Mehmet T Odman

List of Publications by Year
in descending order

86	2,327	218592	233338
papers	citations	26 h-index	45 g-index

91	91	91	2319
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Recommendations on statistics and benchmarks to assess photochemical model performance. Journal of the Air and Waste Management Association, 2017, 67, 582-598.	0.9	326
2	Airport related emissions and impacts on air quality: Application to the Atlanta International Airport. Atmospheric Environment, 2005, 39, 5787-5798.	1.9	178
3	High-Order, Direct Sensitivity Analysis of Multidimensional Air Quality Models. Environmental Science & Technology, 2003, 37, 2442-2452.	4.6	170
4	Nonlinearity in atmospheric response: A direct sensitivity analysis approach. Journal of Geophysical Research, 2004, 109, .	3.3	78
5	Concentrations and sources of PAHs at three stations in Istanbul, Turkey. Atmospheric Research, 2011, 99, 391-399.	1.8	73
6	Extension and evaluation of sensitivity analysis capabilities in a photochemical model. Environmental Modelling and Software, 2008, 23, 994-999.	1.9	65
7	Long-range aerosol transport from Europe to Istanbul, Turkey. Atmospheric Environment, 2006, 40, 3536-3547.	1.9	58
8	Simulation of Air Quality Impacts from Prescribed Fires on an Urban Area. Environmental Science & Technology, 2008, 42, 3676-3682.	4.6	53
9	Modeling Smoke Plume-Rise and Dispersion from Southern United States Prescribed Burns with Daysmoke. Atmosphere, 2011, 2, 358-388.	1.0	53
10	The impact of anthropogenic and biogenic emissions on surface ozone concentrations in Istanbul. Science of the Total Environment, 2011, 409, 1255-1265.	3.9	53
11	Analysis of surface ozone and nitrogen oxides at urban, semi-rural and rural sites in Istanbul, Turkey. Science of the Total Environment, 2013, 443, 920-931.	3.9	49
12	Multiscale modeling of pollutant transport and chemistry. Journal of Geophysical Research, 1991, 96, 7363-7370.	3.3	42
13	Fine particulate matter source apportionment using a hybrid chemical transport and receptor model approach. Atmospheric Chemistry and Physics, 2014, 14, 5415-5431.	1.9	42
14	A comparison of fast chemical kinetic solvers for air quality modeling. Atmospheric Environment Part A General Topics, 1992, 26, 1783-1789.	1.3	39
15	Novel Method for Ozone Isopleth Construction and Diagnosis for the Ozone Control Strategy of Chinese Cities. Environmental Science & Technology, 2021, 55, 15625-15636.	4.6	39
16	Multiscale air quality modeling: Application to southern California. Journal of Geophysical Research, 1994, 99, 5385.	3.3	38
17	Development of a comprehensive, multiscale â€œone-atmosphereâ€•modeling system: application to the Southern Appalachian Mountains. Atmospheric Environment, 2002, 36, 3721-3734.	1.9	38
18	Improving ozone simulations in the Great Lakes Region: The role of emissions, chemistry, and dry deposition. Atmospheric Environment, 2019, 202, 167-179.	1.9	36

