Avelino F Arellano

List of Publications by Year
in descending order

55 papers	4,561 citations	172207 29 h-index	161609 54 g-index
70 all docs	70 docs citations	70 times ranked	5951 citing authors

#	Article	IF	Citations
1	Interannual variability in global biomass burning emissions from 1997 to 2004. Atmospheric Chemistry and Physics, 2006, 6, 3423-3441.	1.9	1,573
2	Continental-Scale Partitioning of Fire Emissions During the 1997 to 2001 El Nino/La Nina Period. Science, 2004, 303, 73-76.	6.0	549
3	The Data Assimilation Research Testbed: A Community Facility. Bulletin of the American Meteorological Society, 2009, 90, 1283-1296.	1.7	497
4	Initial Estimates of Mercury Emissions to the Atmosphere from Global Biomass Burning. Environmental Science & Technology, 2009, 43, 3507-3513.	4.6	137
5	Unexpected slowdown of US pollutant emission reduction in the past decade. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5099-5104.	3.3	137
6	Top-down estimates of global CO sources using MOPITT measurements. Geophysical Research Letters, 2004, 31, .	1.5	122
7	Investigating the haze transport from 1997 biomass burning in Southeast Asia: its impact upon Singapore. Atmospheric Environment, 2001, 35, 2723-2734.	1.9	103
8	Time-dependent inversion estimates of global biomass-burning CO emissions using Measurement of Pollution in the Troposphere (MOPITT) measurements. Journal of Geophysical Research, 2006, 111, .	3.3	94
9	A 15-year record of CO emissions constrained by MOPITT CO observations. Atmospheric Chemistry and Physics, 2017, 17, 4565-4583.	1.9	92
10	Top-down estimate of a large source of atmospheric carbon monoxide associated with fuel combustion in Asia. Geophysical Research Letters, 2002, 29, 6-1-6-4.	1.5	84
11	Frequency and Character of Extreme Aerosol Events in the Southwestern United States: A Case Study Analysis in Arizona. Atmosphere, 2016, 7, 1.	1.0	62
12	Toward anthropogenic combustion emission constraints from spaceâ€based analysis of urban CO₂/CO sensitivity. Geophysical Research Letters, 2013, 40, 4971-4976.	1.5	59
13	Evaluation of a Data Assimilation System for Land Surface Models Using CLM4.5. Journal of Advances in Modeling Earth Systems, 2018, 10, 2471-2494.	1.3	54
14	Evaluating model performance of an ensemble-based chemical data assimilation system during INTEX-B field mission. Atmospheric Chemistry and Physics, 2007, 7, 5695-5710.	1.9	53
15	Spatiotemporal distribution of airborne particulate metals and metalloids in a populated arid region. Atmospheric Environment, 2014, 92, 339-347.	1.9	51
16	A satellite observation system simulation experiment for carbon monoxide in the lowermost troposphere. Journal of Geophysical Research, 2009, 114, .	3.3	50
17	Chemical Feedback From Decreasing Carbon Monoxide Emissions. Geophysical Research Letters, 2017, 44, 9985-9995.	1.5	49
18	Sensitivity of global CO simulations to uncertainties in biomass burning sources. Journal of Geophysical Research, 2007, 112, .	3.3	47

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19	Measurements of atmospheric mercury in Shanghai during September 2009. Atmospheric Chemistry and Physics, 2011, 11, 3781-3788.	1.9	46
20	Translating aboveground cosmic-ray neutron intensity to high-frequency soil moisture profiles at sub-kilometer scale. Hydrology and Earth System Sciences, 2014, 18, 4363-4379.	1.9	46
21	Sensitivity of top-down estimates of CO sources to GCTM transport. Geophysical Research Letters, 2006, 33, .	1.5	45
22	Evidence of aqueous secondary organic aerosol formation from biogenic emissions in the North American Sonoran Desert. Geophysical Research Letters, 2013, 40, 3468-3472.	1.5	44
23	The Amazon Dense GNSS Meteorological Network: A New Approach for Examining Water Vapor and Deep Convection Interactions in the Tropics. Bulletin of the American Meteorological Society, 2015, 96, 2151-2165.	1.7	44
24	Toward a chemical reanalysis in a coupled chemistryâ€climate model: An evaluation of MOPITT CO assimilation and its impact on tropospheric composition. Journal of Geophysical Research D: Atmospheres, 2016, 121, 7310-7343.	1.2	37
25	Revisiting haboobs in the southwestern United States: An observational case study of the 5 July 2011 Phoenix dust storm. Atmospheric Environment, 2014, 89, 179-188.	1.9	35
26	Evaluating high-resolution forecasts of atmospheric CO and CO₂ from a global prediction system during KORUS-AQ field campaign. Atmospheric Chemistry and Physics, 2018, 18, 11007-11030.	1.9	35
27	Characterizing Regional-Scale Combustion Using Satellite Retrievals of CO, NO2 and CO2. Remote Sensing, 2017, 9, 744.	1.8	34
28	Correcting model biases of CO in East Asia: impact on oxidant distributions during KORUS-AQ. Atmospheric Chemistry and Physics, 2020, 20, 14617-14647.	1.9	34
29	Evaluating the effect of alternative carbon allocation schemes in a land surface modelÂ(CLM4.5) on carbon fluxes, pools, and turnover in temperate forests. Geoscientific Model Development, 2017, 10, 3499-3517.	1.3	32
30	Assimilating compact phase space retrievals of atmospheric composition with WRF-Chem/DART: a regional chemical transport/ensemble Kalman filter data assimilation system. Geoscientific Model Development, 2016, 9, 965-978.	1.3	26
31	Variability of springtime transpacific pollution transport during 2000â€“2006: the INTEX-B mission in the context of previous years. Atmospheric Chemistry and Physics, 2010, 10, 1345-1359.	1.9	22
32	Averaging kernel prediction from atmospheric and surface state parameters based on multiple regression for nadir-viewing satellite measurements of carbon monoxide and ozone. Atmospheric Measurement Techniques, 2013, 6, 1633-1646.	1.2	21
33	Assessing the impacts of assimilating IASI and MOPITT CO retrievals using CESMâ€CAMâ€chem and DART. Journal of Geophysical Research D: Atmospheres, 2015, 120, 10,501.	1.2	21
34	Source Contributions to Carbon Monoxide Concentrations During KORUSâ€AQ Based on CAMâ€chem Model Applications. Journal of Geophysical Research D: Atmospheres, 2019, 124, 2796-2822.	1.2	21
35	The Multi-Scale Infrastructure for Chemistry and Aerosols (MUSICA). Bulletin of the American Meteorological Society, 2020, 101, E1743-E1760.	1.7	21
36	The North American Monsoon GPS Transect Experiment 2013. Bulletin of the American Meteorological Society, 2016, 97, 2103-2115.	1.7	17

