

Dmitry Petrov

List of Publications by Year in descending order

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Version: 2024-02-01

37
papers

613
citations

567281

15
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610901

24
g-index

38
all docs

38
docs citations

38
times ranked

429
citing authors

#	ARTICLE	IF	CITATIONS
1	Validity criteria of the discrete dipole approximation. Applied Optics, 2010, 49, 1267.	2.1	83
2	A critical assessment of the Hapke photometric model. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 2431-2456.	2.3	68
3	The T-matrix technique for calculations of scattering properties of ensembles of randomly oriented particles with different size. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 102, 85-110.	2.3	53
4	Electromagnetic wave scattering from particles of arbitrary shapes. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 1636-1645.	2.3	39
5	Analytical light-scattering solution for Chebyshev particles. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 1103.	1.5	32
6	Discrete dipole approximation simulations of scattering by particles with hierarchical structure. Applied Optics, 2005, 44, 6479.	2.1	31
7	Light scattering by arbitrary shaped particles with rough surfaces: Sh-matrices approach. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 2406-2418.	2.3	30
8	Analytic T-matrix solution of light scattering from capsule and bi-sphere particles: Applications to spore detection. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 108, 81-105.	2.3	23
9	Classical photometry of prefractal surfaces. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2003, 20, 2081.	1.5	21
10	Sh-matrices method applied to light scattering by finite circular cylinders. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 1474-1495.	2.3	21
11	Optimized matrix inversion technique for the T-matrix method. Optics Letters, 2007, 32, 1168.	3.3	20
12	Influence of corrugation on light-scattering properties of capsule and finite-cylinder particles: Analytic solution using Sh-matrices. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 650-669.	2.3	17
13	Analytic light-scattering solution of two merging spheres using Sh-matrices. Optics Communications, 2008, 281, 2411-2423.	2.1	17
14	Photopolarimetric properties of coronavirus model particles: Spike proteins number influence. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 248, 107005.	2.3	17
15	Response to the comment by B. Hapke on "A critical assessment of the Hapke photometric model". Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 116, 191-195.	2.3	16
16	An analytical solution to the light scattering from cube-like particles using Sh-matrices. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 474-482.	2.3	15
17	Photopolarimetric properties of analytic models of some biological particles with irregular shape. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 102, 111-120.	2.3	13
18	The Sh-matrices method applied to light scattering by small lenses. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 1448-1459.	2.3	11

#	ARTICLE	IF	CITATIONS
19	Comet 2P/Encke in apparitions of 2013 and 2017: I. Imaging photometry and long-slit spectroscopy. <i>Icarus</i> , 2020, 348, 113767.	2.5	10
20	Light scattering by a finite cylinder containing a spherical cavity using Sh-matrices. <i>Optics Communications</i> , 2009, 282, 156-166.	2.1	9
21	Conjugated Gaussian Random Particle Model and Its Applications for Interpreting Cometary Polarimetric Observations. <i>Solar System Research</i> , 2019, 53, 294-305.	0.7	9
22	The Sh-matrix method applied to light scattering by two merging spheroids. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2010, 111, 1990-1999.	2.3	8
23	The Area of Cold Traps on the Lunar Surface. <i>Solar System Research</i> , 2003, 37, 260-265.	0.7	7
24	Electromagnetic wave scattering from cuboid-like particles using Sh-matrices. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2011, 112, 155-162.	2.3	7
25	Comet 2P/Encke in apparition of 2017: II. Polarization and color. <i>Icarus</i> , 2020, 348, 113768.	2.5	6
26	Positive branch of asteroid polarization: Observational data and computer modeling. <i>Solar System Research</i> , 2017, 51, 271-276.	0.7	5
27	Computer simulation of position and maximum of linear polarization of asteroids. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018, 204, 88-93.	2.3	4
28	Asteroid (3200) Phaethon: results of polarimetric, photometric, and spectral observations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 514, 4861-4875.	4.4	4
29	Estimation of the Area of the Perpetually Shaded Lunar Surface. <i>Solar System Research</i> , 2001, 35, 452-457.	0.7	3
30	On Errors in Constructing the Polarization Phase Dependences for Solar System Bodies. <i>Solar System Research</i> , 2018, 52, 282-285.	0.7	3
31	Three Nearby K-Giants with Planets: Accurate Determination of Basic Parameters, Including an Analysis of Metallicity Based on Fe I Lines. <i>Astrophysics</i> , 2019, 62, 338-359.	0.5	3
32	Analysis of the Non-LTE Lithium Abundance for a Large Sample of F-, G-, and K-Giants and Supergiants. <i>Astrophysics</i> , 2017, 60, 333-347.	0.5	2
33	Quasi-rayleigh polarization leap of monodisperse spherical particle as a tool to detect particle radius. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020, 242, 106806.	2.3	2
34	Shadow Effect for Ambiguous and Disconnected Random Surfaces. <i>Optics and Spectroscopy (English)</i> Tj ETQq0 0 0 rgBT /Overlock 10 T	0.6	1
35	Applications to spore detection of analytic Sh-matrix solution of light scattering from capsule and bi-sphere particles. <i>Proceedings of SPIE</i> , 2007, , .	0.8	1
36	Influence of the Spectral Dependence of Refractive Index on the Polarimetric Properties of Ice Particles. <i>Solar System Research</i> , 2020, 54, 70-83.	0.7	1

#	ARTICLE	IF	CITATIONS
37	Spectral Emission Features of SiO ₂ Spheres. Research Notes of the AAS, 2020, 4, 161.	0.7	1