

David Kohlstedt

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5467010/publications.pdf>

Version: 2024-02-01

167
papers

16,834
citations

28190

55
h-index

14702

127
g-index

169
all docs

169
docs citations

169
times ranked

5541
citing authors

#	ARTICLE	IF	CITATIONS
1	Limits on lithospheric stress imposed by laboratory experiments. <i>Journal of Geophysical Research</i> , 1980, 85, 6248-6252.	3.3	1,589
2	Water in the oceanic upper mantle: implications for rheology, melt extraction and the evolution of the lithosphere. <i>Earth and Planetary Science Letters</i> , 1996, 144, 93-108.	1.8	1,423
3	Strength of the lithosphere: Constraints imposed by laboratory experiments. <i>Journal of Geophysical Research</i> , 1995, 100, 17587-17602.	3.3	1,360
4	Solubility of water in the $\hat{1}\pm$, $\hat{1}^2$ and $\hat{1}^3$ phases of (Mg,Fe) 2SiO_4 . <i>Contributions To Mineralogy and Petrology</i> , 1996, 123, 345-357.	1.2	861
5	Rheology of the upper mantle and the mantle wedge: A view from the experimentalists. <i>Geophysical Monograph Series</i> , 2003, , 83-105.	0.1	780
6	Influence of water on plastic deformation of olivine aggregates: 1. Diffusion creep regime. <i>Journal of Geophysical Research</i> , 2000, 105, 21457-21469.	3.3	499
7	Melt Segregation and Strain Partitioning: Implications for Seismic Anisotropy and Mantle Flow. <i>Science</i> , 2003, 301, 1227-1230.	6.0	451
8	Influence of water on plastic deformation of olivine aggregates: 2. Dislocation creep regime. <i>Journal of Geophysical Research</i> , 2000, 105, 21471-21481.	3.3	426
9	Diffusion of hydrogen in olivine: Implications for water in the mantle. <i>Journal of Geophysical Research</i> , 1990, 95, 5079-5088.	3.3	394
10	Experimental constraints on the dynamics of the partially molten upper mantle: Deformation in the diffusion creep regime. <i>Journal of Geophysical Research</i> , 1995, 100, 1981-2001.	3.3	386
11	The role of water in the deformation of olivine single crystals. <i>Journal of Geophysical Research</i> , 1985, 90, 11319-11333.	3.3	371
12	Low-stress high-temperature creep in olivine single crystals. <i>Journal of Geophysical Research</i> , 1974, 79, 2045-2051.	3.3	354
13	Experimental constraints on the dynamics of the partially molten upper mantle: 2. Deformation in the dislocation creep regime. <i>Journal of Geophysical Research</i> , 1995, 100, 15441-15449.	3.3	281
14	High-temperature creep of olivine single crystals 1. Mechanical results for buffered samples. <i>Journal of Geophysical Research</i> , 1991, 96, 2441-2463.	3.3	272
15	Diffusion of Hydrogen and Intrinsic Point Defects in Olivine. <i>Zeitschrift Fur Physikalische Chemie</i> , 1998, 207, 147-162.	1.4	254
16	Stress-driven melt segregation in partially molten rocks. <i>Geochemistry, Geophysics, Geosystems</i> , 2003, 4, n/a-n/a.	1.0	203
17	Grain boundary sliding in San Carlos olivine: Flow law parameters and crystallographic-preferred orientation. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	197
18	New Technique for Decorating Dislocations in Olivine. <i>Science</i> , 1976, 191, 1045-1046.	6.0	195