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37	Mercury emissions from global biomass burning: spatialand temporal distribution. , 2009, , 193-220.		17
38	Investigating dominant characteristics of fires across the Amazon during 2005â€“2014 through satellite data synthesis of combustion signatures. Journal of Geophysical Research D: Atmospheres, 2017, 122, 1224-1245.	1.2	16
39	Satellite data reveal a common combustion emission pathway for major cities in China. Atmospheric Chemistry and Physics, 2019, 19, 4269-4288.	1.9	15
40	Evaluating Forecast Skills of Moisture from Convective-Permitting WRF-ARW Model during 2017 North American Monsoon Season. Atmosphere, 2019, 10, 694.	1.0	14
41	Measurement report: Firework impacts on air quality in Metro Manila, Philippines, during the 2019 New Year revelry. Atmospheric Chemistry and Physics, 2021, 21, 6155-6173.	1.9	14
42	Interpolating fields of carbon monoxide data using a hybrid statistical-physical model. Annals of Applied Statistics, 2008, 2, .	0.5	12
43	Decreasing Aerosol Loading in the North American Monsoon Region. Atmosphere, 2016, 7, 24.	1.0	10
44	The Impact of Assimilating GPS Precipitable Water Vapor in Convective-Permitting WRF-ARW on North American Monsoon Precipitation Forecasts over Northwest Mexico. Monthly Weather Review, 2021, , .	0.5	10
45	Constraints on black carbon aerosol distribution from Measurement of Pollution in the Troposphere (MOPITT) CO. Geophysical Research Letters, 2010, 37, .	1.5	9
46	Convective-Permitting Hindcast Simulations during the North American Monsoon GPS Transect Experiment 2013: Establishing Baseline Model Performance without Data Assimilation. Journal of Applied Meteorology and Climatology, 2018, 57, 1683-1710.	0.6	9
47	On the feasibility of monitoring carbon monoxide in the lower troposphere from a constellation of northern hemisphere geostationary satellites: Global scale assimilation experiments (Part II). Atmospheric Environment, 2016, 140, 188-201.	1.9	7
48	Biomass Burning: Observations, Modeling, and Data Assimilation. Bulletin of the American Meteorological Society, 2012, 93, ES10-ES14.	1.7	6
49	The Risks of Contracting the Acquisition and Processing of the Nationâ€™s Weather and Climate Data to the Private Sector. Bulletin of the American Meteorological Society, 2018, 99, 869-870.	1.7	6
50	Correction to â€œTop-down estimates of global CO sources using MOPITT measurementsâ€• Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	4
51	Exploring analog-based schemes for aerosol optical depth forecasting with WRF-Chem. Atmospheric Environment, 2021, 246, 118134.	1.9	4
52	Application of DARLAM to Regional Haze Modeling. Pure and Applied Geophysics, 2003, 160, 189-204.	0.8	3
53	The CHRONOS mission: capability for sub-hourly synoptic observations of carbon monoxide and methane to quantify emissions and transport of air pollution. Atmospheric Measurement Techniques, 2018, 11, 1061-1085.	1.2	3
54	Spatial and Temporal Variations in Characteristic Ratios of Elemental Carbon to Carbon Monoxide and Nitrogen Oxides across the United States. Environmental Science & Technology, 2017, 51, 6829-6838.	4.6	2

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55	Model Sensitivity Study of the Direct Radiative Impact of Saharan Dust on the Early Stage of Hurricane Earl. Atmosphere, 2021, 12, 1181.	1.0	2