Alexander V Konoshonkin

List of Publications by Year
in descending order

92	718	430874 18	552781 26
papers	citations	h-index	g-index

92	92	92	150
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The physical-optics approximation and its application to light backscattering by hexagonal ice crystals. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 146, 181-189.	2.3	79
2	Backscattering by hexagonal ice crystals of cirrus clouds. Optics Letters, 2013, 38, 2881.	3.3	55
3	Backscattering Mueller matrix for quasi-horizontally oriented ice plates of cirrus clouds: application to CALIPSO signals. Optics Express, 2012, 20, 28222.	3.4	47
4	Light scattering by ice crystals of cirrus clouds: From exact numerical methods to physical-optics approximation. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 195, 132-140.	2.3	35
5	Backscatter ratios for arbitrary oriented hexagonal ice crystals of cirrus clouds. Optics Letters, 2014, 39, 5788.	3.3	31
6	Interference phenomena at backscattering by ice crystals of cirrus clouds. Optics Express, 2015, 23, 24557.	3.4	31
7	Coherent and incoherent backscattering by a single large particle of irregular shape. Optics Express, 2019, 27, 32984.	3.4	30
8	Interpretation of lidar ratio and depolarization ratio of ice clouds using spaceborne high-spectral-resolution polarization lidar. Optics Express, 2019, 27, 36587.	3.4	28
9	Layers of quasi-horizontally oriented ice crystals in cirrus clouds observed by a two-wavelength polarization lidar. Optics Express, 2014, 22, 24566.	3.4	27
10	Power laws for backscattering by ice crystals of cirrus clouds. Optics Express, 2017, 25, 22341.	3.4	26
11	Beam-splitting code for light scattering by ice crystal particles within geometric-optics approximation. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 164, 175-183.	2.3	25
12	Beam splitting algorithm for the problem of light scattering by atmospheric ice crystals. part 1. theoretical foundations of the algorithm. Atmospheric and Oceanic Optics, 2015, 28, 441-447.	1.3	23
13	Wavelength dependence of ice cloud backscatter properties for space-borne polarization lidar applications. Optics Express, 2020, 28, 29178.	3.4	22
14	Contribution of corner reflections from oriented ice crystals to backscattering and depolarization characteristics for off-zenith lidar profiling. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 212, 88-96.	2.3	20
15	Laser and Optical Sounding of the Atmosphere. Atmospheric and Oceanic Optics, 2020, 33, 51-68.	1.3	20
16	Backscattering reciprocity for large particles. Optics Letters, 2013, 38, 1485.	3.3	19
17	Matrix of light scattering on a truncated plate-like droxtal preferably oriented in a horizontal plane. Atmospheric and Oceanic Optics, 2013, 26, 194-200.	1.3	18
18	Backscatter by azimuthally oriented ice crystals of cirrus clouds. Optics Express, 2016, 24, A1257.	3.4	18

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19	Light scattering by ice crystals of cirrus clouds: comparison of the physical optics methods. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 182, 12-23.	2.3	17
20	Glints from particulate media and wavy surfaces. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 2542-2551.	2.3	16
21	Limits to applicability of geometrical optics approximation to light backscattering by quasihorizontally oriented hexagonal ice plates. Atmospheric and Oceanic Optics, 2015, 28, 74-81.	1.3	15
22	Specular scattering of light on cloud ice crystals and wavy water surface. Atmospheric and Oceanic Optics, 2013, 26, 438-443.	1.3	13
23	Radar-lidar ratio for ice crystals of cirrus clouds. Optics Express, 2021, 29, 4464.	3.4	13
24	The technique for solving the problem of light backscattering by ice crystals of cirrus clouds by the physical optics method for a lidar with zenith scanning. Atmospheric and Oceanic Optics, 2016, 29, 252-262.	1.3	12
25	Light scattering by spherical particles for data interpretation of mobile lidars. Optical Engineering, 2020, 59, .	1.0	11
26	The study of cirrus clouds with the polarization lidar in the South-East China (Hefei). Atmospheric and Oceanic Optics, 2017, 30, 234-235.	1.3	10
27	Estimation of the Absorption Effect on Light Scattering by Atmospheric Ice Crystals for Wavelengths Typical for Problems of Laser Sounding of the Atmosphere. Atmospheric and Oceanic Optics, 2019, 32, 564-568.	1.3	10
28	Algorithm for Interpreting Light Backscattering Matrices of Cirrus Clouds for the Retrieval of Their Microphysical Parameters. Atmospheric and Oceanic Optics, 2019, 32, 393-399.	1.3	10
29	Beam splitting algorithm for the problem of light scattering by atmospheric ice crystals. Part 2. comparison with the ray tracing algorithm. Atmospheric and Oceanic Optics, 2015, 28, 448-454.	1.3	8
30	Modified Beam-Splitting 1 (MBS-1) Algorithm for Solving the Problem of Light Scattering by Nonconvex Atmospheric Ice Particles. Atmospheric and Oceanic Optics, 2018, 31, 642-649.	1.3	6
31	Estimation of Microphysical Characteristics of Contrails by Polarization Lidar Data: Theory and Experiment. Atmospheric and Oceanic Optics, 2019, 32, 400-409.	1.3	5
32	Extinction matrix for cirrus clouds in the visible and infrared regions. Optics Letters, 2018, 43, 3578.	3.3	4
33	Optical characteristics of irregular atmospheric ice columns. Atmospheric and Oceanic Optics, 2017, 30, 508-516.	1.3	2
34	Lidar backscatter simulation for angular scanning of cirrus clouds with quasi-horizontally oriented ice crystals. Optics Letters, 2022, 47, 3648.	3.3	2
35	Interference phenomena at backscattering by ice crystals of irregular shape. Proceedings of SPIE, 2015, , .	0.8	1
36	Retrieving microphysics of cirrus clouds from data measured with raman lidar ramses and a tilted ceilometer. EPJ Web of Conferences, 2018, 176, 08002.	0.3	1