#	ARTICLE	IF	CITATIONS
19	Laboratory study of dislocation climb and diffusion in olivine. <i>Journal of Geophysical Research</i> , 1973, 78, 5961-5971.	3.3	187
20	Substantial hydrogen solubility in olivine and implications for water storage in the mantle. <i>Nature</i> , 1992, 357, 672-674.	13.7	187
21	Solubility of hydrogen in olivine: dependence on temperature and iron content. <i>Contributions To Mineralogy and Petrology</i> , 2004, 147, 155-161.	1.2	186
22	Rheology and structure of olivine-basalt partial melts. <i>Journal of Geophysical Research</i> , 1986, 91, 9315-9323.	3.3	181
23	Shearing Melt Out of the Earth: An Experimentalist's Perspective on the Influence of Deformation on Melt Extraction. <i>Annual Review of Earth and Planetary Sciences</i> , 2009, 37, 561-593.	4.6	169
24	Grain boundaries as reservoirs of incompatible elements in the Earth's mantle. <i>Nature</i> , 2004, 427, 699-703.	13.7	163
25	Deformation-induced microstructures, paleopiezometers, and differential stresses in deeply eroded fault zones. <i>Journal of Geophysical Research</i> , 1980, 85, 6269-6285.	3.3	154
26	RHEOLOGY OF PARTIALLY MOLTEN MANTLE ROCKS. <i>Annual Review of Earth and Planetary Sciences</i> , 1996, 24, 41-62.	4.6	150
27	Experimental constraints on the strength of the lithospheric mantle. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	136
28	Influence of deformation on melt topology in peridotites. <i>Journal of Geophysical Research</i> , 1997, 102, 10257-10271.	3.3	133
29	Melt distribution in mantle rocks deformed in shear. <i>Geophysical Research Letters</i> , 1999, 26, 1505-1508.	1.5	130
30	The transition from porous to channelized flow due to melt/rock reaction during melt migration. <i>Geophysical Research Letters</i> , 1994, 21, 145-148.	1.5	125
31	Stress-driven Melt Segregation and Strain Partitioning in Partially Molten Rocks: Effects of Stress and Strain. <i>Journal of Petrology</i> , 2007, 48, 2379-2406.	1.1	122
32	Natural deformation and recrystallization of some intermediate plagioclase feldspars. <i>Tectonophysics</i> , 1985, 111, 107-131.	0.9	118
33	An interconnected network of core-forming melts produced by shear deformation. <i>Nature</i> , 2000, 403, 883-886.	13.7	115
34	The Role of Water in High-Temperature Rock Deformation. <i>Reviews in Mineralogy and Geochemistry</i> , 2006, 62, 377-396.	2.2	115
35	Influence of protons on Fe-Mg interdiffusion in olivine. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	112
36	Rheology of Rocks. <i>AGU Reference Shelf</i> , 0, , 148-165.	0.6	101

#	ARTICLE	IF	CITATIONS
37	Protracted fabric evolution in olivine: Implications for the relationship among strain, crystallographic fabric, and seismic anisotropy. <i>Earth and Planetary Science Letters</i> , 2014, 387, 157-168.	1.8	99
38	The influence of microstructure on deformation of olivine in the grain-boundary sliding regime. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	94
39	Differential stress determined from deformation-induced microstructures of the Moine Thrust Zone. <i>Journal of Geophysical Research</i> , 1979, 84, 7495-7509.	3.3	92
40	Diffusional Creep and Kinetic Demixing in Yttria-Stabilized Zirconia. <i>Journal of the American Ceramic Society</i> , 1987, 70, 531-536.	1.9	92
41	Microscratch analysis of the work of adhesion for Pt thin films on NiO. <i>Journal of Materials Research</i> , 1992, 7, 1126-1132.	1.2	87
42	Effect of iron content on the creep behavior of olivine: 1. Anhydrous conditions. <i>Earth and Planetary Science Letters</i> , 2009, 287, 229-240.	1.8	86
43	Water weakening of clinopyroxene in the dislocation creep regime. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	78
44	Laboratory measurements of the viscous anisotropy of olivine aggregates. <i>Nature</i> , 2012, 492, 415-418.	13.7	77
45	Analysis of dislocations in some naturally deformed plagioclase feldspars. <i>Physics and Chemistry of Minerals</i> , 1984, 11, 153-160.	0.3	72
46	Continuous microindentation of passivating surfaces. <i>Journal of Materials Research</i> , 1993, 8, 685-688.	1.2	72
47	Distribution of the glass phase in hot-pressed, olivine-basalt aggregates: An electron microscopy study. <i>Contributions To Mineralogy and Petrology</i> , 1982, 81, 253-261.	1.2	70
48	Sintering of olivine and olivine-basalt aggregates. <i>Physics and Chemistry of Minerals</i> , 1984, 11, 5-16.	0.3	70
49	Chemical Diffusion in Titanium Carbide Crystals. <i>Journal of Applied Physics</i> , 1970, 41, 4476-4484.	1.1	69
50	Chemistry of grain boundaries in mantle rocks. <i>American Mineralogist</i> , 2003, 88, 1015-1019.	0.9	66
51	Dependence of dislocation creep of dunite on oxygen fugacity: Implications for viscosity variations in Earth's mantle. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	65
52	Viscous Energy Dissipation and Strain Partitioning in Partially Molten Rocks. <i>Journal of Petrology</i> , 2005, 46, 2569-2592.	1.1	64
53	An electron microscopy study of naturally occurring oxidation produced precipitates in iron-bearing olivines. <i>Contributions To Mineralogy and Petrology</i> , 1975, 53, 13-24.	1.2	63
54	Structure, Rheology and Permeability of Partially Molten Rocks at Low Melt Fractions. <i>Geophysical Monograph Series</i> , 0, , 103-121.	0.1	61

