

# T Irifune

## List of Publications by Year in descending order

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40  
papers

3,856  
citations

218381

26  
h-index

344852

36  
g-index

40  
all docs

40  
docs citations

40  
times ranked

2104  
citing authors

#	ARTICLE	IF	CITATIONS
1	Grain size dependent high-pressure elastic properties of ultrafine micro/nanocrystalline grossular. <i>Scientific Reports</i> , 2021, 11, 22481.	1.6	0
2	Nano-polycrystalline diamond anvils: key devices for XAS at extreme conditions: their use, scientific impact, present status and future needs. <i>High Pressure Research</i> , 2020, 40, 65-81.	0.4	13
3	Chemical Reaction Between Metallic Iron and a Limited Water Supply Under Pressure: Implications for Water Behavior at the Core-Mantle Boundary. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089616.	1.5	3
4	Solid Solution and Compression Behavior of Hydroxides in the Lower Mantle. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 10231-10239.	1.4	16
5	Phase Relations in the Model System $\text{SiO}_2\text{-MgO-Cr}_2\text{O}_3$ : Evidence from the Results of Experiments in Petrologically Significant Sections at 12-24 GPa and 1600-1800°C. <i>Petrology</i> , 2018, 26, 588-598.	0.2	3
6	Pressure-induced nano-crystallization of silicate garnets from glass. <i>Nature Communications</i> , 2016, 7, 13753.	5.8	53
7	Phase relations and formation of chromium-rich phases in the system $\text{Mg}_4\text{Si}_4\text{O}_{12}\text{-Mg}_3\text{Cr}_2\text{Si}_3\text{O}_{12}$ at 10-24 GPa and 1,600-1800°C. <i>Contributions To Mineralogy and Petrology</i> , 2015, 169, 1.	1.2	28
8	Phase transitions of serpentine in the lower mantle. <i>Physics of the Earth and Planetary Interiors</i> , 2015, 245, 52-58.	0.7	14
9	Phase Transitions and Mineralogy of the Lower Mantle. , 2015, , 33-60.		26
10	Crystal chemistry of dense hydrous magnesium silicates: The structure of phase H, $\text{MgSiH}_2\text{O}_4$ , synthesized at 45 GPa and 1000 ÅC. <i>American Mineralogist</i> , 2014, 99, 1802-1805.	0.9	36
11	Stability of hydrous silicate at high pressures and water transport to the deep lower mantle. <i>Nature Geoscience</i> , 2014, 7, 224-227.	5.4	259
12	Note: High-pressure generation using nano-polycrystalline diamonds as anvil materials. <i>Review of Scientific Instruments</i> , 2011, 82, 066104.	0.6	27
13	In situ stress-strain measurements in a deformation-DIA apparatus at P-T conditions of the upper part of the mantle transition zone. <i>American Mineralogist</i> , 2011, 96, 1665-1672.	0.9	23
14	Laser heating in nano-polycrystalline diamond anvil cell. <i>Journal of Physics: Conference Series</i> , 2010, 215, 012192.	0.3	7
15	Sound velocities of majorite garnet and the composition of the mantle transition region. <i>Nature</i> , 2008, 451, 814-817.	13.7	130
16	Ultrahard diamond indenter prepared from nanopolycrystalline diamond. <i>Review of Scientific Instruments</i> , 2008, 79, 056102.	0.6	31
17	Mineralogy of the Earth - Phase Transitions and Mineralogy of the Lower Mantle. , 2007, , 33-62.		30
18	Hardness and deformation microstructures of nano-polycrystalline diamonds synthesized from various carbons under high pressure and high temperature. <i>Journal of Materials Research</i> , 2007, 22, 2345-2351.	1.2	168

