Anna A Fedorova

List of Publications by Year
in descending order

73 papers	3,397 citations	136950 32 h-index	144013 57 g-index
91 all docs	91 docs citations	91 times ranked	1488 citing authors

#	ARTICLE	IF	CITATIONS
1	No detection of SO₂, H₂S, or OCS in the atmosphere of Mars from the first two Martian years of observations from TGO/ACS. Astronomy and Astrophysics, 2022, 658, A86.	5.1	1
2	Water Vapor on Mars: A Refined Climatology and Constraints on the Nearâ€Surface Concentration Enabled by Synergistic Retrievals. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	5
3	Reappraising the Production and Transfer of Hydrogen Atoms From the Middle to the Upper Atmosphere of Mars at Times of Elevated Water Vapor. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	5
4	Seasonal Changes in the Vertical Structure of Ozone in the Martian Lower Atmosphere and Its Relationship to Water Vapor. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	4
5	Improved Modeling of Mars' HDO Cycle Using a Mars' Global Climate Model. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	5
6	The HDO Cycle on Mars: Comparison of ACS Observations With GCM Simulations. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	4
7	Ozone vertical distribution in Mars Years 27â€“30 from SPICAM/MEX UV occultations. Icarus, 2022, 387, 115162.	2.5	5
8	Transient HCl in the atmosphere of Mars. Science Advances, 2021, 7, .	10.3	37
9	Seasonal reappearance of HCl in the atmosphere of Mars during the Mars year 35 dusty season. Astronomy and Astrophysics, 2021, 647, A161.	5.1	17
10	The Effect of the Martian 2018 Global Dust Storm on HDO as Predicted by a Mars Global Climate Model. Geophysical Research Letters, 2021, 48, e2020GL090962.	4.0	12
11	Upper limits for phosphine (PH₃) in the atmosphere of Mars. Astronomy and Astrophysics, 2021, 649, L1.	5.1	4
12	Relationship Between the Ozone and Water Vapor Columns on Mars as Observed by SPICAM and Calculated by a Global Climate Model. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006838.	3.6	19
13	Revealing a High Water Abundance in the Upper Mesosphere of Mars With ACS Onboard TGO. Geophysical Research Letters, 2021, 48, e2021GL093411.	4.0	24
14	Asymmetric Impacts on Marsâ€™ Polar Vortices From an Equinoctial Global Dust Storm. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006774.	3.6	16
15	Isotopic fractionation of water and its photolytic products in the atmosphere of Mars. Nature Astronomy, 2021, 5, 943-950.	10.1	27
16	Annual Appearance of Hydrogen Chloride on Mars and a Striking Similarity With the Water Vapor Vertical Distribution Observed by TGO/NOMAD. Geophysical Research Letters, 2021, 48, e2021GL092506.	4.0	15
17	Isotopes of chlorine from HCl in the Martian atmosphere. Astronomy and Astrophysics, 2021, 651, A32.	5.1	7
18	Martian water loss to space enhanced by regional dust storms. Nature Astronomy, 2021, 5, 1036-1042.	10.1	40

