

# Joshua P Schwarz

## List of Publications by Year in descending order

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124  
papers

15,067  
citations

30070

54  
h-index

20961

115  
g-index

180  
all docs

180  
docs citations

180  
times ranked

10072  
citing authors

#	ARTICLE	IF	CITATIONS
1	The NASA Atmospheric Tomography (ATom) Mission: Imaging the Chemistry of the Global Atmosphere. <i>Bulletin of the American Meteorological Society</i> , 2022, 103, E761-E790.	3.3	39
2	Fine Ash-Bearing Particles as a Major Aerosol Component in Biomass Burning Smoke. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	3.3	13
3	Identifying chemical aerosol signatures using optical suborbital observations: how much can optical properties tell us about aerosol composition?. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 3713-3742.	4.9	6
4	“Invisible bias” in the single particle soot photometer due to trigger deadtime. <i>Aerosol Science and Technology</i> , 2022, 56, 623-635.	3.1	1
5	Characteristics and evolution of brown carbon in western United States wildfires. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 8009-8036.	4.9	21
6	Global-scale constraints on light-absorbing anthropogenic iron oxide aerosols. <i>Npj Climate and Atmospheric Science</i> , 2021, 4, .	6.8	12
7	HCOOH in the Remote Atmosphere: Constraints from Atmospheric Tomography (ATom) Airborne Observations. <i>ACS Earth and Space Chemistry</i> , 2021, 5, 1436-1454.	2.7	13
8	Complex refractive indices in the ultraviolet and visible spectral region for highly absorbing non-spherical biomass burning aerosol. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 7235-7252.	4.9	11
9	Technical note: Sea salt interference with black carbon quantification in snow samples using the single particle soot photometer. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 9329-9342.	4.9	3
10	Light-absorption enhancement of black carbon in the Asian outflow inferred from airborne SP2 and in-situ measurements during KORUS-AQ. <i>Science of the Total Environment</i> , 2021, 773, 145531.	8.0	9
11	Ambient aerosol properties in the remote atmosphere from global-scale in situ measurements. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 15023-15063.	4.9	15
12	Reconciling Assumptions in Bottom-Up and Top-Down Approaches for Estimating Aerosol Emission Rates From Wildland Fires Using Observations From FIREX-AQ. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, .	3.3	10
13	Lifecycle of light-absorbing carbonaceous aerosols in the atmosphere. <i>Npj Climate and Atmospheric Science</i> , 2020, 3, .	6.8	77
14	High Temporal Resolution Satellite Observations of Fire Radiative Power Reveal Link Between Fire Behavior and Aerosol and Gas Emissions. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL090707.	4.0	30
15	Global Measurements of Brown Carbon and Estimated Direct Radiative Effects. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088747.	4.0	61
16	How emissions uncertainty influences the distribution and radiative impacts of smoke from fires in North America. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 2073-2097.	4.9	67
17	Characterization of organic aerosol across the global remote troposphere: a comparison of ATom measurements and global chemistry models. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 4607-4635.	4.9	66
18	Understanding and improving model representation of aerosol optical properties for a Chinese haze event measured during KORUS-AQ. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 6455-6478.	4.9	18

