Evgenij S Zubko

List of Publications by Year
in descending order

111	2,816	159585	214800
papers	citations	30 h-index	47 g-index

113	113	113	1432
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Prepare for Impact!. Research Notes of the AAS, 2022, 6, 39.	0.7	0
2	On the dust production of active asteroid (3200) Phaethon in 2009: What the DESTINY+ spaceprobe could encounter. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, , 108224.	2.3	0
3	Stumbling over Planetary Building Blocks: AU Microscopii as an Example of the Challenge of Retrieving Debris-disk Dust Properties. Astrophysical Journal, 2022, 930, 123.	4.5	6
4	Dust in Comet 67P/Churyumovâ€“Gerasimenko: Interrelation between in situ Findings by Rosetta and Ground-based Polarimetry. Research Notes of the AAS, 2021, 5, 68.	0.7	1
5	Active remote sensing of atmospheric dust using relationships between their depolarization ratios and reflectivity. Optics Letters, 2021, 46, 2352.	3.3	6
6	Monitoring the negative polarization in Comet 29P/Schwassmannâ€“Wachmann during quiescence. Icarus, 2021, 366, 114536.	2.5	8
7	Extremely low linear polarization of comet C/2018 V1 (Machholzâ€“Fujikawaâ€“Iwamoto). Icarus, 2020, 336, 113453.	2.5	9
8	Imaging polarimetry and photometry of comet 21P/Giacobini-Zinner. Icarus, 2020, 337, 113471.	2.5	21
9	Absolute magnitude of small cosmic dust particles. Monthly Notices of the Royal Astronomical Society, 2020, 492, 810-820.	4.4	15
10	Computational study of the sensitivity of laser light scattering particle sizing to refractive index and irregularity. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 241, 106745.	2.3	9
11	Resolving color differences of comet 41P/Tuttle-Giacobini-KresÃ¡k. Astronomy and Astrophysics, 2020, 642, L5.	5.1	8
12	Monitoring polarization in comet 46P/Wirtanen. Monthly Notices of the Royal Astronomical Society, 2020, 498, 1814-1825.	4.4	12
13	On the Small Contribution of Supermicron Dust Particles to Light Scattering by Comets. Astrophysical Journal, 2020, 895, 110.	4.5	20
14	Polarization of disintegrating Comet C/2019 Y4 (ATLAS). Monthly Notices of the Royal Astronomical Society, 2020, 497, 1536-1542.	4.4	12
15	Revisiting the particle-size constraint of the 10-Î¼m silicate feature. Icarus, 2020, 350, 113907.	2.5	7
16	Where is the machine looking? Locating discriminative light-scattering features by class-activation mapping. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 247, 106936.	2.3	11
17	Blue Coma and Red Surface of 174P/Echeclus: Two Sides of the Same Coin?. Research Notes of the AAS, 2020, 4, 75.	0.7	1
18	Light scattering from volcanic-sand particles in deposited and aerosol form. Atmospheric Environment, 2019, 215, 116813.	4.1	12

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19	Detection of impact-produced dust clouds near the lunar terminator. Planetary and Space Science, 2019, 177, 104689.	1.7	10
20	The Effect of Dust Composition and Shape on Radiation-pressure Forces and Blowout Sizes of Particles in Debris Disks. Astronomical Journal, 2019, 157, 157.	4.7	33
21	Rapid variations of dust colour in comet 41P/Tuttleâ€“Giacobiniâ€“KresÃ¡k. Monthly Notices of the Royal Astronomical Society, 2019, 485, 4013-4023.	4.4	25
22	Particle-shape classification using light scattering: An exercise in deep learning. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 231, 140-156.	2.3	25
23	Decimeter-scale particle characterization in the coma of 73P/Schwassmann-Wachmann 3 using dual-wavelength radar observations. Icarus, 2019, 325, 94-104.	2.5	11
24	Technical note: A simple method for retrieval of dust aerosol optical depth with polarized reflectance over oceans. Atmospheric Chemistry and Physics, 2019, 19, 15583-15586.	4.9	4
25	Comet 29P/Schwassmann-Wachmann 1 dust environment from photometric observation at the SOAR Telescope. Icarus, 2019, 319, 58-67.	2.5	29
26	Morphological and chemical composition of particulate matter in buses exhaust. Toxicology Reports, 2019, 6, 120-125.	3.3	55
27	Modeling polarized solar radiation from a snow surface for correction of polarization-induced error in satellite data. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 222-223, 154-169.	2.3	3
28	On the Ambiguous Definition of the Degree of Linear Polarization. Research Notes of the AAS, 2019, 3, 45.	0.7	6
29	Velocity of Dust Ejected from Interstellar Comet 2I/Borisov. Research Notes of the AAS, 2019, 3, 152.	0.7	7
30	Clues to Understanding the Microphysics of Dust in the Interstellar Comet C/2019 Q4 (Borisov). Research Notes of the AAS, 2019, 3, 138.	0.7	2
31	The Umov effect in application to an optically thin two-component cloud of cosmic dust. Monthly Notices of the Royal Astronomical Society, 2018, 477, 4866-4873.	4.4	10
32	On the interpolation of light-scattering responses from irregularly shaped particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 211, 123-128.	2.3	25
33	Vertical profile of polarization over Vladivostok using horizon shadowing: Clues to understanding the altitude variation of reflectance of aerosol particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 204, 94-102.	2.3	9
34	A photometric function of planetary surfaces for gourmets. Icarus, 2018, 302, 213-236.	2.5	13
35	Formation of Dusty Plasma Clouds at Meteoroid Impact on the Surface of the Moon. JETP Letters, 2018, 108, 356-363.	1.4	11
36	Umov effect in asteroid (3200) Phaethon. Astronomy and Astrophysics, 2018, 620, A179.	5.1	10

