Denis A Belyaev

List of Publications by Year
in descending order

59	2,716	172457	182427
papers	citations	29 h-index	51 g-index

82	82	82	1426
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Sulfur chemistry in the middle atmosphere of Venus. Icarus, 2012, 217, 714-739.	2.5	176
2	Variations of sulphur dioxide at the cloud top of Venusâ€™s dynamic atmosphere. Nature Geoscience, 2013, 6, 25-28.	12.9	164
3	A warm layer in Venus' cryosphere and high-altitude measurements of HF, HCl, H2O and HDO. Nature, 2007, 450, 646-649.	27.8	161
4	The Atmospheric Chemistry Suite (ACS) of Three Spectrometers for the ExoMars 2016 Trace Gas Orbiter. Space Science Reviews, 2018, 214, 1.	8.1	119
5	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
6	Stormy water on Mars: The distribution and saturation of atmospheric water during the dusty season. Science, 2020, 367, 297-300.	12.6	117
7	No detection of methane on Mars from early ExoMars Trace Gas Orbiter observations. Nature, 2019, 568, 517-520.	27.8	111
8	Martian dust storm impact on atmospheric H2O and D/H observed by ExoMars Trace Gas Orbiter. Nature, 2019, 568, 521-525.	27.8	107
9	Vertical profiling of SO2 and SO above Venusâ€™ clouds by SPICAV/SOIR solar occultations. Icarus, 2012, 217, 740-751.	2.5	103
10	Solar infrared occultation observations by SPICAM experiment on Mars-Express: Simultaneous measurements of the vertical distributions of H2O, CO2 and aerosol. Icarus, 2009, 200, 96-117.	2.5	98
11	Venus Monitoring Camera for Venus Express. Planetary and Space Science, 2007, 55, 1701-1711.	1.7	87
12	Composition of the Venus mesosphere measured by Solar Occultation at Infrared on board Venus Express. Journal of Geophysical Research, 2008, 113, .	3.3	86
13	An investigation of the SO2 content of the venusian mesosphere using SPICAV-UV in nadir mode. Icarus, 2011, 211, 58-69.	2.5	86
14	A layer of ozone detected in the nightside upper atmosphere of Venus. Icarus, 2011, 216, 82-85.	2.5	81
15	Observations of D/H ratios in H2O, HCl, and HF on Venus and new DCl and DF line strengths. Icarus, 2013, 224, 57-65.	2.5	68
16	Aerosol properties in the upper haze of Venus from SPICAV IR data. Icarus, 2016, 277, 154-170.	2.5	53
17	Sulfur dioxide in the Venus Atmosphere: II. Spatial and temporal variability. Icarus, 2017, 295, 1-15.	2.5	53
18	Acousto-optic tunable filter spectrometers in space missions [Invited]. Applied Optics, 2018, 57, C103.	1.8	52

