Alexander V Polyakov

List of Publications by Year
in descending order

60 papers	504 citations	759233 12 h-index	839539 18 g-index
71 all docs	71 docs citations	71 times ranked	366 citing authors

#	Article	IF	Citations
1	Emission Monitoring Mobile Experiment (EMME): an overview and first results of the St.ÂPetersburg megacity campaign 2019. Atmospheric Measurement Techniques, 2021, 14, 1047-1073.	3.1	23
2	Measurements of CFC-11, CFC-12, and HCFC-22 total columns in the atmosphere at the St. Petersburg site in 2009â€"2019. Atmospheric Measurement Techniques, 2021, 14, 5349-5368.	3.1	13
3	Total ozone measurements using IKFS-2 spectrometer aboard Meteor-M N2 satellite in 2019â€"2020. International Journal of Remote Sensing, 2021, 42, 8709-8733.	2.9	6
4	Atmospheric HCFC-22 total columns near St. Petersburg: stabilization with start of a decrease. International Journal of Remote Sensing, 2020, 41, 4365-4371.	2.9	3
5	Transparency Spectra Inversion Technique for Evaluating the Atmospheric Content of Ccl3f Freon. Journal of Applied Spectroscopy, 2020, 87, 92-98.	0.7	2
6	Method for Inversion of the Transparency Spectra for Evaluating the Content of CCl2F2 in the Atmosphere. Journal of Applied Spectroscopy, 2019, 86, 449-456.	0.7	6
7	Estimates of UV Indices During the Periods of Reduced Ozone Content over Siberia in Winterâ€"Spring 2016. Atmospheric and Oceanic Optics, 2019, 32, 177-179.	1.3	10
8	Atmospheric Ozone Monitoring with Russian Spectrometer IKFS-2. Journal of Applied Spectroscopy, 2019, 86, 650-654.	0.7	5
9	Hyperspectral infrared atmospheric sounder IKFS-2 on â€œMeteor-Mâ€•No. 2 â€" Four years in orbit. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 238, 106579.	2.3	19
10	Spatialâ€"Temporal CO2 Variations near St. Petersburg Based on Satellite and Ground-Based Measurements. Izvestiya - Atmospheric and Oceanic Physics, 2019, 55, 59-64.	0.9	11
11	Technique for Inverting Transmission Spectra to Measure Freon Concentration. Journal of Applied Spectroscopy, 2019, 85, 1085-1093.	0.7	3
12	Comparison between the Spectra of Outgoing Infrared Radiation for Different Years. Izvestiya - Atmospheric and Oceanic Physics, 2019, 55, 956-962.	0.9	0
13	Intercalibration of SI-1 and IKFS-2 spaceborne infrared Fourier transform spectrometers. Sovremennye Problemy Distantsionnogo Zondirovaniya Zemli Iz Kosmosa, 2019, 16, 72-80.	0.5	1
14	Case study of ozone anomalies over northern Russia in the 2015/2016 winter: measurements and numerical modelling. Annales Geophysicae, 2018, 36, 1495-1505.	1.6	13
15	Determination of the Total Ozone Content in Cloudy Conditions based on Data from the IKFS-2 Spectrometer onboard the Meteor-M no. 2 Satellite. Izvestiya - Atmospheric and Oceanic Physics, 2018, 54, 1244-1248.	0.9	5
16	The Satellite Atmospheric Sounder IKFS-2: 2. Validation of the Temperature Sounding of the Atmosphere. Izvestiya - Atmospheric and Oceanic Physics, 2018, 54, 1391-1398.	0.9	5
17	Ground-Based Measurements of the Total Column of Freons in the Atmosphere near St. Petersburg (2009â€"2017). Izvestiya - Atmospheric and Oceanic Physics, 2018, 54, 487-494.	0.9	5
18	Recalculation of outgoing atmospheric spectra measured by infrared Fourier transform spectrometers with different spectral resolutions. Sovremennye Problemy Distantsionnogo Zondirovaniya Zemli Iz Kosmosa, 2018, 15, 52-60.	0.5	2