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19	Mineralogy of the Earth – Phase Transitions and Mineralogy of the Lower Mantle. , 2007, , 33-62.		25
20	Conditions and mechanism of formation of nano-polycrystalline diamonds on direct transformation from graphite and non-graphitic carbon at high pressure and temperature. High Pressure Research, 2006, 26, 63-69.	0.4	68
21	In situ X-ray diffraction study of an aluminous phase in MORB under lower mantle conditions. Physics and Chemistry of Minerals, 2006, 33, 28-34.	0.3	14
22	The phase boundary between wadsleyite and ringwoodite in Mg <sub>2</sub> SiO <sub>4</sub> determined by in situ X-ray diffraction. Physics and Chemistry of Minerals, 2006, 33, 106-114.	0.3	58
23	High-temperature and high-pressure equation of state for the hexagonal phase in the system NaAlSiO <sub>4</sub> – MgAl <sub>2</sub> O <sub>4</sub> . Physics and Chemistry of Minerals, 2005, 32, 594-602.	0.3	22
24	Microstructure features of polycrystalline diamond synthesized directly from graphite under static high pressure. Journal of Materials Science, 2004, 39, 445-450.	1.7	112
25	Indentation hardness of nano-polycrystalline diamond prepared from graphite by direct conversion. Diamond and Related Materials, 2004, 13, 1771-1776.	1.8	109
26	Application of synchrotron radiation and Kawai-type apparatus to various studies in high-pressure mineral physics. Mineralogical Magazine, 2002, 66, 769-790.	0.6	37
27	In situ X-ray observations of phase transitions in MgAl <sub>2</sub> O <sub>4</sub> spinel to 40 GPa using multianvil apparatus with sintered diamond anvils. Physics and Chemistry of Minerals, 2002, 29, 645-654.	0.3	68
28	Phase relations and equations of state of ZrO <sub>2</sub> under high temperature and high pressure. Physical Review B, 2001, 63, .	1.1	140
29	Determination of the phase boundary between ilmenite and perovskite in MgSiO <sub>3</sub> by in situ X-ray diffraction and quench experiments. Physics and Chemistry of Minerals, 2000, 27, 523-532.	0.3	44
30	High-pressure phase transformation in CaMgSi <sub>2</sub> O <sub>6</sub> and implications for origin of ultra-deep diamond inclusions. Geophysical Research Letters, 2000, 27, 3541-3544.	1.5	38
31	The Postspinel Phase Boundary in Mg <sub>2</sub> SiO <sub>4</sub> Determined by in Situ X-ray Diffraction. Science, 1998, 279, 1698-1700.	6.0	251
32	Subduction of continental crust and terrigenous and pelagic sediments: an experimental study. Earth and Planetary Science Letters, 1994, 126, 351-368.	1.8	264
33	Phase transformations in subducted oceanic crust and buoyancy relationships at depths of 600–800 km in the mantle. Earth and Planetary Science Letters, 1993, 117, 101-110.	1.8	418
34	A new high-pressure form of MgAl <sub>2</sub> O <sub>4</sub> . Nature, 1991, 349, 409-411.	13.7	214
35	Constraints on element partition coefficients between MgSiO <sub>3</sub> perovskite and liquid determined by direct measurements – reply to C.B. Agee and D. Walker. Earth and Planetary Science Letters, 1989, 94, 162-164.	1.8	10
36	Nature of the 650-km seismic discontinuity: implications for mantle dynamics and differentiation. Nature, 1988, 331, 131-136.	13.7	295

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37	Experimental determination of element partitioning between silicate perovskites, garnets and liquids: constraints on early differentiation of the mantle. Earth and Planetary Science Letters, 1988, 89, 123-145.	1.8	267
38	Constraints on element partition coefficients between MgSiO <sub>3</sub> perovskite and liquid determined by direct measurements. Earth and Planetary Science Letters, 1988, 90, 65-68.	1.8	96
39	Phase transformations in a harzburgite composition to 26 GPa: implications for dynamical behaviour of the subducting slab. Earth and Planetary Science Letters, 1987, 86, 365-376.	1.8	214
40	The eclogite-garnetite transformation at high pressure and some geophysical implications. Earth and Planetary Science Letters, 1986, 77, 245-256.	1.8	225