Heping Li

List of Publications by Year
in descending order

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105	1,485	304743	434195
papers	citations	22 h-index	31 g-index

106	106	106	1067
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effect of dehydrogenation on the electrical conductivity of Fe-bearing amphibole: Implications for high conductivity anomalies in subduction zones and continental crust. Earth and Planetary Science Letters, 2018, 498, 27-37.	4.4	55
2	The effect of chemical composition and oxygen fugacity on the electrical conductivity of dry and hydrous garnet at high temperatures and pressures. Contributions To Mineralogy and Petrology, 2012, 163, 689-700.	3.1	50
3	Li-ion battery material under high pressure: amorphization and enhanced conductivity of Li4Ti5O12. National Science Review, 2019, 6, 239-246.	9.5	49
4	Influence of dehydration on the electrical conductivity of epidote and implications for highâ€conductivity anomalies in subduction zones. Journal of Geophysical Research: Solid Earth, 2017, 122, 2751-2762.	3.4	45
5	Pressure-induced permanent metallization with reversible structural transition in molybdenum disulfide. Applied Physics Letters, 2017, 110, .	3.3	45
6	Pressure-induced irreversible metallization accompanying the phase transitions in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">S</mml:mi><mml:msub><mml:mi mathvariant="normal">b</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2018, 97, .	3.2	45
7	Experimental study of grain boundary electrical conductivities of dry synthetic peridotite under highâ€temperature, highâ€pressure, and different oxygen fugacity conditions. Journal of Geophysical Research, 2008, 113, .	3.3	40
8	Electrical conductivity of alkali feldspar solid solutions at high temperatures and high pressures. Physics and Chemistry of Minerals, 2013, 40, 51-62.	0.8	38
9	Superionic iron alloys and their seismic velocities in Earthâ€™s inner core. Nature, 2022, 602, 258-262.	27.8	37
10	The electrical conductivity of upper-mantle rocks: water content in the upper mantle. Physics and Chemistry of Minerals, 2008, 35, 157-162.	0.8	36
11	The electrical conductivity of dry polycrystalline olivine compacts at high temperatures and pressures. Mineralogical Magazine, 2010, 74, 849-857.	1.4	36
12	Influence of temperature, pressure, and oxygen fugacity on the electrical conductivity of dry eclogite, and geophysical implications. Geochemistry, Geophysics, Geosystems, 2016, 17, 2394-2407.	2.5	35
13	Pressure-induced irreversible amorphization and metallization with a structural phase transition in arsenic telluride. Journal of Materials Chemistry C, 2017, 5, 12157-12162.	5.5	35
14	Electrical conductivity of albite at high temperatures and high pressures. American Mineralogist, 2011, 96, 1821-1827.	1.9	29
15	Influence of temperature, pressure, and chemical composition on the electrical conductivity of granite. American Mineralogist, 2014, 99, 1420-1428.	1.9	29
16	The influence of humic acids on the weathering of pyrite: Electrochemical mechanism and environmental implications. Environmental Pollution, 2019, 251, 738-745.	7.5	29
17	Electrical conductivity of K-feldspar at high temperature and high pressure. Mineralogy and Petrology, 2014, 108, 609-618.	1.1	28
18	Pressure-induced metallization in MoSe₂ under different pressure conditions. RSC Advances, 2019, 9, 5794-5803.	3.6	26