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19	Simulating smoke transport from wildland fires with a regionalâ€scale air quality model: Sensitivity to uncertain wind fields. Journal of Geophysical Research D: Atmospheres, 2013, 118, 6493-6504.	1.2	34
20	Simulating smoke transport from wildland fires with a regional-scale air quality model: Sensitivity to spatiotemporal allocation of fire emissions. Science of the Total Environment, 2014, 493, 544-553.	3.9	33
21	An Adaptive Grid Algorithm for Air-Quality Modeling. Journal of Computational Physics, 2000, 165, 437-472.	1.9	31
22	Multiscale Air Quality Simulation Platform (MAQSIP): Initial applications and performance for tropospheric ozone and particulate matter. Journal of Geophysical Research, 2005, 110, .	3.3	31
23	Integrated Assessment Modeling of Atmospheric Pollutants in the Southern Appalachian Mountains: Part II. Fine Particulate Matter and Visibility. Journal of the Air and Waste Management Association, 2006, 56, 12-22.	0.9	31
24	Machine Learning-Based Integration of High-Resolution Wildfire Smoke Simulations and Observations for Regional Health Impact Assessment. International Journal of Environmental Research and Public Health, 2019, 16, 2137.	1.2	31
25	An automatic differentiation technique for sensitivity analysis of numerical advection schemes in air quality models. Atmospheric Environment, 1997, 31, 879-888.	1.9	30
26	A multiscale finite element pollutant transport scheme for urban and regional modeling. Atmospheric Environment Part A General Topics, 1991, 25, 2385-2394.	1.3	29
27	A quantitative analysis of numerical diffusion introduced by advection algorithms in air quality models. Atmospheric Environment, 1997, 31, 1933-1940.	1.9	28
28	An adaptive grid version of CMAQ for improving the resolution of plumes. Atmospheric Pollution Research, 2010, 1, 239-249.	1.8	28
29	Mass conservation in the Community Multiscale Air Quality model. Atmospheric Environment, 2006, 40, 1199-1204.	1.9	27
30	Sensitivity of inverse estimation of 2004 elemental carbon emissions inventory in the United States to the choice of observational networks. Geophysical Research Letters, 2009, 36, .	1.5	26
31	Modeling secondary organic aerosol in CMAQ using multigenerational oxidation of semi-volatile organic compounds. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	26
32	Burned Area Comparisons Between Prescribed Burning Permits in Southeastern United States and Two Satelliteâ€Derived Products. Journal of Geophysical Research D: Atmospheres, 2018, 123, 4746-4757.	1.2	25
33	The Impacts of Prescribed Fire on PM2.5 Air Quality and Human Health: Application to Asthma-Related Emergency Room Visits in Georgia, USA. International Journal of Environmental Research and Public Health, 2019, 16, 2312.	1.2	25
34	Satellite Monitoring for Air Quality and Health. Annual Review of Biomedical Data Science, 2021, 4, 417-447.	2.8	25
35	Single-Source Impact Analysis Using Three-Dimensional Air Quality Models. Journal of the Air and Waste Management Association, 2008, 58, 1351-1359.	0.9	24
36	Quantifying the sources of ozone, fine particulate matter, and regional haze in the Southeastern United States. Journal of Environmental Management, 2009, 90, 3155-3168.	3.8	23

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37	Topâ€down analysis of the elemental carbon emissions inventory in the United States by inverse modeling using Community Multiscale Air Quality model with decoupled direct method (CMAQâ€DDM). Journal of Geophysical Research, 2009, 114, .	3.3	21
38	Regional, three-dimensional assessment of the ozone formation potential of organic compounds. Atmospheric Environment, 2004, 38, 121-134.	1.9	20
39	Regional Air Quality:â€‰ Local and Interstate Impacts of NOx and SO2 Emissions on Ozone and Fine Particulate Matter in the Eastern United States. Environmental Science & Technology, 2007, 41, 4677-4689.	4.6	20
40	Adaptive Grid Use in Air Quality Modeling. Atmosphere, 2011, 2, 484-509.	1.0	20
41	Simulation of dispersion of a power plant plume using an adaptive grid algorithm. Atmospheric Environment, 2001, 35, 4801-4818.	1.9	18
42	Global Fire Forecasts Using Both Largeâ€Scale Climate Indices and Local Meteorological Parameters. Global Biogeochemical Cycles, 2019, 33, 1129-1145.	1.9	17
43	Mass Conservative Coupling of Non-Hydrostatic Meteorological Models with Air Quality Models. , 2000, , 651-660.		17
44	Airshed Calculation of the Sensitivity of Pollutant Formation to Organic Compound Classes and Oxygenates Associated with Alternative Fuels. Journal of the Air and Waste Management Association, 1992, 42, 174-178.	0.2	16
45	Determining the Sources of Regional Haze in the Southeastern United States Using the CMAQ Model. Journal of Applied Meteorology and Climatology, 2007, 46, 1731-1743.	0.6	16
46	Using synoptic classification to evaluate an operational air quality forecasting system in Atlanta. Atmospheric Pollution Research, 2010, 1, 280-287.	1.8	16
47	Chemical transport model consistency in simulating regulatory outcomes and the relationship to model performance. Atmospheric Environment, 2015, 116, 159-171.	1.9	13
48	African American Exposure to Prescribed Fire Smoke in Georgia, USA. International Journal of Environmental Research and Public Health, 2019, 16, 3079.	1.2	13
49	Relaxing Energy Policies Coupled with Climate Change Will Significantly Undermine Efforts to Attain US Ozone Standards. One Earth, 2019, 1, 229-239.	3.6	13
50	Fire emission uncertainties and their effect on smoke dispersion predictions: a case study at Eglin Air Force Base, Florida, USA. International Journal of Wildland Fire, 2015, 24, 276.	1.0	11
51	Airshed Model Evaluation of Reactivity Adjustment Factors Calculated with the Maximum Incremental Reactivity Scale for Transitional-Low Emission Vehicles. Journal of the Air and Waste Management Association, 1994, 44, 900-907.	0.6	9
52	Integrated modeling for air quality assessment: The Southern Appalachians Mountains initiative project. European Physical Journal Special Topics, 2002, 12, 211-234.	0.2	9
53	Integrated Assessment Modeling of Atmospheric Pollutants in the Southern Appalachian Mountains. Part I: Hourly and Seasonal Ozone. Journal of the Air and Waste Management Association, 2005, 55, 1019-1030.	0.9	9
54	Forecasting the Impacts of Prescribed Fires for Dynamic Air Quality Management. Atmosphere, 2018, 9, 220.	1.0	9

