## Michael I Mishchenko

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Application of spheroid models to account for aerosol particle nonsphericity in remote sensing of desert dust. Journal of Geophysical Research, 2006, 111, .	3.3	1,195
2	T-matrix computations of light scattering by nonspherical particles: A review. Journal of Quantitative Spectroscopy and Radiative Transfer, 1996, 55, 535-575.	2.3	1,010
3	Calculation of radiative fluxes from the surface to top of atmosphere based on ISCCP and other global data sets: Refinements of the radiative transfer model and the input data. Journal of Geophysical Research, 2004, 109, .	3.3	920
4	Capabilities and limitations of a current FORTRAN implementation of the T-matrix method for randomly oriented, rotationally symmetric scatterers. Journal of Quantitative Spectroscopy and Radiative Transfer, 1998, 60, 309-324.	2.3	736
5	Calculation of the T matrix and the scattering matrix for ensembles of spheres. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1996, 13, 2266.	1.5	642
6	Modeling phase functions for dustlike tropospheric aerosols using a shape mixture of randomly oriented polydisperse spheroids. Journal of Geophysical Research, 1997, 102, 16831-16847.	3.3	567
7	A multiple sphere T-matrix Fortran code for use on parallel computer clusters. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 2182-2192.	2.3	365
8	Satellite retrieval of aerosol properties over the ocean using polarization as well as intensity of reflected sunlight. Journal of Geophysical Research, 1997, 102, 16989-17013.	3.3	361
9	Spectrally Consistent Scattering, Absorption, and Polarization Properties of Atmospheric Ice Crystals at Wavelengths from 0.2 to 100 1¼m. Journals of the Atmospheric Sciences, 2013, 70, 330-347.	1.7	358
10	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
11	Calculation of the amplitude matrix for a nonspherical particle in a fixed orientation. Applied Optics, 2000, 39, 1026.	2.1	292
12	Uncertainties in satellite remote sensing of aerosols and impact on monitoring its long-term trend: a review and perspective. Annales Geophysicae, 2009, 27, 2755-2770.	1.6	290
13	Scattering and absorption property database for nonspherical ice particles in the near- through far-infrared spectral region. Applied Optics, 2005, 44, 5512.	2.1	284
14	Accurate Monitoring of Terrestrial Aerosols and Total Solar Irradiance: Introducing the Glory Mission. Bulletin of the American Meteorological Society, 2007, 88, 677-692.	3.3	277
15	T-matrix computations of light scattering by large spheroidal particles. Optics Communications, 1994, 109, 16-21.	2.1	270
16	Depolarization of light backscattered by randomly oriented nonspherical particles. Optics Letters, 1995, 20, 1356.	3.3	264
17	Aerosol retrievals over the ocean by use of channels 1 and 2 AVHRR data: sensitivity analysis and preliminary results. Applied Optics, 1999, 38, 7325.	2.1	242
18	Multi-decadal aerosol variations from 1980 to 2009: a perspective from observations and a global model. Atmospheric Chemistry and Physics, 2014, 14, 3657-3690.	4.9	240