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37	Interpolating light-scattering properties of irregularly shaped, absorbing particles. Optics Letters, 2018, 43, 4308.	3.3	4
38	Coating effect on light scattering by irregularly shaped particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 215, 71-76.	2.3	9
39	Reflectance of micron-sized dust particles retrieved with the Umov law. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 190, 1-6.	2.3	14
40	Interpreting lunar polarimetric anomalies at large phase angles. Icarus, 2017, 296, 117-122.	2.5	3
41	On the reflectance of dust in comets. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 202, 104-113.	2.3	17
42	Colour variations of Comet C/2013 UQ4 (Catalina). Monthly Notices of the Royal Astronomical Society, 2017, 469, 2695-2703.	4.4	28
43	Phase-ratio imaging as applied to desert sands for tracking human presence. Applied Optics, 2017, 56, B184.	2.1	4
44	Radar backscattering from a large-grain cometary coma: numerical simulation. Astronomy and Astrophysics, 2017, 608, A20.	5.1	3
45	Umov effect in single-scattering dust particles: effect of irregular shape. Optics Letters, 2017, 42, 1962.	3.3	12
46	Polarimeter based on video matrix. , 2017, , .		0
47	Optical properties of aerosol during condensation growth: numerical study. , 2017, , .		0
48	Comet C/2011 J2 (LINEAR): Photometry and stellar transit. Planetary and Space Science, 2016, 122, 26-37.	1.7	6
49	Optical measurements of chemically heterogeneous particulate surfaces. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 178, 422-431.	2.3	13
50	The positive-polarization of cometary comae. Planetary and Space Science, 2016, 123, 63-76.	1.7	53
51	Modeling light scattering by forsterite particles. Optics Letters, 2015, 40, 1204.	3.3	19
52	Comet C/2012 S1 (ISON) coma composition at ~4au from HST observations. Planetary and Space Science, 2015, 118, 138-163.	1.7	42
53	Retrieval of dust-particle refractive index using the phenomenon of negative polarization. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 151, 38-42.	2.3	16
54	Effect of morphology on light scattering by agglomerates. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 150, 42-54.	2.3	45

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55	Mixing rules and morphology dependence of the scatterer. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 150, 68-75.	2.3	15
56	Light scattering by random irregular particles of two classes of shape. Optics Letters, 2014, 39, 6723.	3.3	8
57	Dust in Comet C/1975 V1 (West). Monthly Notices of the Royal Astronomical Society, 2014, 440, 2928-2943.	4.4	41
58	HUBBLE SPACE TELESCOPE PRE-PERIHELION ACS/WFC IMAGING POLARIMETRY OF COMET ISON (C/2012 S1) AT 3.81 AU. Astrophysical Journal Letters, 2014, 780, L32.	8.3	25
59	Q-space analysis of scattering by small irregular particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 133, 99-105.	2.3	9
60	Light scattering by feldspar particles: Comparison of model agglomerate debris particles with laboratory samples. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 131, 175-187.	2.3	72
61	Experimental and simulated scattering matrices of small calcite particles at 647nm. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 124, 62-78.	2.3	13
62	Response to the comment by B. Hapke on â€œA critical assessment of the Hapke photometric modelâ€• Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 116, 191-195.	2.3	16
63	Characteristics of cometary dust in the innermost coma derived from polarimetry by Giotto. Monthly Notices of the Royal Astronomical Society, 2013, 430, 1118-1124.	4.4	21
64	Light scattering by cometary dust: Large-particle contribution. Earth, Planets and Space, 2013, 65, 139-148.	2.5	25
65	COHERENT BACKSCATTERING VERIFIED NUMERICALLY FOR A FINITE VOLUME OF SPHERICAL PARTICLES. Astrophysical Journal, 2012, 760, 118.	4.5	81
66	Effect of the orientation of the optic axis on simulated scattering matrix elements of small birefringent particles. Optics Letters, 2012, 37, 3252.	3.3	6
67	Comparison of scattering by different nonspherical, wavelength-scale particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 2391-2405.	2.3	46
68	A critical assessment of the Hapke photometric model. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 2431-2456.	2.3	68
69	Light scattering by irregularly shaped particles with sizes comparable to the wavelength. , 2012, , 39-74.		7
70	Evaluating the carbon depletion found by the Stardust mission in Comet 81P/Wild 2. Astronomy and Astrophysics, 2012, 544, L8.	5.1	40
71	Polarization of light backscattered by small particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 2193-2212.	2.3	27
72	The Umov effect for single irregularly shaped particles with sizes comparable with wavelength. Icarus, 2011, 212, 403-415.	2.5	35

