Andrew A Lacis

List of Publications by Citations

67 papers	11,026 citations	37 h-index	75 g-index
75 ext. papers	12,053 ext. citations	11.4 avg, IF	5.46 L-index

#	Paper	IF	Citations
67	Efficacy of climate forcings. *Journal of Geophysical Research*, **2005**, 110,		947
66	Efficient Three-Dimensional Global Models for Climate Studies: Models I and II. *Monthly Weather Review*, **1983**, 111, 609-662	2.4	848
65	The influence on climate forcing of mineral aerosols from disturbed soils. *Nature*, **1996**, 380, 419-422	50.4	799
64	Calculation of radiative fluxes from the surface to top of atmosphere based on ISCCP and other global data sets: Refinements of the radiative transfer model and the input data. *Journal of Geophysical Research*, **2004**, 109,		791
63	Climate impact of increasing atmospheric carbon dioxide. *Science*, **1981**, 213, 957-66	33.3	726
62	Global warming in the twenty-first century: an alternative scenario. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 9875-80	11.5	701
61	Global climate changes as forecast by Goddard Institute for Space Studies three-dimensional model. *Journal of Geophysical Research*, **1988**, 93, 9341		657
60	Earth's energy imbalance: confirmation and implications. *Science*, **2005**, 308, 1431-5	33.3	594
59	Near-Global Survey of Effective Droplet Radii in Liquid Water Clouds Using ISCCP Data. *Journal of Climate*, **1994**, 7, 465-497	4.4	436
58	Potential climate impact of Mount Pinatubo eruption. *Geophysical Research Letters*, **1992**, 19, 215-218	4.9	305
57	Atmospheric CO2: principal control knob governing Earth's temperature. *Science*, **2010**, 330, 356-9	33.3	282
56	Climate forcings in Goddard Institute for Space Studies SI2000 simulations. *Journal of Geophysical Research*, **2002**, 107, ACL 2-1		270
55	Sun and dust versus greenhouse gases: an assessment of their relative roles in global climate change. *Nature*, **1990**, 346, 713-719	50.4	254
54	Climate response times: dependence on climate sensitivity and ocean mixing. *Science*, **1985**, 229, 857-9	33.3	232
53	Climate simulations for 1880–2003 with GISS modelE. *Climate Dynamics*, **2007**, 29, 661-696	4.2	209
52	Climate forcing by stratospheric aerosols. *Geophysical Research Letters*, **1992**, 19, 1607-1610	4.9	194
51	Climate-chemical interactions and effects of changing atmospheric trace gases. *Reviews of Geophysics*, **1987**, 25, 1441	23.1	189

50	Long-term satellite record reveals likely recent aerosol trend. *Science*, **2007**, 315, 1543	33.3	187
49	Global atmospheric black carbon inferred from AERONET. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 6319-24	11.5	182
48	Dangerous human-made interference with climate: a GISS modelE study. *Atmospheric Chemistry and Physics*, **2007**, 7, 2287-2312	6.8	173
47	Greenhouse effect of trace gases, 1970-1980. *Geophysical Research Letters*, **1981**, 8, 1035-1038	4.9	159
46	Possible role of dust-induced regional warming in abrupt climate change during the last glacial period. *Nature*, **1996**, 384, 447-449	50.4	139
45	Forcings and chaos in interannual to decadal climate change. *Journal of Geophysical Research*, **1997**, 102, 25679-25720		138
44	The GISS Global Climate-Middle Atmosphere Model. Part I: Model Structure and Climatology. *Journals of the Atmospheric Sciences*, **1988**, 45, 329-370	2.1	137
43	Young peopleS burden: requirement of negative CO₂ emissions. *Earth System Dynamics*, **2017**, 8, 577-616	4.8	127
42	Past, present, and future of global aerosol climatologies derived from satellite observations: A perspective. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2007**, 106, 325-347	2.1	106
41	On the variability of the net longwave radiation at the ocean surface. *Reviews of Geophysics*, **1984**, 22, 177	23.1	103
40	GISS-E2.1: Configurations and Climatology. *Journal of Advances in Modeling Earth Systems*, **2020**, 12, e2019MS002025	7.1	98
39	Global, Seasonal Cloud Variations from Satellite Radiance Measurements. Part II. Cloud Properties and Radiative Effects. *Journal of Climate*, **1990**, 3, 1204-1253	4.4	93
38	Global, Seasonal Cloud Variations from Satellite Radiance Measurements. Part I: Sensitivity of Analysis. *Journal of Climate*, **1989**, 2, 419-458	4.4	88
37	Absorption within Inhomogeneous Clouds and Its Parameterization in General Circulation Models. *Journals of the Atmospheric Sciences*, **2000**, 57, 700-714	2.1	76
36	Global Two-Channel AVHRR Retrievals of Aerosol Properties over the Ocean for the Period ofNOAA-9Observations and Preliminary Retrievals UsingNOAA-7andNOAA-11Data. *Journals of the Atmospheric Sciences*, **2002**, 59, 262-278	2.1	71
35	Toward unified satellite climatology of aerosol properties.. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2010**, 111, 540-552	2.1	67
34	Simulations of the effect of a warmer climate on atmospheric humidity. *Nature*, **1991**, 351, 382-385	50.4	61
33	Scattering and radiative properties of semi-external versus external mixtures of different aerosol types. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2004**, 88, 139-147	2.1	58