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19	Polarimetric remote sensing of atmospheric aerosols: Instruments, methodologies, results, and perspectives. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 224, 474-511.	2.3	224
20	A study of radiative properties of fractal soot aggregates using the superposition T-matrix method. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 2656-2663.	2.3	218
21	Monitoring of aerosol forcing of climate from space: analysis of measurement requirements. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 88, 149-161.	2.3	211
22	Long-Term Satellite Record Reveals Likely Recent Aerosol Trend. Science, 2007, 315, 1543-1543.	12.6	206
23	Nonsphericity of dust-like tropospheric aerosols: Implications for aerosol remote sensing and climate modeling. Geophysical Research Letters, 1995, 22, 1077-1080.	4.0	204
24	Light scattering by polydispersions of randomly oriented spheroids with sizes comparable to wavelengths of observation. Applied Optics, 1994, 33, 7206.	2.1	197
25	Overview of Scattering by Nonspherical Particles. , 2000, , 29-60.		185
26	Modeling of the scattering and radiative properties of nonspherical dust-like aerosols. Journal of Aerosol Science, 2007, 38, 995-1014.	3.8	180
27	Light scattering by size–shape distributions of randomly oriented axially symmetric particles of a size comparable to a wavelength. Applied Optics, 1993, 32, 4652.	2.1	160
28	Sensitivity of cirrus cloud albedo, bidirectional reflectance and optical thickness retrieval accuracy to ice particle shape. Journal of Geophysical Research, 1996, 101, 16973-16985.	3.3	154
29	Asymmetry parameters of the phase function for densely packed scattering grains. Journal of Quantitative Spectroscopy and Radiative Transfer, 1994, 52, 95-110.	2.3	151
30	Efficient implementation of the invariant imbedding T-matrix method and the separation of variables method applied to large nonspherical inhomogeneous particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 116, 169-183.	2.3	146
31	Depolarization of lidar returns by small ice crystals: An application to contrails. Geophysical Research Letters, 1998, 25, 309-312.	4.0	138
32	Scattering and radiative properties of complex soot and soot-containing aggregate particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 262-273.	2.3	135
33	Multiple scattering by random particulate media: exact 3D results. Optics Express, 2007, 15, 2822.	3.4	132
34	Scattering of light by polydisperse, randomly oriented, finite circular cylinders. Applied Optics, 1996, 35, 4927.	2.1	130
35	Retrieval of aerosol properties over the ocean using multispectral and multiangle Photopolarimetric measurements from the Research Scanning Polarimeter. Geophysical Research Letters, 2001, 28, 243-246.	4.0	130
36	Errors induced by the neglect of polarization in radiance calculations for rayleigh-scattering atmospheres. Journal of Quantitative Spectroscopy and Radiative Transfer, 1994, 51, 491-510.	2.3	128

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37	Efficient finite-difference time-domain scheme for light scattering by dielectric particles: application to aerosols. Applied Optics, 2000, 39, 3727.	2.1	128
38	On the nature of the polarization opposition effect exhibited by Saturn's rings. Astrophysical Journal, 1993, 411, 351.	4.5	125
39	Vector radiative transfer equation for arbitrarily shaped and arbitrarily oriented particles: a microphysical derivation from statistical electromagnetics. Applied Optics, 2002, 41, 7114.	2.1	124
40	Effects of aggregation on scattering and radiative properties of soot aerosols. Journal of Geophysical Research, 2005, 110, .	3.3	124
41	Scattering of light by bispheres with touching and separated components. Applied Optics, 1995, 34, 4589.	2.1	120
42	Reduction in biomass burning aerosol light absorption upon humidification: roles of inorganically-induced hygroscopicity, particle collapse, and photoacoustic heat and mass transfer. Atmospheric Chemistry and Physics, 2009, 9, 8949-8966.	4.9	119
43	Enhanced backscattering of polarized light from discrete random media: calculations in exactly the backscattering direction. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1992, 9, 978.	1.5	117
44	Past, present, and future of global aerosol climatologies derived from satellite observations: A perspective. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 325-347.	2.3	117
45	Retrieval of Aerosol Scattering and Absorption Properties from Photopolarimetric Observations over the Ocean during the CLAMS Experiment. Journals of the Atmospheric Sciences, 2005, 62, 1093-1117.	1.7	115
46	Aerosol retrievals from AVHRR radiances: effects of particle nonsphericity and absorption and an updated long-term global climatology of aerosol properties. Journal of Quantitative Spectroscopy and Radiative Transfer, 2003, 79-80, 953-972.	2.3	106
47	First-principles modeling of electromagnetic scattering by discrete and discretely heterogeneous random media. Physics Reports, 2016, 632, 1-75.	25.6	104
48	Full angular profile of the coherent polarization opposition effect. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 888.	1.5	103
49	Electromagnetic scattering by nonspherical particles: A tutorial review. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 808-832.	2.3	103
50	The influence of inclusions on light scattering by large ice particles. Journal of Geophysical Research, 1996, 101, 23311-23316.	3.3	102
51	Multiple scattering, radiative transfer, and weak localization in discrete random media: Unified microphysical approach. Reviews of Geophysics, 2008, 46, .	23.0	102
52	Satellite remote sensing reveals regional tropospheric aerosol trends. Optics Express, 2007, 15, 7423.	3.4	101
53	Sensitivity of multiangle remote sensing observations to aerosol sphericity. Journal of Geophysical Research, 1997, 102, 16861-16870.	3.3	99
54	A Comparison of Model- and Satellite-Derived Aerosol Optical Depth and Reflectivity. Journals of the Atmospheric Sciences, 2002, 59, 441-460.	1.7	96