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19	Enhanced Superâ€Rotation Before and During the 2018 Martian Global Dust Storm. Geophysical Research Letters, 2021, 48, e2021GL094634.	4.0	8
20	Gravity Wave Activity in the Martian Atmosphere at Altitudes 20â€“160Âkm From ACS/TGO Occultation Measurements. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006899.	3.6	22
21	Multiâ€Annual Monitoring of the Water Vapor Vertical Distribution on Mars by SPICAM on Mars Express. Journal of Geophysical Research E: Planets, 2021, 126, .	3.6	32
22	The vertical structure of CO in the Martian atmosphere from the ExoMars Trace Gas Orbiter. Nature Geoscience, 2021, 14, 67-71.	12.9	30
23	Isotopic Composition of CO₂ in the Atmosphere of Mars: Fractionation by Diffusive Separation Observed by the ExoMars Trace Gas Orbiter. Journal of Geophysical Research E: Planets, 2021, 126, .	3.6	12
24	Studies of the 2018/Mars Year 34 Planetâ€Encircling Dust Storm. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006700.	3.6	9
25	First observation of the magnetic dipole CO₂absorption band at 3.3<i>Î¼</i>m in the atmosphere of Mars by the ExoMars Trace Gas Orbiter ACS instrument. Astronomy and Astrophysics, 2020, 639, A142.	5.1	25
26	Properties of Water Ice and Dust Particles in the Atmosphere of Mars During the 2018 Global Dust Storm as Inferred From the Atmospheric Chemistry Suite. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006419.	3.6	28
27	Martian Water Ice Clouds During the 2018 Global Dust Storm as Observed by the ACSâ€MIR Channel Onboard the Trace Gas Orbiter. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006300.	3.6	27
28	Stormy water on Mars: The distribution and saturation of atmospheric water during the dusty season. Science, 2020, 367, 297-300.	12.6	117
29	First detection of ozone in the mid-infrared at Mars: implications for methane detection. Astronomy and Astrophysics, 2020, 639, A141.	5.1	23
30	Validation of the HITRAN 2016 and GEISA 2015 line lists using ACE-FTS solar occultation observations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 236, 106590.	2.3	7
31	Oxygen isotopic ratios in Martian water vapour observed by ACS MIR on board the ExoMars Trace Gas Orbiter. Astronomy and Astrophysics, 2019, 630, A91.	5.1	24
32	Mars atmospheric chemistry simulations with the GEM-Mars general circulation model. Icarus, 2019, 326, 197-224.	2.5	52
33	No detection of methane on Mars from early ExoMars Trace Gas Orbiter observations. Nature, 2019, 568, 517-520.	27.8	111
34	Martian dust storm impact on atmospheric H2O and D/H observed by ExoMars Trace Gas Orbiter. Nature, 2019, 568, 521-525.	27.8	107
35	Modeling the Hydrological Cycle in the Atmosphere of Mars: Influence of a Bimodal Size Distribution of Aerosol Nucleation Particles. Journal of Geophysical Research E: Planets, 2018, 123, 508-526.	3.6	14
36	The Atmospheric Chemistry Suite (ACS) of Three Spectrometers for the ExoMars 2016 Trace Gas Orbiter. Space Science Reviews, 2018, 214, 1.	8.1	119

#	ARTICLE	IF	CITATIONS
37	Investigations of the Mars Upper Atmosphere with ExoMars Trace Gas Orbiter. Space Science Reviews, 2018, 214, 1.	8.1	13
38	Scale heights and detached haze layers in the mesosphere of Venus from SPICAV IR data. Icarus, 2018, 311, 87-104.	2.5	7
39	Water vapor in the middle atmosphere of Mars during the 2007 global dust storm. Icarus, 2018, 300, 440-457.	2.5	111
40	NOMAD, an Integrated Suite of Three Spectrometers for the ExoMars Trace Gas Mission: Technical Description, Science Objectives and Expected Performance. Space Science Reviews, 2018, 214, 1.	8.1	95
41	SPICAM on Mars Express: A 10 year in-depth survey of the Martian atmosphere. Icarus, 2017, 297, 195-216.	2.5	64
42	The Water Cycle. , 2017, , 338-373.		24
43	Winds in the Middle Cloud Deck From the Nearâ€IR Imaging by the Venus Monitoring Camera Onboard Venus Express. Journal of Geophysical Research E: Planets, 2017, 122, 2312-2327.	3.6	40
44	Long-term nadir observations of the O2 dayglow by SPICAM IR. Planetary and Space Science, 2016, 122, 1-12.	1.7	29
45	Variations of water vapor and cloud top altitude in the Venusâ€™ mesosphere from SPICAV/VEx observations. Icarus, 2016, 275, 143-162.	2.5	67
46	Influence of Venus topography on the zonal wind and UV albedo at cloud top level: The role of stationary gravity waves. Journal of Geophysical Research E: Planets, 2016, 121, 1087-1101.	3.6	60
47	Aerosol properties in the upper haze of Venus from SPICAV IR data. Icarus, 2016, 277, 154-170.	2.5	53
48	ACS experiment for atmospheric studies on â€œExoMars-2016â€•Orbiter. Solar System Research, 2015, 49, 529-537.	0.7	19
49	Thermal structure of Venus nightside upper atmosphere measured by stellar occultations with SPICAV/Venus Express. Planetary and Space Science, 2015, 113-114, 321-335.	1.7	37
50	Near-infrared echelle-AOTF spectrometer ACS-NIR for the ExoMars Trace Gas Orbiter. Proceedings of SPIE, 2015, , .	0.8	5
51	H2 16O line list for the study of atmospheres of Venus and Mars. Optics and Spectroscopy (English) Tj ETQq1 1 0.784314 rgBT /Overlo	0.6	4
52	The CO2 continuum absorption in the 1.10- and 1.18-Î¼m windows on Venus from Maxwell Montes transits by SPICAV IR onboard Venus express. Planetary and Space Science, 2015, 113-114, 66-77.	1.7	23
53	Science objectives and performances of NOMAD, a spectrometer suite for the ExoMars TGO mission. Planetary and Space Science, 2015, 119, 233-249.	1.7	77
54	Preliminary study of Venus cloud layers with polarimetric data from SPICAV/VEx. Planetary and Space Science, 2015, 113-114, 159-168.	1.7	30

