Joshua Krissansen-Totton

List of Publications by Year
in descending order

23	1,176	471509 17	677142 22
papers	citations	h-index	g-index

23	23	23	1109
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Constraining the climate and ocean pH of the early Earth with a geological carbon cycle model. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4105-4110.	7.1	203
2	Exoplanet Biosignatures: A Framework for Their Assessment. Astrobiology, 2018, 18, 709-738.	3.0	139
3	Disequilibrium biosignatures over Earth history and implications for detecting exoplanet life. Science Advances, 2018, 4, eaao5747.	10.3	111
4	Detectability of Biosignatures in Anoxic Atmospheres with the James Webb Space Telescope: A TRAPPIST-1e Case Study. Astronomical Journal, 2018, 156, 114.	4.7	98
5	On Detecting Biospheres from Chemical Thermodynamic Disequilibrium in Planetary Atmospheres. Astrobiology, 2016, 16, 39-67.	3.0	94
6	Constraining climate sensitivity and continental versus seafloor weathering using an inverse geological carbon cycle model. Nature Communications, 2017, 8, 15423.	12.8	88
7	Understanding and mitigating biases when studying inhomogeneous emission spectra with JWST. Monthly Notices of the Royal Astronomical Society, 2020, 493, 4342-4354.	4.4	63
8	Transient Sulfate Aerosols as a Signature of Exoplanet Volcanism. Astrobiology, 2015, 15, 462-477.	3.0	52
9	Probable Cold and Alkaline Surface Environment of the Hadean Earth Caused by Impact Ejecta Weathering. Geochemistry, Geophysics, Geosystems, 2020, 21, e2019GC008734.	2.5	37
10	The case and context for atmospheric methane as an exoplanet biosignature. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2117933119.	7.1	35
11	A coupled carbon-silicon cycle model over Earth history: Reverse weathering as a possible explanation of a warm mid-Proterozoic climate. Earth and Planetary Science Letters, 2020, 537, 116181.	4.4	32
12	IS THE PALE BLUE DOT UNIQUE? OPTIMIZED PHOTOMETRIC BANDS FOR IDENTIFYING EARTH-LIKE EXOPLANETS. Astrophysical Journal, 2016, 817, 31.	4.5	31
13	Abundant Atmospheric Methane from Volcanism on Terrestrial Planets Is Unlikely and Strengthens the Case for Methane as a Biosignature. Planetary Science Journal, 2020, 1, 58.	3.6	26
14	Was Venus Ever Habitable? Constraints from a Coupled Interiorâ€“Atmosphereâ€“Redox Evolution Model. Planetary Science Journal, 2021, 2, 216.	3.6	25
15	Carbon cycle inverse modeling suggests large changes in fractional organic burial are consistent with the carbon isotope record and may have contributed to the rise of oxygen. Geobiology, 2021, 19, 342-363.	2.4	23
16	Carbonate-silicate cycle predictions of Earth-like planetary climates and testing the habitable zone concept. Nature Communications, 2020, 11, 6153.	12.8	22
17	A Maximum Subsurface Biomass on Mars from Untapped Free Energy: CO and H₂as Potential Antibiosignatures. Astrobiology, 2019, 19, 655-668.	3.0	19
18	Oxygen False Positives on Habitable Zone Planets Around Sunâ€Like Stars. AGU Advances, 2021, 2, e2020AV000294.	5.4	18

#	Article	IF	Citations
19	High Organic Burial Efficiency Is Required to Explain Mass Balance in Earth's Early Carbon Cycle. Global Biogeochemical Cycles, 2021, 35, .	4.9	17
20	Waterworlds Probably Do Not Experience Magmatic Outgassing. Astrophysical Journal, 2021, 913, 107.	4.5	16
21	Understanding planetary context to enable life detection on exoplanets and test the Copernican principle. Nature Astronomy, 2022, 6, 189-198.	10.1	13
22	Investigation of cosmic rayâ€“cloud connections using MISR. Geophysical Research Letters, 2013, 40, 5240-5245.	4.0	9
23	The Exo-Life Finder (ELF) telescope: New strategies for direct detection of exoplanet biosignatures and technosignatures. , 2018, , .		5