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55	Analysis of fine-mode aerosol retrieval capabilities by different passive remote sensing instrument designs. Optics Express, 2012, 20, 21457.	3.4	96
56	Improved T-matrix computations for large, nonabsorbing and weakly absorbing nonspherical particles and comparison with geometrical-optics approximation. Applied Optics, 1997, 36, 4305.	2.1	95
57	Scattering of light by large nonspherical particles: ray-tracing approximation versus T-matrix method. Optics Letters, 1995, 20, 1934.	3.3	94
58	A numerical testbed for remote sensing of aerosols, and its demonstration for evaluating retrieval synergy from a geostationary satellite constellation of GEO-CAPE and GOES-R. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 146, 510-528.	2.3	94
59	Intercomparison of Satellite Retrieved Aerosol Optical Depth over the Ocean. Journals of the Atmospheric Sciences, 2004, 61, 499-513.	1.7	90
60	Soot superaggregates from flaming wildfires and their direct radiative forcing. Scientific Reports, 2014, 4, 5508.	3.3	90
61	Laboratory measurements of mineral dust scattering phase function and linear polarization. Journal of Geophysical Research, 1997, 102, 16871-16881.	3.3	89
62	The angular width of the coherent back-scatter opposition effect: An application to icy outer planet satellites. Astrophysics and Space Science, 1992, 194, 327-333.	1.4	87
63	APPLICATION OF THE T-MATRIX METHOD TO THE MEASUREMENT OF ASPHERICAL (ELLIPSOIDAL) PARTICLES WITH FORWARD SCATTERING OPTICAL PARTICLE COUNTERS. Journal of Aerosol Science, 2000, 31, 789-799.	3.8	86
64	Global Two-Channel AVHRR Retrievals of Aerosol Properties over the Ocean for the Period ofNOAA-9Observations and Preliminary Retrievals UsingNOAA-7andNOAA-11Data. Journals of the Atmospheric Sciences, 2002, 59, 262-278.	1.7	85
65	Applicability of regular particle shapes in light scattering calculations for atmospheric ice particles. Applied Optics, 1996, 35, 4291.	2.1	84
66	Modeling errors in diffuse-sky radiation: Vectorvsscalar treatment. Geophysical Research Letters, 1998, 25, 135-138.	4.0	83
67	Sensitivity of multiangle, multispectral polarimetric remote sensing over open oceans to water-leaving radiance: Analyses of RSP data acquired during the MILAGRO campaign. Remote Sensing of Environment, 2012, 118, 284-308.	11.0	83
68	Light scattering by polydisperse, rotationally symmetric nonspherical particles: Linear polarization. Journal of Quantitative Spectroscopy and Radiative Transfer, 1994, 51, 759-778.	2.3	81
69	COHERENT BACKSCATTERING VERIFIED NUMERICALLY FOR A FINITE VOLUME OF SPHERICAL PARTICLES. Astrophysical Journal, 2012, 760, 118.	4.5	81
70	Gustav Mie and the fundamental concept of electromagnetic scattering by particles: A perspective. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 1210-1222.	2.3	79
71	Coherent backscatter and the opposition effect for E-type asteroids. Planetary and Space Science, 1993, 41, 173-181.	1.7	78
72	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

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73	Inherent and apparent scattering properties of coated or uncoated spheres embedded in an absorbing host medium. Applied Optics, 2002, 41, 2740.	2.1	76
74	Polarization Properties of the Galilean Satellites of Jupiter: Observations and Preliminary Analysis. Astrophysical Journal, 1997, 487, 402-414.	4.5	74
75	How big should hexagonal ice crystals be to produce halos?. Applied Optics, 1999, 38, 1626.	2.1	74
76	Comprehensive T-matrix reference database: A 2004–06 update. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 304-324.	2.3	74
77	Scattering of electromagnetic waves by ensembles of particles and discrete random media. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 2095-2127.	2.3	74
78	Toward unified satellite climatology of aerosol properties Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 540-552.	2.3	73
79	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
80	On the concept of random orientation in far-field electromagnetic scattering by nonspherical particles. Optics Letters, 2017, 42, 494.	3.3	71
81	Satellite retrieval of aerosol properties over the ocean using measurements of reflected sunlight: Effect of instrumental errors and aerosol absorption. Journal of Geophysical Research, 1997, 102, 13543-13553.	3.3	69
82	Scattering matrix of quartz aerosols: comparison and synthesis of laboratory and Lorenz–Mie results. Journal of Quantitative Spectroscopy and Radiative Transfer, 2003, 79-80, 911-920.	2.3	68
83	Scattering and radiative properties of semi-external versus external mixtures of different aerosol types. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 88, 139-147.	2.3	67
84	Effect of ice crystal shape and effective size on snow bidirectional reflectance. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 100, 457-469.	2.3	67
85	Light scattering in a finite multi-particle system. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 2195-2206.	2.3	65
86	Does the Maddenâ€Julian Oscillation influence aerosol variability?. Journal of Geophysical Research, 2008, 113, .	3.3	63
87	Reflection models for soil and vegetation surfaces from multiple-viewing angle photopolarimetric measurements. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 529-539.	2.3	61
88	Retrieval of aerosol microphysical properties from AERONET photopolarimetric measurements: 2. A new research algorithm and case demonstration. Journal of Geophysical Research D: Atmospheres, 2015, 120, 7079-7098.	3.3	61
89	Light scattering by randomly oriented bispheres. Optics Letters, 1994, 19, 1604.	3.3	59
90	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

