

# Karen Ziegler

## List of Publications by Year in descending order

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Version: 2024-02-01

42  
papers

4,530  
citations

236925

25  
h-index

276875

41  
g-index

42  
all docs

42  
docs citations

42  
times ranked

4448  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Comet 81P/Wild 2 Under a Microscope. <i>Science</i> , 2006, 314, 1711-1716.  | 12.6 | 848       |
| 2  | Chelyabinsk Airburst, Damage Assessment, Meteorite Recovery, and Characterization. <i>Science</i> , 2013, 342, 1069-1073.  | 12.6 | 487       |
| 3  | Biological control of terrestrial silica cycling and export fluxes to watersheds. <i>Nature</i> , 2005, 433, 728-731.  | 27.8 | 393       |
| 4  | Isotopic Compositions of Cometary Matter Returned by Stardust. <i>Science</i> , 2006, 314, 1724-1728.  | 12.6 | 343       |
| 5  | Unique Meteorite from Early Amazonian Mars: Water-Rich Basaltic Breccia Northwest Africa 7034. <i>Science</i> , 2013, 339, 780-785.  | 12.6 | 340       |
| 6  | The impact of climate on the biogeochemical functioning of volcanic soils. <i>Chemical Geology</i> , 2003, 202, 195-223.   | 3.3  | 339       |
| 7  | Natural variations of $\delta^{30}\text{Si}$ ratios during progressive basalt weathering, Hawaiian Islands. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 4597-4610.  | 3.9  | 264       |
| 8  | Isotopic composition of silicon measured by multicollector plasma source mass spectrometry in dry plasma mode. <i>Journal of Analytical Atomic Spectrometry</i> , 2003, 18, 213-218.                                       | 3.0  | 178       |
| 9  | Experimentally determined Si isotope fractionation between silicate and Fe metal and implications for Earth's core formation. <i>Earth and Planetary Science Letters</i> , 2009, 288, 228-234.                             | 4.4  | 115       |
| 10 | Progressive aqueous alteration of CR carbonaceous chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 139, 267-292.   | 3.9  | 113       |
| 11 | $\delta^{30}\text{Si}$ systematics in a granitic saprolite, Puerto Rico. <i>Geology</i> , 2005, 33, 817.   | 4.4  | 108       |
| 12 | The SPICE carbon isotope excursion in Siberia: a combined study of the upper Middle Cambrian–lowermost Ordovician Kulyumbe River section, northwestern Siberian Platform. <i>Geological Magazine</i> , 2008, 145, 609-622. | 1.5  | 98        |
| 13 | Metal–silicate silicon isotope fractionation in enstatite meteorites and constraints on Earth's core formation. <i>Earth and Planetary Science Letters</i> , 2010, 295, 487-496.   | 4.4  | 90        |
| 14 | Halloysite as a kinetically controlled end product of arid-zone basalt weathering. <i>Chemical Geology</i> , 2003, 202, 461-478.   | 3.3  | 77        |
| 15 | Carbon isotope stratigraphy of the Precambrian–Cambrian Sukharikha River section, northwestern Siberian platform. <i>Geological Magazine</i> , 2007, 144, 609-618.   | 1.5  | 71        |
| 16 | Weathering, dust, and biocycling effects on soil silicon isotope ratios. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 876-889.   | 3.9  | 63        |
| 17 | Reduced, reused and recycled: Detrital zircons define a maximum age for the Eoarchean (ca. 3750–3780) Tj ETQq1 1 0.784314 rgB / 283-293.   | 4.4  | 60        |
| 18 | Fall, recovery, and characterization of the Novato L6 chondrite breccia. <i>Meteoritics and Planetary Science</i> , 2014, 49, 1388-1425.   | 1.6  | 59        |

