Sarah HÃ¶rst

List of Publications by Year
in descending order

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61 papers	2,298 citations	218677 26 h-index	214800 47 g-index
64 all docs	64 docs citations	64 times ranked	1963 citing authors

#	Article	IF	Citations
1	Titan's atmosphere and climate. Journal of Geophysical Research E: Planets, 2017, 122, 432-482.	3.6	228
2	Titan Tholins: Simulating Titan Organic Chemistry in the Cassini-Huygens Era. Chemical Reviews, 2012, 112, 1882-1909.	47.7	193
3	Formation of Amino Acids and Nucleotide Bases in a Titan Atmosphere Simulation Experiment. Astrobiology, 2012, 12, 809-817.	3.0	158
4	Origin of oxygen species in Titan's atmosphere. Journal of Geophysical Research, 2008, 113, .	3.3	129
5	Simulating the density of organic species in the atmosphere of Titan with a coupled ion-neutral photochemical model. Icarus, 2019, 324, 120-197.	2.5	125
6	Haze production rates in super-Earth and mini-Neptune atmosphere experiments. Nature Astronomy, 2018, 2, 303-306.	10.1	93
7	Cassini imaging of Saturn: Southern hemisphere winds and vortices. Journal of Geophysical Research, 2006, 111, .	3.3	83
8	Science Goals and Objectives for the Dragonfly Titan Rotorcraft Relocatable Lander. Planetary Science Journal, 2021, 2, 130.	3.6	80
9	Carbon Monoxide Affecting Planetary Atmospheric Chemistry. Astrophysical Journal Letters, 2017, 841, L31.	8.3	68
10	Formation of NH3 and CH2NH in Titan's upper atmosphere. Faraday Discussions, 2010, 147, 31.	3.2	66
11	Photochemical Haze Formation in the Atmospheres of Super-Earths and Mini-Neptunes. Astronomical Journal, 2018, 156, 38.	4.7	59
12	Cassini RADAR images at Hotei Arcus and western Xanadu, Titan: Evidence for geologically recent cryovolcanic activity. Geophysical Research Letters, 2009, 36, .	4.0	55
13	Disentangling the Planet from the Star in Late-Type M Dwarfs: A Case Study of TRAPPIST-1g. Astronomical Journal, 2019, 157, 11.	4.7	54
14	IN SITU MEASUREMENTS OF THE SIZE AND DENSITY OF TITAN AEROSOL ANALOGS. Astrophysical Journal Letters, 2013, 770, L10.	8.3	52
15	Laboratory Simulations of Haze Formation in the Atmospheres of Super-Earths and Mini-Neptunes: Particle Color and Size Distribution. Astrophysical Journal Letters, 2018, 856, L3.	8.3	48
16	Limits on Clouds and Hazes for the TRAPPIST-1 Planets. Astronomical Journal, 2018, 156, 252.	4.7	43
17	Science Goals and Mission Architecture of the Europa Lander Mission Concept. Planetary Science Journal, 2022, 3, 22.	3.6	42
18	The role of benzene photolysis in Titan haze formation. Icarus, 2014, 233, 233-241.	2.5	40

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19	Gas Phase Chemistry of Cool Exoplanet Atmospheres: Insight from Laboratory Simulations. ACS Earth and Space Chemistry, 2019, 3, 39-50.	2.7	38
20	Laboratory investigations of Titan haze formation: In situ measurement of gas and particle composition. Icarus, 2018, 301, 136-151.	2.5	37
21	THE EFFECT OF CARBON MONOXIDE ON PLANETARY HAZE FORMATION. Astrophysical Journal, 2014, 781, 53.	4.5	34
22	Identification of primary amines in Titan tholins using microchip nonaqueous capillary electrophoresis. Earth and Planetary Science Letters, 2014, 403, 99-107.	4.4	34
23	Chemistry of Temperate Super-Earth and Mini-Neptune Atmospheric Hazes from Laboratory Experiments. Planetary Science Journal, 2020, 1, 17.	3.6	34
24	Haze Formation in Warm H₂-rich Exoplanet Atmospheres. Planetary Science Journal, 2020, 1, 51.	3.6	34
25	Sulfur-driven haze formation in warm CO2-rich exoplanet atmospheres. Nature Astronomy, 2020, 4, 986-993.	10.1	33
26	Haze evolution in temperate exoplanet atmospheres through surface energy measurements. Nature Astronomy, 2021, 5, 822-831.	10.1	27
27	Detection of Prebiotic Molecules in Plasma and Photochemical Aerosol Analogs Using GC/MS/MS Techniques. Astrophysical Journal, 2018, 865, 133.	4.5	25
28	Compositional and structural investigation of HCN polymer through high resolution mass spectrometry. International Journal of Mass Spectrometry, 2013, 354-355, 193-203.	1.5	22
29	Thermal Structure and Composition of Saturn's Upper Atmosphere From Cassini/Ion Neutral Mass Spectrometer Measurements. Geophysical Research Letters, 2018, 45, 10,951.	4.0	22
30	Transmission Spectroscopy of WASP-79b from 0.6 to 5.0 Î¼m. Astronomical Journal, 2020, 159, 5.	4.7	22
31	Surface Energy of the Titan Aerosol Analog â€œTholinâ€• Astrophysical Journal, 2020, 905, 88.	4.5	22
32	Perturbation of the Mars atmosphere by the near-collision with Comet C/2013 A1 (Siding Spring). Icarus, 2014, 237, 202-210.	2.5	21
33	Titan: Earth-like on the Outside, Ocean World on the Inside. Planetary Science Journal, 2021, 2, 112.	3.6	21
34	Atmospheric Waves and Their Possible Effect on the Thermal Structure of Saturn's Thermosphere. Geophysical Research Letters, 2019, 46, 2372-2380.	4.0	20
35	Direct Measurement of Interparticle Forces of Titan Aerosol Analogs (â€œTholinâ€) Using Atomic Force Microscopy. Journal of Geophysical Research E: Planets, 2017, 122, 2610-2622.	3.6	19
36	Exploring the Atmosphere of Neoproterozoic Earth: The Effect of O₂ on Haze Formation and Composition. Astrophysical Journal, 2018, 858, 119.	4.5	18

