

# Kevin J Zahnle

## List of Publications by Year in descending order

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Version: 2024-02-01

41  
papers

6,900  
citations

126907

33  
h-index

289244

40  
g-index

41  
all docs

41  
docs citations

41  
times ranked

4729  
citing authors

#	ARTICLE	IF	CITATIONS
1	Annihilation of ecosystems by large asteroid impacts on the early Earth. <i>Nature</i> , 1989, 342, 139-142.	27.8	508
2	Cratering rates in the outer Solar System. <i>Icarus</i> , 2003, 163, 263-289.	2.5	497
3	Carbon dioxide cycling and implications for climate on ancient Earth. <i>Journal of Geophysical Research</i> , 2001, 106, 1373-1399.	3.3	474
4	Biogenic Methane, Hydrogen Escape, and the Irreversible Oxidation of Early Earth. <i>Science</i> , 2001, 293, 839-843.	12.6	426
5	The 1908 Tunguska explosion: atmospheric disruption of a stony asteroid. <i>Nature</i> , 1993, 361, 40-44.	27.8	410
6	Emergence of a Habitable Planet. <i>Space Science Reviews</i> , 2007, 129, 35-78.	8.1	334
7	Why O <sub>2</sub> Is Required by Complex Life on Habitable Planets and the Concept of Planetary "Oxygenation Time". <i>Astrobiology</i> , 2005, 5, 415-438.	3.0	276
8	The Archean atmosphere. <i>Science Advances</i> , 2020, 6, eaax1420.	10.3	276
9	Evolution of a steam atmosphere during earth's accretion. <i>Icarus</i> , 1988, 74, 62-97.	2.5	267
10	Nitrogen-enhanced greenhouse warming on early Earth. <i>Nature Geoscience</i> , 2009, 2, 891-896.	12.9	247
11	Habitable Zone Limits for Dry Planets. <i>Astrobiology</i> , 2011, 11, 443-460.	3.0	240
12	Cratering Rates on the Galilean Satellites. <i>Icarus</i> , 1998, 136, 202-222.	2.5	232
13	Photochemistry of methane and the formation of hydrocyanic acid (HCN) in the Earth's early atmosphere. <i>Journal of Geophysical Research</i> , 1986, 91, 2819-2834.	3.3	222
14	The evolution of solar ultraviolet luminosity. <i>Reviews of Geophysics</i> , 1982, 20, 280-292.	23.0	221
15	Earth's Earliest Atmospheres. <i>Cold Spring Harbor Perspectives in Biology</i> , 2010, 2, a004895-a004895.	5.5	216
16	THERMAL EMISSION AND REFLECTED LIGHT SPECTRA OF SUPER EARTHS WITH FLAT TRANSMISSION SPECTRA. <i>Astrophysical Journal</i> , 2015, 815, 110.	4.5	196
17	QUANTITATIVELY ASSESSING THE ROLE OF CLOUDS IN THE TRANSMISSION SPECTRUM OF GJ 1214b. <i>Astrophysical Journal</i> , 2013, 775, 33.	4.5	189
18	Mass fractionation during transonic escape and implications for loss of water from Mars and Venus. <i>Icarus</i> , 1986, 68, 462-480.	2.5	153

#	ARTICLE	IF	CITATIONS
19	METHANE, CARBON MONOXIDE, AND AMMONIA IN BROWN DWARFS AND SELF-LUMINOUS GIANT PLANETS. <i>Astrophysical Journal</i> , 2014, 797, 41.	4.5	149
20	The Cosmic Shoreline: The Evidence that Escape Determines which Planets Have Atmospheres, and what this May Mean for Proxima Centauri B. <i>Astrophysical Journal</i> , 2017, 843, 122.	4.5	134
21	THE ATMOSPHERES OF EARTHLIKE PLANETS AFTER GIANT IMPACT EVENTS. <i>Astrophysical Journal</i> , 2014, 784, 27.	4.5	132
22	Low simulated radiation limit for runaway greenhouse climates. <i>Nature Geoscience</i> , 2013, 6, 661-667.	12.9	126
23	Strange messenger: A new history of hydrogen on Earth, as told by Xenon. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 244, 56-85.	3.9	109
24	An Optical Transmission Spectrum for the Ultra-hot Jupiter WASP-121b Measured with the Hubble Space Telescope. <i>Astronomical Journal</i> , 2018, 156, 283.	4.7	106
25	Creation and Evolution of Impact-generated Reduced Atmospheres of Early Earth. <i>Planetary Science Journal</i> , 2020, 1, 11.	3.6	101
26	Impact-generated atmospheres over Titan, Ganymede, and Callisto. <i>Icarus</i> , 1992, 95, 1-23.	2.5	79
27	DEVELOPING ATMOSPHERIC RETRIEVAL METHODS FOR DIRECT IMAGING SPECTROSCOPY OF GAS GIANTS IN REFLECTED LIGHT. I. METHANE ABUNDANCES AND BASIC CLOUD PROPERTIES. <i>Astronomical Journal</i> , 2016, 152, 217.	4.7	76
28	Sulfur Hazes in Giant Exoplanet Atmospheres: Impacts on Reflected Light Spectra. <i>Astronomical Journal</i> , 2017, 153, 139.	4.7	71
29	Revealing the Mysteries of Venus: The DAVINCI Mission. <i>Planetary Science Journal</i> , 2022, 3, 117.	3.6	62
30	Venus as a Laboratory for Exoplanetary Science. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 2015-2028.	3.6	59
31	Influx of cometary volatiles to planetary moons: The atmospheres of 1000 possible Titans. <i>Journal of Geophysical Research</i> , 1995, 100, 16907.	3.3	57
32	The Planetary Air Leak. <i>Scientific American</i> , 2009, 300, 36-43.	1.0	51
33	Xenological constraints on the impact erosion of the early Martian atmosphere. <i>Journal of Geophysical Research</i> , 1993, 98, 10899-10913.	3.3	42
34	Creating Habitable Zones, at all Scales, from Planets to Mud Micro-Habitats, on Earth and on Mars. <i>Space Science Reviews</i> , 2007, 129, 79-121.	8.1	34
35	Impact Degassing of H <sub>2</sub> on Early Mars and its Effect on the Climate System. <i>Geophysical Research Letters</i> , 2019, 46, 13355-13362.	4.0	32
36	Impacts and the Early Evolution of Life. , 2006, , 207-251.		30

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37	Play it again, SAM. <i>Science</i> , 2015, 347, 370-371.	12.6	24
38	Leaving no stone unburned. <i>Nature</i> , 1996, 383, 674-675.	27.8	11
39	The Longevity of Water Ice on Ganymedes and Europas around Migrated Giant Planets. <i>Astrophysical Journal</i> , 2017, 839, 32.	4.5	11
40	Titan impacts and escape. <i>Icarus</i> , 2011, 211, 707-721.	2.5	10
41	Ancient air caught by shooting stars. <i>Nature</i> , 2016, 533, 184-186.	27.8	10