

Ulrich Faul

List of Publications by Year in descending order

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48
papers

3,644
citations

126907

33
h-index

233421

45
g-index

54
all docs

54
docs citations

54
times ranked

2250
citing authors

#	ARTICLE	IF	CITATIONS
1	The seismological signature of temperature and grain size variations in the upper mantle. <i>Earth and Planetary Science Letters</i> , 2005, 234, 119-134.	4.4	431
2	Grain-size-sensitive seismic wave attenuation in polycrystalline olivine. <i>Journal of Geophysical Research</i> , 2002, 107, ECV 5-1-ECV 5-16.	3.3	330
3	Grainsize-sensitive viscoelastic relaxation in olivine: Towards a robust laboratory-based model for seismological application. <i>Physics of the Earth and Planetary Interiors</i> , 2010, 183, 151-163.	1.9	286
4	Simple shear deformation of olivine aggregates. <i>Tectonophysics</i> , 2000, 316, 133-152.	2.2	170
5	Permeability of partially molten upper mantle rocks from experiments and percolation theory. <i>Journal of Geophysical Research</i> , 1997, 102, 10299-10311.	3.3	147
6	Intergranular basaltic melt is distributed in thin, elongated inclusions. <i>Geophysical Research Letters</i> , 1994, 21, 29-32.	4.0	141
7	Shear wave attenuation and dispersion in melt-bearing olivine polycrystals: 2. Microstructural interpretation and seismological implications. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	141
8	Effects of crystalline anisotropy on fluid distribution in ultramafic partial melts. <i>Journal of Geophysical Research</i> , 1992, 97, 9003-9014.	3.3	134
9	Peridotite Melting at 1.0 and 1.5 GPa: an Experimental Evaluation of Techniques using Diamond Aggregates and Mineral Mixes for Determination of Near-solidus Melts. <i>Journal of Petrology</i> , 1999, 40, 1343-1375.	2.8	133
10	Melt retention and segregation beneath mid-ocean ridges. <i>Nature</i> , 2001, 410, 920-923.	27.8	128
11	Shear wave attenuation and dispersion in melt-bearing olivine polycrystals: 1. Specimen fabrication and mechanical testing. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	125
12	The Seismic Structure and Dynamics of the Mantle Wedge. <i>Annual Review of Earth and Planetary Sciences</i> , 2008, 36, 421-455.	11.0	114
13	Redox-influenced seismic properties of upper-mantle olivine. <i>Nature</i> , 2018, 555, 355-358.	27.8	110
14	Diffusion creep of dry, melt-free olivine. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	89
15	A close look at dihedral angles and melt geometry in olivine-basalt aggregates: a TEM study. <i>Contributions To Mineralogy and Petrology</i> , 1998, 130, 336-345.	3.1	84
16	Seismic Properties of Anita Bay Dunite: an Exploratory Study of the Influence of Water. <i>Journal of Petrology</i> , 2007, 49, 841-855.	2.8	80
17	Transient Creep and Strain Energy Dissipation: An Experimental Perspective. <i>Annual Review of Earth and Planetary Sciences</i> , 2015, 43, 541-569.	11.0	74
18	On the V_p/V_s vs $Mg\#$ correlation in mantle peridotites: Implications for the identification of thermal and compositional anomalies in the upper mantle. <i>Earth and Planetary Science Letters</i> , 2010, 289, 606-618.	4.4	68