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19	Investigation of factors controlling PM2.5 variability across the South Korean Peninsula during KORUS-AQ. <i>Elementa</i> , 2020, 8, .	3.2	44
20	Aerosol size distributions during the Atmospheric Tomography Mission (ATom): methods, uncertainties, and data products. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 3081-3099.	3.1	59
21	Efficient In-Cloud Removal of Aerosols by Deep Convection. <i>Geophysical Research Letters</i> , 2019, 46, 1061-1069.	4.0	48
22	Extrapolation of single particle soot photometer incandescent signal data. <i>Aerosol Science and Technology</i> , 2019, 53, 911-920.	3.1	3
23	Evidence in biomass burning smoke for a light-absorbing aerosol with properties intermediate between brown and black carbon. <i>Aerosol Science and Technology</i> , 2019, 53, 976-989.	3.1	37
24	Comparison of Modeled and Measured Ice Nucleating Particle Composition in a Cirrus Cloud. <i>Journals of the Atmospheric Sciences</i> , 2019, 76, 1015-1029.	1.7	3
25	Inter-comparison of black carbon measurement methods for simulated open biomass burning emissions. <i>Atmospheric Environment</i> , 2019, 206, 156-169.	4.1	34
26	Global aerosol modeling with MADE3 (v3.0) in EMAC (based on v2.53): model description and evaluation. <i>Geoscientific Model Development</i> , 2019, 12, 541-579.	3.6	17
27	Near-Surface Refractory Black Carbon Observations in the Atmosphere and Snow in the McMurdo Dry Valleys, Antarctica, and Potential Impacts of Foehn Winds. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 2877-2887.	3.3	20
28	Investigating biomass burning aerosol morphology using a laser imaging nephelometer. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 1879-1894.	4.9	20
29	Exploring the observational constraints on the simulation of brown carbon. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 635-653.	4.9	121
30	Short Black Carbon lifetime inferred from a global set of aircraft observations. <i>Npj Climate and Atmospheric Science</i> , 2018, 1, .	6.8	57
31	Estimating Source Region Influences on Black Carbon Abundance, Microphysics, and Radiative Effect Observed Over South Korea. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 13,527.	3.3	24
32	Strong impact of wildfires on the abundance and aging of black carbon in the lowermost stratosphere. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E11595-E11603.	7.1	89
33	Direct Measurements of Dry and Wet Deposition of Black Carbon Over a Grassland. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 12,277.	3.3	25
34	Strong Contrast in Remote Black Carbon Aerosol Loadings Between the Atlantic and Pacific Basins. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 13,386.	3.3	22
35	An intercomparison of aerosol absorption measurements conducted during the SEAC <sup>4</sup> RS campaign. <i>Aerosol Science and Technology</i> , 2018, 52, 1012-1027.	3.1	17
36	Limited impact of sulfate-driven chemistry on black carbon aerosol aging in power plant plumes. <i>AIMS Environmental Science</i> , 2018, 5, 195-215.	1.4	1

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37	Aircraft measurements of black carbon vertical profiles show upper tropospheric variability and stability. <i>Geophysical Research Letters</i> , 2017, 44, 1132-1140.	4.0	36
38	Impacts of coal dust from an active mine on the spectral reflectance of Arctic surface snow in Svalbard, Norway. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 1767-1778.	3.3	28
39	Optimized detection of particulates from liquid samples in the aerosol phase: Focus on black carbon. <i>Aerosol Science and Technology</i> , 2017, 51, 543-553.	3.1	21
40	Methane, Black Carbon, and Ethane Emissions from Natural Gas Flares in the Bakken Shale, North Dakota. <i>Environmental Science &amp; Technology</i> , 2017, 51, 5317-5325.	10.0	74
41	The Global Aerosol Synthesis and Science Project (GASSP): Measurements and Modeling to Reduce Uncertainty. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 1857-1877.	3.3	52
42	Top-of-atmosphere radiative forcing affected by brown carbon in the upper troposphere. <i>Nature Geoscience</i> , 2017, 10, 486-489.	12.9	168
43	In situ measurements of water uptake by black carbon-containing aerosol in wildfire plumes. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 1086-1097.	3.3	21
44	Fluorescence calibration method for single-particle aerosol fluorescence instruments. <i>Atmospheric Measurement Techniques</i> , 2017, 10, 1755-1768.	3.1	21
45	Instrumentation and measurement strategy for the NOAA SENEX aircraft campaign as part of the Southeast Atmosphere Study 2013. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 3063-3093.	3.1	58
46	Stratospheric aerosol-Observations, processes, and impact on climate. <i>Reviews of Geophysics</i> , 2016, 54, 278-335.	23.0	265
47	Causes of variability in light absorption by particles in snow at sites in Idaho and Utah. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 4751-4768.	3.3	34
48	Hygroscopicity of materials internally mixed with black carbon measured in Tokyo. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 362-381.	3.3	23
49	Airborne characterization of subsaturated aerosol hygroscopicity and dry refractive index from the surface to 6.5 km during the SEAC <sup>4</sup> RS campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 4188-4210.	3.3	67
50	Ambient observations of hygroscopic growth factor and $\kappa$ (RH) below 1: Case studies from surface and airborne measurements. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 661-677.	3.3	25
51	Aerosol optical properties in the southeastern United States in summer – Part 1: Hygroscopic growth. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 4987-5007.	4.9	88
52	Microphysics-based black carbon aging in a global CTM: constraints from HIPPO observations and implications for global black carbon budget. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 3077-3098.	4.9	48
53	Aerosol optical properties in the southeastern United States in summer – Part 2: Sensitivity of aerosol optical depth to relative humidity and aerosol parameters. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 5009-5019.	4.9	44
54	Surface dimming by the 2013 Rim Fire simulated by a sectional aerosol model. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 7079-7087.	3.3	16