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19	Arsenopyrite weathering in acidic water: Humic acid affection and arsenic transformation. Water Research, 2021, 194, 116917.	11.3	26
20	Structural stability and Li-ion transport property of LiFePO4 under high-pressure. Solid State Ionics, 2017, 301, 133-137.	2.7	25
21	Electrical conductivity of Alm82Py15Grs3 almandine-rich garnet determined by impedance spectroscopy at high temperatures and high pressures. Tectonophysics, 2013, 608, 1086-1093.	2.2	24
22	Novel heterostructured InN/TiO₂ submicron fibers designed for high performance visible-light-driven photocatalysis. Catalysis Science and Technology, 2017, 7, 5105-5112.	4.1	24
23	Characterization of metallization and amorphization for GaP under different hydrostatic environments in diamond anvil cell up to 40.0 GPa. Review of Scientific Instruments, 2019, 90, 066103.	1.3	24
24	Thermal diffusivity and thermal conductivity of granitoids at 283â€“988 K and 0.3â€“1.5 GPa. American Mineralogist, 2019, 104, 1533-1545.	1.9	24
25	Anisotropy of synthetic quartz electrical conductivity at high pressure and temperature. Journal of Geophysical Research, 2010, 115, .	3.3	23
26	Temperature and pressure dependence of electrical conductivity in synthetic anorthite. Solid State Ionics, 2015, 276, 136-141.	2.7	22
27	Pressure-induced phase transitions of ZnSe under different pressure environments. AIP Advances, 2019, 9, .	1.3	21
28	High-pressure structural phase transition and metallization in Ga₂S₃ under non-hydrostatic and hydrostatic conditions up to 36.4 GPa. Journal of Materials Chemistry C, 2021, 9, 2912-2918.	5.5	20
29	Pyrite oxidation under simulated acid rain weathering conditions. Environmental Science and Pollution Research, 2017, 24, 21710-21720.	5.3	19
30	Phase Transition and vibration properties of MnCO3 at high pressure and high-temperature by Raman spectroscopy. High Pressure Research, 2018, 38, 212-223.	1.2	19
31	Arsenopyrite weathering in acid rain: Arsenic transfer and environmental implications. Journal of Hazardous Materials, 2021, 420, 126612.	12.4	19
32	Single crystal growth, characterization and high-pressure Raman spectroscopy of impurity-free magnesite (MgCO3). Physics and Chemistry of Minerals, 2018, 45, 423-434.	0.8	17
33	Firstâ€principles prediction of fast migration channels of potassium ions in KAlSi₃O₈ hollandite: Implications for high conductivity anomalies in subduction zones. Geophysical Research Letters, 2016, 43, 6228-6233.	4.0	16
34	Electrical conductivity of mudstone (before and after dehydration at high P-T) and a test of high conductivity layers in the crust. American Mineralogist, 2017, 102, 2450-2456.	1.9	16
35	The temperature dependence of thermal conductivity for lherzolites from the North China Craton and the associated constraints on the thermodynamic thickness of the lithosphere. Geophysical Journal International, 2014, 197, 900-909.	2.4	15
36	SrB₄O₇:Sm²⁺: an optical sensor reflecting non-hydrostatic pressure at high-temperature and/or high pressure in a diamond anvil cell. High Pressure Research, 2017, 37, 18-27.	1.2	15

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37	Deviatoric stresses promoted metallization in rhenium disulfide. Journal Physics D: Applied Physics, 2018, 51, 165101.	2.8	15
38	Characterization of the pressure-induced phase transition of metallization for MoTe2 under hydrostatic and non-hydrostatic conditions. AIP Advances, 2019, 9, 065104.	1.3	15
39	Electrical Conductivity of Clinopyroxeneâ€NaClâ€H 2 O System at High Temperatures and Pressures: Implications for Highâ€Conductivity Anomalies in the Deep Crust and Subduction Zone. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB019093.	3.4	15
40	Effect of dehydration on the electrical conductivity of phyllite at high temperatures and pressures. Mineralogy and Petrology, 2017, 111, 853-863.	1.1	14
41	Assessing the influence of humic acids on the weathering of galena and its environmental implications. Ecotoxicology and Environmental Safety, 2018, 158, 230-238.	6.0	14
42	Influence of High Conductive Magnetite Impurity on the Electrical Conductivity of Dry Olivine Aggregates at High Temperature and High Pressure. Minerals (Basel, Switzerland), 2019, 9, 44.	2.0	14
43	Arsenopyrite weathering in sodium chloride solution: Arsenic geochemical evolution and environmental effects. Journal of Hazardous Materials, 2020, 392, 122502.	12.4	14
44	Crystal structure of impurity-free rhodochrosite (MnCO3) and thermal expansion properties. Physics and Chemistry of Minerals, 2020, 47, 1.	0.8	14
45	Single crystal growth, crystalline structure investigation and high-pressure behavior of impurity-free siderite (FeCO3). Physics and Chemistry of Minerals, 2018, 45, 831-842.	0.8	13
46	Pressure-induced phase transitions for goethite investigated by Raman spectroscopy and electrical conductivity. High Pressure Research, 2019, 39, 106-116.	1.2	13
47	Anomalous phase transition of Bi-doped Zn2GeO4 investigated by electrical conductivity and Raman spectroscopy under high pressure. Journal of Applied Physics, 2017, 121, 125901.	2.5	12
48	An Overview of the Experimental Studies on the Electrical Conductivity of Major Minerals in the Upper Mantle and Transition Zone. Materials, 2020, 13, 408.	2.9	12
49	In situcontrol of oxygen fugacity at high temperature and high pressure: A Ni-O system. Geophysical Research Letters, 1998, 25, 817-820.	4.0	11
50	Pressure-induced structural phase transition and dehydration for gypsum investigated by Raman spectroscopy and electrical conductivity. Chemical Physics Letters, 2018, 706, 151-157.	2.6	11
51	Structural Phase Transition and Metallization of Nanocrystalline Rutile Investigated by High-Pressure Raman Spectroscopy and Electrical Conductivity. Minerals (Basel, Switzerland), 2019, 9, 441.	2.0	11
52	The Phase Transition and Dehydration in Epsomite under High Temperature and High Pressure. Crystals, 2020, 10, 75.	2.2	11
53	Limestone mechanical deformation behavior and failure mechanisms: a review. Acta Geochimica, 2018, 37, 153-170.	1.7	10
54	Migration of impurity level reflected in the electrical conductivity variation for natural pyrite at high temperature and high pressure. Physics and Chemistry of Minerals, 2018, 45, 85-92.	0.8	10