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19	Grain growth in partially molten olivine aggregates. Contributions To Mineralogy and Petrology, 2006, 151, 101-111.	3.1	61
20	The importance of grain size to mantle dynamics and seismological observations. Geochemistry, Geophysics, Geosystems, 2017, 18, 3034-3061.	2.5	57
21	Dissipation at tidal and seismic frequencies in a melt-free Moon. Journal of Geophysical Research, 2012, 117, .	3.3	55
22	Titanium-hydroxyl defect-controlled rheology of the Earth's upper mantle. Earth and Planetary Science Letters, 2016, 452, 227-237.	4.4	50
23	Contrasting viscoelastic behavior of melt-free and melt-bearing olivine: Implications for the nature of grain-boundary sliding. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 442, 170-174.	5.6	49
24	Elastically accommodated grain-boundary sliding: New insights from experiment and modeling. Physics of the Earth and Planetary Interiors, 2014, 228, 203-210.	1.9	49
25	Multidisciplinary Constraints on the Abundance of Diamond and Eclogite in the Cratonic Lithosphere. Geochemistry, Geophysics, Geosystems, 2018, 19, 2062-2086.	2.5	49
26	Nonvolcanic seafloor spreading and corner-flow rotation accommodated by extensional faulting at 15°N on the Mid-Atlantic Ridge: A structural synthesis of ODP Leg 209. Geochemistry, Geophysics, Geosystems, 2007, 8, n/a-n/a.	2.5	47
27	The oceanic and cratonic upper mantle: Clues from joint interpretation of global velocity and attenuation models. Lithos, 2010, 120, 160-172.	1.4	45
28	Dissipation at tidal and seismic frequencies in a melt-free, anhydrous Mars. Journal of Geophysical Research E: Planets, 2013, 118, 2558-2569.	3.6	43
29	High-resolution imaging of the melt distribution in partially molten upper mantle rocks: evidence for wetted two-grain boundaries. Geochemistry, Geophysics, Geosystems, 2013, 14, 556-566.	2.5	41
30	Grain misorientations in partially molten olivine aggregates: an electron backscatter diffraction study. Physics and Chemistry of Minerals, 1999, 26, 187-197.	0.8	40
31	Dislocation creep of fine-grained olivine. Journal of Geophysical Research, 2011, 116, .	3.3	37
32	Dislocation Damping and Anisotropic Seismic Wave Attenuation in Earth's Upper Mantle. Science, 2012, 336, 332-335.	12.6	37
33	The structure and composition of olivine grain boundaries: 40 years of studies, status and current developments. Physics and Chemistry of Minerals, 2018, 45, 139-172.	0.8	37
34	Dislocation recovery in fine-grained polycrystalline olivine. Physics and Chemistry of Minerals, 2011, 38, 363-377.	0.8	34
35	Anelasticity from seismic to tidal timescales: Theory and observations. Earth and Planetary Science Letters, 2019, 508, 18-29.	4.4	31
36	Lattice-preferred orientation and microstructure of peridotites from ODP Hole 1274A (15°39'N), Mid-Atlantic Ridge: Testing models of mantle upwelling and tectonic exhumation. Earth and Planetary Science Letters, 2011, 301, 199-212.	4.4	14

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37	Subcontinental rift initiation and ocean-continent transitional setting of the Dinarides and Vardar zone: Evidence from the Krivajaâ€Konjuh Massif, Bosnia and Herzegovina. <i>Lithos</i> , 2014, 202-203, 283-299.	1.4	12
38	Constraints on oxygen fugacity within metal capsules. <i>Physics and Chemistry of Minerals</i> , 2018, 45, 497-509.	0.8	12
39	Constraints on the Melt Distribution in Anisotropic Polycrystalline Aggregates Undergoing Grain Growth. <i>Petrology and Structural Geology</i> , 2000, , 67-92.	0.5	11
40	Anelasticity across seismic to tidal timescales: a self-consistent approach. <i>Geophysical Journal International</i> , 2017, 208, 368-384.	2.4	10
41	Slip-system and EBSD analysis on compressively deformed fine-grained polycrystalline olivine. <i>Geological Society Special Publication</i> , 2011, 360, 225-235.	1.3	9
42	Grain boundary wetness of partially molten dunite. <i>Contributions To Mineralogy and Petrology</i> , 2016, 171, 1.	3.1	9
43	Lowâ€Frequency Seismic Properties of Olivineâ€Orthopyroxene Mixtures. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022504.	3.4	9
44	The grain growth kinetics of bridgmanite at the topmost lower mantle. <i>Earth and Planetary Science Letters</i> , 2021, 561, 116820.	4.4	7
45	Dislocation structure of deformed olivine single crystals from conventional EBSD maps. <i>Physics and Chemistry of Minerals</i> , 2021, 48, 1.	0.8	4
46	Thank You to Our 2018 Peer Reviewers. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 4593-4598.	2.5	0
47	Thank You to Our 2019 Reviewers. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2020GC009007.	2.5	0
48	Thank You to Our 2020 Reviewers. <i>Geochemistry, Geophysics, Geosystems</i> , 2021, 22, e2021GC009697.	2.5	0