# Jessica M Warren

List of Publications by Year
in descending order



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|---|---|---|---|
| 48 papers | 2,674 citations | 172457 29 h-index | 189892 50 g-index |
| 50 all docs | 50 docs citations | 50 times ranked | 2014 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Grain size sensitive deformation mechanisms in naturally deformed peridotites. Earth and Planetary Science Letters, 2006, 248, 438-450. | 4.4 | 299 |
| 2 | Global variations in abyssal peridotite compositions. Lithos, 2016, 248-251, 193-219. | 1.4 | 276 |
| 3 | Abyssal peridotites reveal the near-chondritic Fe isotopic composition of the Earth. Earth and Planetary Science Letters, 2013, 365, 63-76. | 4.4 | 149 |
| 4 | Mantle Melting, Melt Transport, and Delivery Beneath a Slow-Spreading Ridge: The Paleo-MAR from 23Â15'N to 23Â45'N. Journal of Petrology, 2010, 51, 425-467. | 2.8 | 133 |
| 5 | An assessment of upper mantle heterogeneity based on abyssal peridotite isotopic compositions. Journal of Geophysical Research, 2009, 114, . | 3.3 | 113 |
| 6 | Pyroxenes as tracers of mantle water variations. Journal of Geophysical Research: Solid Earth, 2014, 119, 1851-1881. | 3.4 | 107 |
| 7 | 186Osâ€“187Os and highly siderophile element abundance systematics of the mantle revealed by abyssal peridotites and Os-rich alloys. Geochimica Et Cosmochimica Acta, 2017, 200, 232-254. | 3.9 | 104 |
| 8 | Microstructural and Rheological Evolution of a Mantle Shear Zone. Journal of Petrology, 2010, 51, 43-53. | 2.8 | 100 |
| 9 | Evolution of olivine lattice preferred orientation during simple shear in the mantle. Earth and Planetary Science Letters, 2008, 272, 501-512. | 4.4 | 94 |
| 10 | Correlation of seismic and petrologic thermometers suggests deep thermal anomalies beneath hotspots. Earth and Planetary Science Letters, 2007, 264, 308-316. | 4.4 | 82 |
| 11 | Cryptic Variations in Abyssal Peridotite Compositions: Evidence for Shallow-level Melt Infiltration in the Oceanic Lithosphere. Journal of Petrology, 2010, 51, 395-423. | 2.8 | 79 |
| 12 | Mantle Sulfides and their Role in Reâ€“Os and Pb Isotope Geochronology. Reviews in Mineralogy and Geochemistry, 2016, 81, 579-649. | 4.8 | 70 |
| 13 | Pyroxenites from the Southwest Indian Ridge, 9-16ÂE: Cumulates from Incremental Melt Fractions Produced at the Top of a Cold Melting Regime. Journal of Petrology, 2007, 48, 647-660. | 2.8 | 68 |
| 14 | Lead and osmium isotopic constraints on the oceanic mantle from single abyssal peridotite sulfides. Earth and Planetary Science Letters, 2012, 359-360, 279-293. | 4.4 | 58 |
| 15 | Quantifying the effect of pyroxene on deformation of peridotite in a natural shear zone. Journal of Geophysical Research: Solid Earth, 2015, 120, 2717-2738. | 3.4 | 58 |
| 16 | Forearc Peridotites from Tonga Record Heterogeneous Oxidation of the Mantle following Subduction Initiation. Journal of Petrology, 2017, 58, 1755-1780. | 2.8 | 57 |
| 17 | Evidence for chemically heterogeneous Arctic mantle beneath the Gakkel Ridge. Geochimica Et Cosmochimica Acta, 2016, 174, 291-312. | 3.9 | 51 |
| 18 | Revisiting the electron microprobe method of spinel-olivine-orthopyroxene oxybarometry applied to spinel peridotitesk. American Mineralogist, 2017, 102, 421-435. | 1.9 | 51 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Size effects resolve discrepancies in 40 years of work on low-temperature plasticity in olivine. Science Advances, 2017, 3, e1701338. | 10.3 | 51 |
| 20 | Peridotites and basalts reveal broad congruence between two independent records of mantle fO2 despite local redox heterogeneity. Earth and Planetary Science Letters, 2018, 494, 172-189. | 4.4 | 50 |
| 21 | The influence of water and LPO on the initiation and evolution of mantle shear zones. Earth and Planetary Science Letters, 2013, 375, 222-233. | 4.4 | 47 |
| 22 | Fracture-mediated deep seawater flow and mantle hydration on oceanic transform faults. Earth and Planetary Science Letters, 2020, 532, 115988. | 4.4 | 46 |
| 23 | Testing constitutive equations for brittleâ€ductile deformation associated with faulting in granitic rock. Journal of Geophysical Research: Solid Earth, 2017, 122, 6269-6293. | 3.4 | 44 |
| 24 | The influence of deformation history on the interpretation of seismic anisotropy. Geochemistry, Geophysics, Geosystems, 2012, 13, . | 2.5 | 41 |