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55	Effect of chemical composition on the electrical conductivity of gneiss at high temperatures and pressures. Solid Earth, 2018, 9, 233-245.	2.8	10
56	Phase Transition and Metallization of Orpiment by Raman Spectroscopy, Electrical Conductivity and Theoretical Calculation under High Pressure. Materials, 2019, 12, 784.	2.9	10
57	Modeling geochemical factors controlling fluoride concentration in groundwater. Arabian Journal of Geosciences, 2015, 8, 9133-9147.	1.3	9
58	Raman scattering of 2H-MoS2 at simultaneous high temperature and high pressure (up to 600 K) Tj ETQq0 0 0 rgBT /Overlock 10	1.3	8
59	A novel experimental device for electrochemical measurements in supercritical fluids up to 700 Â°C/1000 bar and its application in the corrosion study of superalloy Inconel 740H. RSC Advances, 2017, 7, 33914-33920.	3.6	8
60	Crystal structure of norsethite-type BaMn(CO3)2 and its pressure-induced transition investigated by Raman spectroscopy. Physics and Chemistry of Minerals, 2019, 46, 771-781.	0.8	8
61	High-pressure investigations on the isostructural phase transition and metallization in realgar with diamond anvil cells. Geoscience Frontiers, 2021, 12, 1031-1037.	8.4	8
62	Influence of pH, Pb2+, and temperature on the electrochemical dissolution of galena: environmental implications. Ionics, 2016, 22, 975-984.	2.4	7
63	In Situ Electrochemical Investigation of Pyrite Assisted Leaching of Chalcopyrite. Journal of the Electrochemical Society, 2018, 165, H813-H819.	2.9	7
64	Evidences for phase transition and metallization in Î²-In2S3 at high pressure. Chemical Physics, 2019, 524, 63-69.	1.9	7
65	Anomalous elastic properties of superionic ice. Physical Review B, 2020, 102, .	3.2	7
66	Galena weathering in simulated alkaline soil: Lead transformation and environmental implications. Science of the Total Environment, 2021, 755, 142708.	8.0	7
67	Electrical properties of dry polycrystalline olivine mixed with various chromite contents: Implications for the high conductivity anomalies in subduction zones. Geoscience Frontiers, 2021, 12, 101178.	8.4	7
68	Thermal Ionization of Hydrogen in Hydrous Olivine With Enhanced and Anisotropic Conductivity. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022939.	3.4	7
69	Temperature dependence of the first pressure derivative of the isothermal bulk modulus for solid materials at zero pressure: Application to MgO. Journal of Geophysical Research, 2005, 110, .	3.3	6
70	A comparison of the electrochemical behaviors of pyrite and chalcopyrite in a NaCl solution at room temperature and under differential stress. Minerals Engineering, 2010, 23, 691-697.	4.3	6
71	Experimental Study on the Electrical Conductivity of Pyroxene Andesite at High Temperature and High Pressure. Pure and Applied Geophysics, 2017, 174, 1033-1041.	1.9	6
72	Pressure-induced reversible metallization and phase transition in Zinc Telluride. Modern Physics Letters B, 2018, 32, 1850342.	1.9	6