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91	T-matrix modeling of linear depolarization by morphologically complex soot and soot-containing aerosols. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 123, 135-144.	2.3	59
92	Direct simulation of multiple scattering by discrete random media illuminated by Gaussian beams. Physical Review A, 2011, 83, .	2.5	57
93	Toward unified satellite climatology of aerosol properties: Direct comparisons of advanced level 2 aerosol products. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 2376-2385.	2.3	56
94	"Independent―and "dependent―scattering by particles in a multi-particle group. OSA Continuum, 2018 1, 243.	<sup>9</sup> , 1.8	56
95	Electromagnetic scattering by a fixed finite object embedded in an absorbing medium. Optics Express, 2007, 15, 13188.	3.4	55
96	Comprehensive T-matrix reference database: A 2007–2009 update. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 650-658.	2.3	55
97	A numerical combination of extended boundary condition method and invariant imbedding method applied to light scattering by large spheroids and cylinders. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 123, 17-22.	2.3	54
98	Scattering and Radiative Properties of Morphologically Complex Carbonaceous Aerosols: A Systematic Modeling Study. Remote Sensing, 2018, 10, 1634.	4.0	54
99	Scattering properties of needlelike and platelike ice spheroids with moderate size parameters. Applied Optics, 2000, 39, 5052.	2.1	52
100	Single scattering by a small volume element. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 71.	1.5	52
101	Toward unified satellite climatology of aerosol properties: What do fully compatible MODIS and MISR aerosol pixels tell us?. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 402-408.	2.3	51
102	Radiative transfer theory verified by controlled laboratory experiments. Optics Letters, 2013, 38, 3522.	3.3	51
103	Radiation force caused by scattering, absorption, and emission of light by nonspherical particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2001, 70, 811-816.	2.3	49
104	Comprehensive T-matrix reference database: A 2006–07 update. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 1447-1460.	2.3	49
105	Consistency of global satelliteâ€derived aerosol and cloud data sets with recent brightening observations. Geophysical Research Letters, 2010, 37, .	4.0	49
106	Retrieving the effective radius of Saharan dust coarse mode from AIRS. Geophysical Research Letters, 2005, 32, .	4.0	47
107	Conditions of applicability of the single-scattering approximation. Optics Express, 2007, 15, 7522.	3.4	47
108	Spectral signature of ice clouds in the far-infrared region: Single-scattering calculations and radiative sensitivity study. Journal of Geophysical Research, 2003, 108, .	3.3	46