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37	Extinction Matrix of Atmospheric Ice Crystals with Their Preferred Spatial Orientation for the Visible and IR Regions. Atmospheric and Oceanic Optics, 2019, 32, 117-123.	1.3	1
38	Using the Physical Optics Approximation for Estimating the Light Scattering Properties of Large Dust Particles for Lidar Applications. EPJ Web of Conferences, 2020, 237, 08025.	0.3	1
39	Problem of light scattering by atmospheric ice crystals. , 2017, , .		1
40	Influence of cirrus clouds ice crystalâ€™s deformation on the backscattering matrix calculated within the physical optics approximation. , 2016, , .		1
41	Main types of optical beams giving predominant contributions to the light backscatter for the irregular hexagonal columns. , 2017, , .		1
42	Appearance of the corner reflection effect in cirrus clouds for off-zenith lidar profiling. , 2018, , .		1
43	Backscattering matrices calculation for atmospheric ice crystals within the physical optics approximation with absorption effect. , 2018, , .		1
44	Light scattering by large particles with the arbitrary shape within the geometrical optics approximation. , 2019, , .		1
45	Retrieving the microphysical characteristics of cirrus clouds from lidar data by depolarization and color ratios. , 2014, , .		0
46	Comparison of the geometrical and physical optics approximations for solving the problem of light scattering by quasi-horizontally oriented ice plates. , 2014, , .		0
47	Lidar studies of microphysical properties of cirrus clouds. Proceedings of SPIE, 2014, , .	0.8	0
48	Comparison of the ray-tracing and beam-tracing methods in the problem of light scattering by ice crystals of cirrus clouds. , 2014, , .		0
49	Polarization lidars with conical scanning for retrieving the microphysical characteristics of cirrus clouds. Proceedings of SPIE, 2015, , .	0.8	0
50	Comparison of the physical optics code with the GOIE method and the direct solution of Maxwell equations obtained by FDTD. Proceedings of SPIE, 2015, , .	0.8	0
51	Coherent and incoherent additions of light beams at solutions of the light scattering problem by use the beam tracing method within the framework of physical optics. Proceedings of SPIE, 2015, , .	0.8	0
52	Optical and microphysical properties of cirrus clouds retrieved from combined lidar and radar measurements. , 2016, , .		0
53	Evaluation of Retrieval Algorithms for Ice Microphysics Using CALIPSO/CloudSat and Earthcare. EPJ Web of Conferences, 2016, 119, 16007.	0.3	0
54	Model of lidar return from remote aerosol formation. , 2016, , .		0