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73	Ab initio molecular dynamics investigation of the elastic properties of superionic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Li</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">O</mml:mi></mml:mrow></mml:math> under high temperature and pressure. Physical Review B, 2021, 103, .	3.2	6
74	Highâ€“pressure electrical conductivity and Raman spectroscopy of chalcanthite. Spectroscopy Letters, 2018, 51, 531-539.	1.0	5
75	Effect of Temperature, Pressure, and Chemical Composition on the Electrical Conductivity of Schist: Implications for Electrical Structures under the Tibetan Plateau. Materials, 2019, 12, 961.	2.9	5
76	In Situ Electrochemical Study of the Growth Kinetics of Passive Film on TC11 Alloy in Sulfate Solution at 300 Â°C/10 MPa. Materials, 2020, 13, 1135.	2.9	5
77	Electrochemical Study of Galena Weathering in NaCl Solution: Kinetics and Environmental Implications. Minerals (Basel, Switzerland), 2020, 10, 416.	2.0	4
78	Influence of differential stress on the galvanic interaction of pyriteâ€“chalcopyrite. Ionics, 2013, 19, 77-82.	2.4	3
79	In Situ Electrochemical Investigation of Acidic Pressure Oxidation of Pyrite at 160â€“240Â°C. Journal of the Electrochemical Society, 2018, 165, C289-C294.	2.9	3
80	Rapid mass production of novel 3D Cu@CuI coreâ€shell mesh as highly flexible and efficient photocatalyst. Journal of the American Ceramic Society, 2018, 101, 5781-5790.	3.8	3
81	Effect of temperature, pressure and chemical composition on the electrical conductivity of granulite and geophysical implications. Journal of Mineralogical and Petrological Sciences, 2019, 114, 87-98.	0.9	3
82	Thermal Diffusivity of Lherzolite at High Pressures and High Temperatures Using Pulse Method. Journal of Earth Science (Wuhan, China), 2019, 30, 218-222.	3.2	3
83	Study on properties of BaZr_{0.7}Ce_{0.2}Y_{0.1}O_{3â^Î´} ceramics prepared by high-pressure sintering. Journal of the Ceramic Society of Japan, 2020, 128, 62-65.	1.1	3
84	Design and Application of a Rock Porosity Measurement Apparatus under High Isostatic Pressure. Minerals (Basel, Switzerland), 2022, 12, 127.	2.0	3
85	Pressure measurement using theRfluorescence peaks and 417Âcm^{â^'1}Raman peak of an anvil in a sapphire-anvil cell. High Pressure Research, 0, , 1-10.	1.2	2
86	Electrochemical behavior of pyrite in acidic solution with different concentrations of NaCl. Diqiu Huaxue, 2014, 33, 374-381.	0.5	2
87	The influence of calcium fluoride on the electrochemical dissolution of chalcopyrite in sulfuric acid solution. Ionics, 2015, 21, 749-753.	2.4	2
88	A simple and effective capsule sealing technique for hydrothermal experiments. American Mineralogist, 2020, 105, 1254-1258.	1.9	2
89	In situ electrical conductivity measurements of porous water-containing rock materials under high temperature and high pressure conditions in an autoclave. Review of Scientific Instruments, 2021, 92, 095104.	1.3	2
90	First-Principles Calculations about Elastic and Li⁺ Transport Properties of Lithium Superoxides under High Pressure and High Temperature. Chinese Physics Letters, 2022, 39, 026101.	3.3	2

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91	Raman Spectroscopic Studies of Pyrite at High Pressure and High Temperature. Minerals (Basel,) Tj ETQq1 1 0.784314 rgBT /Overlock 1	2.0	2
92	Dependence of R fluorescence lines of rubies on Cr³⁺concentration at various temperatures, with implications for pressure calibrations in experimental apparatus. American Mineralogist, 2015, 100, 1554-1561.	1.9	1
93	An experimental study of interaction between pure water and alkaline feldspar at high temperatures and pressures. Acta Geochimica, 2018, 37, 60-67.	1.7	1
94	Single-crystal elasticity of the rhodochrosite at high pressure by Brillouin scattering spectroscopy. High Pressure Research, 2018, 38, 396-405.	1.2	1
95	Electrical conductivities of minerals and rocks in the Earth crust, upper mantle, mantle transition zone and subduction zone. Acta Geologica Sinica, 2019, 93, 120-121.	1.4	1
96	Block and malleable arsenopyrite hot-pressure sintering: applied implications. Journal of Materials Research and Technology, 2020, 9, 8997-9003.	5.8	1
97	New technique to controlin situ oxygen fugacity in water-free high-pressure system. Science Bulletin, 1998, 43, 1353-1358.	1.7	0
98	Mixed potential oscillations in the dissolution of galena in ferric sulfate solution. Mining, Metallurgy and Exploration, 2008, 25, 211-214.	0.8	0
99	High-pressure and high-temperature Raman study of cinnabar. Spectroscopy Letters, 2017, 50, 342-346.	1.0	0
100	Effect of Chloride Ions on the Electrochemical Oxidation of Chalcopyrite at 340 Â°C and 21 MPa. Minerals (Basel, Switzerland), 2020, 10, 1071.	2.0	0
101	Development of in-situ Micro-Raman spectroscopy system for autoclave experimental apparatus. Acta Geochimica, 2020, 39, 445-450.	1.7	0
102	Stability of copper acetate at high P-T and the role of organic acids and CO2 in metallic mineralization. Scientific Reports, 2020, 10, 5387.	3.3	0
103	Development of a 100 MPa waterâ€“gas two-phase fluid pressurization device. Acta Geochimica, 2021, 40, 25-31.	1.7	0
104	New Technique to In situ Control Oxygen Fugacity in Water-free High Pressure System.. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 1998, 7, 1523-1525.	0.0	0
105	Arsenopyrite oxidative dissolution in NaCl solution at high-temperature and high-pressure conditions: kinetics, pathways, dissolution mechanism and geological implications. Contributions To Mineralogy and Petrology, 2022, 177, .	3.1	0