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55	Marsâ€™ water vapor mapping by the SPICAM IR spectrometer: Five martian years of observations. Icarus, 2015, 251, 50-64.	2.5	90
56	Evidence for a bimodal size distribution for the suspended aerosol particles on Mars. Icarus, 2014, 231, 239-260.	2.5	82
57	Annual survey of water vapor vertical distribution and waterâ€"aerosol coupling in the martian atmosphere observed by SPICAM/MEx solar occultations. Icarus, 2013, 223, 942-962.	2.5	120
58	Compact echelle spectrometer for occultation sounding of the Martian atmosphere: design and performance. Applied Optics, 2013, 52, 1054.	1.8	17
59	Vertical profiling of SO2 and SO above Venusâ€™ clouds by SPICAV/SOIR solar occultations. Icarus, 2012, 217, 740-751.	2.5	103
60	The O2 nightglow in the martian atmosphere by SPICAM onboard of Mars-Express. Icarus, 2012, 219, 596-608.	2.5	45
61	SPICAV IR acousto-optic spectrometer experiment on Venus Express. Planetary and Space Science, 2012, 65, 38-57.	1.7	49
62	AOST: Fourier spectrometer for studying mars and phobos. Solar System Research, 2012, 46, 31-40.	0.7	11
63	A layer of ozone detected in the nightside upper atmosphere of Venus. Icarus, 2011, 216, 82-85.	2.5	81
64	The 1.10- and 1.18-Î¼m nightside windows of Venus observed by SPICAV-IR aboard Venus Express. Icarus, 2011, 216, 173-183.	2.5	96
65	Europa Lander mission and the context of international cooperation. Advances in Space Research, 2011, 48, 615-628.	2.6	11
66	Evidence of Water Vapor in Excess of Saturation in the Atmosphere of Mars. Science, 2011, 333, 1868-1871.	12.6	122
67	Preliminary characterization of the upper haze by SPICAV/SOIR solar occultation in UV to midâ€IR onboard Venus Express. Journal of Geophysical Research, 2009, 114, .	3.3	81
68	HDO and H₂O vertical distributions and isotopic ratio in the Venus mesosphere by Solar Occultation at Infrared spectrometer on board Venus Express. Journal of Geophysical Research, 2008, 113, .	3.3	117
69	SPICAV on Venus Express: Three spectrometers to study the global structure and composition of the Venus atmosphere. Planetary and Space Science, 2007, 55, 1673-1700.	1.7	160
70	Global distribution of total ozone on Mars from SPICAM/MEX UV measurements. Journal of Geophysical Research, 2006, 111, .	3.3	120
71	SPICAM on Mars Express: Observing modes and overview of UV spectrometer data and scientific results. Journal of Geophysical Research, 2006, 111, .	3.3	148
72	Mars water vapor abundance from SPICAM IR spectrometer: Seasonal and geographic distributions. Journal of Geophysical Research, 2006, 111, .	3.3	76

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73	SPICAM IR acousto-optic spectrometer experiment on Mars Express. Journal of Geophysical Research, 2006, 111, .	3.3	89