

David Kohlstedt

List of Publications by Year in descending order

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167
papers

16,834
citations

28242

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times ranked

5541
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Evolution of Microstructural Properties in Sheared Iron-Rich Olivine. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB019629.	1.4	7
3	Experimental measurements of anisotropic viscosity in naturally sourced dunite with a preexisting CPO. <i>Tectonophysics</i> , 2021, 815, 228949.	0.9	2
4	Influence of Lithology on Reactive Melt Flow Channelization. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2020GC008937.	1.0	6
5	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
6	Hydrogen incorporation in plagioclase. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 277, 87-110.	1.6	8
7	A Subgrain Size Piezometer Calibrated for EBSD. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL090056.	1.5	11
8	Experimental Investigation on the Deformation and Dehydration Faulting of Antigorite in Subduction Zones. <i>Acta Geologica Sinica</i> , 2019, 93, 119-119.	0.8	0
9	Radial Melt Segregation During Extrusion of Partially Molten Rocks. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 2985-2996.	1.0	4
10	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
11	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
12	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
13	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
14	Laboratory investigation of mechanisms for phase mixing in olivine+ferropericlasite aggregates. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018, 376, 20170417.	1.6	13
15	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
16	Reaction Infiltration Instabilities in Mantle Rocks: an Experimental Investigation. <i>Journal of Petrology</i> , 2017, 58, 979-1003.	1.1	25
17	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
18	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

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19	Hydrolytic weakening in olivine single crystals. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 3465-3479.	1.4	45
20	Microscale and nanoscale strain mapping techniques applied to creep of rocks. <i>Solid Earth</i> , 2017, 8, 751-765.	1.2	8
21	Direct shear of olivine single crystals. <i>Earth and Planetary Science Letters</i> , 2016, 455, 140-148.	1.8	14
22	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
23	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
24	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
25	Viscous anisotropy of textured olivine aggregates: 2. Micromechanical model. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 7137-7160.	1.4	10
26	Creep behavior of Fe-bearing olivine under hydrous conditions. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 6039-6057.	1.4	24
27	Experimental constraints on the electrical anisotropy of the lithosphere-asthenosphere system. <i>Nature</i> , 2015, 522, 202-206.	13.7	50
28	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
29	Reaction infiltration instabilities in experiments on partially molten mantle rocks. <i>Geology</i> , 2015, 43, 575-578.	2.0	38
30	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
31	An experimental study of pressure shadows in partially molten rocks. <i>Earth and Planetary Science Letters</i> , 2013, 382, 77-84.	1.8	16
32	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
33	Laboratory measurements of the viscous anisotropy of olivine aggregates. <i>Nature</i> , 2012, 492, 415-418.	13.7	77
34	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
35	Low oxygen fugacity dependency for the deformation of partially molten lherzolite. <i>Tectonophysics</i> , 2012, 580, 114-123.	0.9	2
36	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

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37	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
38	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
39	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
40	Dislocation creep accommodated by grain boundary sliding in dunite. <i>Journal of Earth Science (Wuhan, China)</i> , 2010, 21, 541-554.	1.1	41
41	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
42	Stress-driven Melt Segregation in Partially Molten Feldspathic Rocks. <i>Journal of Petrology</i> , 2010, 51, 9-19.	1.1	41
43	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
44	Experimental constraints on the strength of the lithospheric mantle. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	136
45	Strength and deformation of planetary lithospheres. , 2009, , 397-456.		13
46	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
47	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
48	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
49	Experimental deformation of olivine single crystals at lithospheric temperatures. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	42
50	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
51	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
52	Effect of metallic melt on the viscosity of peridotite. <i>Earth and Planetary Science Letters</i> , 2007, 260, 355-360.	1.8	12
53	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
54	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

