

# S-I Karato

## List of Publications by Year in descending order

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148  
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15,973  
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175  
docs citations

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times ranked

6031  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of pressure on diffusion creep in wet olivine aggregates. <i>Physics of the Earth and Planetary Interiors</i> , 2022, 324, 106840.	1.9	2
2	Elasticity of Hydrated Al-bearing Stishovite and Post-stishovite: Implications for Understanding Regional Seismic Velocity Anomalies Along Subducting Slabs in the Lower Mantle. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, .	3.4	7
3	Stress and Strain Rate Evolution During the Finite Strain Deformation of a Weak Ferropicicase Grain by Diffusion Creep: Implications for Shear Localization in the Lower Mantle. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, .	3.4	0
4	The Influence of Equation of State on the Giant Impact Simulations. <i>Journal of Geophysical Research E: Planets</i> , 2022, 127, .	3.6	3
5	The Effect of Pressure on Grain Growth Kinetics in Olivine Aggregates With Some Geophysical Applications. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB020886.	3.4	3
6	Behavior and properties of water in silicate melts under deep mantle conditions. <i>Scientific Reports</i> , 2021, 11, 10588.	3.3	13
7	Influence of realistic rheological properties on the style of mantle convection: roles of dynamic friction and depth-dependence of rheological properties. <i>Geophysical Journal International</i> , 2021, 226, 1986-1996.	2.4	4
8	A Theory of Intergranular Transient Dislocation Creep: Implications for the Geophysical Studies on Mantle Rheology. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022763.	3.4	8
9	Melting of Bridgmanite Under Hydrous Shallow Lower Mantle Conditions. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022222.	3.4	7
10	Thermal Ionization of Hydrogen in Hydrous Olivine With Enhanced and Anisotropic Conductivity. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022939.	3.4	7
11	Electrical Conductivity of Ti-bearing Hydrous Olivine Aggregates at High Temperature and High Pressure. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB020309.	3.4	14
12	Development of a Stress Sensor for In-Situ High-Pressure Deformation Experiments Using Radial X-Ray Diffraction. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 166.	2.0	5
13	Slab weakening during the olivine to ringwoodite transition in the mantle. <i>Nature Geoscience</i> , 2020, 13, 170-174.	12.9	18
14	Deep mantle melting, global water circulation and its implications for the stability of the ocean mass. <i>Progress in Earth and Planetary Science</i> , 2020, 7, .	3.0	25
15	Water Concentration in Single-Crystal (Al,Fe)-bearing Bridgmanite Grown From the Hydrous Melt: Implications for Dehydration Melting at the Topmost Lower Mantle. <i>Geophysical Research Letters</i> , 2019, 46, 10346-10357.	4.0	46
16	Anhydrous Phase B: Transmission Electron Microscope Characterization and Elastic Properties. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 4059-4072.	2.5	1
17	Some remarks on hydrogen-assisted electrical conductivity in olivine and other minerals. <i>Progress in Earth and Planetary Science</i> , 2019, 6, .	3.0	17
18	Terrestrial magma ocean origin of the Moon. <i>Nature Geoscience</i> , 2019, 12, 418-423.	12.9	56