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55	Agricultural fires in the southeastern U.S. during SEAC <sup>4</sup> RS: Emissions of trace gases and particles and evolution of ozone, reactive nitrogen, and organic aerosol. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 7383-7414.	3.3	93
56	A light-weight, high-sensitivity particle spectrometer for PM <sub>2.5</sub> aerosol measurements. <i>Aerosol Science and Technology</i> , 2016, 50, 88-99.	3.1	71
57	Pollution and its impacts on the South American Cryosphere. <i>Earth's Future</i> , 2015, 3, 345-369.	6.3	42
58	Revealing important nocturnal and day-to-day variations in fire smoke emissions through a multiplatform inversion. <i>Geophysical Research Letters</i> , 2015, 42, 3609-3618.	4.0	73
59	Evolution of brown carbon in wildfire plumes. <i>Geophysical Research Letters</i> , 2015, 42, 4623-4630.	4.0	284
60	Brown carbon aerosol in the North American continental troposphere: sources, abundance, and radiative forcing. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 7841-7858.	4.9	96
61	Corrigendum to "In situ vertical profiles of aerosol extinction, mass, and composition over the southeast United States during SENEX and SEAC <sup>4</sup> RS: observations of a modest aerosol enhancement aloft" published in <i>Atmos. Chem. Phys.</i> , 15, 7085-7102, 2015. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 8455-8455.	4.9	1
62	Sources, seasonality, and trends of southeast US aerosol: an integrated analysis of surface, aircraft, and satellite observations with the GEOS-Chem chemical transport model. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 10411-10433.	4.9	217
63	In situ vertical profiles of aerosol extinction, mass, and composition over the southeast United States during SENEX and SEAC <sup>4</sup> RS: observations of a modest aerosol enhancement aloft. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 7085-7102.	4.9	50
64	Black Carbon Emissions from the Bakken Oil and Gas Development Region. <i>Environmental Science and Technology Letters</i> , 2015, 2, 281-285.	8.7	49
65	Airborne observations of regional variation in fluorescent aerosol across the United States. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 1153-1170.	3.3	93
66	Measurements of light-absorbing particles on the glaciers in the Cordillera Blanca, Peru. <i>Cryosphere</i> , 2015, 9, 331-340.	3.9	31
67	Observations of high level of ozone at Qinghai Lake basin in the northeastern Qinghai-Tibetan Plateau, western China. <i>Journal of Atmospheric Chemistry</i> , 2015, 72, 19-26.	3.2	12
68	Technique and theoretical approach for quantifying the hygroscopicity of black-carbon-containing aerosol using a single particle soot photometer. <i>Journal of Aerosol Science</i> , 2015, 81, 110-126.	3.8	41
69	Exploiting simultaneous observational constraints on mass and absorption to estimate the global direct radiative forcing of black carbon and brown carbon. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 10989-11010.	4.9	213
70	Black carbon aerosol characterization in a remote area of Qinghai-Tibetan Plateau, western China. <i>Science of the Total Environment</i> , 2014, 479-480, 151-158.	8.0	58
71	Observations of the chemical composition of stratospheric aerosol particles. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2014, 140, 1269-1278.	2.7	79
72	Global budget and radiative forcing of black carbon aerosol: Constraints from pole-to-pole (HIPPO) observations across the Pacific. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 195-206.	3.3	193

