

# Pamela Burnley

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

40 papers	1,022 citations	14 h-index	31 g-index
42 ext. papers	1,118 ext. citations	5.1 avg, IF	4.12 L-index

#	Paper	IF	Citations
40	A new self-organizing mechanism for deep-focus earthquakes. <i>Nature</i> , <b>1989</b> , 341, 733-737	50.4	356
39	Faulting associated with the olivine to spinel transformation in Mg <sub>2</sub> GeO <sub>4</sub> and its implications for deep-focus earthquakes. <i>Journal of Geophysical Research</i> , <b>1991</b> , 96, 425		140
38	Stress dependence of the mechanism of the olivine-spinel transformation. <i>Nature</i> , <b>1989</b> , 338, 753-756	50.4	118
37	Shear-promoted phase transitions in Fe <sub>2</sub> SiO <sub>4</sub> and Mg <sub>2</sub> SiO <sub>4</sub> and the mechanism of deep earthquakes. <i>Journal of Geophysical Research</i> , <b>1993</b> , 98, 19767-19776		43
36	Vibrational spectra of dense, hydrous magnesium silicates at high pressure: Importance of the hydrogen bond angle. <i>American Mineralogist</i> , <b>1999</b> , 84, 454-464	2.9	39
35	Thermodynamic properties and hydrogen speciation from vibrational spectra of dense hydrous magnesium silicates. <i>Physics and Chemistry of Minerals</i> , <b>1996</b> , 23, 361	1.6	38
34	<sup>29</sup> Si and <sup>1</sup> H NMR spectroscopy of high-pressure hydrous magnesium silicates. <i>Physics and Chemistry of Minerals</i> , <b>1997</b> , 24, 179-190	1.6	31
33	Interpreting in situ x-ray diffraction data from high pressure deformation experiments using elastic-plastic self-consistent models: an example using quartz. <i>Journal of Physics Condensed Matter</i> , <b>2008</b> , 20, 285201	1.8	29
32	Shear attenuation and dispersion in MgO. <i>Physics of the Earth and Planetary Interiors</i> , <b>1997</b> , 99, 249-257	2.3	26
31	The fate of olivine in subducting slabs; a reconnaissance study. <i>American Mineralogist</i> , <b>1995</b> , 80, 1293-1301	2.1	25
30	The importance of stress percolation patterns in rocks and other polycrystalline materials. <i>Nature Communications</i> , <b>2013</b> , 4, 2117	17.4	22
29	The mobility of Nb in rutile-saturated NaCl- and NaF-bearing aqueous fluids from 10.5 GPa and 300-800 °C. <i>American Mineralogist</i> , <b>2015</b> , 100, 1600-1609	2.9	18
28	Synthesis of high-pressure hydrous magnesium silicates; observations and analysis. <i>American Mineralogist</i> , <b>1996</b> , 81, 317-326	2.9	18
27	Diamond anvil cell study of the transformation mechanism from the olivine to spinel phase in Co <sub>2</sub> SiO <sub>4</sub> , Ni <sub>2</sub> SiO <sub>4</sub> , and Mg <sub>2</sub> GeO <sub>4</sub> . <i>Journal of Geophysical Research</i> , <b>1995</b> , 100, 17715-17723		15
26	Engagement in Authentic Geoscience Research: Evaluation of Research Experiences of Undergraduates and Secondary Teachers. <i>Journal of Geoscience Education</i> , <b>2003</b> , 51, 85-90	1.8	12
25	Elastic plastic self-consistent (EPSC) modeling of plastic deformation in fayalite olivine. <i>American Mineralogist</i> , <b>2015</b> , 100, 1424-1433	2.9	11
24	VOLUME CHANGES IN FLUID INCLUSIONS PRODUCED BY HEATING AND PRESSURIZATION: AN ASSESSMENT BY FINITE ELEMENT MODELING. <i>Canadian Mineralogist</i> , <b>2004</b> , 42, 1369-1382	0.7	9