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19	Anisotropic high-temperature creep in hydrous olivine single crystals and its geodynamic implications. <i>Physics of the Earth and Planetary Interiors</i> , 2019, 290, 1-9.	1.9	20
20	Global Analysis of Experimental Data on the Rheology of Olivine Aggregates. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 310-334.	3.4	24
21	Characterization by Scanning Precession Electron Diffraction of an Aggregate of Bridgmanite and Ferropiclasite Deformed at HP&HT. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 582-594.	2.5	13
22	On the Grain Size Sensitivity of Olivine Rheology. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 674-688.	3.4	15
23	Seismic evidence for water transport out of the mantle transition zone beneath the European Alps. <i>Earth and Planetary Science Letters</i> , 2018, 482, 93-104.	4.4	38
24	Editorial: Topical Collection on the Delivery of Water to Proto-Planets, Planets and Satellites. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	3
25	An experimental study of grain-scale microstructure evolution during the olivine&wadsleyite phase transition under nominally &dry& conditions. <i>Earth and Planetary Science Letters</i> , 2018, 501, 128-137.	4.4	3
26	Water and Volatile Inventories of Mercury, Venus, the Moon, and Mars. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	27
27	Dynamics of fault motion and the origin of contrasting tectonic style between Earth and Venus. <i>Scientific Reports</i> , 2018, 8, 11884.	3.3	25
28	Density&Pressure Profiles of Fe&Bearing MgSiO <sub>3</sub> Liquid: Effects of Valence and Spin States, and Implications for the Chemical Evolution of the Lower Mantle. <i>Geophysical Research Letters</i> , 2018, 45, 3959-3966.	4.0	22
29	On the Yield Strength of Oceanic Lithosphere. <i>Geophysical Research Letters</i> , 2017, 44, 9716-9722.	4.0	23
30	Water in the Earth&TM's Interior: Distribution and Origin. <i>Space Science Reviews</i> , 2017, 212, 743-810.	8.1	139
31	Water in the Earth&TM's Interior: Distribution and Origin. <i>Space Sciences Series of ISSI</i> , 2017, , 83-150.	0.0	2
32	Physical basis of trace element partitioning: A review. <i>American Mineralogist</i> , 2016, 101, 2577-2593.	1.9	17
33	Seismological detection of low&velocity anomalies surrounding the mantle transition zone in Japan subduction zone. <i>Geophysical Research Letters</i> , 2016, 43, 2480-2487.	4.0	59
34	Reply to comment by Kawakatsu and Abe on &Nature of the seismic lithosphere&asthenosphere boundary within normal oceanic mantle from high&resolution receiver functions&. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 3493-3501.	2.5	1
35	Upper-mantle water stratification inferred from observations of the 2012 Indian Ocean earthquake. <i>Nature</i> , 2016, 538, 373-377.	27.8	69
36	Nature of the seismic lithosphere&asthenosphere boundary within normal oceanic mantle from high&resolution receiver functions. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 1265-1282.	2.5	36

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37	Experimental evidence of reaction-induced fracturing during olivine carbonation. <i>Geophysical Research Letters</i> , 2016, 43, 9535-9543.	4.0	62
38	Shear deformation of bridgmanite and magnesiowüstite aggregates at lower mantle conditions. <i>Science</i> , 2016, 351, 144-147.	12.6	121
39	The influence of ferric iron and hydrogen on Fe-Mg interdiffusion in ferropericlase ((Mg,Fe)O) in the lower mantle. <i>Physics and Chemistry of Minerals</i> , 2015, 42, 261-273.	0.8	10
40	Volume thermal expansion along the jadeite-diopside join. <i>Physics and Chemistry of Minerals</i> , 2015, 42, 1-14.	0.8	25
41	Mechanisms and geologic significance of the mid-lithosphere discontinuity in the continents. <i>Nature Geoscience</i> , 2015, 8, 509-514.	12.9	128
42	Water in the Evolution of the Earth and Other Terrestrial Planets. , 2015, , 105-144.		12
43	High-pressure and high-temperature deformation experiments on polycrystalline wadsleyite using the rotational Drickamer apparatus. <i>Physics and Chemistry of Minerals</i> , 2015, 42, 541-558.	0.8	17
44	Some notes on hydrogen-related point defects and their role in the isotope exchange and electrical conductivity in olivine. <i>Physics of the Earth and Planetary Interiors</i> , 2015, 248, 94-98.	1.9	18
45	Markov chain Monte Carlo inversion for the rheology of olivine single crystals. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 3142-3172.	3.4	18
46	Plastic anisotropy and slip systems in ringwoodite deformed to high shear strain in the Rotational Drickamer Apparatus. <i>Physics of the Earth and Planetary Interiors</i> , 2014, 228, 244-253.	1.9	22
47	The effect of pressure on the electrical conductivity of olivine under the hydrogen-rich conditions. <i>Physics of the Earth and Planetary Interiors</i> , 2014, 232, 51-56.	1.9	39
48	Influence of oxygen fugacity on the electrical conductivity of hydrous olivine: Implications for the mechanism of conduction. <i>Physics of the Earth and Planetary Interiors</i> , 2014, 232, 57-60.	1.9	35
49	Does partial melting explain geophysical anomalies?. <i>Physics of the Earth and Planetary Interiors</i> , 2014, 228, 300-306.	1.9	51
50	Influence of FeO and H on the electrical conductivity of olivine. <i>Physics of the Earth and Planetary Interiors</i> , 2014, 237, 73-79.	1.9	35
51	High and highly anisotropic electrical conductivity of the asthenosphere due to hydrogen diffusion in olivine. <i>Earth and Planetary Science Letters</i> , 2014, 408, 79-86.	4.4	91
52	Water content of the Tanzanian lithosphere from magnetotelluric data: Implications for cratonic growth and stability. <i>Earth and Planetary Science Letters</i> , 2014, 388, 175-186.	4.4	56
53	Some remarks on the models of plate tectonics on terrestrial planets: From the view-point of mineral physics. <i>Tectonophysics</i> , 2014, 631, 4-13.	2.2	8
54	Asymmetric shock heating and the terrestrial magma ocean origin of the Moon. <i>Proceedings of the Japan Academy Series B: Physical and Biological Sciences</i> , 2014, 90, 97-103.	3.8	11