#	ARTICLE	IF	CITATIONS
55	Stress-driven Melt Segregation in Partially Molten Olivine-rich Rocks Deformed in Torsion. <i>Journal of Petrology</i> , 2010, 51, 21-42.	1.1	60
56	Effect of H ⁺ on Fe ²⁺ -Mg interdiffusion in olivine, (Fe,Mg) ₂ SiO ₄ . <i>Applied Physics Letters</i> , 2004, 85, 209-211.	1.5	58
57	Transmission electron microscopy investigation of the defect microstructure of four natural orthopyroxenes. <i>Contributions To Mineralogy and Petrology</i> , 1973, 42, 169-180.	1.2	56
58	Rheology of olivine and the strength of the lithosphere. <i>Geophysical Research Letters</i> , 1990, 17, 9-12.	1.5	56
59	Transient creep of olivine: Point-defect relaxation times. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1988, 57, 779-789.	0.8	53
60	Melt migration in a silicate liquid-olivine system: An experimental test of compaction theory. <i>Geophysical Research Letters</i> , 1990, 17, 2101-2104.	1.5	53
61	Metal-silicate segregation in deforming dunitic rocks. <i>Geochemistry, Geophysics, Geosystems</i> , 2006, 7, n/a-n/a.	1.0	53
62	A first-principles investigation of hydrous defects and IR frequencies in forsterite: The case for Si vacancies. <i>American Mineralogist</i> , 2011, 96, 1475-1479.	0.9	53
63	Structural width of low-angle grain boundaries in olivine. <i>Physics and Chemistry of Minerals</i> , 1983, 9, 133-138.	0.3	51
64	Metal-ceramic interfacial fracture resistance using the continuous microscratch technique. <i>Thin Solid Films</i> , 1993, 223, 269-275.	0.8	51
65	Interfacial energies for quartz and albite in pelitic schist. <i>Contributions To Mineralogy and Petrology</i> , 2002, 143, 664-672.	1.2	50
66	Experimental constraints on the electrical anisotropy of the lithosphere-asthenosphere system. <i>Nature</i> , 2015, 522, 202-206.	13.7	50
67	Low-temperature syntheses of olivine and forsterite facilitated by hydrogen peroxide. <i>Chemistry of Materials</i> , 1991, 3, 692-698.	3.2	49
68	Water weakening of clinopyroxenite in diffusion creep. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	48
69	Faulted dipoles in germanium A high-resolution transmission electron microscopy study. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1980, 42, 103-121.	0.8	47
70	Reply to comment by P. Duval and M. Montagnat on "Superplastic deformation of ice: Experimental observations". <i>Journal of Geophysical Research</i> , 2002, 107, ECV 17-1-ECV 17-5.	3.3	47
71	Equilibrium interface segregation in the diopside-forsterite system I: Analytical techniques, thermodynamics, and segregation characteristics. <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 1266-1280.	1.6	47
72	Electron Diffraction and Microscopy Studies of the Structure of Grain Boundaries in Al ₂ O ₃ . <i>Journal of the American Ceramic Society</i> , 1980, 63, 623-627.	1.9	45