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109	Coherent backscattering of light by a layer of discrete random medium. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 86, 161-180.	2.3	46
110	Gustav Mie and the Evolving Discipline of Electromagnetic Scattering by Particles. Bulletin of the American Meteorological Society, 2008, 89, 1853-1862.	3.3	46
111	Directional radiometry and radiative transfer: The convoluted path from centuries-old phenomenology to physical optics. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 146, 4-33.	2.3	45
112	Applicability of the effective-medium approximation to heterogeneous aerosol particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 178, 284-294.	2.3	45
113	T-matrix method and its applications to electromagnetic scattering by particles: A current perspective. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 1700-1703.	2.3	44
114	Far-field Lorenz–Mie scattering in an absorbing host medium: Theoretical formalism and FORTRAN program. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 205, 241-252.	2.3	44
115	Weak localization of electromagnetic waves and opposition phenomena exhibited by high-albedo atmosphereless solar system objects. Applied Optics, 2006, 45, 4459.	2.1	43
116	Optics of water cloud droplets mixed with black-carbon aerosols. Optics Letters, 2014, 39, 2607.	3.3	43
117	Aerosol radiative forcing and the accuracy of satellite aerosol optical depth retrieval. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	42
118	Limits on climate sensitivity derived from recent satellite and surface observations. Journal of Geophysical Research, 2007, 112, .	3.3	42
119	Aerosol polarimetry sensor for the Glory Mission. , 2007, , .		42
120	Linear depolarization of lidar returns by aged smoke particles. Applied Optics, 2016, 55, 9968.	2.1	42
121	Diffuse and coherent backscattering by discrete random media—I. Radar reflectivity, polarization ratios, and enhancement factors for a half-space of polydisperse, nonabsorbing and absorbing spherical particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 1996, 56, 673-702.	2.3	41
122	Electromagnetic scattering by randomly oriented bispheres: Comparison of theory and experiment and benchmark calculations. Journal of Quantitative Spectroscopy and Radiative Transfer, 1996, 55, 683-694.	2.3	40
123	Constraints on PSC particle microphysics derived from lidar observations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2001, 70, 817-831.	2.3	40
124	Comprehensive thematic T-matrix reference database: A 2013–2014 update. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 146, 349-354.	2.3	40
125	Rainbow Fourier transform. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 2521-2535.	2.3	39

126 T-Matrix Method and Its Applications. , 2000, , 147-172.

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127	Incorporation of physical optics effects and computation of the Legendre expansion for ray-tracing phase functions involving l'-function transmission. Journal of Geophysical Research, 1998, 103, 1799-1805.	3.3	37
128	Photometric and Polarimetric Opposition Phenomena Exhibited by Solar System Bodies. , 2002, , 191-224.		37
129	Scale invariance rule in electromagnetic scattering. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 101, 411-415.	2.3	37
130	Multiple scattering by particles embedded in an absorbing medium. 2. Radiative transfer equation. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 2386-2390.	2.3	37
131	Multiple scattering by particles embedded in an absorbing medium. 1. Foldy–Lax equations, order-of-scattering expansion, and coherent field. Optics Express, 2008, 16, 2288.	3.4	37
132	Morphology-dependent resonances of nearly spherical particles in random orientation. Applied Optics, 2003, 42, 5551.	2.1	35
133	Regional advanced very high resolution radiometer–derived climatology of aerosol optical thickness and size. Journal of Geophysical Research, 2005, 110, .	3.3	35
134	ON THE CONVERGENCE OF NUMERICAL COMPUTATIONS FOR BOTH EXACT AND APPROXIMATE SOLUTIONS FOR ELECTROMAGNETIC SCATTERING BY NONSPHERICAL DIELECTRIC PARTICLES (INVITED REVIEW). Progress in Electromagnetics Research, 2019, 164, 27-61.	4.4	34
135	The effect of black carbon on scattering and absorption of solar radiation by cloud droplets. Journal of Quantitative Spectroscopy and Radiative Transfer, 2002, 74, 195-204.	2.3	33
136	Global validation of two-channel AVHRR aerosol optical thickness retrievals over the oceans. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 88, 97-109.	2.3	33
137	Far-field approximation in electromagnetic scattering. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 100, 268-276.	2.3	33
138	Approximate calculation of coherent backscattering for semi-infinite discrete random media. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 139-145.	2.3	32
139	On definition and measurement of extinction cross section. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 323-327.	2.3	32
140	Directional radiometry and radiative transfer: A new paradigm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 2079-2094.	2.3	32
141	Comprehensive T-matrix reference database: A 2012–2013 update. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 123, 145-152.	2.3	32
142	Direct demonstration of the concept of unrestricted effective-medium approximation. Optics Letters, 2014, 39, 3935.	3.3	32
143	Coherent backscattering by two-sphere clusters. Optics Letters, 1996, 21, 623.	3.3	31
144	Comprehensive thematic T-matrix reference database: A 2015–2017 update. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 202, 240-246.	2.3	31

