

Matthew L Whitaker

List of Publications by Year in descending order

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32
papers

466
citations

840776

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33
all docs

33
docs citations

33
times ranked

628
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis of the Candidate Topological Compound Ni ₃ Pb ₂ . Journal of the American Chemical Society, 2022, 144, 11943-11948.	13.7	1
2	Equation of state and sound wave velocities of fayalite at high pressures and temperatures: implications for the seismic properties of the martian mantle. European Journal of Mineralogy, 2021, 33, 519-535.	1.3	2
3	Proton irradiation effects in Molybdenum-Carbide-Graphite composites. Journal of Nuclear Materials, 2021, 553, 153049.	2.7	0
4	Initial Acoustoelastic Measurements in Olivine: Investigating the Effect of Stress on P- and S-Wave Velocities. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022494.	3.4	2
5	The Elastic Properties of ¹² Mg ₂ SiO ₄ Containing 0.73 wt.% of H ₂ O to 10 GPa and 600 K by Ultrasonic Interferometry with Synchrotron X-Radiation. Minerals (Basel, Switzerland), 2020, 10, 209.	2.0	4
6	Unconventional high-pressure Raman spectroscopy study of kinetic and peak pressure effects in plagioclase feldspars. Physics and Chemistry of Minerals, 2020, 47, 1.	0.8	6
7	An Experimental Investigation of the Relative Strength of the Silica Polymorphs Quartz, Coesite, and Stishovite. Geochemistry, Geophysics, Geosystems, 2019, 20, 1975-1989.	2.5	13
8	Bulk modulus of Fe-rich olivines corrected for non-hydrostaticity. Comptes Rendus - Geoscience, 2019, 351, 86-94.	1.2	5
9	Ultrasonic Acoustic Velocities During Partial Melting of a Mantle Peridotite KLB-1. Journal of Geophysical Research: Solid Earth, 2018, 123, 1252-1261.	3.4	8
10	Note: Elastic wave velocity measurement using ultrasonic system with two-reflectors. Review of Scientific Instruments, 2018, 89, 086105.	1.3	1
11	Ultrasonic acoustic wave velocities of neighborite (NaMgF ₃) across orthorhombic to cubic phase boundary at high P-T. Physics of the Earth and Planetary Interiors, 2018, 283, 38-42.	1.9	0
12	Stress Distribution During Cold Compression of Rocks and Mineral Aggregates Using Synchrotron-based X-Ray Diffraction. Journal of Visualized Experiments, 2018, , .	0.3	0
13	Making tissintite: Mimicking meteorites in the multi-anvil. American Mineralogist, 2018, 103, 1516-1519.	1.9	12
14	DIASCoPE: Directly integrated acoustic system combined with pressure experiments—A new method for fast acoustic velocity measurements at high pressure. Review of Scientific Instruments, 2017, 88, 034901.	1.3	11
15	Stress distribution during cold compression of a quartz aggregate using synchrotron X-ray diffraction: Observed yielding, damage, and grain crushing. Journal of Geophysical Research: Solid Earth, 2017, 122, 2724-2735.	3.4	5
16	The phase diagram of NiSi under the conditions of small planetary interiors. Physics of the Earth and Planetary Interiors, 2016, 261, 196-206.	1.9	8
17	Deformation T-Cup: A new multi-anvil apparatus for controlled strain-rate deformation experiments at pressures above 18 GPa. Review of Scientific Instruments, 2014, 85, 085103.	1.3	24
18	Spin transition, substitution, and partitioning of iron in lower mantle minerals. Physics of the Earth and Planetary Interiors, 2014, 228, 186-191.	1.9	14

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19	Spin transition and substitution of Fe ³⁺ in Al-bearing post-Mg-perovskite. <i>Physics of the Earth and Planetary Interiors</i> , 2013, 217, 31-35.	1.9	6
20	Melting of the Martian mantle from 1.0 to 4.5 GPa. <i>Journal of Mineralogical and Petrological Sciences</i> , 2013, 108, 201-214.	0.9	23
21	Elasticity and sound velocities of polycrystalline Mg ₃ Al ₂ (SiO ₄) ₃ garnet up to 20 GPa and 1700 K. <i>Journal of Applied Physics</i> , 2012, 112, .	2.5	30
22	Thermal equation of state of Mg ₃ Al ₂ Si ₃ O ₁₂ pyrope garnet up to 19 GPa and 1,700 K. <i>Physics and Chemistry of Minerals</i> , 2012, 39, 589-598.	0.8	41
23	Thermal equation of state of CaIrO ₃ post-perovskite. <i>Physics and Chemistry of Minerals</i> , 2011, 38, 407-417.	0.8	9
24	Acoustic velocities and elastic properties of pyrite (FeS ₂) to 9.6 GPa. <i>Journal of Earth Science (Wuhan)</i> , 2010, 32, 18.	3.2	18
25	In situ ultrasonic velocity measurements across the olivine-spinel transformation in Fe ₂ SiO ₄ . <i>American Mineralogist</i> , 2010, 95, 1000-1005.	1.9	8
26	Experimental and theoretical studies on the elasticity of molybdenum to 12 GPa. <i>Journal of Applied Physics</i> , 2009, 106, .	2.5	16
27	Thermoelasticity of FeSi to 8 GPa and 1273 K. <i>American Mineralogist</i> , 2009, 94, 1039-1044.	1.9	17
28	Can crystallization of olivine tholeiite give rise to potassic rhyolites? an experimental investigation. <i>Bulletin of Volcanology</i> , 2008, 70, 417-434.	3.0	77
29	Combined in situ synchrotron X-ray diffraction and ultrasonic interferometry study of FeSi at high pressure. <i>High Pressure Research</i> , 2008, 28, 385-395.	1.2	10
30	Compressional and shear wave velocities of Fe ₂ SiO ₄ spinel at high pressure and high temperature. <i>High Pressure Research</i> , 2008, 28, 405-413.	1.2	10
31	Carbon is not required during crystallization to produce ferrobasalts/ferrodiorites (FTP rocks). <i>American Mineralogist</i> , 2007, 92, 1750-1755.	1.9	4
32	The Role of Pressure in Producing Compositional Diversity in Intraplate Basaltic Magmas. <i>Journal of Petrology</i> , 2006, 48, 365-393.	2.8	81