#	ARTICLE	IF	CITATIONS
73	Hydrolytic weakening in olivine single crystals. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 3465-3479.	1.4	45
74	Crystallographic Preferred Orientation of Olivine in Sheared Partially Molten Rocks: The Source of the "Switch". <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 316-336.	1.0	44
75	Low-Temperature Plasticity in Olivine: Grain Size, Strain Hardening, and the Strength of the Lithosphere. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 5427-5449.	1.4	44
76	Continuous microscratch measurements of the practical and true works of adhesion for metal/ceramic systems. <i>Journal of Materials Research</i> , 1996, 11, 3133-3145.	1.2	43
77	Equilibrium interface segregation in the diopside-forsterite system II: Applications of interface enrichment to mantle geochemistry. <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 1281-1289.	1.6	43
78	Experimental deformation of olivine single crystals at lithospheric temperatures. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	42
79	The dislocation structure of experimentally deformed marble. <i>Contributions To Mineralogy and Petrology</i> , 1977, 59, 293-306.	1.2	41
80	Dislocation creep accommodated by grain boundary sliding in dunite. <i>Journal of Earth Science (Wuhan, China)</i> , 2010, 21, 541-554.	1.1	41
81	Stress-driven Melt Segregation in Partially Molten Feldspathic Rocks. <i>Journal of Petrology</i> , 2010, 51, 9-19.	1.1	41
82	Rutherford Backscattering Spectroscopy Study of the Kinetics of Oxidation of (Mg, Fe) ₂ SiO ₄ . <i>Journal of the American Ceramic Society</i> , 1988, 71, 540-545.	1.9	38
83	Reaction infiltration instabilities in experiments on partially molten mantle rocks. <i>Geology</i> , 2015, 43, 575-578.	2.0	38
84	Rheological Weakening of Olivine+Orthopyroxene Aggregates Due To Phase Mixing: Part 2. Microstructural Development. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 7597-7612.	1.4	38
85	State-Variable Analysis of Inelastic Deformation of TiC Single Crystals. <i>Journal of the American Ceramic Society</i> , 1987, 70, 315-320.	1.9	37
86	Influence of hydrogen on Fe-Mg interdiffusion in (Mg,Fe)O and implications for Earth's lower mantle. <i>Contributions To Mineralogy and Petrology</i> , 2007, 154, 279-289.	1.2	37
87	Ice-age ice-sheet rheology: constraints from the Last Glacial Maximum form of the Laurentide ice sheet. <i>Annals of Glaciology</i> , 2000, 30, 163-176.	2.8	36
88	Continuous microscratch measurements of thin film adhesion strengths. <i>Journal of Adhesion Science and Technology</i> , 1993, 7, 1279-1292.	1.4	32
89	Deformation-induced metal melt networks in silicates: Implications for core-mantle interactions in planetary bodies. <i>Earth and Planetary Science Letters</i> , 2006, 245, 571-580.	1.8	32
90	Experimental Evidence for the Effect of Chemical Environment Upon the Creep Rate of Olivine. <i>Geophysical Monograph Series</i> , 0, , 171-184.	0.1	31