#	ARTICLE	IF	CITATIONS
19	Analysis of spectra measured by SI-1 device. Sovremennye Problemy Distantsionnogo Zondirovaniya Zemli Iz Kosmosa, 2018, 15, 236-242.	0.5	1
20	Interannual and seasonal variations in ozone in different atmospheric layers over St. Petersburg based on observational data and numerical modeling. Izvestiya - Atmospheric and Oceanic Physics, 2017, 53, 301-315.	0.9	9
21	Determination of the total ozone content from data of satellite IR Fourier-spectrometer. Izvestiya - Atmospheric and Oceanic Physics, 2017, 53, 433-440.	0.9	9
22	Atmospheric temperature sounding with the Fourier spectrometer. Izvestiya - Atmospheric and Oceanic Physics, 2017, 53, 428-432.	0.9	13
23	Analysis of Capabilities for Satellite Monitoring of Atmospheric Gaseous Composition Using IRFS-2 Instrument. Izvestiya - Atmospheric and Oceanic Physics, 2017, 53, 1016-1018.	0.9	2
24	Empirical assessment of errors in total ozone measurements with different instruments and methods. Atmospheric and Oceanic Optics, 2017, 30, 382-388.	1.3	11
25	Quality assessment of integrated water vapour measurements at the St. Petersburg site, Russia: FTIR vs. MW and GPS techniques. Atmospheric Measurement Techniques, 2017, 10, 4521-4536.	3.1	17
26	Satellite Atmospheric Sounder IRFS-2 1. Analysis of Outgoing Radiation Spectra Measurements. Izvestiya - Atmospheric and Oceanic Physics, 2017, 53, 1185-1191.	0.9	12
27	The empirical assessment of the errors of different instrumentation for total ozone measurements. Atmospheric and Oceanic Optics, 2017, , .	0.1	0
28	Ground-based spectroscopic measurements of atmospheric gas composition near Saint Petersburg (Russia). Journal of Molecular Spectroscopy, 2016, 323, 2-14.	1.2	44
29	Atmospheric integrated water vapour measured by IR and MW techniques at the Peterhof site (Saint) Tj ETQq1 1 0.784314 rgBT /Overlo	2.9	8
30	Comparing data obtained from ground-based measurements of the total contents of O3, HNO3,HCl, and NO2 and from their numerical simulation. Izvestiya - Atmospheric and Oceanic Physics, 2016, 52, 57-65.	0.9	14
31	HCl content has ceased to increase in the atmosphere of the Northern Hemisphere. Doklady Earth Sciences, 2016, 470, 994-996.	0.7	6
32	The influence of spatial matching on the results of the comparison of integrated water vapor ground-based and satellite measurements. Sovremennye Problemy Distantsionnogo Zondirovaniya Zemli Iz Kosmosa, 2016, 13, 149-156.	0.5	1
33	Consideration of high surface concentrations of hydrochloric acid vapors in ground-based spectroscopic measurements. Atmospheric and Oceanic Optics, 2015, 28, 240-244.	1.3	4
34	Ground-based measurements of HF total column abundances in the stratosphere near St. Petersburg (2009â€“2013). Izvestiya - Atmospheric and Oceanic Physics, 2014, 50, 595-601.	0.9	3
35	Using artificial neural networks in the temperature and humidity sounding of the atmosphere. Izvestiya - Atmospheric and Oceanic Physics, 2014, 50, 330-336.	0.9	16
36	The method of artificial neural networks in retrieving vertical profiles of atmospheric parameters. Atmospheric and Oceanic Optics, 2014, 27, 247-252.	1.3	8