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55	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
56	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
57	Metal-silicate segregation in deforming dunitic rocks. <i>Geochemistry, Geophysics, Geosystems</i> , 2006, 7, n/a-n/a.	1.0	53
58	Water weakening of clinopyroxene in the dislocation creep regime. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	78
59	Role of dynamic grain boundary wetting in fluid circulation beneath volcanic arcs. <i>Geophysical Research Letters</i> , 2006, 33, .	1.5	29
60	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
61	The Role of Water in High-Temperature Rock Deformation. <i>Reviews in Mineralogy and Geochemistry</i> , 2006, 62, 377-396.	2.2	115
62	Viscous Energy Dissipation and Strain Partitioning in Partially Molten Rocks. <i>Journal of Petrology</i> , 2005, 46, 2569-2592.	1.1	64
63	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
64	Influence of protons on Fe-Mg interdiffusion in olivine. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	112
65	Water weakening of clinopyroxenite in diffusion creep. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	48
66	Effect of H+ on Fe-Mg interdiffusion in olivine, (Fe,Mg) ₂ SiO ₄ . <i>Applied Physics Letters</i> , 2004, 85, 209-211.	1.5	58
67	Grain boundaries as reservoirs of incompatible elements in the Earth's mantle. <i>Nature</i> , 2004, 427, 699-703.	13.7	163
68	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
69	Stress-driven melt segregation in partially molten rocks. <i>Geochemistry, Geophysics, Geosystems</i> , 2003, 4, n/a-n/a.	1.0	203
70	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
71	Melt Segregation and Strain Partitioning: Implications for Seismic Anisotropy and Mantle Flow. <i>Science</i> , 2003, 301, 1227-1230.	6.0	451
72	Chemistry of grain boundaries in mantle rocks. <i>American Mineralogist</i> , 2003, 88, 1015-1019.	0.9	66

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73	Partial Melting and Deformation. <i>Reviews in Mineralogy and Geochemistry</i> , 2002, 51, 121-135.	2.2	16
74	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
75	Interfacial energies for quartz and albite in pelitic schist. <i>Contributions To Mineralogy and Petrology</i> , 2002, 143, 664-672.	1.2	50
76	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
77	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
78	An interconnected network of core-forming melts produced by shear deformation. <i>Nature</i> , 2000, 403, 883-886.	13.7	115
79	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
80	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
81	Melt distribution in mantle rocks deformed in shear. <i>Geophysical Research Letters</i> , 1999, 26, 1505-1508.	1.5	130
82	Manganese olivine II: point defect relaxation. <i>Physics and Chemistry of Minerals</i> , 1998, 25, 122-129.	0.3	7
83	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
84	Diffusion of Hydrogen and Intrinsic Point Defects in Olivine. <i>Zeitschrift Fur Physikalische Chemie</i> , 1998, 207, 147-162.	1.4	254
85	Sol-Gel Synthesis and Characterization of Magnesium Silicate Thin Films. <i>Chemistry of Materials</i> , 1997, 9, 2567-2576.	3.2	9
86	Influence of deformation on melt topology in peridotites. <i>Journal of Geophysical Research</i> , 1997, 102, 10257-10271.	3.3	133
87	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
88	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
89	RHEOLOGY OF PARTIALLY MOLTEN MANTLE ROCKS. <i>Annual Review of Earth and Planetary Sciences</i> , 1996, 24, 41-62.	4.6	150
90	Solubility of water in the $\hat{1}$, $\hat{1}^2$ and $\hat{1}^3$ phases of $(\text{Mg,Fe})_2\text{SiO}_4$. <i>Contributions To Mineralogy and Petrology</i> , 1996, 123, 345-357.	1.2	861

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91	Manganese olivine I: Electrical conductivity. <i>Physics and Chemistry of Minerals</i> , 1995, 22, 489.	0.3	16
92	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
93	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
94	Strength of the lithosphere: Constraints imposed by laboratory experiments. <i>Journal of Geophysical Research</i> , 1995, 100, 17587-17602.	3.3	1,360
95	High-temperature creep and kinetic decomposition of Ni ₂ SiO ₄ . <i>Physics and Chemistry of Minerals</i> , 1994, 21, 234.	0.3	11
96	Internal Friction in Lithium Aluminosilicate Glass-Ceramics. <i>Journal of the American Ceramic Society</i> , 1994, 77, 1169-1177.	1.9	12
97	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
98	Micro-Mechanical Characterization of Tantalum Nitride Thin Films on Sapphire Substrates. <i>Materials Research Society Symposia Proceedings</i> , 1994, 343, 597.	0.1	3
99	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
100	Metal-ceramic interfacial fracture resistance using the continuous microscratch technique. <i>Thin Solid Films</i> , 1993, 223, 269-275.	0.8	51
101	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
102	Continuous microindentation of passivating surfaces. <i>Journal of Materials Research</i> , 1993, 8, 685-688.	1.2	72
103	Continuous microscratch measurements of thin film adhesion strengths. <i>Journal of Adhesion Science and Technology</i> , 1993, 7, 1279-1292.	1.4	32
104	Continuous Microindentation of Passivated Surfaces in Surface Active Media. <i>Materials Research Society Symposia Proceedings</i> , 1993, 308, 543.	0.1	2
105	Adhesion in Metal-Ceramic Systems. <i>Materials Research Society Symposia Proceedings</i> , 1993, 308, 621.	0.1	0
106	Effect of Heat Treatment on Adhesion in the Cr/Al ₂ O ₃ System. <i>Materials Research Society Symposia Proceedings</i> , 1993, 308, 659.	0.1	1
107	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
108	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.	0.7	28