32	Remote Sensing of Atmospheric Aerosols and Trace Gases by Means of Multifilter Rotating Shadowband Radiometer. Part I: Retrieval Algorithm. *Journals of the Atmospheric Sciences*, **2002**, 59, 524-543	2.1	50
31	Using single-scattering albedo spectral curvature to characterize East Asian aerosol mixtures. *Journal of Geophysical Research D: Atmospheres*, **2015**, 120, 2037-2052	4.4	40
30	The abundance and distribution of water vapor in the Jovian troposphere as inferred from Voyager IRIS observations. *Astrophysical Journal*, **1992**, 388, 648	4.7	34
29	The effect of black carbon on scattering and absorption of solar radiation by cloud droplets. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2002**, 74, 195-204	2.1	31
28	Application of spectral analysis techniques in the intercomparison of aerosol data: 1. An EOF approach to analyze the spatial-temporal variability of aerosol optical depth using multiple remote sensing data sets. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 8640-8648	4.4	30
27	Application of spectral analysis techniques in the intercomparison of aerosol data. Part II: Using maximum covariance analysis to effectively compare spatiotemporal variability of satellite and AERONET measured aerosol optical depth. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 153-166	4.4	23
26	The role of the stratosphere in climate change. *Surveys in Geophysics*, **1993**, 14, 133-165	7.6	23
25	Aerosol retrievals from channel-1 and -2 AVHRR radiances: Long-term trends updated and revisited. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2012**, 113, 1974-1980	2.1	22
24	Remote Sensing of Atmospheric Aerosols and Trace Gases by Means of Multifilter Rotating Shadowband Radiometer. Part II: Climatological Applications. *Journals of the Atmospheric Sciences*, **2002**, 59, 544-566	2.1	22
23	GLOBAL WARMING:Global Climate Data and Models: A Reconciliation **1998**, 281, 930-932		22
22	Application of spectral analysis techniques in the intercomparison of aerosol data: Part III. Using combined PCA to compare spatiotemporal variability of MODIS, MISR, and OMI aerosol optical depth. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 4017-4042	4.4	20
21	Fast atmosphere-ocean model runs with large changes in CO2. *Geophysical Research Letters*, **2013**, 40, 5787-5792	4.9	20
20	A new three-parameter cloud/aerosol particle size distribution based on the generalized inverse Gaussian density function. *Applied Mathematics and Computation*, **2000**, 116, 153-165	2.7	20
19	GCM Simulations of Volcanic Aerosol Forcing. Part I: Climate Changes Induced by Steady-State Perturbations. *Journal of Climate*, **1993**, 6, 1719-1742	4.4	20
18	Scaling Properties of Aerosol Optical Thickness Retrieved from Ground-Based Measurements. *Journals of the Atmospheric Sciences*, **2004**, 61, 1024-1039	2.1	17
17	Ortho-para-hydrogen equilibration on Jupiter. *Astrophysical Journal*, **1992**, 393, 357	4.7	16
16	GISS Model E2.2: A Climate Model Optimized for the Middle Atmosphere Model Structure, Climatology, Variability, and Climate Sensitivity. *Journal of Geophysical Research D: Atmospheres*, **2020**, 125, e2019JD032204	4.4	16
15	Reducing multisensor satellite monthly mean aerosol optical depth uncertainty: 1. Objective assessment of current AERONET locations. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 13609-13627	4.4	15

14	Potential effects of cloud optical thickness on climate warming. *Nature*, **1993**, 366, 670-672	50.4	14
13	Wonderland climate model. *Journal of Geophysical Research*, **1997**, 102, 6823-6830		13
12	Manifestations of morphology-dependent resonances in Mie scattering matrices. *Applied Mathematics and Computation*, **2000**, 116, 167-179	2.7	13
11	CMIP6 Historical Simulations (1850–2014) With GISS-E2.1. *Journal of Advances in Modeling Earth Systems*, **2021**, 13, e2019MS002034	7.1	12
10	Revisiting AVHRR tropospheric aerosol trends using principal component analysis. *Journal of Geophysical Research D: Atmospheres*, **2014**, 119, 3309-3320	4.4	8
9	Synergy of Satellite- and Ground-Based Aerosol Optical Depth Measurements Using an Ensemble Kalman Filter Approach. *Journal of Geophysical Research D: Atmospheres*, **2020**, 125, e2019JD031884	4.4	6
8	Spectral Signature of the Biosphere: NISTAR Finds It in Our Solar System From the Lagrangian L-1 Point. *Geophysical Research Letters*, **2019**, 46, 10679-10686	4.9	5
7	Reducing Multi-sensor Monthly Mean Aerosol Optical Depth Uncertainty Part II: Optimal Locations for Potential Ground Observation Deployments. *Journal of Geophysical Research D: Atmospheres*, **2017**, Volume 122, 3920-3928	4.4	3
6	Retrieval of volcanic and man-made stratospheric aerosols from orbital polarimetric measurements. *Optics Express*, **2019**, 27, A158-A170	3.3	3
5	Sun and water in the greenhouse. *Nature*, **1991**, 349, 467-467	50.4	2
4	An Intercomparison of the Spatiotemporal Variability of Satellite- and Ground-Based Cloud Datasets Using Spectral Analysis Techniques. *Journal of Climate*, **2015**, 28, 5716-5736	4.4	1
3	Sea-level effects due to long-term climate change as estimated from global climate models. *Geophysical Journal International*, **1986**, 87, 117-118	2.6	
2	Reply to Rasool. *Climatic Change*, **1983**, 5, 203-204	4.5	
1	An Efficient and Accurate Algorithm for Computing Grid-Averaged Solar Fluxes for Horizontally Inhomogeneous Clouds. *Journals of the Atmospheric Sciences*, **2021**, 78, 385-398	2.1	