

Mark Jacobson

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

231
papers

22,260
citations

72
h-index

148
g-index

246
ext. papers

26,157
ext. citations

8.7
avg, IF

7.73
L-index

#	Paper	IF	Citations
231	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	4.4	3330
230	Strong radiative heating due to the mixing state of black carbon in atmospheric aerosols. <i>Nature</i> , 2001 , 409, 695-7	50.4	1861
229	Review of solutions to global warming, air pollution, and energy security. <i>Energy and Environmental Science</i> , 2009 , 2, 148-173	35.4	1090
228	Providing all global energy with wind, water, and solar power, Part I: Technologies, energy resources, quantities and areas of infrastructure, and materials. <i>Energy Policy</i> , 2011 , 39, 1154-1169	7.2	893
227	Cleaning the air and improving health with hydrogen fuel-cell vehicles. <i>Science</i> , 2005 , 308, 1901-5	33.3	729
226	Control of fossil-fuel particulate black carbon and organic matter, possibly the most effective method of slowing global warming. <i>Journal of Geophysical Research</i> , 2002 , 107, ACH 16-1		492
225	Providing all global energy with wind, water, and solar power, Part II: Reliability, system and transmission costs, and policies. <i>Energy Policy</i> , 2011 , 39, 1170-1190	7.2	491
224	100% Clean and Renewable Wind, Water, and Sunlight All-Sector Energy Roadmaps for 139 Countries of the World. <i>Joule</i> , 2017 , 1, 108-121	27.8	488
223	Fundamentals of Atmospheric Modeling 2005 ,		393
222	A physically-based treatment of elemental carbon optics: Implications for global direct forcing of aerosols. <i>Geophysical Research Letters</i> , 2000 , 27, 217-220	4.9	388
221	Evaluation of global wind power. <i>Journal of Geophysical Research</i> , 2005 , 110,		375
220	Global direct radiative forcing due to multicomponent anthropogenic and natural aerosols. <i>Journal of Geophysical Research</i> , 2001 , 106, 1551-1568		371
219	Climate response of fossil fuel and biofuel soot, accounting for soot's feedback to snow and sea ice albedo and emissivity. <i>Journal of Geophysical Research</i> , 2004 , 109, n/a-n/a		295
218	Isolating nitrated and aromatic aerosols and nitrated aromatic gases as sources of ultraviolet light absorption. <i>Journal of Geophysical Research</i> , 1999 , 104, 3527-3542		277
217	Development and application of a new air pollution modeling systemII. Aerosol module structure and design. <i>Atmospheric Environment</i> , 1997 , 31, 131-144	5.3	256
216	100% clean and renewable wind, water, and sunlight (WWS) all-sector energy roadmaps for the 50 United States. <i>Energy and Environmental Science</i> , 2015 , 8, 2093-2117	35.4	247
215	Low-cost solution to the grid reliability problem with 100% penetration of intermittent wind, water, and solar for all purposes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 15060-5	11.5	236

