

Matthew J Berg

List of Publications by Year in descending order

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Version: 2024-02-01

37
papers

584
citations

567281

15
h-index

610901

24
g-index

38
all docs

38
docs citations

38
times ranked

396
citing authors

#	ARTICLE	IF	CITATIONS
1	Extinction and the optical theorem Part I Single particles. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 1504.	1.5	66
2	Digital holographic imaging of aerosol particles in flight. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 1776-1783.	2.3	60
3	Light scattering and absorption by fractal aggregates including soot. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 217, 459-473.	2.3	53
4	Patterns in Mie scattering: evolution when normalized by the Rayleigh cross section. Applied Optics, 2005, 44, 7487.	2.1	33
5	Imaging atmospheric aerosol particles from a UAV with digital holography. Scientific Reports, 2020, 10, 16085.	3.3	32
6	Extinction and the optical theorem Part II Multiple particles. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 1514.	1.5	29
7	Simultaneous holographic imaging and light-scattering pattern measurement of individual microparticles. Optics Letters, 2016, 41, 3363.	3.3	25
8	Aerosol light extinction and backscattering: A review with a lidar perspective. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 262, 107492.	2.3	24
9	Solving the inverse problem for coarse-mode aerosol particle morphology with digital holography. Scientific Reports, 2017, 7, 9400.	3.3	20
10	Measuring extinction with digital holography: nonspherical particles and experimental validation. Optics Letters, 2017, 42, 1011.	3.3	19
11	Internal fields of soot fractal aggregates. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2013, 30, 1947.	1.5	18
12	Using holography to measure extinction. Optics Letters, 2014, 39, 3993.	3.3	18
13	Quasi-three-dimensional particle imaging with digital holography. Applied Optics, 2017, 56, F53.	2.1	17
14	A review and reassessment of diffraction, scattering, and shadows in electrodynamics. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 210, 225-239.	2.3	17
15	Two-dimensional Guinier analysis: application to single aerosol particles in-flight. Optics Express, 2010, 18, 23343.	3.4	15
16	Nanosecond laser writing of straight and curved waveguides in silicon with shaped beams. Journal of Laser Applications, 2020, 32, .	1.7	13
17	Reflection symmetry of a sphere's internal field and its consequences on scattering: a microphysical approach. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 98.	1.5	12
18	Holographic interferometry for aerosol particle characterization. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 150, 36-41.	2.3	12

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19	Characterization and control of laser induced modification inside silicon. Journal of Laser Applications, 2019, 31, .	1.7	12
20	Radiative properties of soot fractal superaggregates including backscattering and depolarization. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 247, 106940.	2.3	12
21	Tutorial: Aerosol characterization with digital in-line holography. Journal of Aerosol Science, 2022, 165, 106023.	3.8	12
22	Energy transport in the near field of an electric dipole near a layer of material. Journal of Modern Optics, 2015, 62, 218-228.	1.3	11
23	Generation of aerosol-particle light-scattering patterns from digital holograms. Optics Letters, 2019, 44, 819.	3.3	9
24	Backscatter digital holography of microparticles. Optics Express, 2013, 21, 12611.	3.4	8
25	Orthographic imaging of free-flowing aerosol particles. OSA Continuum, 2019, 2, 3514.	1.8	8
26	Black carbon aerosol number and mass concentration measurements by picosecond short-range elastic backscatter lidar. Scientific Reports, 2022, 12, 8443.	3.3	7
27	Assessing the limits of Rayleigh-Debye-Gans theory: Phasor analysis of a bisphere. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 264, 107550.	2.3	5
28	Two-dimensional small-angle scattering from single particles in infrared with a lensless technique. Optics Express, 2020, 28, 25114.	3.4	4
29	Simultaneous forward and backward digital holography of microparticles. Journal of Optics (United Kingdom), 2022, 27, 223001.	2.2	3
30	Backscatter multiple wavelength digital holography for color micro-particle imaging. Applied Optics, 2022, 61, B83.	1.8	3
31	A semi-empirical correction for the Rayleigh-Debye-Gans approximation for fractal aggregates based on phasor analysis: Application to soot particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, 283, 108143.	2.3	2
32	Multispectral small-angle light scattering from particles. Optics Letters, 2021, 46, 3155.	3.3	1
33	Two-dimensional scattering and digital holography from isolated aerosol particles. , 2018, , .		1
34	Imaging aerosols with digital holography. Physics Today, 2018, 71, 70-71.	0.3	0
35	Contact-free microparticle characterization via Raman spectroscopy and digital holography. Journal of Optics (United Kingdom), 2018, 20, 095608.	2.2	0
36	Sensing and Imaging Aerosol Particles with Digital Holography from a UAV. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
37	Electromagnetically induced modification of gold optical properties. Optics Express, 2022, 30, 18374.	3.4	0