

W Patrick Arnott

List of Publications by Year in descending order

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Version: 2024-02-01

52
papers

4,015
citations

218677

26
h-index

189892

50
g-index

57
all docs

57
docs citations

57
times ranked

3320
citing authors

#	ARTICLE	IF	CITATIONS
1	Equivalence of Elemental Carbon by Thermal/Optical Reflectance and Transmittance with Different Temperature Protocols. <i>Environmental Science & Technology</i> , 2004, 38, 4414-4422.	10.0	604
2	Towards Aerosol Light-Absorption Measurements with a 7-Wavelength Aethalometer: Evaluation with a Photoacoustic Instrument and 3-Wavelength Nephelometer. <i>Aerosol Science and Technology</i> , 2005, 39, 17-29.	3.1	518
3	Photoacoustic spectrometer for measuring light absorption by aerosol: instrument description. <i>Atmospheric Environment</i> , 1999, 33, 2845-2852.	4.1	368
4	Evaluation of Multiangle Absorption Photometry for Measuring Aerosol Light Absorption. <i>Aerosol Science and Technology</i> , 2005, 39, 40-51.	3.1	258
5	A study of radiative properties of fractal soot aggregates using the superposition T-matrix method. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2008, 109, 2656-2663.	2.3	218
6	The Reno Aerosol Optics Study: An Evaluation of Aerosol Absorption Measurement Methods. <i>Aerosol Science and Technology</i> , 2005, 39, 1-16.	3.1	215
7	Emissions from Laboratory Combustion of Wildland Fuels: Emission Factors and Source Profiles. <i>Environmental Science & Technology</i> , 2007, 41, 4317-4325.	10.0	192
8	Emissions from the laboratory combustion of wildland fuels: Particle morphology and size. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	159
9	Nitrogen dioxide and kerosene-flame soot calibration of photoacoustic instruments for measurement of light absorption by aerosols. <i>Review of Scientific Instruments</i> , 2000, 71, 4545.	1.3	139
10	Aerosol light absorption, black carbon, and elemental carbon at the Fresno Supersite, California. <i>Atmospheric Research</i> , 2009, 93, 874-887.	4.1	123
11	Role of small ice crystals in radiative properties of cirrus: A case study, FIRE II, November 22, 1991. <i>Journal of Geophysical Research</i> , 1994, 99, 1371.	3.3	106
12	Cavity Ring-Down and Cavity-Enhanced Detection Techniques for the Measurement of Aerosol Extinction. <i>Aerosol Science and Technology</i> , 2005, 39, 30-39.	3.1	93
13	Light scattering and absorption by fractal-like carbonaceous chain aggregates: comparison of theories and experiment. <i>Applied Optics</i> , 2007, 46, 6990.	2.1	93
14	Single scattering albedo of fine mineral dust aerosols controlled by iron concentration. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	93
15	Light absorption by secondary organic aerosol from α -pinene: Effects of oxidants, seed aerosol acidity, and relative humidity. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 11,741.	3.3	54
16	Angular truncation errors in integrating nephelometry. <i>Review of Scientific Instruments</i> , 2003, 74, 3492-3501.	1.3	52
17	Low Fractal Dimension Cluster-Dilute Soot Aggregates from a Premixed Flame. <i>Physical Review Letters</i> , 2009, 102, 235504.	7.8	51
18	Photoacoustic insight for aerosol light absorption aloft from meteorological aircraft and comparison with particle soot absorption photometer measurements: DOE Southern Great Plains climate research facility and the coastal stratocumulus imposed perturbation experiments. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	50