214	Modeling coagulation among particles of different composition and size. <i>Atmospheric Environment</i> , 1994 , 28, 1327-1338	5.3	227
213	Effects of ethanol (E85) versus gasoline vehicles on cancer and mortality in the United States. <i>Environmental Science & Technology</i> , 2007 , 41, 4150-7	10.3	226
212	Short-term effects of controlling fossil-fuel soot, biofuel soot and gases, and methane on climate, Arctic ice, and air pollution health. <i>Journal of Geophysical Research</i> , 2010 , 115,		223
211	A path to sustainable energy by 2030. <i>Scientific American</i> , 2009 , 301, 58-65	0.5	208
210	Spatial and temporal distributions of U.S. winds and wind power at 80 m derived from measurements. <i>Journal of Geophysical Research</i> , 2003 , 108, n/a-n/a		198
209	SMVGEAR: A sparse-matrix, vectorized gear code for atmospheric models. <i>Atmospheric Environment</i> , 1994 , 28, 273-284	5.3	194
208	A comparative review of inorganic aerosol thermodynamic equilibrium modules: similarities, differences, and their likely causes. <i>Atmospheric Environment</i> , 2000 , 34, 117-137	5.3	193
207	Studying the effects of aerosols on vertical photolysis rate coefficient and temperature profiles over an urban airshed. <i>Journal of Geophysical Research</i> , 1998 , 103, 10593-10604		187
206	Studying the effects of calcium and magnesium on size-distributed nitrate and ammonium with EQUISOLV II. <i>Atmospheric Environment</i> , 1999 , 33, 3635-3649	5.3	186
205	Worldwide health effects of the Fukushima Daiichi nuclear accident. <i>Energy and Environmental Science</i> , 2012 , 5, 8743	35.4	184
204	Development and application of a new air pollution modeling system [Part III. Aerosol-phase simulations. <i>Atmospheric Environment</i> , 1997 , 31, 587-608	5.3	173
203	Simulation of Aerosol Dynamics: A Comparative Review of Algorithms Used in Air Quality Models. <i>Aerosol Science and Technology</i> , 1999 , 31, 487-514	3.4	169
202	World estimates of PV optimal tilt angles and ratios of sunlight incident upon tilted and tracked PV panels relative to horizontal panels. <i>Solar Energy</i> , 2018 , 169, 55-66	6.8	163
201	Development and application of the Model of Aerosol Dynamics, Reaction, Ionization, and Dissolution (MADRID). <i>Journal of Geophysical Research</i> , 2004 , 109,		158
200	Supplying Baseload Power and Reducing Transmission Requirements by Interconnecting Wind Farms. <i>Journal of Applied Meteorology and Climatology</i> , 2007 , 46, 1701-1717	2.7	157
199	Analysis of emission data from global commercial aviation: 2004 and 2006. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 6391-6408	6.8	147
198	Simulating equilibrium within aerosols and nonequilibrium between gases and aerosols. <i>Journal of Geophysical Research</i> , 1996 , 101, 9079-9091		142
197	Analysis of aerosol interactions with numerical techniques for solving coagulation, nucleation, condensation, dissolution, and reversible chemistry among multiple size distributions. <i>Journal of Geophysical Research</i> , 2002 , 107, AAC 2-1		139

196	Effects of biomass burning on climate, accounting for heat and moisture fluxes, black and brown carbon, and cloud absorption effects. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014 , 119, 8980-9002	4.4	137
195	A Monte Carlo approach to generator portfolio planning and carbon emissions assessments of systems with large penetrations of variable renewables. <i>Renewable Energy</i> , 2011 , 36, 2278-2286	8.1	137
194	Atmospheric Pollution: History, Science, and Regulation 2002 ,		136
193	Features of a fully renewable US electricity system: Optimized mixes of wind and solar PV and transmission grid extensions. <i>Energy</i> , 2014 , 72, 443-458	7.9	134
192	Climate change. Recent reductions in China's greenhouse gas emissions. <i>Science</i> , 2001 , 294, 1835-7	33.3	134
191	Matching demand with supply at low cost in 139 countries among 20 world regions with 100% intermittent wind, water, and sunlight (WWS) for all purposes. <i>Renewable Energy</i> , 2018 , 123, 236-248	8.1	133
190	GATOR-GCMM: A global- through urban-scale air pollution and weather forecast model: 1. Model design and treatment of subgrid soil, vegetation, roads, rooftops, water, sea ice, and snow. <i>Journal of Geophysical Research</i> , 2001 , 106, 5385-5401		133
189	Evolution of nanoparticle size and mixing state near the point of emission. <i>Atmospheric Environment</i> , 2004 , 38, 1839-1850	5.3	132
188	Power output variations of co-located offshore wind turbines and wave energy converters in California. <i>Renewable Energy</i> , 2010 , 35, 2781-2791	8.1	128
187	California offshore wind energy potential. <i>Renewable Energy</i> , 2010 , 35, 1244-1254	8.1	126
186	A model for studying the composition and chemical effects of stratospheric aerosols. <i>Journal of Geophysical Research</i> , 1994 , 99, 12897		123
185	Switching to a U.S. hydrogen fuel cell vehicle fleet: The resultant change in emissions, energy use, and greenhouse gases. <i>Journal of Power Sources</i> , 2005 , 150, 150-181	8.9	122
184	Investigating cloud absorption effects: Global absorption properties of black carbon, tar balls, and soil dust in clouds and aerosols. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		121
183	Effects of Urban Surfaces and White Roofs on Global and Regional Climate. <i>Journal of Climate</i> , 2012 , 25, 1028-1044	4.4	116
182	Effects of externally-through-internally-mixed soot inclusions within clouds and precipitation on global climate. <i>Journal of Physical Chemistry A</i> , 2006 , 110, 6860-73	2.8	115
181	Examining the feasibility of converting New York State's all-purpose energy infrastructure to one using wind, water, and sunlight. <i>Energy Policy</i> , 2013 , 57, 585-601	7.2	111
180	A study of gas-aerosol equilibrium and aerosol pH in the remote marine boundary layer during the First Aerosol Characterization Experiment (ACE 1). <i>Journal of Geophysical Research</i> , 2000 , 105, 17325-17340		108
179	Modification of aerosol mass and size distribution due to aqueous-phase SO ₂ oxidation in clouds: Comparisons of several models. <i>Journal of Geophysical Research</i> , 2003 , 108,		104