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|----|--|------|-----------|
| 19 | The Northwest Africa 8159 martian meteorite: Expanding the martian sample suite to the early Amazonian. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 218, 1-26.  | 3.9  | 58        |
| 20 | Silica-rich volcanism in the early solar system dated at 4.565 Ga. <i>Nature Communications</i> , 2018, 9, 3036.   | 12.8 | 52        |
| 21 | Early Solar System hydrothermal activity in chondritic asteroids on 10-year timescales. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 18306-18311.   | 7.1  | 40        |
| 22 | Palaeohydrodynamics of fluids in the Brent Group (Oseberg Field, Norwegian North Sea) from chemical and isotopic compositions of formation waters. <i>Applied Geochemistry</i> , 2001, 16, 609-632.  | 3.0  | 35        |
| 23 | Argon, oxygen, and boron isotopic evidence documenting $^{40}\text{Ar}/\text{E}$ accumulation in phengite during water-rich high-pressure subduction metasomatism of continental crust. <i>Earth and Planetary Science Letters</i> , 2016, 446, 56-67. | 4.4  | 30        |
| 24 | Evidence for a multilayered internal structure of the chondritic acapulcoite-lodranite parent asteroid. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 242, 82-101.  | 3.9  | 30        |
| 25 | The SariÅsiÅsek howardite fall in Turkey: Source crater of <scp>HED</scp> meteorites on Vesta and impact risk of Vestoids. <i>Meteoritics and Planetary Science</i> , 2019, 54, 953-1008.  | 1.6  | 30        |
| 26 | Reclassification of Villalbeto de la Peña Occurrence of a winonaite-related fragment in a hydrothermally metamorphosed polymict chondritic breccia. <i>Meteoritics and Planetary Science</i> , 2013, 48, 628-640.                                      | 1.6  | 26        |
| 27 | Multiple Episodes of Clay Alteration at the Precambrian/Paleozoic Unconformity, Appalachian Basin: Isotopic Evidence for Long-Distance and Local Fluid Migrations. <i>Clays and Clay Minerals</i> , 2000, 48, 474-493.                                 | 1.3  | 25        |
| 28 | Unique achondrite Northwest Africa 11042: Exploring the melting and breakup of the L chondrite parent body. <i>Meteoritics and Planetary Science</i> , 2020, 55, 622-648.  | 1.6  | 22        |
| 29 | The Creston, California, meteorite fall and the origin of L chondrites. <i>Meteoritics and Planetary Science</i> , 2019, 54, 699-720.  | 1.6  | 21        |
| 30 | The impact and recovery of asteroid 2018 LA. <i>Meteoritics and Planetary Science</i> , 2021, 56, 844-893.   | 1.6  | 21        |
| 31 | Silicon isotope systematics of acidic weathering of fresh basalts, Kilauea Volcano, Hawaii. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 169, 63-81.   | 3.9  | 16        |
| 32 | Reclassification of four aubrites as enstatite chondrite impact melts: Potential geochemical analogs for Mercury. <i>Meteoritics and Planetary Science</i> , 2019, 54, 785-810.  | 1.6  | 14        |
| 33 | Orbit and origin of the <scp>LL</scp>7 chondrite Dishchii'bikoh (Arizona). <i>Meteoritics and Planetary Science</i> , 2020, 55, 535-557.   | 1.6  | 10        |
| 34 | The CM carbonaceous chondrite regolith Diepenveen. <i>Meteoritics and Planetary Science</i> , 2019, 54, 1431-1461.   | 1.6  | 9         |
| 35 | Size scales over which ordinary chondrites and their parent asteroids are homogeneous in oxidation state and oxygen-isotopic composition. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 948-958.  | 3.9  | 8         |
| 36 | Olivine-rich achondrites from Vesta and the missing mantle problem. <i>Nature Communications</i> , 2021, 12, 5443.   | 12.8 | 8         |

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|----|---|-----|-----------|
| 37 | Petrogenesis of Miller Range 07273, a new type of anomalous melt breccia: Implications for impact effects on the H chondrite asteroid. <i>Meteoritics and Planetary Science</i> , 2017, 52, 1963-1990.  | 1.6 | 7         |
| 38 | Hydrous olivine alteration on Mars and Earth. <i>Meteoritics and Planetary Science</i> , 2020, 55, 1011-1030.   | 1.6 | 7         |
| 39 | Quantifying site and species factors to inform the feasibility of eradication of alien plants from Southern Ocean Islands: <i>Stellaria media</i> on Macquarie Island. <i>Biological Invasions</i> , 2019, 21, 993-1005.                              | 2.4 | 6         |
| 40 | The fall, recovery, classification, and initial characterization of the Hamburg, Michigan H4 chondrite. <i>Meteoritics and Planetary Science</i> , 2020, 55, 2341-2359.   | 1.6 | 4         |
| 41 | Shock compaction heating and collisional processes in the production of type 3 ordinary chondrites: Lessons from the (nearly) unique L3 chondrite melt breccia Northwest Africa 8709. <i>Meteoritics and Planetary Science</i> , 2020, 55, 2117-2140. | 1.6 | 3         |
| 42 | OLIVINES IN MARTIAN METEORITE NWA 10416: ALTERATION AND OXYGEN ISOTOPE EVOLUTION. , 2016, , .   |     | 2         |