Thomas J Zega

List of Publications by Year
in descending order

43 papers	1,926 citations	471509 17 h-index	361022 35 g-index
43 all docs	43 docs citations	43 times ranked	1609 citing authors

#	Article	IF	Citations
1	Comet 81P/Wild 2 Under a Microscope. Science, 2006, 314, 1711-1716.	12.6	848
2	Ultra-primitive interplanetary dust particles from the comet 26P/Griggâ€“Skjellerup dust stream collection. Earth and Planetary Science Letters, 2009, 288, 44-57.	4.4	187
3	Isotopic anomalies in organic nanoglobules from Comet 81P/Wild 2: Comparison to Murchison nanoglobules and isotopic anomalies induced in terrestrial organics by electron irradiation. Geochimica Et Cosmochimica Acta, 2010, 74, 4454-4470.	3.9	100
4	Evidence for aqueous activity on comet 81P/Wild 2 from sulfide mineral assemblages in Stardust samples and CI chondrites. Geochimica Et Cosmochimica Acta, 2011, 75, 3501-3513.	3.9	87
5	Isotopic and chemical variation of organic nanoglobules in primitive meteorites. Meteoritics and Planetary Science, 2013, 48, 904-928.	1.6	78
6	Coordinated isotopic and mineralogic analyses of planetary materials enabled by in situ liftâ€out with a focused ion beam scanning electron microscope. Meteoritics and Planetary Science, 2007, 42, 1373-1386.	1.6	74
7	A TEM study of thermally modified comet 81P/Wild 2 dust particles by interactions with the aerogel matrix during the Stardust capture process. Meteoritics and Planetary Science, 2008, 43, 97-120.	1.6	73
8	The formation and alteration of the Renazzoâ€like carbonaceous chondrites <scp>III</scp>: Toward understanding the genesis of ferromagnesian chondrules. Meteoritics and Planetary Science, 2015, 50, 15-50.	1.6	64
9	Testing variations within the Tagish Lake meteoriteâ€”I: Mineralogy and petrology of pristine samples. Meteoritics and Planetary Science, 2014, 49, 473-502.	1.6	45
10	Presolar silicates in the matrix and fine-grained rims around chondrules in primitive CO3.0 chondrites: Evidence for pre-accretionary aqueous alteration of the rims in the solar nebula. Geochimica Et Cosmochimica Acta, 2018, 221, 379-405.	3.9	44
11	Mineral associations and character of isotopically anomalous organic material in the Tagish Lake carbonaceous chondrite. Geochimica Et Cosmochimica Acta, 2010, 74, 5966-5983.	3.9	40
12	Brearleyite, Ca12Al14O32Cl2, a new alteration mineral from the NWA 1934 meteorite. American Mineralogist, 2011, 96, 1199-1206.	1.9	39
13	Polyhedral serpentine grains in CM chondrites. Meteoritics and Planetary Science, 2006, 41, 681-688.	1.6	36
14	A transmission electron microscopy study of presolar spinel. Geochimica Et Cosmochimica Acta, 2014, 124, 152-169.	3.9	29
15	Formation of Interstellar C₆₀ from Silicon Carbide Circumstellar Grains. Astrophysical Journal Letters, 2019, 883, L43.	8.3	25
16	The Fe/S ratio of pyrrhotite group sulfides in chondrites: An indicator of oxidation and implications for return samples from asteroids Ryugu and Bennu. Geochimica Et Cosmochimica Acta, 2021, 303, 66-91.	3.9	24
17	A TRANSMISSION ELECTRON MICROSCOPY STUDY OF PRESOLAR HIBONITE. Astrophysical Journal, 2011, 730, 83.	4.5	23
18	CIRCUMSTELLAR MAGNETITE FROM THE LAP 031117 CO3.0 CHONDRITE. Astrophysical Journal, 2015, 808, 55.	4.5	17