178	Simulating Condensational Growth, Evaporation, and Coagulation of Aerosols Using a Combined Moving and Stationary Size Grid. <i>Aerosol Science and Technology</i> , 1995 , 22, 73-92	3.4	103
177	On the causal link between carbon dioxide and air pollution mortality. <i>Geophysical Research Letters</i> , 2008 , 35,	4.9	100
176	Flexibility mechanisms and pathways to a highly renewable US electricity future. <i>Energy</i> , 2016 , 101, 65-78.	7.9	98
175	Saturation wind power potential and its implications for wind energy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 15679-84	11.5	96
174	Wind reduction by aerosol particles. <i>Geophysical Research Letters</i> , 2006 , 33,	4.9	94
173	Changing trends in sulfur emissions in Asia: implications for acid deposition, air pollution, and climate. <i>Environmental Science & Technology</i> , 2002 , 36, 4707-13	10.3	93
172	Influence of future anthropogenic emissions on climate, natural emissions, and air quality. <i>Journal of Geophysical Research</i> , 2009 , 114,		91
171	Estimates of atmospheric dry deposition and associated input of nutrients to Gulf of Aqaba seawater. <i>Journal of Geophysical Research</i> , 2007 , 112,		90
170	Development and application of a new air pollution modeling system-part I: Gas-phase simulations. <i>Atmospheric Environment</i> , 1996 , 30, 1939-1963	5.3	86
169	Nitric acid scavenging by mineral and biomass burning aerosols. <i>Geophysical Research Letters</i> , 1998 , 25, 4185-4188	4.9	85
168	Numerical Techniques to Solve Condensational and Dissolutional Growth Equations When Growth is Coupled to Reversible Reactions. <i>Aerosol Science and Technology</i> , 1997 , 27, 491-498	3.4	83
167	Computation of global photochemistry with SMVGEAR II. <i>Atmospheric Environment</i> , 1995 , 29, 2541-2546.	5.3	83
166	Development of mixed-phase clouds from multiple aerosol size distributions and the effect of the clouds on aerosol removal. <i>Journal of Geophysical Research</i> , 2003 , 108,		82
165	Studying ocean acidification with conservative, stable numerical schemes for nonequilibrium air-ocean exchange and ocean equilibrium chemistry. <i>Journal of Geophysical Research</i> , 2005 , 110,		78
164	The Potential of Intermittent Renewables to Meet Electric Power Demand: Current Methods and Emerging Analytical Techniques. <i>Proceedings of the IEEE</i> , 2012 , 100, 322-334	14.3	74
163	Energy. Exploiting wind versus coal. <i>Science</i> , 2001 , 293, 1438	33.3	74
162	A study of sulfur dioxide oxidation pathways over a range of liquid water contents, pH values, and temperatures. <i>Journal of Geophysical Research</i> , 1999 , 104, 13749-13769		73
161	Enhancement of local air pollution by urban CO(2) domes. <i>Environmental Science & Technology</i> , 2010 , 44, 2497-502	10.3	72