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145	Volume integral equation for electromagnetic scattering: Rigorous derivation and analysis for a set of multilayered particles with piecewise-smooth boundaries in a passive host medium. Physical Review A, 2018, 97, .	2.5	31
146	Global two-channel AVHRR aerosol climatology: effects of stratospheric aerosols and preliminary comparisons with MODIS and MISR retrievals. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 88, 47-59.	2.3	30
147	Weak localization of electromagnetic waves by densely packed many-particle groups: Exact 3D results. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 616-621.	2.3	30
148	Azimuthal asymmetry of the coherent backscattering cone: Theoretical results. Physical Review A, 2009, 80, .	2.5	30
149	The electromagnetic optical theorem revisited. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 101, 404-410.	2.3	29
150	Poynting–Stokes tensor and radiative transfer in discrete random media: the microphysical paradigm. Optics Express, 2010, 18, 19770.	3.4	29
151	Microwave polarized signatures generated within cloud systems: Special Sensor Microwave Imager (SSM/I) observations interpreted with radiative transfer simulations. Journal of Geophysical Research, 2001, 106, 28243-28258.	3.3	28
152	Assessing Goddard Institute for Space Studies ModelE aerosol climatology using satellite and ground-based measurements: A comparison study. Journal of Geophysical Research, 2006, 111, .	3.3	28
153	Detecting superâ€thin clouds with polarized sunlight. Geophysical Research Letters, 2014, 41, 688-693.	4.0	28
154	Comprehensive thematic T-matrix reference database: A 2014–2015 update. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 178, 276-283.	2.3	28
155	Comprehensive thematic T-matrix reference database: a 2017–2019 update. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 242, 106692.	2.3	28
156	Microphysical approach to polarized radiative transfer: extension to the case of an external observation point. Applied Optics, 2003, 42, 4963.	2.1	27
157	Extinction by a homogeneous spherical particle in an absorbing medium. Optics Letters, 2017, 42, 4873.	3.3	27
158	Asymptotic solutions for optical properties of large particles with strong absorption. Applied Optics, 2001, 40, 1532.	2.1	26
159	Use of circular cylinders as surrogates for hexagonal pristine ice crystals in scattering calculations at infrared wavelengths. Applied Optics, 2003, 42, 2653.	2.1	25
160	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
161	Maxwell's equations, radiative transfer, and coherent backscattering: A general perspective. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 101, 540-555.	2.3	24
162	Aerosol retrievals from channel-1 and -2 AVHRR radiances: Long-term trends updated and revisited. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 1974-1980.	2.3	24

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163	Morphology-dependent resonances of spherical droplets with numerous microscopic inclusions. Optics Letters, 2014, 39, 1701.	3.3	24
164	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
165	Effects of absorption on multiple scattering by random particulate media: exact results. Optics Express, 2007, 15, 13182.	3.4	23
166	Adhesion of mineral and soot aerosols can strongly affect their scattering and absorption properties. Optics Letters, 2012, 37, 704.	3.3	23
167	Modeling single-scattering properties of small cirrus particles by use of a size-shape distribution of ice spheroids and cylinders. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 101, 488-497.	2.3	22
168	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
169	Global Aerosol Climatology Project. Journals of the Atmospheric Sciences, 2002, 59, 249-249.	1.7	21
170	Enhanced lidar backscattering by quasi-horizontally oriented ice crystal plates in cirrus clouds. Journal of Quantitative Spectroscopy and Radiative Transfer, 2003, 79-80, 1139-1157.	2.3	21
171	Light-scattering form factors of asymmetric particle dimers from heteroaggregation experiments. Journal of Chemical Physics, 2005, 123, 064709.	3.0	21
172	Ground performance measurements of the Glory Aerosol Polarimetry Sensor. Proceedings of SPIE, 2010, , .	0.8	20
173	Electromagnetic scattering by densely packed particulate ice at radar wavelengths: exact theoretical results and remote-sensing implications. Applied Optics, 2009, 48, 2421.	2.1	19
174	Coherent backscattering: Conceptions and misconceptions (reply to comments by Bruce W. Hapke and) Tj ETQq	0 0 0 9 rgBT	Qyerlock 10
175	Dependence of extinction cross-section on incident polarization state and particle orientation. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 2035-2039.	2.3	18
176	Impressed sources and fields in the volume-integral-equation formulation of electromagnetic scattering by a finite object: A tutorial. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 214, 158-167.	2.3	18
177	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
178	Radiativeâ€Transfer Modeling of Spectra of Planetary Regoliths Using Clusterâ€Based Dense Packing Modifications. Journal of Geophysical Research E: Planets, 2018, 123, 1203-1220.	3.6	18
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16

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