Masami Kanzaki

List of Publications by Year
in descending order

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75 papers	2,617 citations	172207 29 h-index	189595 50 g-index
78 all docs	78 docs citations	78 times ranked	2027 citing authors

#	Article	IF	Citations
1	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.	0.7	210
2	Stability of hydrous magnesium silicates in the mantle transition zone. Physics of the Earth and Planetary Interiors, 1991, 66, 307-312.	0.7	152
3	Silicon Coordination and Speciation Changes in a Silicate Liquid at High Pressures. Science, 1989, 245, 962-964.	6.0	150
4	Dissolution mechanisms of water in depolymerized silicate melts: Constraints from 1H and 29Si NMR spectroscopy and ab initio calculations. Geochimica Et Cosmochimica Acta, 2004, 68, 5027-5057.	1.6	133
5	Second critical endpoint in the peridotite-H2O system. Journal of Geophysical Research, 2007, 112, .	3.3	96
6	Separation of supercritical slab-fluids to form aqueous fluid and melt components in subduction zone magmatism. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 18695-18700.	3.3	88
7	Proton Distributions and Hydrogen Bonding in Crystalline and Glassy Hydrous Silicates and Related Inorganic Materials: Insights from Highâ€Resolution Solidâ€State Nuclear Magnetic Resonance Spectroscopy. Journal of the American Ceramic Society, 2009, 92, 2803-2830.	1.9	85
8	Characterization of quenched high pressure phases in CaSiO₃ system by XRD and ²⁹Si NMR. Geophysical Research Letters, 1991, 18, 463-466.	1.5	83
9	In situObservation of ilmenite-perovskite phase transition in MgSiO3using synchrotron radiation. Geophysical Research Letters, 2001, 28, 835-838.	1.5	83
10	Ultrahigh-pressure phase relations in the system Mg4Si4O12î—¸Mg3Al2Si3O12. Physics of the Earth and Planetary Interiors, 1987, 49, 168-175.	0.7	75
11	High-Pressure Î´-Al(OH)₃ and Î´-AlOOH Phases and Isostructural Hydroxides/Oxyhydroxides:â€‰ New Structural Insights from High-Resolution ¹H and ²⁷Al NMR. Journal of Physical Chemistry B, 2007, 111, 13156-13166.	1.2	74
12	Structure of hydrous aluminosilicate glasses along the diopsideâ€“anorthite join: A comprehensive one- and two-dimensional 1H and 27Al NMR study. Geochimica Et Cosmochimica Acta, 2008, 72, 2331-2348.	1.6	72
13	Local Structure and Chemical Shifts for Six-Coordinated Silicon in High-Pressure Mantle Phases. Science, 1991, 251, 294-298.	6.0	67
14	Correlations between 29 Si, 17 O and 1 H NMR properties and local structures in silicates: an ab initio calculation. Physics and Chemistry of Minerals, 1998, 26, 14-30.	0.3	59
15	Sulfur speciation and network structural changes in sodium silicate glasses: Constraints from NMR and Raman spectroscopy. Geochimica Et Cosmochimica Acta, 2004, 68, 5081-5101.	1.6	59
16	NMR Characteristics of Possible Oxygen Sites in Aluminosilicate Glasses and Melts:Â An ab Initio Study. Journal of Physical Chemistry B, 1999, 103, 10816-10830.	1.2	54
17	Ortho/clinoenstatite transition. Physics and Chemistry of Minerals, 1991, 17, 726.	0.3	53
18	Depolymerization effect of water in aluminosilicate glasses: Direct evidence from 1H-27Al heteronuclear correlation NMR. American Mineralogist, 2006, 91, 1922-1926.	0.9	52

