Kenji Ohta

List of Publications by Citations

44 papers	1,410 citations	20 h-index	37 g-index
48 ext. papers	1,621 ext. citations	5.3 avg, IF	4.46 L-index

#	Paper	IF	Citations
44	The high conductivity of iron and thermal evolution of the Earth's core. *Physics of the Earth and Planetary Interiors*, **2013**, 224, 88-103	2.3	209
43	Experimental determination of the electrical resistivity of iron at Earth's core conditions. *Nature*, **2016**, 534, 95-8	50.4	164
42	The electrical conductivity of post-perovskite in Earth's D'' layer. *Science*, **2008**, 320, 89-91	33.3	108
41	Phase transitions in pyrolite and MORB at lowermost mantle conditions: Implications for a MORB-rich pile above the core-mantle boundary. *Earth and Planetary Science Letters*, **2008**, 267, 107-117	5.3	97
40	Experimental and theoretical evidence for pressure-induced metallization in FeO with rocksalt-type structure. *Physical Review Letters*, **2012**, 108, 026403	7.4	96
39	Lattice thermal conductivity of MgSiO3 perovskite and post-perovskite at the core-mantle boundary. *Earth and Planetary Science Letters*, **2012**, 349-350, 109-115	5.3	84
38	Phase boundary of hot dense fluid hydrogen. *Scientific Reports*, **2015**, 5, 16560	4.9	57
37	Electrical conductivities of pyrolitic mantle and MORB materials up to the lowermost mantle conditions. *Earth and Planetary Science Letters*, **2010**, 289, 497-502	5.3	52
36	Thermal conductivity of ferropericlase in the Earth's lower mantle. *Earth and Planetary Science Letters*, **2017**, 465, 29-37	5.3	46
35	Pressure-induced reentrant metallic phase in lithium. *Physical Review B*, **2014**, 89,	3.3	43
34	Experimental evidence of superionic conduction in H2O ice. *Journal of Chemical Physics*, **2012**, 137, 194505	3.9	42
33	Thermal diffusivity measurement in a diamond anvil cell using a light pulse thermoreflectance technique. *Measurement Science and Technology*, **2011**, 22, 024011	2	35
32	Spin crossover, structural change, and metallization in NiAs-type FeO at high pressure. *Physical Review B*, **2011**, 84,	3.3	29
31	Measurements of lattice thermal conductivity of MgO to core-mantle boundary pressures. *Geophysical Research Letters*, **2014**, 41, 4542-4547	4.9	28
30	The effect of iron spin transition on electrical conductivity of (Mg,Fe)O magnesiowüstite. *Proceedings of the Japan Academy Series B: Physical and Biological Sciences*, **2007**, 83, 97-100	4	27
29	The electrical resistance measurements of (Mg,Fe)SiO3 perovskite at high pressures and implications for electronic spin transition of iron. *Physics of the Earth and Planetary Interiors*, **2010**, 180, 154-158	2.3	25
28	Monazite geochronology and geochemistry of meta-sediments in the Narryer Gneiss Complex, Western Australia: constraints on the tectonothermal history and provenance. *Contributions To Mineralogy and Petrology*, **2010**, 160, 803-823	3.5	24

