

Ariel F Stein

List of Publications by Year in descending order

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73
papers

7,587
citations

159585

30
h-index

82547

72
g-index

78
all docs

78
docs citations

78
times ranked

9085
citing authors

#	ARTICLE	IF	CITATIONS
1	NOAA's HYSPLIT Atmospheric Transport and Dispersion Modeling System. Bulletin of the American Meteorological Society, 2015, 96, 2059-2077.	3.3	3,982
2	Real-time Environmental Applications and Display sYstem: READY. Environmental Modelling and Software, 2017, 95, 210-228.	4.5	1,097
3	Global and regional trends of atmospheric sulfur. Scientific Reports, 2019, 9, 953.	3.3	166
4	Description and Verification of the NOAA Smoke Forecasting System: The 2007 Fire Season. Weather and Forecasting, 2009, 24, 361-378.	1.4	123
5	Microplastics and nanoplastics in the marine-atmosphere environment. Nature Reviews Earth & Environment, 2022, 3, 393-405.	29.7	121
6	Does dust from Patagonia reach the sub-Antarctic Atlantic Ocean?. Geophysical Research Letters, 2007, 34, .	4.0	116
7	Recent increase of surface particulate matter concentrations in the Seoul Metropolitan Area, Korea. Scientific Reports, 2017, 7, 4710.	3.3	111
8	Determination of the contribution of northern Africa dust source areas to PM10 concentrations over the central Iberian Peninsula using the Hybrid Single-Particle Lagrangian Integrated Trajectory model (HYSPLIT) model. Journal of Geophysical Research, 2006, 111, .	3.3	107
9	A hybrid modeling approach to resolve pollutant concentrations in an urban area. Atmospheric Environment, 2007, 41, 9410-9426.	4.1	85
10	Ground/satellite observations and atmospheric modeling of dust storms originating in the high Puna-Altiplano deserts (South America): Implications for the interpretation of paleoclimatic archives. Journal of Geophysical Research D: Atmospheres, 2013, 118, 3817-3831.	3.3	81
11	Evaluation of Lagrangian Particle Dispersion Models with Measurements from Controlled Tracer Releases. Journal of Applied Meteorology and Climatology, 2013, 52, 2623-2637.	1.5	70
12	A combined observational and modeling approach to study modern dust transport from the Patagonia desert to East Antarctica. Atmospheric Chemistry and Physics, 2010, 10, 8287-8303.	4.9	67
13	Global sand and dust storms in 2008: Observation and HYSPLIT model verification. Atmospheric Environment, 2011, 45, 6368-6381.	4.1	67
14	Size distribution and concentrations of heavy metals in atmospheric aerosols originating from industrial emissions as predicted by the HYSPLIT model. Atmospheric Environment, 2013, 71, 234-244.	4.1	67
15	Modeling and evaluation of urban pollution events of atmospheric heavy metals from a large Cu-smelter. Science of the Total Environment, 2016, 539, 17-25.	8.0	65
16	Source apportionment for African dust outbreaks over the Western Mediterranean using the HYSPLIT model. Atmospheric Research, 2011, 99, 518-527.	4.1	63
17	An empirically derived emission algorithm for wind-blown dust. Journal of Geophysical Research, 2010, 115, .	3.3	55
18	The New England Air Quality Forecasting Pilot Program: Development of an Evaluation Protocol and Performance Benchmark. Journal of the Air and Waste Management Association, 2005, 55, 1782-1796.	1.9	50