160	Probing into regional O ₃ and particulate matter pollution in the United States: 2. An examination of formation mechanisms through a process analysis technique and sensitivity study. <i>Journal of Geophysical Research</i> , 2009 , 114,		72
159	Probing into regional ozone and particulate matter pollution in the United States: 1. A 1 year CMAQ simulation and evaluation using surface and satellite data. <i>Journal of Geophysical Research</i> , 2009 , 114,		71
158	Examining feedbacks of aerosols to urban climate with a model that treats 3-D clouds with aerosol inclusions. <i>Journal of Geophysical Research</i> , 2007 , 112,		71
157	Is the size distribution of urban aerosols determined by thermodynamic equilibrium?. <i>Atmospheric Environment</i> , 2002 , 36, 2349-2365	5.3	71
156	The Short-Term Cooling but Long-Term Global Warming Due to Biomass Burning. <i>Journal of Climate</i> , 2004 , 17, 2909-2926	4.4	68
155	Optimizing investments in coupled offshore wind -electrolytic hydrogen storage systems in Denmark. <i>Journal of Power Sources</i> , 2017 , 359, 186-197	8.9	66
154	A Solution to the Problem of Nonequilibrium Acid/Base Gas-Particle Transfer at Long Time Step. <i>Aerosol Science and Technology</i> , 2005 , 39, 92-103	3.4	64
153	Effects of Soil Moisture on Temperatures, Winds, and Pollutant Concentrations in Los Angeles. <i>Journal of Applied Meteorology and Climatology</i> , 1999 , 38, 607-616		63
152	How green is blue hydrogen?. <i>Energy Science and Engineering</i> , 2021 , 9, 1676	3.4	63
151	Impact of Aviation on Climate: FAA's Aviation Climate Change Research Initiative (ACCRI) Phase II. <i>Bulletin of the American Meteorological Society</i> , 2016 , 97, 561-583	6.1	62
150	Impacts of Green New Deal Energy Plans on Grid Stability, Costs, Jobs, Health, and Climate in 143 Countries. <i>One Earth</i> , 2019 , 1, 449-463	8.1	62
149	Enhanced coagulation due to evaporation and its effect on nanoparticle evolution. <i>Environmental Science & Technology</i> , 2005 , 39, 9486-92	10.3	57
148	Improvement of SMVGEAR II on vector and scalar machines through absolute error tolerance control. <i>Atmospheric Environment</i> , 1998 , 32, 791-796	5.3	56
147	GATOR-GCMM: 2. A study of daytime and nighttime ozone layers aloft, ozone in national parks, and weather during the SARMAP field campaign. <i>Journal of Geophysical Research</i> , 2001 , 106, 5403-5420		56
146	Effects of subgrid segregation on ozone production efficiency in a chemical model. <i>Atmospheric Environment</i> , 2000 , 34, 2975-2982	5.3	55
145	Measurements of aerosol chemistry during new particle formation events at a remote rural mountain site. <i>Environmental Science & Technology</i> , 2011 , 45, 8208-16	10.3	52
144	Large CO ₂ reductions via offshore wind power matched to inherent storage in energy end-uses. <i>Geophysical Research Letters</i> , 2007 , 34,	4.9	52
143	100% clean and renewable Wind, Water, and Sunlight (WWS) all-sector energy roadmaps for 53 towns and cities in North America. <i>Sustainable Cities and Society</i> , 2018 , 42, 22-37	10.1	50