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109	Substantial hydrogen solubility in olivine and implications for water storage in the mantle. <i>Nature</i> , 1992, 357, 672-674.	13.7	187
110	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
111	Low-temperature syntheses of olivine and forsterite facilitated by hydrogen peroxide. <i>Chemistry of Materials</i> , 1991, 3, 692-698.	3.2	49
112	Continuous Microindentation and Microscratch Measurements of Metal-Ceramic Adhesive strengths. <i>Materials Research Society Symposia Proceedings</i> , 1991, 239, 591.	0.1	2
113	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
114	Rheology of olivine and the strength of the lithosphere. <i>Geophysical Research Letters</i> , 1990, 17, 9-12.	1.5	56
115	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
116	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
117	High-resolution creep apparatus. <i>Geophysical Monograph Series</i> , 1990, , 235-238.	0.1	4
118	Diffusion of hydrogen in olivine: Implications for water in the mantle. <i>Journal of Geophysical Research</i> , 1990, 95, 5079-5088.	3.3	394
119	Creep of (Mg, Fe)O single crystals. <i>Journal of Materials Science</i> , 1988, 23, 3550-3557.	1.7	23
120	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
121	Dislocation density: stress relationships in natural and synthetic sodium chloride. <i>Tectonophysics</i> , 1988, 148, 147-161.	0.9	13
122	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.	0.7	53
123	Adhesion of Metals to Mixed Oxide Coatings (Al & Cr, Mo, OR W) Prepared by Spray Pyrolysis of Organometallics.. <i>Materials Research Society Symposia Proceedings</i> , 1988, 131, 453.	0.1	0
124	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.	0.7	18
125	High-temperature stability of San Carlos olivine. <i>Contributions To Mineralogy and Petrology</i> , 1987, 95, 226-230.	1.2	18
126	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

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127	Diffusional Creep and Kinetic Demixing in Yttria-Stabilized Zirconia. Journal of the American Ceramic Society, 1987, 70, 531-536.	1.9	92
128	Rheology and structure of olivine-basalt partial melts. Journal of Geophysical Research, 1986, 91, 9315-9323.	3.3	181
129	Natural deformation and recrystallization of some intermediate plagioclase feldspars—reply. Tectonophysics, 1986, 124, 363-364.	0.9	5
130	High-temperature deformation of forsterite single crystals doped with vanadium. Physics and Chemistry of Minerals, 1986, 13, 351-356.	0.3	13
131	Inelastic deformation of (Ti, V)C alloys. Journal of Materials Science, 1986, 21, 2347-2355.	1.7	7
132	Inelastic deformation of (Ti, V)C alloys. Journal of Materials Science, 1986, 21, 2356-2364.	1.7	15
133	Creep Behavior of Single Crystals of Vanadium-Doped Forsterite. Journal of the American Ceramic Society, 1986, 69, 770-774.	1.9	10
134	Creep of Fe ₂ SiO ₄ and Co ₂ SiO ₄ single crystals in controlled thermodynamic environments. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1985, 51, 79-93.	0.7	24
135	The role of water in the deformation of olivine single crystals. Journal of Geophysical Research, 1985, 90, 11319-11333.	3.3	371
136	Natural deformation and recrystallization of some intermediate plagioclase feldspars. Tectonophysics, 1985, 111, 107-131.	0.9	118
137	High-Temperature Creep of Silicate Olivines. , 1984, , 251-280.		15
138	Reactive processing of titanium carbide with titanium. Journal of Materials Science, 1984, 19, 1229-1241.	1.7	12
139	Reactive processing of titanium carbide with titanium. Journal of Materials Science, 1984, 19, 1242-1250.	1.7	11
140	Analysis of dislocations in some naturally deformed plagioclase feldspars. Physics and Chemistry of Minerals, 1984, 11, 153-160.	0.3	72
141	Sintering of olivine and olivine-basalt aggregates. Physics and Chemistry of Minerals, 1984, 11, 5-16.	0.3	70
142	Structural Changes of a $\Sigma = 51$ Tilt Boundary in Germanium During High Temperature Creep. Materials Research Society Symposia Proceedings, 1984, 41, 261.	0.1	0
143	Structural width of low-angle grain boundaries in olivine. Physics and Chemistry of Minerals, 1983, 9, 133-138.	0.3	51
144	Structure and Dissociation of $15^\circ \langle 110 \rangle$ Tilt Boundaries in Germanium. Materials Research Society Symposia Proceedings, 1983, 25, 299.	0.1	1