27	The influence of sulfur on the electrical resistivity of hcp iron: Implications for the core conductivity of Mars and Earth. *Geophysical Research Letters*, **2017**, 44, 8254-8259	4.9	23
26	Highly conductive iron-rich (Mg,Fe)O magnesiowüstite and its stability in the Earth's lower mantle. *Journal of Geophysical Research: Solid Earth*, **2014**, 119, 4656-4665	3.6	22
25	High-pressure experimental evidence for metal FeO with normal NiAs-type structure. *Physical Review B*, **2010**, 82,	3.3	21
24	The effect of iron and aluminum incorporation on lattice thermal conductivity of bridgmanite at the Earth's lower mantle. *Earth and Planetary Science Letters*, **2017**, 474, 25-31	5.3	20
23	Compression of Fe–Si–H alloys to core pressures. *Geophysical Research Letters*, **2016**, 43, 3686-3692	4.9	19
22	Resistivity saturation of hcp Fe-Si alloys in an internally heated diamond anvil cell: A key to assessing the Earth's core conductivity. *Earth and Planetary Science Letters*, **2020**, 543, 116357	5.3	15
21	Combination of pulsed light heating thermoreflectance and laser-heated diamond anvil cell for in-situ high pressure-temperature thermal diffusivity measurements. *Review of Scientific Instruments*, **2019**, 90, 074901	1.7	14
20	Electrical resistivity of fcc phase iron hydrides at high pressures and temperatures. *Comptes Rendus - Geoscience*, **2019**, 351, 147-153	1.4	14
19	Thermal conductivity of Fe-bearing post-perovskite in the Earth's lowermost mantle. *Earth and Planetary Science Letters*, **2020**, 547, 116466	5.3	12
18	Thermal diffusivities of MgSiO3 and Al-bearing MgSiO3 perovskites. *American Mineralogist*, **2014**, 99, 94-97	2.9	11
17	An Experimental Examination of Thermal Conductivity Anisotropy in hcp Iron. *Frontiers in Earth Science*, **2018**, 6,	3.5	11
16	Effect of spin transition of iron on the thermal conductivity of (Fe, Al)-bearing bridgmanite. *Earth and Planetary Science Letters*, **2019**, 520, 188-198	5.3	9
15	Measurements of sound velocity in iron–nickel alloys by femtosecond laser pulses in a diamond anvil cell. *Physics and Chemistry of Minerals*, **2018**, 45, 589-595	1.6	9
14	High-temperature electrical resistivity measurements of hcp iron to Mbar pressure in an internally resistive heated diamond anvil cell. *High Pressure Research*, **2019**, 39, 579-587	1.6	9
13	Stability of fcc phase FeH to 137 GPa. *American Mineralogist*, **2020**, 105, 917-921	2.9	8
12	Lithium polyhydrides synthesized under high pressure and high temperature. *Journal of Raman Spectroscopy*, **2017**, 48, 1222-1228	2.3	7
11	Heating of Li in hydrogen: possible synthesis of LiHx—This paper was presented at the LIIth European High Pressure Research Group (EHPRG 52) Meeting in Lyon (France), 7–12 September 2014.View all notes. *High Pressure Research*, **2015**, 35, 16-21	1.6	5
10	Composition and pressure dependence of lattice thermal conductivity of (Mg,Fe)O solid solutions. *Comptes Rendus - Geoscience*, **2019**, 351, 229-235	1.4	4

9	A cylindrical SiC heater for an externally heated diamond anvil cell to 1500 K. *Review of Scientific Instruments*, **2021**, 92, 015119	1.7	3
8	The thermal conductivity of the Earth's core and implications for its thermal and compositional evolution. *National Science Review*, **2021**, 8, nwaa303	10.8	1
7	Laboratory-based x-ray computed tomography for 3D imaging of samples in a diamond anvil cell in situ at high pressures. *Review of Scientific Instruments*, **2020**, 91, 093703	1.7	1
6	Anomalous compressibility in (Fe,Al)-bearing bridgmanite: implications for the spin state of iron. *Physics and Chemistry of Minerals*, **2020**, 47, 1	1.6	1
5	Measurements of Electrical and Thermal Conductivity of Materials Deep Inside the Earth under High-Pressure Conditions. *Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu*, **2016**, 26, 189-195	0	
4	Hydrogen-Storing Salt NaCl(H2) Synthesized at High Pressure and High Temperature. *Journal of Physical Chemistry C*, **2019**, 123, 25074-25080	3.8	
3	Measurements of Electrical Conductivity of (Mg,Fe)SiO3 Post-Perovskite using Laser-Heated Diamond-Anvil Cell. *Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu*, **2008**, 18, 260-266	0	
2	Measurement of Lattice Thermal Conductivity of Lower Mantle Minerals under High Pressures using a Pulsed Light Heating Thermoreflectance Technique. *Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu*, **2014**, 24, 118-125	0	
1	Low-spin ferric iron in primordial bridgmanite crystallized from a deep magma ocean. *Scientific Reports*, **2021**, 11, 19471	4.9	