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37	Where Does Titan Sand Come From: Insight From Mechanical Properties of Titan Sand Candidates. Journal of Geophysical Research E: Planets, 2018, 123, 2310-2321.	3.6	18
38	H₂SO₄ and Organosulfur Compounds in Laboratory Analogue Aerosols of Warm High-metallicity Exoplanet Atmospheres. Planetary Science Journal, 2021, 2, 2.	3.6	14
39	Organic chemistry on the surface of Titan. Rendiconti Lincei, 2011, 22, 183-189.	2.2	13
40	The global vortex analysis of Jupiter and Saturn based on Cassini Imaging Science Subsystem. Icarus, 2014, 242, 122-129.	2.5	13
41	Upper limits for PH3 and H2S in Titanâ€™s atmosphere from Cassini CIRS. Icarus, 2013, 224, 253-256.	2.5	12
42	Titanâ€™s Prevailing Circulation Might Drive Highly Intermittent, Yet Significant Sediment Transport. Geophysical Research Letters, 2022, 49, .	4.0	12
43	The effect of adsorbed liquid and material density on saltation threshold: Insight from laboratory and wind tunnel experiments. Icarus, 2017, 297, 97-109.	2.5	10
44	The Effect of Oxygen on Organic Haze Properties. Astrophysical Journal Letters, 2018, 859, L2.	8.3	10
45	Optical Constants of a Titan Haze Analog from 0.4 to 3.5 Î¼m Determined Using Vacuum Spectroscopy. Planetary Science Journal, 2022, 3, 25.	3.6	10
46	A SEARCH FOR MAGNESIUM IN EUROPA'S ATMOSPHERE. Astrophysical Journal Letters, 2013, 764, L28.	8.3	9
47	Vortices in Saturn's Northern Hemisphere (2008â€“2015) observed by Cassini ISS. Journal of Geophysical Research E: Planets, 2016, 121, 1814-1826.	3.6	9
48	The Origin of Titanâ€™s External Oxygen: Further Constraints from ALMA Upper Limits on CS and CH₂NH. Astronomical Journal, 2018, 155, 251.	4.7	8
49	Experimental investigation of surface adhesion of Titan analog materials: Mitigation by dust-repellent coatings. Planetary and Space Science, 2019, 179, 104721.	1.7	8
50	Decomposition of electron ionization mass spectra for space application using a Monteâ€Carlo approach. Rapid Communications in Mass Spectrometry, 2020, 34, e8684.	1.5	8
51	Single particle triboelectrification of Titan sand analogs. Earth and Planetary Science Letters, 2020, 530, 115996.	4.4	7
52	Energy deposition in Saturnâ€™s equatorial upper atmosphere. Icarus, 2022, 372, 114724.	2.5	7
53	Compositional Measurements of Saturn's Upper Atmosphere and Rings From Cassini INMS: An Extended Analysis of Measurements From Cassini's Grand Finale Orbits. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	7
54	A Cross-laboratory Comparison Study of Titan Haze Analogs: Surface Energy. Planetary Science Journal, 2022, 3, 2.	3.6	6

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55	Compositional Measurements of Saturn's Upper Atmosphere and Rings from Cassini INMS. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006427.	3.6	5
56	Triton Haze Analogs: The Role of Carbon Monoxide in Haze Formation. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	4
57	Enhancing data acquisition for the analysis of complex organic matter in directâ€infusion Orbitrap mass spectrometry using microâ€scans. Rapid Communications in Mass Spectrometry, 2020, 34, e8818.	1.5	3
58	Modeling transmission windows in Titanâ€™s lower troposphere: Implications for infrared spectrometers aboard future aerial and surface missions. Icarus, 2021, 357, 114228.	2.5	3
59	k-means Aperture Optimization Applied toKepler K2Time Series Photometry of Titan. Publications of the Astronomical Society of the Pacific, 2019, 131, 084505.	3.1	1
60	On the Utility of Transmission Color Analysis i: Differentiating Super-Earths and Sub-Neptunes. Astronomical Journal, 2021, 162, 168.	4.7	1
61	Titanâ€™s methane lakes. Nature Astronomy, 2017, 1, 573-573.	10.1	0