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145	Distribution of the glass phase in hot-pressed, olivine-basalt aggregates: An electron microscopy study. Contributions To Mineralogy and Petrology, 1982, 81, 253-261.	1.2	70
146	Electron irradiation damage in natural quartz grains. Physics and Chemistry of Minerals, 1981, 7, 110-116.	0.3	27
147	Cation stacking faults in magnesium germanate spinel. Physics and Chemistry of Minerals, 1981, 7, 241-245.	0.3	21
148	Effect of gamma Radiation on Plastic Flow of NaCl. Journal of the American Ceramic Society, 1981, 64, 105-108.	1.9	10
149	Faulted dipoles in germanium A high-resolution transmission electron microscopy study. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1980, 42, 103-121.	0.7	47
150	Electron Diffraction and Microscopy Studies of the Structure of Grain Boundaries in Al ₂ O ₃ . Journal of the American Ceramic Society, 1980, 63, 623-627.	1.9	45
151	Limits on lithospheric stress imposed by laboratory experiments. Journal of Geophysical Research, 1980, 85, 6248-6252.	3.3	1,589
152	Deformation-induced microstructures, paleopiezometers, and differential stresses in deeply eroded fault zones. Journal of Geophysical Research, 1980, 85, 6269-6285.	3.3	154
153	Differential stress determined from deformation-induced microstructures of the Moine Thrust Zone. Journal of Geophysical Research, 1979, 84, 7495-7509.	3.3	92
154	The dislocation structure of experimentally deformed marble. Contributions To Mineralogy and Petrology, 1977, 59, 293-306.	1.2	41
155	Observation of dissociated dislocations in deformed olivine. Philosophical Magazine and Journal, 1976, 34, 653-658.	1.8	28
156	New Technique for Decorating Dislocations in Olivine. Science, 1976, 191, 1045-1046.	6.0	195
157	An electron microscopy study of naturally occurring oxidation produced precipitates in iron-bearing olivines. Contributions To Mineralogy and Petrology, 1975, 53, 13-24.	1.2	63
158	Low-stress high-temperature creep in olivine single crystals. Journal of Geophysical Research, 1974, 79, 2045-2051.	3.3	354
159	Transmission electron microscopy investigation of the defect microstructure of four natural orthopyroxenes. Contributions To Mineralogy and Petrology, 1973, 42, 169-180.	1.2	56
160	Laboratory study of dislocation climb and diffusion in olivine. Journal of Geophysical Research, 1973, 78, 5961-5971.	3.3	187
161	Brittle-Region Slip Systems in the Transition-Metal Carbides. Physica Status Solidi A, 1971, 6, K25-K28.	1.7	11
162	Investigation of the Charge Distribution in Titanium Carbide Using Electromigration. Physical Review B, 1971, 3, 293-305.	1.1	13

#	ARTICLE	IF	CITATIONS
163	Chemical Diffusion in Titanium Carbide Crystals. <i>Journal of Applied Physics</i> , 1970, 41, 4476-4484.	1.1	69
164	Structure, Rheology and Permeability of Partially Molten Rocks at Low Melt Fractions. <i>Geophysical Monograph Series</i> , 0, , 103-121.	0.1	61
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166	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
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