| 25 | Evaluation of transtension and transpression within contractional fault steps: Comparing kinematic and mechanical models to field data. Journal of Structural Geology, 2014, 60, 55-69. | 2.3 | 41 |
| 26 | Viscous anisotropy of textured olivine aggregates, Part 1: Measurement of the magnitude and evolution of anisotropy. Earth and Planetary Science Letters, 2016, 445, 92-103. | 4.4 | 31 |
| 27 | Olivine anisotropy suggests Gutenberg discontinuity is not the base of the lithosphere. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10503-10506. | 7.1 | 30 |
| 28 | New SIMS reference materials for measuring water in upper mantle minerals. American Mineralogist, 2017, 102, 537-547. | 1.9 | 30 |
| 29 | Intermediateâ€Depth Earthquakes Controlled by Incoming Plate Hydration Along Bendingâ€Related Faults. Geophysical Research Letters, 2019, 46, 3688-3697. | 4.0 | 30 |
| 30 | Effect of latent heat of freezing on crustal generation at low spreading rates. Geochemistry, Geophysics, Geosystems, 2014, 15, 3161-3174. | 2.5 | 28 |
| 31 | Comparison of thermal modeling, microstructural analysis, and T iâ€inâ€quartz thermobarometry to constrain the thermal history of a cooling pluton during deformation in the M ount A bbot Q uadrangle, CA. Geochemistry, Geophysics, Geosystems, 2017, 18, 1270-1297. | 2.5 | 27 |
| 32 | Mantle deformation and noble gases: Helium and neon in oceanic mylonites. Chemical Geology, 2009, 266, 10-18. | 3.3 | 26 |
| 33 | Oceanic transform fault seismicity and slip mode influenced by seawater infiltration. Nature Geoscience, 2021, 14, 606-611. | 12.9 | 26 |
| 34 | Dislocation interactions during low-temperature plasticity of olivine and their impact on the evolution of lithospheric strength. Earth and Planetary Science Letters, 2020, 543, 116349. | 4.4 | 24 |
| 35 | Evidence for a Deep Hydrologic Cycle on Oceanic Transform Faults. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB017751. | 3.4 | 23 |
| 36 | A review of mechanisms generating seismic anisotropy in the upper mantle. Physics of the Earth and Planetary Interiors, 2021, 313, 106662. | 1.9 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Hydrothermal alteration of seafloor peridotites does not influence oxygen fugacity recorded by spinel oxybarometry. Geology, 2016, 44, 535-538. | 4.4 | 15 |
| 38 | Evolution of the Josephine Peridotite Shear Zones: 2. Influences on Olivine CPO Evolution. Journal of Geophysical Research: Solid Earth, 2019, 124, 12763-12781. | 3.4 | 15 |
| 39 | Helium distribution in a mantle shear zone from the Josephine Peridotite. Earth and Planetary Science Letters, 2012, 359-360, 162-172. | 4.4 | 13 |
| 40 | In-situ Pb isotopic analysis of sulfides in abyssal peridotites: New insights into heterogeneity and evolution of the oceanic upper mantle. Geology, 2014, 42, 159-162. | 4.4 | 12 |
| 41 | Melt addition to mid-ocean ridge peridotites increases spinel Cr# with no significant effect on recorded oxygen fugacity. Earth and Planetary Science Letters, 2021, 566, 116951. | 4.4 | 12 |
| 42 | Crustal shortening, exhumation, and strain localization in a collisional orogen: The Bajo PequeÃ±o Shear Zone, Sierra de Pie de Palo, Argentina. Tectonics, 2014, 33, 1277-1303. | 2.8 | 11 |
| 43 | Viscous anisotropy of textured olivine aggregates: 2. Micromechanical model. Journal of Geophysical Research: Solid Earth, 2016, 121, 7137-7160. | 3.4 | 10 |
| 44 | Using geologic structures to constrain constitutive laws not accessible in the laboratory. Journal of Structural Geology, 2019, 125, 55-63. | 2.3 | 7 |
| 45 | Evolution of the Josephine Peridotite Shear Zones: 1. Compositional Variation and Shear Initiation. Geochemistry, Geophysics, Geosystems, 2019, 20, 5765-5785. | 2.5 | 7 |
| 46 | The potential for aqueous fluid-rock and silicate melt-rock interactions to re-equilibrate hydrogen in peridotite nominally anhydrous minerals. American Mineralogist, 2021, 106, 701-714. | 1.9 | 4 |
| 47 | High temperature hydrothermal alteration and amphibole formation in Gakkel Ridge abyssal peridotites. Lithos, 2021, 392-393, 106107. | 1.4 | 3 |
| 48 | In situ measurements of lead and other trace elements in abyssal peridotite sulfides. American Mineralogist, 2019, 104, 190-206. | 1.9 | 2 |