Janna M Dlugach

List of Publications by Year
in descending order

45 papers	1,462 citations	430874 18 h-index	315739 38 g-index
45 all docs	45 docs citations	45 times ranked	1113 citing authors

#	Article	IF	Citations
1	Bidirectional reflectance of flat, optically thick particulate layers: an efficient radiative transfer solution and applications to snow and soil surfaces. Journal of Quantitative Spectroscopy and Radiative Transfer, 1999, 63, 409-432.	2.3	327
2	First-principles modeling of electromagnetic scattering by discrete and discretely heterogeneous random media. Physics Reports, 2016, 632, 1-75.	25.6	104
3	The optical properties of Venus and the Jovian planets. II. Methods and results of calculations of the intensity of radiation diffusely reflected from semi-infinite homogeneous atmospheres. Icarus, 1974, 22, 66-81.	2.5	83
4	COHERENT BACKSCATTERING VERIFIED NUMERICALLY FOR A FINITE VOLUME OF SPHERICAL PARTICLES. Astrophysical Journal, 2012, 760, 118.	4.5	81
5	Coherent backscatter and the opposition effect for E-type asteroids. Planetary and Space Science, 1993, 41, 173-181.	1.7	78
6	DIRECT SOLUTIONS OF THE MAXWELL EQUATIONS EXPLAIN OPPOSITION PHENOMENA OBSERVED FOR HIGH-ALBEDO SOLAR SYSTEM OBJECTS. Astrophysical Journal, 2009, 705, L118-L122.	4.5	77
7	Electromagnetic scattering by a morphologically complex object: Fundamental concepts and common misconceptions. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 671-692.	2.3	71
8	Numerically exact computer simulations of light scattering by densely packed, random particulate media. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 2068-2078.	2.3	59
9	Can weak localization of photons explain the opposition effect of Saturn's rings?. Monthly Notices of the Royal Astronomical Society, 1992, 254, 15P-18P.	4.4	52
10	Applicability of the effective-medium approximation to heterogeneous aerosol particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 178, 284-294.	2.3	45
11	Linear depolarization of lidar returns by aged smoke particles. Applied Optics, 2016, 55, 9968.	2.1	42
12	Direct demonstration of the concept of unrestricted effective-medium approximation. Optics Letters, 2014, 39, 3935.	3.3	32
13	Azimuthal asymmetry of the coherent backscattering cone: Theoretical results. Physical Review A, 2009, 80, .	2.5	30
14	Polarized bidirectional reflectance of optically thick sparse particulate layers: An efficient numerically exact radiative-transfer solution. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 156, 97-108.	2.3	25
15	Scattering and extinction by spherical particles immersed in an absorbing host medium. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 211, 179-187.	2.3	24
16	Title is missing!. Solar System Research, 2003, 37, 1-19.	0.7	23
17	Adhesion of mineral and soot aerosols can strongly affect their scattering and absorption properties. Optics Letters, 2012, 37, 704.	3.3	23
18	Photopolarimetry of planetary atmospheres: what observational data are essential for a unique retrieval of aerosol microphysics?. Monthly Notices of the Royal Astronomical Society, 2008, 384, 64-70.	4.4	22

#	Article	IF	Citations
19	The effect of aerosol shape in retrieving optical properties of cloud particles in the planetary atmospheres from the photopolarimetric data. Jupiter. Solar System Research, 2005, 39, 102-111.	0.7	20
20	Investigations of the optical properties of Saturn's atmosphere carried out at the main astronomical observatory of the Ukrainian Academy of Sciences. Icarus, 1983, 54, 319-336.	2.5	18
21	Retrieval of microphysical characteristics of particles in atmospheres of distant comets from ground-based polarimetry. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 205, 80-90.	2.3	18
22	Scattering and absorption properties of polydisperse wavelength-sized particles covered with much smaller grains. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 2351-2355.	2.3	17
23	Light scattering by wavelength-sized particles â€œdustedâ€•with subwavelength-sized grains. Optics Letters, 2011, 36, 337.	3.3	16
24	CCD polarimetry of distant comets C/2010 S1 (LINEAR) and C/2010 R1 (LINEAR) at the 6-m telescope of the SAO RAS. Planetary and Space Science, 2015, 118, 199-210.	1.7	16
25	Far-field Lorenzâ€“Mie scattering in an absorbing host medium. II: Improved stability of the numerical algorithm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 217, 274-277.	2.3	16
26	Scattering properties of heterogeneous mineral particles with absorbing inclusions. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 162, 89-94.	2.3	15
27	Noctilucent cloud polarimetry: Twilight measurements in a wide range of scattering angles. Planetary and Space Science, 2016, 125, 105-113.	1.7	14
28	Numerical simulations of single and multiple scattering by fractal ice clusters. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 1864-1870.	2.3	12
29	Plasmon resonances of metal nanoparticles in an absorbing medium. OSA Continuum, 2019, 2, 3415.	1.8	12
30	Accuracy of the scalar approximation in computations of diffuse and coherent backscattering by discrete random media. Physical Review A, 2008, 78, .	2.5	9
31	Radar polarimetry of Saturn's rings: Modeling ring particles as fractal aggregates built of small ice monomers. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 1706-1712.	2.3	9
32	Effects of nonsphericity on the behavior of Lorenzâ€“Mie resonances in scattering characteristics of liquid-cloud droplets. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 146, 227-234.	2.3	9
33	Diffuse and coherent backscattering of polarized light: Polarization ratios for a discrete random medium composed of nonspherical particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 21-32.	2.3	8
34	Weak localization of electromagnetic waves and radar polarimetry of Saturn's rings. Monthly Notices of the Royal Astronomical Society, 2008, 389, 1665-1674.	4.4	8
35	Multiple scattering of polarized light by particles in an absorbing medium. Applied Optics, 2019, 58, 4871.	1.8	8
36	Coherent backscattering by polydisperse discrete random media: exact T-matrix results. Optics Letters, 2011, 36, 4350.	3.3	6

#	Article	IF	Citations
37	Scattering of Gaussian beams by disordered particulate media. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 183, 85-89.	2.3	6
38	The effect of particle shape on microphysical properties of Jovian aerosols retrieved from ground-based spectropolarimetric observations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 88, 37-46.	2.3	5
39	Enhanced backscattering of polarized light: Effect of particle nonsphericity on the helicity-preserving enhancement factor. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 100, 115-121.	2.3	5
40	Demonstration of numerical equivalence of ensemble and spectral averaging in electromagnetic scattering by random particulate media. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2016, 33, 618.	1.5	5
41	Electromagnetic scattering by fully ordered and quasi-random rigid particulate samples. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2016, 33, 2144.	1.5	4
42	Retrieval of volcanic and man-made stratospheric aerosols from orbital polarimetric measurements. Optics Express, 2019, 27, A158.	3.4	3
43	Numerical simulations of electromagnetic scattering by Solar system objects. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 183, 38-55.	2.3	2
44	Applying orbital multi-angle photopolarimetric observations to study properties of aerosols in the Earth's atmosphere: Implications of measurements in the 1.378 Âµm spectral channel to retrieve microphysical characteristics and composition of stratospheric aerosols. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 261, 107483.	2.3	2
45	Electromagnetic scattering by spheroidal volumes of discrete random medium. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 200, 244-248.	2.3	1