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55	Structures of the oceanic lithosphereâ€asthenosphere boundary: Mineralâ€physics modeling and seismological signatures. <i>Geochemistry, Geophysics, Geosystems</i> , 2013, 14, 880-901.	2.5	56
56	Influence of Hydrogen-Related Defects on the Electrical Conductivity and Plastic Deformation of Mantle Minerals: A Critical Review. <i>Geophysical Monograph Series</i> , 2013, , 113-129.	0.1	29
57	Towards Mapping the Three-Dimensional Distribution of Water in the Upper Mantle from Velocity and Attenuation Tomography. <i>Geophysical Monograph Series</i> , 2013, , 225-236.	0.1	20
58	Long-Term Evolution of the Martian Crust-Mantle System. <i>Space Science Reviews</i> , 2013, 174, 49-111.	8.1	124
59	Plastic deformation experiments to high strain on mantle transition zone minerals wadsleyite and ringwoodite in the rotational Drickamer apparatus. <i>Earth and Planetary Science Letters</i> , 2013, 361, 7-15.	4.4	27
60	Theory of isotope diffusion in a material with multiple species and its implications for hydrogen-enhanced electrical conductivity in olivine. <i>Physics of the Earth and Planetary Interiors</i> , 2013, 219, 49-54.	1.9	45
61	An experimental study of the influence of graphite on the electrical conductivity of olivine aggregates. <i>Geophysical Research Letters</i> , 2013, 40, 2028-2032.	4.0	39
62	Growing Understanding of Subduction Dynamics Indicates Need to Rethink Seismic Hazards. <i>Eos</i> , 2013, 94, 125-126.	0.1	4
63	Low viscosity of the bottom of the Earthâ€™s mantle inferred from the analysis of Chandler wobble and tidal deformation. <i>Physics of the Earth and Planetary Interiors</i> , 2012, 192-193, 68-80.	1.9	34
64	On the origin of the asthenosphere. <i>Earth and Planetary Science Letters</i> , 2012, 321-322, 95-103.	4.4	240
65	Effect of H2O on the density of silicate melts at high pressures: Static experiments and the application of a modified hard-sphere model of equation of state. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 85, 357-372.	3.9	37
66	Influence of hydrogen on the electronic states of olivine: Implications for electrical conductivity. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	5
67	Electrical conductivity of amphibole-bearing rocks: influence of dehydration. <i>Contributions To Mineralogy and Petrology</i> , 2012, 164, 17-25.	3.1	71
68	A new approach to the equation of state of silicate melts: An application of the theory of hard sphere mixtures. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 6780-6802.	3.9	35
69	Water distribution across the mantle transition zone and its implications for global material circulation. <i>Earth and Planetary Science Letters</i> , 2011, 301, 413-423.	4.4	498
70	Control of the water fugacity at high pressures and temperatures: Applications to the incorporation mechanisms of water in olivine. <i>Physics of the Earth and Planetary Interiors</i> , 2011, 189, 27-33.	1.9	23
71	Strength of single-crystal orthopyroxene under lithospheric conditions. <i>Contributions To Mineralogy and Petrology</i> , 2011, 161, 961-975.	3.1	46
72	Some issues on the strength of the lithosphere. <i>Journal of Earth Science (Wuhan, China)</i> , 2011, 22, 131-136.	3.2	3