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73	Interpretation of photo-polarimetric observations of comet 17P/Holmes. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 1848-1863.	2.3	39
74	Optical modeling of vesicular volcanic ash particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 1871-1880.	2.3	31
75	Interpretation of similarity in the negative polarization of comets and C-type asteroids in terms of common properties of asteroidal and cometary dust. Earth, Planets and Space, 2011, 63, 1077-1085.	2.5	8
76	Scattering parameterization for interpreting asteroid polarimetric and photometric phase effects. Earth, Planets and Space, 2010, 62, 47-52.	2.5	10
77	Validity criteria of the discrete dipole approximation. Applied Optics, 2010, 49, 1267.	2.1	83
78	Interpretation of single-particle negative polarization at intermediate scattering angles. Applied Optics, 2010, 49, 5284.	2.1	22
79	Coherent backscattering in planetary regoliths. , 2010, , 477-518.		8
80	Effect of absorption on light scattering by agglomerated debris particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 1741-1749.	2.3	65
81	Singleâ€scattering modeling of thin, birefringent mineralâ€dust flakes using the discreteâ€dipole approximation. Journal of Geophysical Research, 2009, 114, .	3.3	44
82	Light scattering in a finite multi-particle system. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 2195-2206.	2.3	65
83	Interrelating scattering characteristics to internal electric fields for Gaussian-random-sphere particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 2207-2218.	2.3	12
84	Comment on â€œModeling of opposition effects with ensembles of clusters: Interplay of various scattering mechanismsâ€•by Elena V. Petrova, Victor P. Tishkovets, Klaus Jockers, 2007 [Icarus 188, 233â€“245]. Icarus, 2008, 194, 850-852.	2.5	7
85	Polarimetric mapping of the Moon at a phase angle near the polarization minimum. Icarus, 2008, 198, 1-6.	2.5	11
86	Comet 9P/Tempel 1: Interpretation with theDeep ImpactResults. Astrophysical Journal, 2008, 673, L199-L202.	4.5	11
87	Comparison between discrete dipole implementations and exact techniques. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 417-436.	2.3	139
88	Sh-matrices method as applied to scattering by particles with layered structure. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 437-454.	2.3	19
89	Interrelating angular scattering characteristics to internal electric fields for wavelength-scale spherical particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 520-534.	2.3	30
90	Light scattering by Gaussian random particles with discrete-dipole approximation. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 360-377.	2.3	73

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91	Scattering of light by roughened Gaussian random particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 106, 604-615.	2.3	65
92	Multispectral polarimetry as a tool to investigate texture and chemistry of lunar regolith particles. Icarus, 2007, 187, 406-416.	2.5	36
93	Mapping the Moon in Pmin. , 2007, , .		2
94	Optimizing the discrete-dipole approximation for sequences of scatterers with identical shapes but differing sizes or refractive indices. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 100, 288-294.	2.3	9
95	Discrete-dipole analysis of backscatter features of agglomerated debris particles comparable in size with wavelength. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 100, 483-488.	2.3	8
96	Collective effects by agglomerated debris particles in the backscatter. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 100, 489-495.	2.3	13
97	Particle size effect on the opposition spike and negative polarization. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 101, 394-403.	2.3	30
98	DDA simulations of light scattering by small irregular particles with various structure. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 101, 416-434.	2.3	51
99	The F-type asteroids with small inversion angles of polarization. Icarus, 2005, 178, 213-221.	2.5	64
100	Discrete dipole approximation simulations of scattering by particles with hierarchical structure. Applied Optics, 2005, 44, 6479.	2.1	31
101	Backscatter of agglomerate particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 88, 163-171.	2.3	15
102	The negative polarization of light scattered from particulate surfaces and of independently scattering particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 88, 267-284.	2.3	58
103	Coherent backscattering effect for non-zero elements of Mueller matrix of discrete media at different illuminationâ€“observation geometries. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 89, 443-452.	2.3	13
104	Backscattering of agglomerate particles. , 2004, , .		3
105	Scattering Properties of Planetary Regoliths Near Opposition. , 2004, , 191-208.		10
106	Backscattering and negative polarization of agglomerate particles. Optics Letters, 2003, 28, 1504.	3.3	53
107	The Opposition Effect and Negative Polarization of Structural Analogs for Planetary Regoliths. Icarus, 2002, 159, 396-416.	2.5	185
108	Polarimetric weak-localization effect in scattering of natural light in the region of small phase angles. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2002, 92, 443-448.	0.6	11

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109	Calculation of the scattering indicatrix of systems of spheres based on the dimensionless formulation of the solution of the mie problem. Optics and Spectroscopy (English Translation of) Tj ETQq1 1 0.784314 rgBT /Overlock		
110	Light scattering by composite particles comparable with wavelength and their approximation by systems of spheres. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2001, 91, 273-277.	0.6	9
111	Opposition Effect from Clementine Data and Mechanisms of Backscatter. Icarus, 1999, 141, 132-155.	2.5	160