Kenji Ohta

List of Publications by Year
in descending order

47 papers	1,830 citations	257101 24 h-index	253896 43 g-index
48 all docs	48 docs citations	48 times ranked	1367 citing authors

#	Article	IF	Citations
1	The high conductivity of iron and thermal evolution of the Earthâ€™s core. Physics of the Earth and Planetary Interiors, 2013, 224, 88-103.	0.7	251
2	Experimental determination of the electrical resistivity of iron at Earthâ€™s core conditions. Nature, 2016, 534, 95-98.	13.7	209
3	The Electrical Conductivity of Post-Perovskite in Earth's D'' Layer. Science, 2008, 320, 89-91.	6.0	127
4	Lattice thermal conductivity of MgSiO3 perovskite and post-perovskite at the coreâ€“mantle boundary. Earth and Planetary Science Letters, 2012, 349-350, 109-115.	1.8	113
5	Experimental and Theoretical Evidence for Pressure-Induced Metallization in FeO with Rocksalt-Type Structure. Physical Review Letters, 2012, 108, 026403.	2.9	111
6	Phase transitions in pyrolite and MORB at lowermost mantle conditions: Implications for a MORB-rich pile above the coreâ€“mantle boundary. Earth and Planetary Science Letters, 2008, 267, 107-117.	1.8	109
7	Phase boundary of hot dense fluid hydrogen. Scientific Reports, 2015, 5, 16560.	1.6	72
8	Thermal conductivity of ferropericlase in the Earth's lower mantle. Earth and Planetary Science Letters, 2017, 465, 29-37.	1.8	61
9	Electrical conductivities of pyrolitic mantle and MORB materials up to the lowermost mantle conditions. Earth and Planetary Science Letters, 2010, 289, 497-502.	1.8	59
10	Experimental evidence of superionic conduction in H2O ice. Journal of Chemical Physics, 2012, 137, 194505.	1.2	55
11	Pressure-induced reentrant metallic phase in lithium. Physical Review B, 2014, 89, .	1.1	52
12	Thermal diffusivity measurement in a diamond anvil cell using a light pulse thermoreflectance technique. Measurement Science and Technology, 2011, 22, 024011.	1.4	43
13	Spin crossover, structural change, and metallization in NiAs-type FeO at high pressure. Physical Review B, 2011, 84, .	1.1	42
14	Measurements of lattice thermal conductivity of MgO to coreâ€mantle boundary pressures. Geophysical Research Letters, 2014, 41, 4542-4547.	1.5	37
15	The effect of iron spin transition on electrical conductivity of (Mg,Fe)O magnesiowuestite. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2007, 83, 97-100.	1.6	33
16	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.	1.5	33
17	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.	1.2	32
18	Compression of Feâ€“Siâ€“H alloys to core pressures. Geophysical Research Letters, 2016, 43, 3686-3692.	1.5	31

#	Article	IF	Citations
19	High-pressure experimental evidence for metal FeO with normal NiAs-type structure. Physical Review B, 2010, 82, .	1.1	29
20	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.	0.7	28
21	Highly conductive ironâ€rich (Mg,Fe)O magnesiowÃ¼stite and its stability in the Earth's lower mantle. Journal of Geophysical Research: Solid Earth, 2014, 119, 4656-4665.	1.4	27
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.	1.8	26
23	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.	1.8	25
24	Stability of fcc phase FeH to 137 GPa. American Mineralogist, 2020, 105, 917-921.	0.9	25
25	Combination of pulsed light heating thermoreflectance and laser-heated diamond anvil cell for <i>in-situ</i> high pressure-temperature thermal diffusivity measurements. Review of Scientific Instruments, 2019, 90, 074901.	0.6	24
26	Electrical resistivity of fcc phase iron hydrides at high pressures and temperatures. Comptes Rendus - Geoscience, 2019, 351, 147-153.	0.4	24
27	An Experimental Examination of Thermal Conductivity Anisotropy in hcp Iron. Frontiers in Earth Science, 2018, 6, .	0.8	22
28	Thermal conductivity of Fe-bearing post-perovskite in the Earth's lowermost mantle. Earth and Planetary Science Letters, 2020, 547, 116466.	1.8	21
29	Thermal diffusivities of MgSiO3 and Al-bearing MgSiO3 perovskites. American Mineralogist, 2014, 99, 94-97.	0.9	17
30	Measurements of sound velocity in ironâ€"nickel alloys by femtosecond laser pulses in a diamond anvil cell. Physics and Chemistry of Minerals, 2018, 45, 589-595.	0.3	17
31	High-temperature electrical resistivity measurements of <i>hcp</i> iron to Mbar pressure in an internally resistive heated diamond anvil cell. High Pressure Research, 2019, 39, 579-587.	0.4	14
32	Effect of spin transition of iron on the thermal conductivity of (Fe, Al)-bearing bridgmanite. Earth and Planetary Science Letters, 2019, 520, 188-198.	1.8	13
33	Thermal conductivity of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>CaSiO</mml:mi><mml:mn>3</mml:mn></mml:msub> perovskite at lower mantle conditions. Physical Review B, 2021, 104, .	1.1	9
34	Lithium polyhydrides synthesized under high pressure and high temperature. Journal of Raman Spectroscopy, 2017, 48, 1222-1228.	1.2	7
35	Heating of Li in hydrogen: possible synthesis of LiH_x. High Pressure Research, 2015, 35, 16-21.	0.4	6
36	The thermal conductivity of the Earth's core and implications for its thermal and compositional evolution. National Science Review, 2021, 8, nwaa303.	4.6	6

#	Article	IF	Citations
37	Composition and pressure dependence of lattice thermal conductivity of (Mg,Fe)O solid solutions. Comptes Rendus - Geoscience, 2019, 351, 229-235.	0.4	5
38	A cylindrical SiC heater for an externally heated diamond anvil cell to 1500 K. Review of Scientific Instruments, 2021, 92, 015119.	0.6	4
39	Anomalous compressibility in (Fe,Al)-bearing bridgmanite: implications for the spin state of iron. Physics and Chemistry of Minerals, 2020, 47, 1.	0.3	3
40	Laboratory-based x-ray computed tomography for 3D imaging of samples in a diamond anvil cell <i>in situ</i> at high pressures. Review of Scientific Instruments, 2020, 91, 093703.	0.6	2
41	Compressional wave velocity for iron hydrides to 100 gigapascals via picosecond acoustics. Physics and Chemistry of Minerals, 2022, 49, .	0.3	2
42	Hydrogen-Storing Salt NaCl(H₂) Synthesized at High Pressure and High Temperature. Journal of Physical Chemistry C, 2019, 123, 25074-25080.	1.5	1
43	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.	0.1	0
44	Low-spin ferric iron in primordial bridgmanite crystallized from a deep magma ocean. Scientific Reports, 2021, 11, 19471.	1.6	0
45	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.	0.1	0
46	Report on American Geophysical Union 2011 Fall Meeting. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2012, 22, 172-173.	0.1	0
47	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	0