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73	Solubility of water in pyrope-rich garnet at high pressures and temperature. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	60
74	Shear deformation of polycrystalline wadsleyite up to 2100 K at 14–17 GPa using a rotational Drickamer apparatus (RDA). <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	28
75	Grain growth and loss of texture during annealing of alloys, and the translation of Earth's inner core. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	33
76	Rheology of the deep upper mantle and its implications for the preservation of the continental roots: A review. <i>Tectonophysics</i> , 2010, 481, 82-98.	2.2	147
77	Theory of lattice strain in a material undergoing plastic deformation: Basic formulation and applications to a cubic crystal. <i>Physical Review B</i> , 2009, 79, .	3.2	31
78	Electrical conductivity of wadsleyite at high temperatures and high pressures. <i>Earth and Planetary Science Letters</i> , 2009, 287, 277-283.	4.4	99
79	Shear deformation of dry polycrystalline olivine under deep upper mantle conditions using a rotational Drickamer apparatus (RDA). <i>Physics of the Earth and Planetary Interiors</i> , 2009, 174, 128-137.	1.9	79
80	Comments on "Electrical conductivity of wadsleyite as a function of temperature and water content" by Manthilake et al.. <i>Physics of the Earth and Planetary Interiors</i> , 2009, 174, 19-21.	1.9	51
81	Electrical conductivity of orthopyroxene: Implications for the water content of the asthenosphere. <i>Proceedings of the Japan Academy Series B: Physical and Biological Sciences</i> , 2009, 85, 466-475.	3.8	115
82	A new analysis of experimental data on olivine rheology. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	159
83	Sheared lherzolite xenoliths revisited. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	64
84	Effects of water and iron content on the rheological contrast between garnet and olivine. <i>Physics of the Earth and Planetary Interiors</i> , 2008, 166, 57-66.	1.9	60
85	Plastic deformation of wadsleyite and olivine at high-pressure and high-temperature using a rotational Drickamer apparatus (RDA). <i>Physics of the Earth and Planetary Interiors</i> , 2008, 170, 156-169.	1.9	57
86	Geodynamic Significance of Seismic Anisotropy of the Upper Mantle: New Insights from Laboratory Studies. <i>Annual Review of Earth and Planetary Sciences</i> , 2008, 36, 59-95.	11.0	606
87	Insights into the nature of plume-asthenosphere interaction from central Pacific geophysical anomalies. <i>Earth and Planetary Science Letters</i> , 2008, 274, 234-240.	4.4	26
88	Effect of chemical environment on the hydrogen-related defect chemistry in wadsleyite. <i>American Mineralogist</i> , 2008, 93, 831-843.	1.9	27
89	Complete wetting of olivine grain boundaries by a hydrous melt near the mantle transition zone. <i>Earth and Planetary Science Letters</i> , 2007, 256, 466-472.	4.4	73
90	Stress, strain, and B-type olivine fabric in the fore-arc mantle: Sensitivity tests using high-resolution steady-state subduction zone models. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	83