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55	Analysis of polarization characteristics dependence of double scattering Lidar return on liquid water content in droplet clouds. , 2016, , .		0
56	Optical properties of the cirrus cloud ice crystals with preferred azimuthal orientation for polarization lidars with azimuthal scanning. , 2016, , .		0
57	Investigations of the optical properties of cirrus clouds crystals in the case of predominantly azimuthal orientation. Proceedings of SPIE, 2016, , .	0.8	0
58	Backscatter ratios using lidar sounding over Tomsk and Hefei. Proceedings of SPIE, 2016, , .	0.8	0
59	The Depolarization Properties of Cirrus Cloud by Lidar: Observation and Model Match. EPJ Web of Conferences, 2020, 237, 08021.	0.3	0
60	Scattering properties of singular and aggregate atmospheric hexagonal ice particles. , 2021, , .		0
61	Backscattering Mueller matrices of 10-100 Î¼m atmospheric ice particles for interpretation of ground-based and space-born lidar data. , 2021, , .		0
62	Retrieving the microphysical properties of ice clouds from simultaneous observations by a lidar and an all-sky camera. Proceedings of SPIE, 2016, , .	0.8	0
63	Comparison between the physical-optics approximation and exact methods solving the problem of light scattering by ice crystals of cirrus clouds. , 2016, , .		0
64	Power laws for the backscattering matrices in the case of lidar sensing of cirrus clouds. , 2017, , .		0
65	Development of the algorithm for light scattering by concave ice crystals of cirrus clouds. , 2017, , .		0
66	Study of influence of ice crystals orientation in cirrus on solar radiation transmission. , 2018, , .		0
67	Calculation of cirrus clouds backscattering for lidar studies within the physical optics approximation. , 2018, , .		0
68	Typical shapes of atmospheric ice crystals in the surface layer of the atmosphere from microscopic observation in 2017-2018. , 2018, , .		0
69	Numerical study of extinction matrix in cirrus clouds. , 2018, , .		0
70	Properties of aerosol and cloud from Raman-mie lidar and Radar soundings. , 2018, , .		0
71	Backscattering by hexagonal ice crystals with large distortion angles. , 2018, , .		0
72	Using the data bank of backscattering matrices of IAO SB RAS for interpreting the data of the high-altitude polarization lidar of TSU. , 2018, , .		0

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73	Scattering matrixes of hexagonal ice crystals of cirrus clouds calculated for problems of radiation balance. , 2018, , .		0
74	Calculation of light scattering matrix on particles of dust aerosol. , 2019, , .		0
75	Absorption accounting in the light scattering problem for arbitrarily shaped atmospheric ice particles within physical optics approximation method. , 2019, , .		0
76	Microwave scattering matrices for ice crystals of cirrus clouds calculated with the discrete dipole approximation (DDA). , 2019, , .		0
77	Formation of contrails with anomalous backscattering: estimation of meteorological parameters. , 2019, , .		0
78	Combined use of lidar and radar for studying microphysical properties of cirrus clouds. , 2019, , .		0
79	Calculation of light scattering matrix for quasi-horizontally oriented atmospheric ice crystals within the geometrical optics approximation. , 2019, , .		0
80	Software complex for processing and interpretation of results of the experiments on sensing of high-level clouds with the high-altitude polarization lidar developed at NR TSU. , 2019, , .		0
81	Light Backscattering by Ice Crystals of Cirrus Clouds Within the Physical Optics Approximation. EPJ Web of Conferences, 2020, 237, 08011.	0.3	0
82	Calculations of Light Scattering Matrix of Dust Aerosols for Problems of Lidar Remote Sensing. EPJ Web of Conferences, 2020, 237, 08008.	0.3	0
83	Light Scattering by Particles with Arbitrary Shape in the Vicinity of the Backward Scattering Direction within Geometrical Optics Approximation. EPJ Web of Conferences, 2020, 237, 08012.	0.3	0
84	Backscatter radar-lidar ratios for sizing ice crystals of cirrus clouds. , 2020, , .		0
85	Calculation of backscattering matrix for ice particles of cirrus clouds for 1.55 and 2 micron lidars within the physical optics approximation. , 2020, , .		0
86	Retrieving microphysics of cirrus clouds from lidar-radar and depolarization ratios. , 2020, , .		0
87	The polarization characteristics of cirrus cloud using lidar and radar in Hefei. , 2020, , .		0
88	Light scattering matrix for quasi-horizontally oriented atmospheric ice crystals for radiation transfer problems. , 2020, , .		0
89	Numerical solution of the light scattering problem for atmospheric ice particles in the infrared range for retrieving the microphysical properties of cirrus clouds. , 2020, , .		0
90	Light scattering on large ice spherical particles for lidar sounding of atmosphere. , 2020, , .		0

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91	Calculating the radar signal reflected from cirrus cloud by discrete dipole approximation. , 2020, , .		0
92	Light scattering by large irregular ice crystals of cirrus clouds. , 2021, , .		0