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19	Verification of the NOAA Smoke Forecasting System: Model Sensitivity to the Injection Height. Weather and Forecasting, 2009, 24, 379-394.	1.4	50
20	Improving volcanic ash predictions with the HYSPLIT dispersion model by assimilating MODIS satellite retrievals. Atmospheric Chemistry and Physics, 2017, 17, 2865-2879.	4.9	43
21	Using PM10 geochemical maps for defining the origin of atmospheric pollution in Andalusia (Southern) Tj ETQq1 1 0,784314,rgBT /Ovel	4.1	40
22	Street level air pollution in Córdoba City, Argentina. Atmospheric Environment, 1996, 30, 3491-3495.	4.1	38
23	Source term estimation using air concentration measurements and a Lagrangian dispersion model “Experiments with pseudo and real cesium-137 observations from the Fukushima nuclear accident. Atmospheric Environment, 2015, 106, 241-251.	4.1	38
24	Levels and chemical composition of PM in a city near a large Cu-smelter in Spain. Journal of Environmental Monitoring, 2011, 13, 1276.	2.1	37
25	Potential Use of Transport and Dispersion Model Ensembles for Forecasting Applications. Weather and Forecasting, 2015, 30, 639-655.	1.4	37
26	Emissions from Pre-Hispanic Metallurgy in the South American Atmosphere. PLoS ONE, 2014, 9, e111315.	2.5	37
27	International challenge to predict the impact of radioxenon releases from medical isotope production on a comprehensive nuclear test ban treaty sampling station. Journal of Environmental Radioactivity, 2016, 157, 41-51.	1.7	35
28	Modeling and surface observations of arsenic dispersion from a large Cu-smelter in southwestern Europe. Atmospheric Environment, 2012, 49, 114-122.	4.1	34
29	Incorporation of detailed chemistry into a three-dimensional Lagrangian-Eulerian hybrid model: application to regional tropospheric ozone. Atmospheric Environment, 2000, 34, 4361-4372.	4.1	33
30	Large Salt Dust Storms Follow a 30-Year Rainfall Cycle in the Mar Chiquita Lake (Córdoba, Argentina). PLoS ONE, 2016, 11, e0156672.	2.5	33
31	U.S. emissions of HFC-134a derived for 2008-2012 from an extensive flask-air sampling network. Journal of Geophysical Research D: Atmospheres, 2015, 120, 801-825.	3.3	30
32	Inline Coupling of WRF-HYSPLIT: Model Development and Evaluation Using Tracer Experiments. Journal of Applied Meteorology and Climatology, 2015, 54, 1162-1176.	1.5	28
33	International challenge to model the long-range transport of radioxenon released from medical isotope production to six Comprehensive Nuclear-Test-Ban Treaty monitoring stations. Journal of Environmental Radioactivity, 2018, 192, 667-686.	1.7	27
34	A backward-time stochastic Lagrangian air quality model. Atmospheric Environment, 2012, 54, 373-386.	4.1	26
35	Wintertime CO ₂ , CH ₄ , and CO Emissions Estimation for the Washington, DC-Baltimore Metropolitan Area Using an Inverse Modeling Technique. Environmental Science & Technology, 2020, 54, 2606-2614.	10.0	25
36	Intercomparison of atmospheric trace gas dispersion models: Barnett Shale case study. Atmospheric Chemistry and Physics, 2019, 19, 2561-2576.	4.9	24

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37	Modeling PM ₁₀ Originating from Dust Intrusions in the Southern Iberian Peninsula Using HYSPLIT. Weather and Forecasting, 2011, 26, 236-242.	1.4	23
38	Sensitivities of sulfate aerosol formation and oxidation pathways on the chemical mechanism employed in simulations. Atmospheric Chemistry and Physics, 2012, 12, 8567-8574.	4.9	22
39	The sensitivity of sulfur wet deposition to atmospheric oxidants. Atmospheric Environment, 2000, 34, 1681-1690.	4.1	21
40	Using measured and modeled indicators to assess ozone-NO _x -VOC sensitivity in a western Mediterranean coastal environment. Atmospheric Environment, 2005, 39, 7167-7180.	4.1	21
41	Evaluation of the use of photochemical indicators to assess ozone-NO _x -VOC sensitivity in the Southwestern Iberian Peninsula. Journal of Atmospheric Chemistry, 2009, 63, 73-91.	3.2	21
42	Ensemble PM _{2.5} Forecasting During the 2018 Camp Fire Event Using the HYSPLIT Transport and Dispersion Model. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032768.	3.3	21
43	Impacts of the COVID-19 economic slowdown on ozone pollution in the U.S.. Atmospheric Environment, 2021, 264, 118713.	4.1	20
44	Soluble iron inputs to the Southern Ocean through recent andesitic to rhyolitic volcanic ash eruptions from the Patagonian Andes. Global Biogeochemical Cycles, 2015, 29, 1125-1144.	4.9	19
45	Multi year aerosol characterization in the tropical Andes and in adjacent Amazonia using AERONET measurements. Atmospheric Environment, 2017, 166, 412-432.	4.1	19
46	Air quality impacts of the 2018 Mt. Kilauea Volcano eruption in Hawaii: A regional chemical transport model study with satellite-constrained emissions. Atmospheric Environment, 2020, 237, 117648.	4.1	18
47	Empirical evidence for the low- and high-NO _x photochemical regimes of sulfate and nitrate formation. Atmospheric Environment, 2003, 37, 3615-3625.	4.1	17
48	Dispersion simulations using HYSPLIT for the Sagebrush Tracer Experiment. Atmospheric Environment, 2018, 186, 18-31.	4.1	16
49	Chemical indicators of sulfate sensitivity to nitrogen oxides and volatile organic compounds. Journal of Geophysical Research, 2002, 107, ACH 13-1.	3.3	15
50	Photochemical model evaluation of the surface ozone impact of a power plant in a heavily industrialized area of southwestern Spain. Journal of Environmental Management, 2010, 91, 662-676.	7.8	15
51	A Long-Term WRF Meteorological Archive for Dispersion Simulations: Application to Controlled Tracer Experiments. Journal of Applied Meteorology and Climatology, 2017, 56, 2203-2220.	1.5	15
52	Incorporating features from the Stochastic Time-Inverted Lagrangian Transport (STILT) model into the Hybrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT) model: a unified dispersion model for time-forward and time-reversed applications. Journal of Applied Meteorology and Climatology, 2021,...	1.5	14
53	Inverse modeling of fire emissions constrained by smoke plume transport using HYSPLIT dispersion model and geostationary satellite observations. Atmospheric Chemistry and Physics, 2020, 20, 10259-10277.	4.9	14
54	Identifying the causes of differences in ozone production from the CB05 and CBMIV chemical mechanisms. Geoscientific Model Development, 2012, 5, 257-268.	3.6	13