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19	Al coordination and water speciation in hydrous aluminosilicate glasses: Direct evidence from high-resolution heteronuclear 1Hâ€“27Al correlation NMR. Solid State Nuclear Magnetic Resonance, 2007, 31, 10-27.	1.5	51
20	An ab initio calculation of 17O and 29Si NMR parameters for SiO2 polymorphs. Solid State Nuclear Magnetic Resonance, 2000, 16, 245-259.	1.5	50
21	Melting of Silica up to 7 GPa. Journal of the American Ceramic Society, 1990, 73, 3706-3707.	1.9	49
22	Ab initio Calculation of the17O and1H NMR Parameters for Various OH Groups:Â Implications to the Speciation and Dynamics of Dissolved Water in Silicate Glasses. Journal of Physical Chemistry B, 2001, 105, 3422-3434.	1.2	48
23	Structural Transformations and Anomalous Viscosity in the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi mathvariant="bold">B</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="bold">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>Melt under High Pressure. Physical Review Letters, 2010, 105, 115701.	2.9	48
24	Cation order and hydrogen bonding of high-pressure phases in the Al2O3-SiO2-H2O system: An NMR and Raman study. American Mineralogist, 2006, 91, 850-861.	0.9	43
25	Determination of the second critical end point in silicate-H2O systems using high-pressure and high-temperature X-ray radiography. Geochimica Et Cosmochimica Acta, 2004, 68, 5189-5195.	1.6	41
26	Elasticity of a majoriteâ€pyrope solid solution. Geophysical Research Letters, 1990, 17, 1989-1992.	1.5	38
27	Coordination environment of silicon in silica glass up to 74 GPa: An x-ray Raman scattering study at the silicon<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>L</mml:mi></mml:math>edge. Physical Review B, 2008, 78, .	1.1	38
28	29Si magic-angle-spinning nuclear-magnetic-resonance study of spinel-type Si3N4. Applied Physics Letters, 2001, 78, 3050-3051.	1.5	34
29	Dense hydrous magnesium silicates, phase D, and superhydrous B: New structural constraints from one- and two-dimensional 29Si and 1H NMR. American Mineralogist, 2008, 93, 1099-1111.	0.9	31
30	Measurements of density distribution around Vickers indentation on commercial aluminoborosilicate and soda-lime silicate glasses by using micro Raman spectroscopy. Journal of Non-Crystalline Solids, 2012, 358, 3473-3480.	1.5	26
31	Raman and NMR spectroscopic characterization of high-pressure K-cymrite (KAlSi₃O₈[.]H₂O) and its anhydrous form (kokchetavite). Journal of Mineralogical and Petrological Sciences, 2012, 107, 114-119.	0.4	26
32	In situ structural changes of amorphous diopside (CaMgSi2O6) up to 20 GPa: A Raman and O K-edge X-ray Raman spectroscopic study. Geochimica Et Cosmochimica Acta, 2016, 178, 41-61.	1.6	26
33	Hydrogen incorporation mechanisms in forsterite: New insights from¹H and²⁹Si NMR spectroscopy and first-principles calculation. American Mineralogist, 2017, 102, 519-536.	0.9	25
34	Nonviscous Metallic Liquid Se. Physical Review Letters, 2007, 99, 245901.	2.9	23
35	Phase relations in Na2Oâ€“SiO2 and K2Si4O9 systems up to 14 GPa and 29Si NMR study of the new high-pressure phases: implications to the structure of high-pressure silicate glasses. Physics of the Earth and Planetary Interiors, 1998, 107, 9-21.	0.7	22
36	Viscosity Behavior Spanning Four Orders of Magnitude in As-S Melts under High Pressure. Physical Review Letters, 2009, 102, 115901.	2.9	20

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37	Dehydration of brucite (Mg(OH)₂) at high pressures detected by differential thermal analysis. Geophysical Research Letters, 1991, 18, 2189-2192.	1.5	19
38	A 29Si MAS NMR study of sub-Tg amorphization of stishovite at ambient pressure. Physics and Chemistry of Minerals, 1993, 19, 480.	0.3	19
39	Crystal chemical characteristics of Î±-CaSi 2 O 5 , a new high pressure calcium silicate with five-coordinated silicon synthesized at 1500Â°C and 10 GPa. Physics and Chemistry of Minerals, 1998, 25, 429-433.	0.3	19
40	X-ray Raman scattering for structural investigation of silica/silicate minerals. Physics and Chemistry of Minerals, 2009, 36, 171-181.	0.3	19
41	Unique crystal chemistry of two polymorphs of topaz-OH: A multi-nuclear NMR and Raman study. American Mineralogist, 2010, 95, 1276-1293.	0.9	19
42	Structural Characterization of Moganite-Type AlPO₄ by NMR and Powder X-ray Diffraction. Inorganic Chemistry, 2012, 51, 6164-6172.	1.9	19
43	Crystal structure of a new high-pressure polymorph of topaz-OH. American Mineralogist, 2010, 95, 1349-1352.	0.9	18
44	Pressure-induced phase transitions of AX₂-type iron pnictides: anab initiostudy. Journal of Physics Condensed Matter, 2009, 21, 185403.	0.7	17
45	Calculated powder X-ray patterns of phase B, anhydrous B and superhydrous B: re-assessment of previous studies.. Journal of the Mineralogical Society of Japan, 1993, 16, 278-285.	1.0	16
46	Structural study of FeP2 at high pressure. High Pressure Research, 2009, 29, 235-244.	0.4	15
47	Si-Al distribution in high-pressure CaAl4Si2O11 phase: A 29Si and 27Al NMR study. American Mineralogist, 2009, 94, 1739-1742.	0.9	13
48	Structures of two new high-pressure forms of AlPO₄by X-ray powder diffraction and NMR spectroscopy. Acta Crystallographica Section B: Structural Science, 2011, 67, 30-40.	1.8	12
49	Protoenstatite in MgSiO₃ samples prepared by conventional solid state reaction. Journal of Mineralogical and Petrological Sciences, 2017, 112, 359-364.	0.4	11
50	Carbonate speciation in depolymerized and polymerized (alumino)silicate glasses: Constraints from 13C MAS and static NMR measurements and ab initio calculations. Chemical Geology, 2018, 479, 151-165.	1.4	11
51	Synthesis and characterization of strontiumâ€“calcium phosphate Î³-Ca3â^'xSrx(PO4)2 (0â‰¤xâ‰¤2). Materials Chemistry and Physics, 2010, 120, 348-350.	2.0	9
52	Crystal structures of Zn2SiO4 III and IV synthesized at 6.5â€“8 GPa and 1,273ÂK. Physics and Chemistry of Minerals, 2013, 40, 467-478.	0.3	9
53	Cation distribution in Mgâ€“Zn olivine solid solution: a ²⁹Si MAS NMR and firstâ€“principles calculation study. Journal of Mineralogical and Petrological Sciences, 2016, 111, 292-296.	0.4	9
54	Crystal structures of Zn₂GeO₄ cubic/tetragonal spinel and Zn₂SiO₄ modified spinel phases. Journal of Mineralogical and Petrological Sciences, 2018, 113, 41-46.	0.4	8