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91	Unsolved problems in the lowermost mantle. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	38
92	Effect of water and stress on the lattice-preferred orientation of olivine. <i>Tectonophysics</i> , 2006, 421, 1-22.	2.2	323
93	A wet mantle conductor? (Reply). <i>Nature</i> , 2006, 439, E3-E4.	27.8	10
94	The effect of water on the electrical conductivity of olivine. <i>Nature</i> , 2006, 443, 977-980.	27.8	344
95	Deformation fabrics of the Cima di Gagnone peridotite massif, Central Alps, Switzerland: evidence of deformation at low temperatures in the presence of water. <i>Contributions To Mineralogy and Petrology</i> , 2006, 152, 43-51.	3.1	95
96	Effects of metal protection coils on thermocouple EMF in multi-anvil high-pressure experiments. <i>American Mineralogist</i> , 2006, 91, 111-114.	1.9	22
97	Water content in the transition zone from electrical conductivity of wadsleyite and ringwoodite. <i>Nature</i> , 2005, 434, 746-749.	27.8	366
98	Seismological signature of chemical differentiation of Earth's upper mantle. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	51
99	Frequency dependence of $Q$ in Earth's upper mantle inferred from continuous spectra of body waves. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	4.0	59
100	Plastic deformation of wadsleyite: II. High-pressure deformation in shear. <i>Physics and Chemistry of Minerals</i> , 2003, 30, 267-270.	0.8	27
101	Whole-mantle convection and the transition-zone water filter. <i>Nature</i> , 2003, 425, 39-44.	27.8	642
102	Development of finite strain in the convecting lower mantle and its implications for seismic anisotropy. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	52
103	Effects of pressure on high-temperature dislocation creep in olivine. <i>Philosophical Magazine</i> , 2003, 83, 401-414.	1.6	362
104	2. New Developments in Deformation Experiments at High Pressure. , 2002, , 21-50.		15
105	Rheological structure and deformation of subducted slabs in the mantle transition zone: implications for mantle circulation and deep earthquakes. <i>Physics of the Earth and Planetary Interiors</i> , 2001, 127, 83-108.	1.9	299
106	Water-Induced Fabric Transitions in Olivine. <i>Science</i> , 2001, 293, 1460-1463.	12.6	730
107	High-pressure rotational deformation apparatus to 15 GPa. <i>Review of Scientific Instruments</i> , 2001, 72, 4207-4211.	1.3	91
108	High-temperature creep in a $\text{Ni}_2\text{GeO}_4$ : a contribution to creep systematics in spinel. <i>Physics and Chemistry of Minerals</i> , 2001, 28, 557-571.	0.8	13

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109	Dynamics and anisotropy of the Earth's inner core. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2000, 76, 1-6.	3.8	2
110	Seismic anisotropy of the Earth's inner core resulting from flow induced by Maxwell stresses. Nature, 1999, 402, 871-873.	27.8	134
111	High temperature creep in a 2-3-4 garnet: Ca <sub>3</sub> Ga <sub>2</sub> Ge <sub>3</sub> O <sub>12</sub> . Journal of Materials Science, 1999, 34, 4783-4791.	3.7	13
112	Grain growth in CaTiO <sub>3</sub> -perovskite + FeO-wüstite aggregates. Physics and Chemistry of Minerals, 1999, 27, 11-19.	0.8	9
113	Melt distribution in mantle rocks deformed in shear. Geophysical Research Letters, 1999, 26, 1505-1508.	4.0	130
114	Plastic deformation of silicate spinel under the transition-zone conditions of the Earth's mantle. Nature, 1998, 395, 266-269.	27.8	59
115	Mechanisms of shear localization in the continental lithosphere: inference from the deformation microstructures of peridotites from the Ivrea zone, northwestern Italy. Journal of Structural Geology, 1998, 20, 195-209.	2.3	158
116	Seismic Anisotropy in the Deep Mantle, Boundary Layers and the Geometry of Mantle Convection. Pure and Applied Geophysics, 1998, 151, 565-587.	1.9	134
117	Experimental Studies of Shear Deformation of Mantle Materials: Towards Structural Geology of the Mantle. Pure and Applied Geophysics, 1998, 151, 589-603.	1.9	20
118	A Dislocation Model of Seismic Wave Attenuation and Micro-creep in the Earth: Harold Jeffreys and the Rheology of the Solid Earth. Pure and Applied Geophysics, 1998, 153, 239-256.	1.9	56
119	Effects of Pressure on Plastic Deformation of Polycrystalline Solids: Some Geological Applications. Materials Research Society Symposia Proceedings, 1997, 499, 3.	0.1	11
120	Toward an experimental study of deep mantle rheology: A new multianvil sample assembly for deformation studies under high pressures and temperatures. Journal of Geophysical Research, 1997, 102, 20111-20122.	3.3	100
121	Grain-size evolution in subducted oceanic lithosphere associated with the olivine-spinel transformation and its effects on rheology. Earth and Planetary Science Letters, 1997, 148, 27-43.	4.4	147
122	On the separation of crustal component from subducted oceanic lithosphere near the 660 km discontinuity. Physics of the Earth and Planetary Interiors, 1997, 99, 103-111.	1.9	88
123	Rheological control of oceanic crust separation in the transition zone. Geophysical Research Letters, 1996, 23, 1821-1824.	4.0	78
124	High temperature creep of single crystal gadolinium gallium garnet. Physics and Chemistry of Minerals, 1996, 23, 73.	0.8	16
125	Microstructural Development During Nucleation and Growth. Geophysical Journal International, 1996, 125, 397-414.	2.4	40
126	Interaction of Chemically Stratified Subducted Oceanic Lithosphere with the 660 km Discontinuity.. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 1995, 71, 203-207.	3.8	6