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73	Modelled black carbon radiative forcing and atmospheric lifetime in AeroCom Phase II constrained by aircraft observations. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 12465-12477.	4.9	157
74	Evaluation of a Perpendicular Inlet for Airborne Sampling of Interstitial Submicron Black-Carbon Aerosol. <i>Aerosol Science and Technology</i> , 2013, 47, 1066-1072.	3.1	11
75	Evaluation of a Method to Measure Black Carbon Particles Suspended in Rainwater and Snow Samples. <i>Aerosol Science and Technology</i> , 2013, 47, 1073-1082.	3.1	32
76	Bounding the role of black carbon in the climate system: A scientific assessment. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 5380-5552.	3.3	4,319
77	Global-scale seasonally resolved black carbon vertical profiles over the Pacific. <i>Geophysical Research Letters</i> , 2013, 40, 5542-5547.	4.0	124
78	A High-Sensitivity Low-Cost Optical Particle Counter Design. <i>Aerosol Science and Technology</i> , 2013, 47, 137-145.	3.1	24
79	Black carbon aerosol size in snow. <i>Scientific Reports</i> , 2013, 3, 1356.	3.3	115
80	Biogenic VOC oxidation and organic aerosol formation in an urban nocturnal boundary layer: aircraft vertical profiles in Houston, TX. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 11317-11337.	4.9	51
81	Constraints on aerosol processes in climate models from vertically-resolved aircraft observations of black carbon. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 5969-5986.	4.9	79
82	Soot reference materials for instrument calibration and intercomparisons: a workshop summary with recommendations. <i>Atmospheric Measurement Techniques</i> , 2012, 5, 1869-1887.	3.1	197
83	Single Particle Soot Photometer intercomparison at the AIDA chamber. <i>Atmospheric Measurement Techniques</i> , 2012, 5, 3077-3097.	3.1	152
84	Assessing Single Particle Soot Photometer and Integrating Sphere/Integrating Sandwich Spectrophotometer measurement techniques for quantifying black carbon concentration in snow. <i>Atmospheric Measurement Techniques</i> , 2012, 5, 2581-2592.	3.1	96
85	Brown carbon and internal mixing in biomass burning particles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 14802-14807.	7.1	394
86	Intercomparison of modal and sectional aerosol microphysics representations within the same 3-D global chemical transport model. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 4449-4476.	4.9	101
87	CCN Spectra, Hygroscopicity, and Droplet Activation Kinetics of Secondary Organic Aerosol Resulting from the 2010 Deepwater Horizon Oil Spill. <i>Environmental Science &amp; Technology</i> , 2012, 46, 3093-3100.	10.0	32
88	Gasoline emissions dominate over diesel in formation of secondary organic aerosol mass. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	189
89	Airborne and ground-based observations of a weekend effect in ozone, precursors, and oxidation products in the California South Coast Air Basin. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	97
90	Evolution of aerosol properties impacting visibility and direct climate forcing in an ammonia-rich urban environment. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	54