142	Temporal and spatial tradeoffs in power system modeling with assumptions about storage: An application of the POWER model. <i>Energy</i> , 2016 , 117, 198-213	7.9	46
141	A roadmap for repowering California for all purposes with wind, water, and sunlight. <i>Energy</i> , 2014 , 73, 875-889	7.9	46
140	Microphysical and radiative effects of aerosols on warm clouds during the Amazon biomass burning season as observed by MODIS: impacts of water vapor and land cover. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 3021-3036	6.8	46
139	Modification Of The Standard α -Equation For The Stable Abl Through Enforced Consistency With Monin-Obukhov Similarity Theory. <i>Boundary-Layer Meteorology</i> , 2003 , 106, 383-410	3.4	45
138	How much wind power potential does europe have? Examining european wind power potential with an enhanced socio-technical atlas. <i>Energy Policy</i> , 2019 , 132, 1092-1100	7.2	44
137	Summary of the cloud chemistry modeling intercomparison: Photochemical box model simulation. <i>Journal of Geophysical Research</i> , 2003 , 108,		43
136	Roadmaps to Transition Countries to 100% Clean, Renewable Energy for All Purposes to Curtail Global Warming, Air Pollution, and Energy Risk. <i>Earth's Future</i> , 2017 , 5, 948-952	7.9	41
135	The United States can keep the grid stable at low cost with 100% clean, renewable energy in all sectors despite inaccurate claims. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, E5021-E5023	11.5	39
134	Comparing results from a physical model with satellite and in situ observations to determine whether biomass burning aerosols over the Amazon brighten or burn off clouds. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		38
133	US East Coast offshore wind energy resources and their relationship to peak-time electricity demand. <i>Wind Energy</i> , 2013 , 16, 977-997	3.4	37
132	A comparative study of nucleation parameterizations: 1. Examination and evaluation of the formulations. <i>Journal of Geophysical Research</i> , 2010 , 115,		37
131	Examining the temperature dependence of ethanol (E85) versus gasoline emissions on air pollution with a largely-explicit chemical mechanism. <i>Atmospheric Environment</i> , 2010 , 44, 1192-1199	5.3	37
130	Coupling and evaluating gas/particle mass transfer treatments for aerosol simulation and forecast. <i>Journal of Geophysical Research</i> , 2008 , 113,		37
129	A Refined Method of Parameterizing Absorption Coefficients among Multiple Gases Simultaneously from Line-by-Line Data. <i>Journals of the Atmospheric Sciences</i> , 2005 , 62, 506-517	2.1	37
128	Comparison of a 4000-reaction chemical mechanism with the carbon bond IV and an adjusted carbon bond IV-EX mechanism using SMVGEAR II. <i>Atmospheric Environment</i> , 2000 , 34, 3015-3026	5.3	37
127	The health and climate impacts of carbon capture and direct air capture. <i>Energy and Environmental Science</i> , 2019 , 12, 3567-3574	35.4	37
126	Ring of impact from the mega-urbanization of Beijing between 2000 and 2009. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015 , 120, 5740-5756	4.4	35
125	Correction to Control of fossil-fuel particulate black carbon and organic matter, possibly the most effective method of slowing global warming. <i>Journal of Geophysical Research</i> , 2005 , 110, n/a-n/a		35