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19	Microstructural analysis of Warkâ€Łovering rims in the Allende and Axtell <scp>CV</scp>3 chondrites: Implications for highâ€temperature nebular processes. Meteoritics and Planetary Science, 2016, 51, 743-756.	1.6	17
20	Assessment of alteration processes on circumstellar and interstellar grains in Queen Alexandra Range 97416. Earth and Planetary Science Letters, 2014, 399, 128-138.	4.4	14
21	Petrographic and compositional indicators of formation and alteration conditions from LL chondrite sulfides. Geochimica Et Cosmochimica Acta, 2019, 264, 165-179.	3.9	12
22	The effects of secondary processing in the unique carbonaceous chondrite Miller Range 07687. Meteoritics and Planetary Science, 2020, 55, 1228-1256.	1.6	8
23	An inÂsitu investigation on the origins and processing of circumstellar oxide and silicate grains in carbonaceous chondrites. Meteoritics and Planetary Science, 2020, 55, 1207-1227.	1.6	7
24	Laboratory evidence for co-condensed oxygen- and carbon-rich meteoritic stardust from nova outbursts. Nature Astronomy, 2019, 3, 626-630.	10.1	6
25	Atomic-scale Evidence for Open-system Thermodynamics in the Early Solar Nebula. Planetary Science Journal, 2021, 2, 115.	3.6	5
26	Destructive Processing of Silicon Carbide Grains: Experimental Insights into the Formation of Interstellar Fullerenes and Carbon Nanotubes. Journal of Physical Chemistry A, 2022, 126, 5761-5767.	2.5	4
27	Density Functional Theory Driven Analysis of the Interplay among Structure, Composition, and Oxidation State of Titanium in Hibonite, Spinel, and Perovskite. ACS Earth and Space Chemistry, 2021, 5, 544-552.	2.7	3
28	Coordinated chemical and microstructural analyses of presolar silicate grains from AGB/RGB stars and supernovae in the CO3.0 chondrite Dominion Range 08006. Meteoritics and Planetary Science, 0, , .	1.6	3
29	Earliest evidence of nebular shock waves recorded in a calcium-aluminum-rich Inclusion. Geochimica Et Cosmochimica Acta, 2022, 332, 369-388.	3.9	3
30	Collection Efficiency of the Twin EDS Detectors for Quantitative X-ray Analysis on A New Probe-Corrected TEM/STEM. Microscopy and Microanalysis, 2017, 23, 520-521.	0.4	2
31	Calculation of Chemical Shift for Ti via EELS White-Line-Ratio Method. Microscopy and Microanalysis, 2019, 25, 662-663.	0.4	2
32	A nanometric window on fullerene formation in the interstellar medium: insights from molecular dynamics studies. Journal of Chemical Physics, 2022, 156, 154704.	3.0	2
33	The First Solar System Solids as Revealed Through Slice-and-View Imaging. Microscopy and Microanalysis, 2015, 21, 2105-2106.	0.4	1
34	Mass-Thickness Measurements in the TEM via EDS: A New Approach to Quantitative Chemical Analysis of Planetary Materials?. Microscopy and Microanalysis, 2018, 24, 2084-2085.	0.4	1
35	Nanoscale Investigation of Thermal Alteration of Chondritic Meteorites via Simultaneous Secondary and Transmitted Electron Imaging during In Situ Heating up to 1000 oC. Microscopy and Microanalysis, 2018, 24, 2102-2103.	0.4	1
36	Toward Quantification of Ti-Oxidation States in Planetary Materials via Application of the EELS White-Line Ratio Technique. Microscopy and Microanalysis, 2018, 24, 2086-2087.	0.4	1

#	ARTICLE	IF	CITATIONS
37	Coordinated Analyses of a Supernova Polycrystalline Olivine Aggregate in the CO Chondrite Dominion Range 08006. Microscopy and Microanalysis, 2019, 25, 2490-2491.	0.4	1
38	Atomic-Resolution Analysis of Perovskite from the Early Solar System. Microscopy and Microanalysis, 2016, 22, 1778-1779.	0.4	0
39	Investigation of the Nature of Capping Layer Materials for FIB-SEM Preparation: Implications for the Study of Carbonaceous Material in Extraterrestrial Samples. Microscopy and Microanalysis, 2017, 23, 1820-1821.	0.4	0
40	The Structure and Electronic States of Self-Assembled C60 Crystals. Microscopy and Microanalysis, 2017, 23, 1818-1819.	0.4	0
41	Aberration-corrected STEM/TEM Chemical Analysis and Imaging of Meteoritic Refractory Oxide Assemblages. Microscopy and Microanalysis, 2018, 24, 2090-2091.	0.4	0
42	Low-Voltage Energy-Dispersive X-ray Spectroscopy and Electron Energy-Loss Spectroscopy Analysis of Presolar Graphite Spherules. Microscopy and Microanalysis, 2018, 24, 2110-2111.	0.4	0
43	In situ Ion Irradiation and Heating Experiments in the Transmission Electron Microscope: Simulations of Dust Processing in Circumstellar Environments. Microscopy and Microanalysis, 2019, 25, 2454-2455.	0.4	0