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19	In-flight performance and calibration of SPICAV SOIR onboard Venus Express. Applied Optics, 2008, 47, 2252.	2.1	50
20	First observations of SO₂ above Venus' clouds by means of Solar Occultation in the Infrared. Journal of Geophysical Research, 2008, 113, .	3.3	50
21	Climatology of SO2 and UV absorber at Venus' cloud top from SPICAV-UV nadir dataset. Icarus, 2020, 335, 113368.	2.5	50
22	SPICAV IR acousto-optic spectrometer experiment on Venus Express. Planetary and Space Science, 2012, 65, 38-57.	1.7	49
23	Sulfur dioxide in the Venus atmosphere: I. Vertical distribution and variability. Icarus, 2017, 295, 16-33.	2.5	47
24	Venus mesospheric sulfur dioxide measurement retrieved from SOIR on board Venus Express. Planetary and Space Science, 2015, 113-114, 193-204.	1.7	46
25	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
26	Transient HCl in the atmosphere of Mars. Science Advances, 2021, 7, .	10.3	37
27	Night side distribution of SO2 content in Venusâ€™ upper mesosphere. Icarus, 2017, 294, 58-71.	2.5	32
28	Improved calibration of SOIR/Venus Express spectra. Optics Express, 2013, 21, 21148.	3.4	30
29	The vertical structure of CO in the Martian atmosphere from the ExoMars Trace Gas Orbiter. Nature Geoscience, 2021, 14, 67-71.	12.9	30
30	A new method for determining the transfer function of an Acousto optical tunable filter. Optics Express, 2009, 17, 2005.	3.4	27
31	Isotopic fractionation of water and its photolytic products in the atmosphere of Mars. Nature Astronomy, 2021, 5, 943-950.	10.1	27
32	Search for HBr and bromine photochemistry on Venus. Icarus, 2017, 293, 114-118.	2.5	26
33	BepiColombo Science Investigations During Cruise and Flybys at the Earth, Venus and Mercury. Space Science Reviews, 2021, 217, 1.	8.1	25
34	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
35	Revealing a High Water Abundance in the Upper Mesosphere of Mars With ACS Onboard TGO. Geophysical Research Letters, 2021, 48, e2021GL093411.	4.0	24
36	Compact acousto-optic imaging spectro-polarimeter for mineralogical investigations in the near infrared. Optics Express, 2017, 25, 25980.	3.4	23

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37	First detection of ozone in the mid-infrared at Mars: implications for methane detection. Astronomy and Astrophysics, 2020, 639, A141.	5.1	23
38	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
39	PHEBUS on Bepi-Colombo: Post-launch Update and Instrument Performance. Space Science Reviews, 2020, 216, 1.	8.1	21
40	Discovery of cloud top ozone on Venus. Icarus, 2019, 319, 491-498.	2.5	19
41	Compact echelle spectrometer for occultation sounding of the Martian atmosphere: design and performance. Applied Optics, 2013, 52, 1054.	1.8	17
42	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
43	A stringent upper limit of 20 pptv for methane on Mars and constraints on its dispersion outside Gale crater. Astronomy and Astrophysics, 0, , .	5.1	16
44	Contribution from SOIR/VEX to the updated Venus International Reference Atmosphere (VIRA). Advances in Space Research, 2016, 57, 443-458.	2.6	15
45	Characterization of the stray light in a space borne atmospheric AOTF spectrometer. Optics Express, 2013, 21, 18354.	3.4	13
46	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
47	Sulfur monoxide dimer chemistry as a possible source of polysulfur in the upper atmosphere of Venus. Nature Communications, 2021, 12, 175.	12.8	11
48	Scale heights and detached haze layers in the mesosphere of Venus from SPICAV IR data. Icarus, 2018, 311, 87-104.	2.5	7
49	Isotopes of chlorine from HCl in the Martian atmosphere. Astronomy and Astrophysics, 2021, 651, A32.	5.1	7
50	Development of a space-borne spectrometer to monitor atmospheric ozone. Applied Optics, 2015, 54, 3315.	2.1	6
51	The Spatial and Temporal Distribution of Nighttime Ozone and Sulfur Dioxide in the Venus Mesosphere as Deduced From SPICAV UV Stellar Occultations. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006625.	3.6	6
52	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
53	Improved calibrations of the stellar occultation data accumulated by the SPICAV UV onboard Venus Express. Planetary and Space Science, 2020, 184, 104868.	1.7	4
54	Upper limits for phosphine (PH₃) in the atmosphere of Mars. Astronomy and Astrophysics, 2021, 649, L1.	5.1	4

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55	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
56	Studies of the planetary atmospheres in Russia (2007â€“2010). Izvestiya - Atmospheric and Oceanic Physics, 2012, 48, 309-331.	0.9	3
57	Acousto-optic infrared imaging spectrometer for close-up sensing of planetary surfaces. , 2018, , .		2
58	Near infrared imager for spectral and polarization analysis of planetary surfaces. , 2017, , .		1
59	<title>Method of dynamic range expansion at acousto-optic analysis of radio-signal spectra</title>. , 2005, , .		0