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55	Ab Initio ²⁷Al NMR Chemical Shift Calculation for the Clusters of Al(OH)₄⁻, Al(OH)₅²⁻ and Al(OH)₆³⁻. Journal of the Ceramic Society of Japan, 1997, 105, 91-92.	1.3	7
56	Distinct ²⁹Si MAS NMR Peaks from Siâ€“Al Permutation on Neighboring T Sites of Unequal Siâ€“Oâ€“T Angles: Direct Evidence from J-Resolved Experiment on K-Cymrite (KAlSi₃O₈Â·H₂O). Journal of Physical Chemistry C, 2012, 116, 10714-10722.	1.5	7
57	Characterization of Crystalline and Amorphous Silicates Quenched from High Pressure by29Si MAS NMR Spectroscopy. Geophysical Monograph Series, 2013, , 89-100.	0.1	7
58	Molecular dynamics simulation of oxygen ion diffusion in Ba2In2O5. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1996, 41, 46-49.	1.7	6
59	Highâ€“temperature Raman spectroscopic study of CO₂â€“containing melanophlogite. Journal of Mineralogical and Petrological Sciences, 2019, 114, 122-129.	0.4	6
60	Ab initio calculation of 29Si NMR chemical shifts for the clusters of Si(OH)4, Si(OH)5- and Si(OH)6-2.. Journal of the Mineralogical Society of Japan, 1996, 18, 1-8.	1.0	6
61	Raman spectra of tridymite modifications: MC, MXâ€“1, and POâ€“10. Journal of Mineralogical and Petrological Sciences, 2019, 114, 214-218.	0.4	5
62	Phase diagram and thermodynamic properties of AlPO4 based on first-principles calculations and the quasiharmonic approximation. Physics and Chemistry of Minerals, 2015, 42, 15-27.	0.3	4
63	A Molecular Dynamics Simulation of An Infinite-Layer Compound ACuO₂ (A=Sr,) Tj ETQq1 1 0.784314 rgBT /O	1.3	3
64	Crystal structures of two oxygen-deficient perovskite phases in the CaSiO3â€“CaAlO2.5 join. Physics and Chemistry of Minerals, 2017, 44, 717-733.	0.3	3
65	Temperatureâ€“induced phase transition of AlPO₄â€“moganite studied by inâ€“situ Raman spectroscopy. Journal of Mineralogical and Petrological Sciences, 2018, 113, 126-134.	0.4	3
66	Activation energies of H2O and H2 diffusions in silica glass: Semi-empirical molecular orbital study.. Journal of the Mineralogical Society of Japan, 1997, 19, 13-19.	1.0	3
67	Materials Science and Seismological Approaches to Understanding Seismogenic Processes Investigation of Critical Behavior in Basalt-H2O System Using High-pressure and High-temperature X-ray Radiography. Journal of Geography (Chigaku Zasshi), 2003, 112, 970-978.	0.1	2
68	Hydrogen distribution in chondrodite: a firstâ€“principles calculation. Journal of Mineralogical and Petrological Sciences, 2016, 111, 425-430.	0.4	2
69	CO₂ distribution in CO₂â€“rich melanophlogite from Fortunillo, Tuscany, Italy. Journal of Mineralogical and Petrological Sciences, 2020, 115, 471-478.	0.4	2
70	Molecular Dynamic Simulation and Electrical Properties of Ba2In2O5. Materials Research Society Symposia Proceedings, 1997, 496, 193.	0.1	1
71	Structure and properties of silicate melts and fluids. Geochimica Et Cosmochimica Acta, 2004, 68, 5011.	1.6	1
72	Elastic wave velocities and Raman shift of MORB glass at high pressures â€” Comment. Journal of Mineralogical and Petrological Sciences, 2008, 103, 427-428.	0.4	1

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73	Phase transitions of tridymite MC: A low frequency Raman spectroscopic study. Journal of Mineralogical and Petrological Sciences, 2020, 115, 296-301.	0.4	1
74	Raman spectroscopic study of pressureâ€“induced phase transitions in tridymite modifications. Journal of Mineralogical and Petrological Sciences, 2021, , .	0.4	1
75	Pressureâ€“induced phase transitions of Zn₂SiO₄ III and IV studied using inâ€“situ Raman spectroscopy. Journal of Mineralogical and Petrological Sciences, 2018, 113, 263-267.	0.4	0