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55	The impact of biogenic VOC emissions on photochemical ozone formation during a high ozone pollution episode in the Iberian Peninsula in the 2003 summer season. <i>Advances in Science and Research</i> , 2008, 2, 9-15.	1.0	13
56	SO ₂ effect on secondary organic aerosol from a mixture of anthropogenic VOCs: experimental and modelled results. <i>International Journal of Environment and Pollution</i> , 2012, 50, 224.	0.2	12
57	Space-Borne Monitoring of NO _x Emissions from Cement Kilns in South Korea. <i>Atmosphere</i> , 2020, 11, 881.	2.3	12
58	Quantitative assessment of changes in surface particulate matter concentrations and precursor emissions over China during the COVID-19 pandemic and their implications for Chinese economic activity. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 10065-10080.	4.9	12
59	Measurements and simulation of speciated PM _{2.5} in south-west Europe. <i>Atmospheric Environment</i> , 2013, 77, 36-50.	4.1	11
60	Evaluation of CMAQ parameterizations for SOA formation from the photooxidation of α -pinene and limonene against smog chamber data. <i>Atmospheric Environment</i> , 2012, 56, 236-245.	4.1	10
61	Black Carbon aerosol measurements and simulation in two cities in south-west Spain. <i>Atmospheric Environment</i> , 2016, 126, 55-65.	4.1	10
62	The evaluation of mixing methods in HYSPLIT using measurements from controlled tracer experiments. <i>Atmospheric Environment</i> , 2019, 219, 117043.	4.1	10
63	Fluid Modeling and the Evaluation of Inherent Uncertainty. <i>Journal of Applied Meteorology and Climatology</i> , 2001, 40, 1769-1774.	1.7	8
64	Development and evaluation of an advanced National Air Quality Forecasting Capability using the NOAA Global Forecast System version 16. <i>Geoscientific Model Development</i> , 2022, 15, 3281-3313.	3.6	8
65	A Modeling Study of the Impact of a Power Plant on Ground-Level Ozone in Relation to its Location: Southwestern Spain as a Case Study. <i>Water, Air, and Soil Pollution</i> , 2010, 209, 61-79.	2.4	7
66	Weak-constraint inverse modeling using HYSPLIT-4 Lagrangian dispersion model and Cross-Appalachian Tracer Experiment (CAPTEX) observations â€” effect of including model uncertainties on source term estimation. <i>Geoscientific Model Development</i> , 2018, 11, 5135-5148.	3.6	7
67	Sensitivity analysis of surface ozone to modified initial and boundary conditions in both rural and industrial zones. <i>Advances in Science and Research</i> , 2008, 2, 113-118.	1.0	6
68	Experimental data on SOA formation from mixtures of anthropogenic and biogenic organic compounds. <i>Atmosfera</i> , 2013, 26, 59-73.	0.8	5
69	Simulation and Evaluation of Control Strategies for Ozone Reduction in a Complex Terrain in Southwestern Spain. <i>Environmental Modeling and Assessment</i> , 2011, 16, 565-576.	2.2	4
70	The Association Between the North Atlantic Oscillation and the Interannual Variability of the Tropospheric Transport Pathways in Western Europe. <i>Geophysical Monograph Series</i> , 2013, , 127-142.	0.1	4
71	Incremental Development of Air Quality Forecasting System with Off-Line/On-Line Capability: Coupling CMAQ to NCEP National Mesoscale Model. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2011, , 187-192.	0.2	1
72	Evaluation of SOA Formation Using a Box Model Version of CMAQ and Chamber Experimental Data. <i>Lecture Notes in Computer Science</i> , 2011, , 374-386.	1.3	1

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73	Introduction to a Special Issue of <i>JA&WMA</i> on NOAA’s 7th International Workshop on Air Quality Forecasting Research (IWAQFR). Journal of the Air and Waste Management Association, 2016, 66, 815-818.	1.9	0