124	The carbon abatement potential of high penetration intermittent renewables. <i>Energy and Environmental Science</i> , 2012 , 5, 6592	35.4	34
123	Renewable build-up pathways for the US: Generation costs are not system costs. <i>Energy</i> , 2015 , 81, 437-445	4.5	31
122	Effects of wind-powered hydrogen fuel cell vehicles on stratospheric ozone and global climate. <i>Geophysical Research Letters</i> , 2008 , 35,	4.9	31
121	The effects of aircraft on climate and pollution. Part II: 20-year impacts of exhaust from all commercial aircraft worldwide treated individually at the subgrid scale. <i>Faraday Discussions</i> , 2013 , 165, 369-82	3.6	29
120	The effects of aircraft on climate and pollution. Part I: Numerical methods for treating the subgrid evolution of discrete size- and composition-resolved contrails from all commercial flights worldwide. <i>Journal of Computational Physics</i> , 2011 , 230, 5115-5132	4.1	29
119	Size distributions of ionic aerosols measured at Waliguan Observatory: Implication for nitrate gas-to-particle transfer processes in the free troposphere. <i>Journal of Geophysical Research</i> , 2003 , 108,		29
118	Optimal operational strategy for an offgrid hybrid hydrogen/electricity refueling station powered by solar photovoltaics. <i>Journal of Power Sources</i> , 2020 , 451, 227810	8.9	28
117	Geographical and seasonal variability of the global practical wind resources. <i>Applied Geography</i> , 2013 , 45, 119-130	4.4	28
116	A comparative study of nucleation parameterizations: 2. Three-dimensional model application and evaluation. <i>Journal of Geophysical Research</i> , 2010 , 115,		28
115	The effect on photochemical smog of converting the U.S. fleet of gasoline vehicles to modern diesel vehicles. <i>Geophysical Research Letters</i> , 2004 , 31,	4.9	28
114	Taming hurricanes with arrays of offshore wind turbines. <i>Nature Climate Change</i> , 2014 , 4, 195-200	21.4	27
113	Hygroscopic growth of common organic aerosol solutes, including humic substances, as derived from water activity measurements. <i>Journal of Geophysical Research</i> , 2011 , 116, n/a-n/a		27
112	Point and column aerosol radiative closure during ACE 1: Effects of particle shape and size. <i>Journal of Geophysical Research</i> , 2003 , 108, n/a-n/a		26
111	A timescale investigation of volatile chemical retention during hydrometeor freezing: Nonrime freezing and dry growth riming without spreading. <i>Journal of Geophysical Research</i> , 2003 , 108,		25
110	Recent shift from forest to savanna burning in the Amazon Basin observed by satellite. <i>Environmental Research Letters</i> , 2012 , 7, 024020	6.2	24
109	A 100% wind, water, sunlight (WWS) all-sector energy plan for Washington State. <i>Renewable Energy</i> , 2016 , 86, 75-88	8.1	23
108	Comparison of low-carbon pathways for California. <i>Climatic Change</i> , 2015 , 131, 545-557	4.5	23
107	Comment on "Radiative absorption enhancements due to the mixing state of atmospheric black carbon". <i>Science</i> , 2013 , 339, 393	33.3	23

106	Large eddy simulations of contrail development: Sensitivity to initial and ambient conditions over first twenty minutes. <i>Journal of Geophysical Research</i> , 2011 , 116,		23
105	Investigating the Effect of Large Wind Farms on Energy in the Atmosphere. <i>Energies</i> , 2009 , 2, 816-838	3.1	23
104	Vertical mixing of commercial aviation emissions from cruise altitude to the surface. <i>Journal of Geophysical Research</i> , 2011 , 116,		22
103	Effects of aggregating electric load in the United States. <i>Energy Policy</i> , 2012 , 46, 399-416	7.2	21
102	Where is the ideal location for a US East Coast offshore grid?. <i>Geophysical Research Letters</i> , 2012 , 39, n/a-n/a	4.9	21
101	Reducing Offshore Transmission Requirements by Combining Offshore Wind and Wave Farms. <i>IEEE Journal of Oceanic Engineering</i> , 2011 , 36, 552-561	3.3	21
100	Data investigation of installed and output power densities of onshore and offshore wind turbines worldwide. <i>Energy for Sustainable Development</i> , 2021 , 60, 40-51	5.4	20
99	Meeting the world's energy needs entirely with wind, water, and solar power. <i>Bulletin of the Atomic Scientists</i> , 2013 , 69, 30-40	1.6	19
98	Comparison of model estimates of the effects of aviation emissions on atmospheric ozone and methane. <i>Geophysical Research Letters</i> , 2013 , 40, 6004-6009	4.9	19
97	Co-optimized trading of hybrid wind power plant with retired EV batteries in energy and reserve markets under uncertainties. <i>International Journal of Electrical Power and Energy Systems</i> , 2020 , 117, 105631	5.1	19
96	Ocean Acidification Science Needs for Natural Resource Managers of the North American West Coast. <i>Oceanography</i> , 2015 , 25, 170-181	2.3	18
95	Chemical retention during dry growth riming. <i>Journal of Geophysical Research</i> , 2004 , 109,		18
94	Optimizing the layout of onshore wind farms to minimize noise. <i>Applied Energy</i> , 2020 , 267, 114896	10.7	17
93	Fine scale modeling of wintertime aerosol mass, number, and size distributions in central California. <i>Journal of Geophysical Research</i> , 2010 , 115,		17
92	Parameterization of subgrid plume dilution for use in large-scale atmospheric simulations. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 2551-2560	6.8	17
91	A mass, energy, vorticity, and potential enstrophy conserving lateral fluid and boundary scheme for the shallow water equations. <i>Journal of Computational Physics</i> , 2009 , 228, 1-32	4.1	16
90	Analysis of gas-aerosol partitioning in the Arctic: Comparison of size-resolved equilibrium model results with field data. <i>Journal of Geophysical Research</i> , 2000 , 105, 19891-19903		15
89	Global-through-urban nested three-dimensional simulation of air pollution with a 13,600-reaction photochemical mechanism. <i>Journal of Geophysical Research</i> , 2010 , 115,		14