#	ARTICLE	IF	CITATIONS
91	Viscous anisotropy of textured olivine aggregates, Part 1: Measurement of the magnitude and evolution of anisotropy. <i>Earth and Planetary Science Letters</i> , 2016, 445, 92-103.	1.8	31
92	Effect of water on rheological properties of garnet at high temperatures and pressures. <i>Earth and Planetary Science Letters</i> , 2013, 379, 158-165.	1.8	30
93	Role of dynamic grain boundary wetting in fluid circulation beneath volcanic arcs. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	29
94	Rheological Weakening of Olivine-Orthopyroxene Aggregates Due to Phase Mixing: 1. Mechanical Behavior. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 7584-7596.	1.4	29
95	Observation of dissociated dislocations in deformed olivine. <i>Philosophical Magazine and Journal</i> , 1976, 34, 653-658.	1.8	28
96	High-temperature creep of olivine single crystals III. Mechanical results for unbuffered samples and creep mechanisms. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1992, 66, 1149-1181.	0.8	28
97	Electron irradiation damage in natural quartz grains. <i>Physics and Chemistry of Minerals</i> , 1981, 7, 110-116.	0.3	27
98	Evolution of the rheological and microstructural properties of olivine aggregates during dislocation creep under hydrous conditions. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 92-113.	1.4	26
99	Reaction Infiltration Instabilities in Mantle Rocks: an Experimental Investigation. <i>Journal of Petrology</i> , 2017, 58, 979-1003.	1.1	25
100	Creep of Fe ₂ SiO ₄ and Co ₂ SiO ₄ single crystals in controlled thermodynamic environments. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1985, 51, 79-93.	0.8	24
101	Creep behavior of Fe-bearing olivine under hydrous conditions. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 6039-6057.	1.4	24
102	Creep of (Mg, Fe)O single crystals. <i>Journal of Materials Science</i> , 1988, 23, 3550-3557.	1.7	23
103	Cation stacking faults in magnesium germanate spinel. <i>Physics and Chemistry of Minerals</i> , 1981, 7, 241-245.	0.3	21
104	Experimental Studies of Shear Deformation of Mantle Materials: Towards Structural Geology of the Mantle. <i>Pure and Applied Geophysics</i> , 1998, 151, 589-603.	0.8	20
105	Experimental investigation of the creep behavior of MgO at high pressures. <i>Physics of the Earth and Planetary Interiors</i> , 2008, 170, 170-175.	0.7	19
106	High-temperature stability of San Carlos olivine. <i>Contributions To Mineralogy and Petrology</i> , 1987, 95, 226-230.	1.2	18
107	Secondary dislocations in [011] tilt boundaries in germanium. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 1988, 57, 383-409.	0.8	18
108	Systematic distribution of incompatible elements in mantle peridotite: importance of intra- and inter-granular melt-like components. <i>Contributions To Mineralogy and Petrology</i> , 2009, 158, 149-167.	1.2	17

#	ARTICLE	IF	CITATIONS
109	An experimental study of the effects of surface tension in homogenizing perturbations in melt fraction. <i>Earth and Planetary Science Letters</i> , 2011, 307, 349-360.	1.8	17
110	Experimental test of the viscous anisotropy hypothesis for partially molten rocks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 12616-12620.	3.3	17
111	Rheological Weakening of Olivine+Orthopyroxene Aggregates Due to Phase Mixing: Effects of Orthopyroxene Volume Fraction. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB019888.	1.4	17
112	Manganese olivine I: Electrical conductivity. <i>Physics and Chemistry of Minerals</i> , 1995, 22, 489.	0.3	16
113	Partial Melting and Deformation. <i>Reviews in Mineralogy and Geochemistry</i> , 2002, 51, 121-135.	2.2	16
114	An experimental study of pressure shadows in partially molten rocks. <i>Earth and Planetary Science Letters</i> , 2013, 382, 77-84.	1.8	16
115	High-Temperature Creep of Silicate Olivines. , 1984, , 251-280.		15
116	Inelastic deformation of (Ti, V)C alloys. <i>Journal of Materials Science</i> , 1986, 21, 2356-2364.	1.7	15
117	Chapter 3 Influence of Basaltic Melt on the Creep of Polycrystalline Olivine under Hydrous Conditions. <i>International Geophysics</i> , 1994, 57, 37-53.	0.6	14
118	Direct shear of olivine single crystals. <i>Earth and Planetary Science Letters</i> , 2016, 455, 140-148.	1.8	14
119	Investigation of the Charge Distribution in Titanium Carbide Using Electromigration. <i>Physical Review B</i> , 1971, 3, 293-305.	1.1	13
120	High-temperature deformation of forsterite single crystals doped with vanadium. <i>Physics and Chemistry of Minerals</i> , 1986, 13, 351-356.	0.3	13
121	Dislocation density: stress relationships in natural and synthetic sodium chloride. <i>Tectonophysics</i> , 1988, 148, 147-161.	0.9	13
122	Chemical analysis of grain boundaries in an olivine-basalt aggregate using high-resolution, analytical electron microscopy. <i>Geophysical Monograph Series</i> , 1990, , 211-218.	0.1	13
123	Strength and deformation of planetary lithospheres. , 2009, , 397-456.		13
124	Experimental investigation of the creep behavior of garnet at high temperatures and pressures. <i>Journal of Earth Science (Wuhan, China)</i> , 2010, 21, 532-540.	1.1	13
125	Observations of grain size sensitive power law creep of olivine aggregates over a large range of lattice-preferred orientation strength. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 506-516.	1.4	13
126	Laboratory investigation of mechanisms for phase mixing in olivine+ferropericase aggregates. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018, 376, 20170417.	1.6	13