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37	Ground-based measurements of total column of hydrogen chloride in the atmosphere near St. Petersburg. Izvestiya - Atmospheric and Oceanic Physics, 2013, 49, 411-419.	0.9	11
38	Comparison of the satellite and ground-based measurements of the hydrogen fluoride content in the atmosphere. Izvestiya - Atmospheric and Oceanic Physics, 2013, 49, 1002-1005.	0.9	2
39	Ground-based measurements of atmospheric trace gases near Saint-Petersburg, Russia. , 2013, , .		1
40	The atmospheric and surface sounding from the Meteor satellite (numerical simulation). , 2013, , .		1
41	Measurements of Trace Gases at Saint-Petersburg State University (SPbSU) in the Vicinity of Saint-Petersburg, Russia. NATO Science for Peace and Security Series C: Environmental Security, 2013, , 173-184.	0.2	3
42	Spectroscopic measurements of total CFC-11 freon in the atmosphere near St. Petersburg. Izvestiya - Atmospheric and Oceanic Physics, 2011, 47, 186-189.	0.9	11
43	Seasonal variations in the total content of hydrogen fluoride in the atmosphere. Izvestiya - Atmospheric and Oceanic Physics, 2011, 47, 760-765.	0.9	11
44	Possibilities for determining temperature and emissivity of the land surface from data of satellite IR sounders with high spectral resolution (IRFS-2). Izvestiya - Atmospheric and Oceanic Physics, 2011, 47, 1092-1096.	0.9	5
45	Optimal parameterization of the spectra of outgoing thermal radiation with the data of the IKFS-2 spaceborne IR sensing device taken as an example. Atmospheric and Oceanic Optics, 2010, 23, 215-221.	1.3	5
46	On the determination of the stratospheric aerosol microstructure from limb scatter measurements. Atmospheric and Oceanic Optics, 2010, 23, 334-338.	1.3	1
47	Measurements of the hydrogen fluoride total column amount in the atmosphere over the vicinity of St. Petersburg. Izvestiya - Atmospheric and Oceanic Physics, 2010, 46, 261-263.	0.9	4
48	Time variability of the total methane content in the atmosphere over the vicinity of St. Petersburg. Izvestiya - Atmospheric and Oceanic Physics, 2009, 45, 723-730.	0.9	13
49	Integral microphysical parameters of stratospheric background aerosol for 2002â€"2005 (the SAGE III) Tj ETQq1 1 0.784314 rgBT /Over	0.9	3
50	Polar stratospheric clouds from satellite observational data. Izvestiya - Atmospheric and Oceanic Physics, 2008, 44, 448-458.	0.9	5
51	Determining the total ozone from geostationary earth satellites. Izvestiya - Atmospheric and Oceanic Physics, 2008, 44, 745-752.	0.9	4
52	Comparison and synergy of stratospheric ozone measurements by satellite limb sounders and the ground-based microwave radiometer SOMORA. Atmospheric Chemistry and Physics, 2007, 7, 4117-4131.	4.9	47
53	Analysis of solutions to the inverse problem on the retrieval of the microstructure of stratospheric aerosol from satellite measurements. Izvestiya - Atmospheric and Oceanic Physics, 2006, 42, 752-764.	0.9	2
54	Retrieval of ozone and nitrogen dioxide concentrations from Stratospheric Aerosol and Gas Experiment III (SAGE III) measurements using a new algorithm. Journal of Geophysical Research, 2005, 110, n/a-n/a.	3.3	11

#	Article	IF	Citations
55	Trace gas and aerosol sounding of the atmosphere in Sun occultation experiment with SAGE III device. , 2004, 5235, 397.		1
56	Statistical models of aerosols and polar stratospheric clouds (PSC) for remote sensing. , 2004, 5235, 347.		0
57	Optimal eigenanalysis for the treatment of aerosols in the retrieval of atmospheric composition from transmission measurements. Applied Optics, 2003, 42, 2635.	2.1	10
58	On the informativeness and optimal design of outgoing radiance measurements in problems of remote sensing of the atmosphere. Advances in Space Research, 2000, 26, 955-964.	2.6	1
59	Regression approach to the calculated absolute calibration of the space devices. Advances in Space Research, 1996, 17, 39-42.	2.6	0
60	A simple model of the line mixing effect for atmospheric applications: Theoretical background and comparison with experimental profiles. Journal of Quantitative Spectroscopy and Radiative Transfer, 1996, 56, 783-795.	2.3	34