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19	Particle emissions from laboratory combustion of wildland fuels: In situ optical and mass measurements. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	48
20	Evaporationâ€“Condensation Effects on Resonant Photoacoustics of Volatile Aerosols. <i>Journal of Atmospheric and Oceanic Technology</i> , 2003, 20, 685-695.	1.3	45
21	Toward an ideal integrating nephelometer. <i>Optics Letters</i> , 2003, 28, 1007.	3.3	40
22	Measurement and calculation of acoustic propagation constants in arrays of small air-filled rectangular tubes. <i>Journal of the Acoustical Society of America</i> , 1991, 89, 2617-2624.	1.1	36
23	Stability analysis of a heliumâ€“filled thermoacoustic engine. <i>Journal of the Acoustical Society of America</i> , 1994, 96, 370-375.	1.1	36
24	Light absorption by biomass burning source emissions. <i>Atmospheric Environment</i> , 2016, 127, 347-354.	4.1	34
25	Midlatitude Cirrus Clouds Derived from Hurricane Nora: A Case Study with Implications for Ice Crystal Nucleation and Shape. <i>Journals of the Atmospheric Sciences</i> , 2003, 60, 873-891.	1.7	30
26	Evaluating the PurpleAir monitor as an aerosol light scattering instrument. <i>Atmospheric Measurement Techniques</i> , 2022, 15, 655-676.	3.1	30
27	Evaluation of MODIS columnar aerosol retrievals using AERONET in semi-arid Nevada and California, U.S.A., during the summer of 2012. <i>Atmospheric Environment</i> , 2016, 144, 345-360.	4.1	27
28	Unfolded optical glory of spheroids: backscattering of laser light from freely rising spheroidal air bubbles in water. <i>Applied Optics</i> , 1991, 30, 3429.	2.1	24
29	Unfolding axial caustics of glory scattering with harmonic angular perturbations of toroidal wave fronts. <i>Journal of the Acoustical Society of America</i> , 1989, 85, 1427-1440.	1.1	22
30	Morphology based particle segregation by electrostatic charge. <i>Journal of Aerosol Science</i> , 2008, 39, 785-792.	3.8	19
31	Concentrations of mobile source air pollutants in urban microenvironments. <i>Journal of the Air and Waste Management Association</i> , 2014, 64, 743-758.	1.9	19
32	Can cirrus clouds produce glories?. <i>Applied Optics</i> , 1998, 37, 1427.	2.1	17
33	Sound propagation in capillaryâ€“tubeâ€“type porous media with small pores in the capillary walls. <i>Journal of the Acoustical Society of America</i> , 1991, 90, 3299-3306.	1.1	16
34	Thermoacoustic enhancement of photoacoustic spectroscopy: Theory and measurements of the signal	1.3	16
35	Simultaneous Photoacoustic Spectroscopy of Aerosol and Oxygen A-Band Absorption for the Calibration of Aerosol Light Absorption Measurements. <i>Aerosol Science and Technology</i> , 2009, 43, 1084-1090.	3.1	16
36	Scattering Cross-Section Emission Factors for Visibility and Radiative Transfer Applications: Military Vehicles Traveling on Unpaved Roads. <i>Journal of the Air and Waste Management Association</i> , 2005, 55, 1743-1750.	1.9	15

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37	Toward understanding atmospheric physics impacting the relationship between columnar aerosol optical depth and near-surface PM mass concentrations in Nevada and California, U.S.A., during 2013. <i>Atmospheric Environment</i> , 2017, 171, 289-300.	4.1	15
38	Characterization of smoke for spacecraft fire safety. <i>Journal of Aerosol Science</i> , 2019, 136, 36-47.	3.8	14
39	Evaluation of gas and particle sensors for detecting spacecraft-relevant fire emissions. <i>Fire Safety Journal</i> , 2020, 113, 102977.	3.1	14
40	Experimental study of a radial mode thermoacoustic prime mover. <i>Journal of the Acoustical Society of America</i> , 1999, 105, 2652-2662.	1.1	13
41	Spatial variations of particulate matter and air toxics in communities adjacent to the Port of Oakland. <i>Journal of the Air and Waste Management Association</i> , 2013, 63, 1399-1411.	1.9	13
42	Radial wave thermoacoustic engines: Theory and examples for refrigerators and high-gain narrow-bandwidth photoacoustic spectrometers. <i>Journal of the Acoustical Society of America</i> , 1996, 99, 734-745.	1.1	12
43	Longitudinal Spin Relaxation of Optically Pumped Rubidium Atoms in Solid Parahydrogen. <i>Physical Review Letters</i> , 2016, 117, 175301.	7.8	12
44	Photoacoustic measurements of black carbon light absorption coefficients in Irbid city, Jordan. <i>Environmental Monitoring and Assessment</i> , 2010, 166, 485-494.	2.7	8
45	Influence of photolysis on multispectral photoacoustic measurement of nitrogen dioxide concentration. <i>Journal of the Air and Waste Management Association</i> , 2013, 63, 1091-1097.	1.9	8
46	Evolution of Multispectral Aerosol Absorption Properties in a Biogenically-Influenced Urban Environment during the CARES Campaign. <i>Atmosphere</i> , 2017, 8, 217.	2.3	8
47	Accuracy of near-surface aerosol extinction determined from columnar aerosol optical depth measurements in Reno, NV, USA. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 11,355.	3.3	7
48	Development of a Multispectral Albedometer and Deployment on an Unmanned Aircraft for Evaluating Satellite Retrieved Surface Reflectance over Nevada's Black Rock Desert. <i>Sensors</i> , 2018, 18, 3504.	3.8	5
49	Emissions from the Open Laboratory Combustion of Cheatgrass (<i>Bromus Tectorum</i>). <i>Atmosphere</i> , 2020, 11, 406.	2.3	3
50	The Light Absorption Heating Method for Measurement of Light Absorption by Particles Collected on Filters. <i>Atmosphere</i> , 2022, 13, 824.	2.3	1
51	Estimation of temperature gradient effects on the normalized surface impedance of soils. <i>Journal of the Acoustical Society of America</i> , 1997, 101, 602-605.	1.1	0
52	Aggregated particles caused by instrument artifact. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 2225-2237.	3.1	0