#	ARTICLE	IF	CITATIONS
127	Reactive processing of titanium carbide with titanium. <i>Journal of Materials Science</i> , 1984, 19, 1229-1241.	1.7	12
128	Internal Friction in Lithium Aluminosilicate Glass-Ceramics. <i>Journal of the American Ceramic Society</i> , 1994, 77, 1169-1177.	1.9	12
129	Effect of metallic melt on the viscosity of peridotite. <i>Earth and Planetary Science Letters</i> , 2007, 260, 355-360.	1.8	12
130	Brittle-Region Slip Systems in the Transition-Metal Carbides. <i>Physica Status Solidi A</i> , 1971, 6, K25-K28.	1.7	11
131	Reactive processing of titanium carbide with titanium. <i>Journal of Materials Science</i> , 1984, 19, 1242-1250.	1.7	11
132	TEM observation of dissociated dislocations with $b = [010]$ in naturally deformed olivine. <i>Physics of the Earth and Planetary Interiors</i> , 1993, 78, 131-137.	0.7	11
133	High-temperature creep and kinetic decomposition of Ni_2SiO_4 . <i>Physics and Chemistry of Minerals</i> , 1994, 21, 234.	0.3	11
134	A Subgrain Size Piezometer Calibrated for EBSD. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL090056.	1.5	11
135	Effect of gamma Radiation on Plastic Flow of NaCl. <i>Journal of the American Ceramic Society</i> , 1981, 64, 105-108.	1.9	10
136	Creep Behavior of Single Crystals of Vanadium-Doped Forsterite. <i>Journal of the American Ceramic Society</i> , 1986, 69, 770-774.	1.9	10
137	Viscous anisotropy of textured olivine aggregates: 2. Micromechanical model. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 7137-7160.	1.4	10
138	Diffusion Creep of Enstatite at High Pressures Under Hydrous Conditions. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 7718-7728.	1.4	10
139	Sol-gel Synthesis and Characterization of Magnesium Silicate Thin Films. <i>Chemistry of Materials</i> , 1997, 9, 2567-2576.	3.2	9
140	Effect of iron content on the creep behavior of Olivine: 2. Hydrous conditions. <i>Physics of the Earth and Planetary Interiors</i> , 2018, 278, 26-33.	0.7	9
141	Microscale and nanoscale strain mapping techniques applied to creep of rocks. <i>Solid Earth</i> , 2017, 8, 751-765.	1.2	8
142	Hydrogen incorporation in plagioclase. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 277, 87-110.	1.6	8
143	Inelastic deformation of (Ti, V)C alloys. <i>Journal of Materials Science</i> , 1986, 21, 2347-2355.	1.7	7
144	Manganese olivine II: point defect relaxation. <i>Physics and Chemistry of Minerals</i> , 1998, 25, 122-129.	0.3	7