23	A Comparison of Approaches and Instruments for Evaluating a Geological Sciences Research Experiences Program. <i>Journal of Geoscience Education</i> , <b>2002</b> , 50, 15-24	1.8	9
22	Pressure Dependence of Creep in Forsterite Olivine: Comparison of Measurements From the D-DIA and Griggs Apparatus. <i>Geophysical Research Letters</i> , <b>2017</b> , 44, 10,939	4.9	8
21	Investigation of the martensitic-like transformation from Mg <sub>2</sub> GeO <sub>4</sub> olivine to its spinel structure polymorph. <i>American Mineralogist</i> , <b>2005</b> , 90, 1315-1324	2.9	7
20	In-situ synchrotron X-ray diffraction deformation and EPSC modeling of AZ31 Mg alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2019</b> , 739, 99-104	5.3	7
19	Modeling background radiation using geochemical data: A case study in and around Cameron, Arizona. <i>Journal of Environmental Radioactivity</i> , <b>2016</b> , 165, 68-85	2.4	6
18	Elastic plastic self-consistent (EPSC) modeling of San Carlos olivine deformed in a D-DIA apparatus. <i>American Mineralogist</i> , <b>2019</b> , 104, 276-281	2.9	6
17	Direct observations of crystal defects in polycrystalline diamond. <i>Materials Characterization</i> , <b>2018</b> , 142, 154-161	3.9	5
16	Finite element modeling of elastic volume changes in fluid inclusions: Comparison with experiment. <i>American Mineralogist</i> , <b>2006</b> , 91, 1807-1814	2.9	5
15	Kinking in Mg <sub>2</sub> GeO <sub>4</sub> olivine: An EBSD study. <i>American Mineralogist</i> , <b>2013</b> , 98, 927-931	2.9	4
14	The failure mechanism for deep-focus earthquakes. <i>Geological Society Special Publication</i> , <b>1990</b> , 54, 133-141	1.7	3
13	Modeling background radiation in Southern Nevada. <i>Journal of Environmental Radioactivity</i> , <b>2017</b> , 171, 41-64	2.4	2
12	ECCI, EBSD and EPSC characterization of rhombohedral twinning in polycrystalline alumina deformed in a D-DIA apparatus. <i>Journal of Applied Crystallography</i> , <b>2017</b> , 50, 1691-1704	3.8	2
11	Creating a high temperature environment at high pressure in a gas piston cylinder apparatus. <i>Review of Scientific Instruments</i> , <b>2012</b> , 83, 014501	1.7	2
10	An Earth Science Scrapbook Project as an Alternative Assessment Tool. <i>Journal of Geoscience Education</i> , <b>2004</b> , 52, 245-249	1.8	2
9	Modeling gamma radiation exposure rates using geologic and remote sensing data to locate radiogenic anomalies. <i>Journal of Environmental Radioactivity</i> , <b>2019</b> , 208-209, 106038	2.4	1
8	Deformation Analysis of Forsterite Olivine Using Electron Channeling Contrast Imaging and Electron Backscatter Diffraction. <i>Microscopy and Microanalysis</i> , <b>2016</b> , 22, 1792-1793	0.5	1
7	Quantitative Characterization of Crystal Defects in Planetary Materials in a Scanning Electron Microscope (SEM). <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 2094-2095	0.5	1
6	Thermal Analysis, Compressibility, and Decomposition of Synthetic Bastn�ite-(La) to Lanthanum Oxyfluoride. <i>Minerals (Basel, Switzerland)</i> , <b>2020</b> , 10, 212	2.4	0

- 5 Ductile vs. Brittle Strain Localization Induced by the OlivineRingwoodite Transformation. *Minerals (Basel, Switzerland)*, **2022**, 12, 719 2.4 ○
- 4 Monte Carlo simulations of the gamma-ray exposure rates of common rocks. *Journal of Environmental Radioactivity*, **2017**, 167, 20-25 2.4
- 3 Applications of Electron Channeling Contrast Imaging (ECCI) in Failure Analysis of In-Situ Synchrotron X-Ray Diffraction Deformation Experiments. *Microscopy and Microanalysis*, **2017**, 23, 568-569 8.5
- 2 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 3.6
- 1 Strain Analysis in Polycrystalline Diamond under Extreme Conditions. *Microscopy and Microanalysis*, **2018**, 24, 980-981 0.5