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91	Airborne observations of methane emissions from rice cultivation in the Sacramento Valley of California. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	50
92	Inferring ice formation processes from global-scale black carbon profiles observed in the remote atmosphere and model simulations. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	25
93	Scales of variability of black carbon plumes over the Pacific Ocean. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	17
94	Seasonal variability of black carbon mass in the tropical tropopause layer. <i>Geophysical Research Letters</i> , 2011, 38, .	4.0	12
95	Black carbon measurements in the Pearl River Delta region of China. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	53
96	Atmospheric emissions from the Deepwater Horizon spill constrain air-water partitioning, hydrocarbon fate, and leak rate. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	107
97	Characteristics of black carbon aerosol from a surface oil burn during the Deepwater Horizon oil spill. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	34
98	Organic Aerosol Formation Downwind from the Deepwater Horizon Oil Spill. <i>Science</i> , 2011, 331, 1295-1299.	12.6	162
99	Characteristics, sources, and transport of aerosols measured in spring 2008 during the aerosol, radiation, and cloud processes affecting Arctic Climate (ARCPAC) Project. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 2423-2453.	4.9	259
100	Absorbing aerosol in the troposphere of the Western Arctic during the 2008 ARCTAS/ARCPAC airborne field campaigns. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 7561-7582.	4.9	70
101	Cloud condensation nuclei as a modulator of ice processes in Arctic mixed-phase clouds. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 8003-8015.	4.9	84
102	MADE-in: a new aerosol microphysics submodel for global simulation of insoluble particles and their mixing state. <i>Geoscientific Model Development</i> , 2011, 4, 325-355.	3.6	61
103	Corrigendum to "Evaluation of black carbon estimations in global aerosol models" published in <i>Atmos. Chem. Phys.</i> , 9, 9001-9026, 2009. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 79-81.	4.9	17
104	Aircraft observations of enhancement and depletion of black carbon mass in the springtime Arctic. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 9667-9680.	4.9	68
105	The Detection Efficiency of the Single Particle Soot Photometer. <i>Aerosol Science and Technology</i> , 2010, 44, 612-628.	3.1	151
106	Global-scale black carbon profiles observed in the remote atmosphere and compared to models. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	172
107	Correction to "Global-scale black carbon profiles observed in the remote atmosphere and compared to models". <i>Geophysical Research Letters</i> , 2010, 37, n/a-n/a.	4.0	7
108	Soot Particle Studies "Instrument Inter-Comparison" Project Overview. <i>Aerosol Science and Technology</i> , 2010, 44, 592-611.	3.1	228

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109	An important contribution to springtime Arctic aerosol from biomass burning in Russia. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	172
110	Heating rates and surface dimming due to black carbon aerosol absorption associated with a major U.S. city. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	17
111	Biomass burning in Siberia and Kazakhstan as an important source for haze over the Alaskan Arctic in April 2008. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	289
112	Modelled radiative forcing of the direct aerosol effect with multi-observation evaluation. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 1365-1392.	4.9	187
113	Evaluation of black carbon estimations in global aerosol models. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 9001-9026.	4.9	585
114	Coatings and their enhancement of black carbon light absorption in the tropical atmosphere. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	266
115	Calculations of solar shortwave heating rates due to black carbon and ozone absorption using in situ measurements. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	28
116	Measurement of the mixing state, mass, and optical size of individual black carbon particles in urban and biomass burning emissions. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	388
117	Empirical correlations between black carbon aerosol and carbon monoxide in the lower and middle troposphere. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	60
118	An Inter-Comparison of Instruments Measuring Black Carbon Content of Soot Particles. <i>Aerosol Science and Technology</i> , 2007, 41, 295-314.	3.1	276
119	A Novel Method for Estimating Light-Scattering Properties of Soot Aerosols Using a Modified Single-Particle Soot Photometer. <i>Aerosol Science and Technology</i> , 2007, 41, 125-135.	3.1	258
120	Single-particle measurements of midlatitude black carbon and light-scattering aerosols from the boundary layer to the lower stratosphere. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	594
121	Status of the metas watt balance experiment. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2003, 52, 626-630.	4.7	25
122	Hysteresis and related error mechanisms in the NIST watt balance experiment. <i>Journal of Research of the National Institute of Standards and Technology</i> , 2001, 106, 627.	1.2	18
123	A new determination of the Newtonian constant of gravity using the free fall method. <i>Measurement Science and Technology</i> , 1999, 10, 478-486.	2.6	21
124	A Free-Fall Determination of the Newtonian Constant of Gravity. <i>Science</i> , 1998, 282, 2230-2234.	12.6	66