Paul Raterron

List of Publications by Year
in descending order

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34 papers	1,159 citations	430874 18 h-index	377865 34 g-index
34 all docs	34 docs citations	34 times ranked	880 citing authors

#	Article	IF	Citations
1	The Effect of Pressure and Mgâ€Content on Ilmenite Rheology: Implications for Lunar Cumulate Mantle Overturn. Journal of Geophysical Research E: Planets, 2021, 126, .	3.6	9
2	Pressure Dependence of Magnesite Creep. Geosciences (Switzerland), 2019, 9, 420.	2.2	2
3	Olivine intergranular plasticity at mantle pressures and temperatures. Comptes Rendus - Geoscience, 2019, 351, 80-85.	1.2	2
4	Strength of orthoenstatite single crystals at mantle pressure and temperature and comparison with olivine. Earth and Planetary Science Letters, 2016, 450, 326-336.	4.4	15
5	Textures in deforming forsterite aggregates up to 8ÂGPa and 1673ÂK. Physics and Chemistry of Minerals, 2016, 43, 409-417.	0.8	2
6	Deformation of forsterite polycrystals at mantle pressure: Comparison with Fe-bearing olivine and the effect of iron on its plasticity. Physics of the Earth and Planetary Interiors, 2015, 240, 95-104.	1.9	15
7	Multiscale modeling of upper mantle plasticity: From single-crystal rheology to multiphase aggregate deformation. Physics of the Earth and Planetary Interiors, 2014, 228, 232-243.	1.9	15
8	Polycrystalline olivine rheology in dislocation creep: Revisiting experimental data to 8.1GPa. Physics of the Earth and Planetary Interiors, 2014, 228, 211-219.	1.9	13
9	Hydrolytic weakening of olivine at mantle pressure: Evidence of [100](010) slip system softening from single-crystal deformation experiments. Physics of the Earth and Planetary Interiors, 2013, 216, 12-20.	1.9	52
10	Axial temperature gradient and stress measurements in the deformation-DIA cell using alumina pistons. Review of Scientific Instruments, 2013, 84, 043906.	1.3	39
11	Deformation of periclase single crystals at high pressure and temperature: Quantification of the effect of pressure on slip-system activities. Journal of Applied Physics, 2012, 111, .	2.5	30
12	Activities of olivine slip systems in the upper mantle. Physics of the Earth and Planetary Interiors, 2012, 200-201, 105-112.	1.9	34
13	In situquantitative analysis of stress and texture development in forsterite aggregates deformed at 6â€...GPa and 1373â€...K. Journal of Applied Crystallography, 2012, 45, 263-271.	4.5	15
14	Pressure effect on forsterite dislocation slip systems: Implications for upper-mantle LPO and low viscosity zone. Physics of the Earth and Planetary Interiors, 2011, 188, 26-36.	1.9	39
15	Deformation of single crystal sample using D-DIA apparatus coupled with synchrotron X-rays: In situ stress and strain measurements at high pressure and temperature. Journal of Physics and Chemistry of Solids, 2010, 71, 1053-1058.	4.0	13
16	Microstructures and rheology of the Earth's upper mantle inferred from a multiscale approach. Comptes Rendus Physique, 2010, 11, 304-315.	0.9	26
17	Deformation of diopside single crystals at mantle pressure. TEM characterization of dislocation microstructures. European Journal of Mineralogy, 2010, 22, 181-187.	1.3	10
18	In siturheological measurements at extreme pressure and temperature using synchrotron X-ray diffraction and radiography. Journal of Synchrotron Radiation, 2009, 16, 748-756.	2.4	25

#	Article	IF	Citations
19	Experimental deformation of olivine single crystals at mantle pressures and temperatures. Physics of the Earth and Planetary Interiors, 2009, 172, 74-83.	1.9	85
20	Deformation of diopside single crystal at mantle pressure. 1: Mechanical data. Physics of the Earth and Planetary Interiors, 2009, 177, 122-129.	1.9	20
21	Pressure-induced slip-system transition in forsterite: Single-crystal rheological properties at mantle pressure and temperature. American Mineralogist, 2007, 92, 1436-1445.	1.9	98
22	Deformation of olivine at mantle pressure using the D-DIA. European Journal of Mineralogy, 2006, 18, 7-19.	1.3	60
23	Stress measurements of deforming olivine at high pressure. Physics of the Earth and Planetary Interiors, 2004, 143-144, 357-367.	1.9	58
24	Low-temperature olivine rheology at high pressure. Physics of the Earth and Planetary Interiors, 2004, 145, 149-159.	1.9	88
25	Olivine flow mechanisms at 8 GPa. Physics of the Earth and Planetary Interiors, 2003, 138, 113-129.	1.9	61
26	A process for low-temperature olivine-spinel transition under quasi-hydrostatic stress. Geophysical Research Letters, 2002, 29, 36-1-36-4.	4.0	11
27	Observation of Cation Reordering during the Olivine-Spinel Transition in Fayalite byIn SituSynchrotron X-Ray Diffraction at High Pressure and Temperature. Physical Review Letters, 2001, 86, 4072-4075.	7.8	41
28	SiO2 precipitation in olivine: ATEM investigation of two dunites annealed at 300 MPa in hydrous conditions. Earth and Planetary Science Letters, 2000, 180, 415-423.	4.4	7
29	New experimental observations on the anhydrous solidus for peridotite KLB-1. Geochemistry, Geophysics, Geosystems, 2000, 1, n/a-n/a.	2.5	132
30	Sillimanite mullitization: Atem investigation and point defect model. Phase Transitions, 1999, 68, 481-500.	1.3	9
31	Early partial melting in the upper mantle: an A.E.M. study of a lherzolite experimentally annealed at hypersolidus conditions. Tectonophysics, 1997, 279, 79-91.	2.2	18
32	Early partial melting of diopside under high pressure. Physics of the Earth and Planetary Interiors, 1995, 89, 77-88.	1.9	17
33	High-temperature deformation of diopside crystal: 3. Influences ofpO2and SiO2precipitation. Journal of Geophysical Research, 1994, 99, 9423-9439.	3.3	39
34	Highâ€temperature deformation of diopside single crystal: 1. Mechanical data. Journal of Geophysical Research, 1991, 96, 14277-14286.	3.3	59