minerals (Basel), Tj ETQq1 1 0.784314 rgBT /Qverlock 2.0 9	2.0	9
48	Heating in a diamond-anvil cell using relaxation oscillations of a Q-switched Nd:YAG laser. Review of Scientific Instruments, 2006, 77, 093903.	1.3	7
49	Nature of the transformation in liquid iodine at 4 GPa. Physical Review B, 2017, 96, .	3.2	5
50	<i>In Situ</i> Observation of the Phase Transition Behavior of Shocked Baddeleyite. Geophysical Research Letters, 2020, 47, e2020GL089592.	4.0	5
51	Development of shock-dynamics study with synchrotron-based time-resolved X-ray diffraction using an Nd:glass laser system. Journal of Synchrotron Radiation, 2020, 27, 371-377.	2.4	5
52	Conceptual design of the Hybrid Ring with superconducting linac. Journal of Synchrotron Radiation, 2022, 29, 118-124.	2.4	5
53	Equation of state for silicate melts: A comparison between static and shock compression. Geophysical Research Letters, 2014, 41, 50-54.	4.0	4
54	Structure of sodium silicate water glass—X-ray scattering experiments and force-field molecular dynamics simulations. Journal of Non-Crystalline Solids, 2022, 579, 121370.	3.1	4

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55	Muonium in Stishovite: Implications for the Possible Existence of Neutral Atomic Hydrogen in the Earth's Deep Mantle. <i>Scientific Reports</i> , 2015, 5, 8437.	3.3	3
56	X-ray zooming microscopy with two Fresnel zone plates. <i>Review of Scientific Instruments</i> , 2022, 93, 033701.	1.3	2
57	Kinetic model for phase transformation of noncrystalline solids: Application to permanent densification of SiO <sub>2</sub> glass. <i>Physical Review B</i> , 2021, 103, .	3.2	1
58	Feature Articles on Earth Science. In Situ X-ray Diffraction Studies under Lower Mantle Conditions.. <i>Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu</i> , 1994, 3, 49-54.	0.0	1
59	Stability field of the orthorhombic perovskite type of MgSiO <sub>3</sub> . <i>AIP Conference Proceedings</i> , 1994, , .	0.4	0
60	X-ray zooming optics for analyzer-based multi-contrast computed tomography. <i>Journal of Synchrotron Radiation</i> , 2022, 29, 787-793.	2.4	0