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127	Effects of Water on Seismic Wave Velocities in the Upper Mantle.. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 1995, 71, 61-66.	3.8	98
128	Lattice preferred orientation of olivine aggregates deformed in simple shear. Nature, 1995, 375, 774-777.	27.8	698
129	Ultramafic pseudotachylite from the Balmuccia peridotite, Ivrea-Verbano zone, northern Italy. Tectonophysics, 1995, 242, 313-328.	2.2	89
130	Superplasticity in Earth's Lower Mantle: Evidence from Seismic Anisotropy and Rock Physics. Science, 1995, 270, 458-461.	12.6	187
131	Low differential stress and controlled chemical environment in multianvil high-pressure experiments. Physics and Chemistry of Minerals, 1993, 20, 315.	0.8	91
132	High temperature creep of single crystal strontium titanate (SrTiO <sub>3</sub> ): a contribution to creep systematics in perovskites. Physics of the Earth and Planetary Interiors, 1993, 79, 299-312.	1.9	61
133	Rheology of the Upper Mantle: A Synthesis. Science, 1993, 260, 771-778.	12.6	1,483
134	Inner Core Anisotropy Due to the Magnetic Field-induced Preferred Orientation of Iron. Science, 1993, 262, 1708-1711.	12.6	129
135	Importance of anelasticity in the interpretation of seismic tomography. Geophysical Research Letters, 1993, 20, 1623-1626.	4.0	763
136	Diffusion Creep in Perovskite: Implications for the Rheology of the Lower Mantle. Science, 1992, 255, 1238-1240.	12.6	157
137	On the Lehmann discontinuity. Geophysical Research Letters, 1992, 19, 2255-2258.	4.0	157
138	Flow and Fracture of Rocks: A Review of Laboratory Studies. Zisin (Journal of the Seismological Society) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 30	0.2	0
139	The role of hydrogen in the electrical conductivity of the upper mantle. Nature, 1990, 347, 272-273.	27.8	551
140	Plasticity of Mg <sub>3</sub> SiO <sub>3</sub> perovskite: The results of microhardness tests on single crystals. Geophysical Research Letters, 1990, 17, 13-16.	4.0	34
141	Anisotropy in the Earth Formed by Plastic Flow in Rocks. Zisin (Journal of the Seismological Society) Tj ETQq1 1 0.784314 rgBT /Overlock 0.2	0.2	3
142	Grain growth kinetics in olivine aggregates. Tectonophysics, 1989, 168, 255-273.	2.2	253
143	The role of recrystallization in the preferred orientation of olivine. Physics of the Earth and Planetary Interiors, 1988, 51, 107-122.	1.9	95
144	Rheology of synthetic olivine aggregates: Influence of grain size and water. Journal of Geophysical Research, 1986, 91, 8151-8176.	3.3	738

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145	Grain-size distribution and rheology of the upper mantle. <i>Tectonophysics</i> , 1984, 104, 155-176.	2.2	81
146	Dynamic Recrystallization and High-Temperature Rheology of Olivine. , 1982, , 171-189.		25
147	Dynamic recrystallization of olivine single crystals during high-temperature creep. <i>Geophysical Research Letters</i> , 1980, 7, 649-652.	4.0	216
148	The Transition-Zone Water Filter Model for Global Material Circulation: Where Do We Stand?. <i>Geophysical Monograph Series</i> , 0, , 289-313.	0.1	19