#	ARTICLE	IF	CITATIONS
145	Evolution of Microstructural Properties in Sheared Iron-Rich Olivine. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB019629.	1.4	7
146	High-Temperature Rheology of Calcium Aluminosilicate (Anorthite) Glass-Ceramics under Uniaxial and Triaxial Loading. <i>Journal of the American Ceramic Society</i> , 2001, 84, 2617-2624.	1.9	6
147	Influence of Lithology on Reactive Melt Flow Channelization. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2020GC008937.	1.0	6
148	Natural deformation and recrystallization of some intermediate plagioclase feldspars—reply. <i>Tectonophysics</i> , 1986, 124, 363-364.	0.9	5
149	The effect of grain size and melt distributions on the rheology of partially molten olivine aggregates. <i>Geological Society Special Publication</i> , 2005, 245, 291-302.	0.8	5
150	Influence of Compaction Length on Radial Melt Segregation in Torsionally Deformed Partially Molten Rocks. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 4400-4419.	1.0	5
151	Diffusion rates of hydrogen defect species associated with site-specific infrared spectral bands in natural olivine. <i>Earth and Planetary Science Letters</i> , 2022, 581, 117406.	1.8	5
152	High-resolution creep apparatus. <i>Geophysical Monograph Series</i> , 1990, , 235-238.	0.1	4
153	The role of protons in ionic diffusion in (Mg,Fe)O and (Mg,Fe) ₂ SiO ₄ . <i>Journal of Materials Science</i> , 2008, 43, 4693-4700.	1.7	4
154	Radial Melt Segregation During Extrusion of Partially Molten Rocks. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 2985-2996.	1.0	4
155	Micro-Mechanical Characterization of Tantalum Nitride Thin Films on Sapphire Substrates. <i>Materials Research Society Symposia Proceedings</i> , 1994, 343, 597.	0.1	3
156	Interaction of Slip Systems in Olivine. <i>Geophysical Monograph Series</i> , 0, , 185-193.	0.1	3
157	Continuous Microindentation and Microscratch Measurements of Metal-Ceramic Adhesive strengths. <i>Materials Research Society Symposia Proceedings</i> , 1991, 239, 591.	0.1	2
158	Adhesion of chromium metallization on alumina surfaces prepared by sol-gel techniques. <i>Journal of Materials Science</i> , 1991, 26, 1815-1820.	1.7	2
159	Continuous Microindentation of Passivated Surfaces in Surface Active Media. <i>Materials Research Society Symposia Proceedings</i> , 1993, 308, 543.	0.1	2
160	Low oxygen fugacity dependency for the deformation of partially molten lherzolite. <i>Tectonophysics</i> , 2012, 580, 114-123.	0.9	2
161	Experimental measurements of anisotropic viscosity in naturally sourced dunite with a preexisting CPO. <i>Tectonophysics</i> , 2021, 815, 228949.	0.9	2
162	Structure and Dissociation of 15° <110> Tilt Boundaries in Germanium. <i>Materials Research Society Symposia Proceedings</i> , 1983, 25, 299.	0.1	1

#	ARTICLE	IF	CITATIONS
163	Effect of Heat Treatment on Adhesion in the Cr/Al ₂ O ₃ System. Materials Research Society Symposia Proceedings, 1993, 308, 659.	0.1	1
164	Structural Changes of a $\theta = 51^\circ$ Tilt Boundary in Germanium During High Temperature Creep. Materials Research Society Symposia Proceedings, 1984, 41, 261.	0.1	0
165	Adhesion of Metals to Mixed Oxide Coatings (Al & Cr, Mo, OR W) Prepared by Spray Pyrolysis of Organometallics.. Materials Research Society Symposia Proceedings, 1988, 131, 453.	0.1	0
166	Adhesion in Metal-Ceramic Systems. Materials Research Society Symposia Proceedings, 1993, 308, 621.	0.1	0
167	Experimental Investigation on the Deformation and Dehydration Faulting of Antigorite in Subduction Zones. Acta Geologica Sinica, 2019, 93, 119-119.	0.8	0