88	Short-term effects of agriculture on air pollution and climate in California. <i>Journal of Geophysical Research</i> , 2008 , 113,		14
87	100% Clean, Renewable Energy and Storage for Everything 2020 ,		14
86	Response to A critique of Jacobson and Delucchi's proposals for a world renewable energy supply by Ted Trainer. <i>Energy Policy</i> , 2012 , 44, 482-484	7.2	13
85	Measuring and modeling the hygroscopic growth of two humic substances in mixed aerosol particles of atmospheric relevance. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 8973-8989	6.8	13
84	An intercomparative study of the effects of aircraft emissions on surface air quality. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017 , 122, 8325-8344	4.4	12
83	Exploring wind energy potential off the California coast. <i>Geophysical Research Letters</i> , 2008 , 35,	4.9	12
82	Short-Term Impacts of the Megaurbanizations of New Delhi and Los Angeles Between 2000 and 2009. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019 , 124, 35-56	4.4	11
81	Examining the impacts of ethanol (E85) versus gasoline photochemical production of smog in a fog using near-explicit gas- and aqueous-chemistry mechanisms. <i>Environmental Research Letters</i> , 2012 , 7, 045901	6.2	11
80	The Santa Cruz Eddy. Part I: Observations and Statistics. <i>Monthly Weather Review</i> , 2005 , 133, 767-782	2.4	11
79	On the correlation between building heat demand and wind energy supply and how it helps to avoid blackouts. <i>Smart Energy</i> , 2021 , 1, 100009		11
78	Comment on "Prevented mortality and greenhouse gas emissions from historical and projected nuclear power". <i>Environmental Science & Technology</i> , 2013 , 47, 6715-7	10.3	10
77	A numerical model of the partitioning of trace chemical solutes during drop freezing. <i>Journal of Atmospheric Chemistry</i> , 2006 , 53, 13-42	3.2	10
76	The effects of rerouting aircraft around the arctic circle on arctic and global climate. <i>Climatic Change</i> , 2012 , 115, 709-724	4.5	9
75	Response to Trainer's second commentary on a plan to power the world with wind, water, and solar power. <i>Energy Policy</i> , 2013 , 57, 641-643	7.2	9
74	Numerical Solution to Drop Coalescence/Breakup with a Volume-Conserving, Positive-Definite, and Unconditionally Stable Scheme. <i>Journals of the Atmospheric Sciences</i> , 2011 , 68, 334-346	2.1	9
73	The cost of grid stability with 100 % clean, renewable energy for all purposes when countries are isolated versus interconnected. <i>Renewable Energy</i> , 2021 , 179, 1065-1075	8.1	9
72	Importance of composition and hygroscopicity of BC particles to the effect of BC mitigation on cloud properties: Application to California conditions. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		7
71	Optimizing offshore transmission links for marine renewable energy farms 2010 ,		7

70	Reply to comment by J. Feichter et al. on Control of fossil-fuel particulate black carbon and organic matter, possibly the most effective method of slowing global warming. <i>Journal of Geophysical Research</i> , 2003 , 108, n/a-n/a		7
69	Transitioning All Energy in 74 Metropolitan Areas, Including 30 Megacities, to 100% Clean and Renewable Wind, Water, and Sunlight (WWS). <i>Energies</i> , 2020 , 13, 4934	3.1	7
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