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55	Examination of Nudging Schemes in the Simulation of Meteorology for Use in Air Quality Experiments: Application in the Great Lakes Region. Journal of Applied Meteorology and Climatology, 2019, 58, 2421-2436.	0.6	9
56	Evaluation of WRF parameterizations for global horizontal irradiation forecasts: A study for Turkey. Atmosfera, 2019, 32, 143-158.	0.3	9
57	Development of a WebGIS-Based Analysis Tool for Human Health Protection from the Impacts of Prescribed Fire Smoke in Southeastern USA. International Journal of Environmental Research and Public Health, 2019, 16, 1981.	1.2	8
58	A nonlinear filtering algorithm for multi-dimensional finite element pollutant advection schemes. Atmospheric Environment Part A General Topics, 1993, 27, 793-799.	1.3	7
59	Re-examination of the 2003 North American electrical blackout impacts on regional air quality. Geophysical Research Letters, 2006, 33, .	1.5	7
60	Operational forecasting of source impacts for dynamic air quality management. Atmospheric Environment, 2015, 116, 320-322.	1.9	7
61	Apportioning prescribed fire impacts on PM2.5 among individual fires through dispersion modeling. Atmospheric Environment, 2020, 223, 117260.	1.9	7
62	Interstate transport of ozone in eastern United States: An analysis of the impact of southeastern statesâ€™ emissions in 2017. Atmospheric Environment, 2020, 236, 117628.	1.9	7
63	A variable timeâ€“step algorithm for air quality models. Atmospheric Pollution Research, 2010, 1, 229-238.	1.8	6
64	Source apportionment of ozone and fine particulate matter in the United States for 2016 and 2028. Atmospheric Environment, 2022, 285, 119226.	1.9	6
65	On local finite element refinements in multiscale air quality modeling. Environmental Software, 1994, 9, 61-66.	0.3	5
66	Evaluation of algorithms developed for adaptive grid air quality modeling using surface elevation data. Computers, Environment and Urban Systems, 2005, 29, 718-734.	3.3	5
67	Estimating US Background Ozone Using Data Fusion. Environmental Science & Technology, 2021, 55, 4504-4512.	4.6	5
68	Application and evaluation of a low-cost PM sensor and data fusion with CMAQ simulations to quantify the impacts of prescribed burning on air quality in Southwestern Georgia, USA. Journal of the Air and Waste Management Association, 2021, 71, 815-829.	0.9	5
69	Future directions in photochemical air quality modeling. Water, Air, and Soil Pollution, 1993, 67, 181-193.	1.1	4
70	Initial Application of the Adaptive Grid Air Quality Model. , 2004, , 319-328.		4
71	Estimates of PM2.5 levels in the southeastern United States for the year 2010: What else can be done?. Fuel Processing Technology, 2004, 85, 631-639.	3.7	4
72	Comment on â€œOn the indicator-based approach to assess ozone sensitivities and emissions featuresâ€•by Cheng-Hsuan Lu and Julius S. Chang. Journal of Geophysical Research, 2001, 106, 20941-20944.	3.3	3

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73	A comparison of mass conservation methods for air quality models. Atmospheric Environment, 2008, 42, 8322-8330.	1.9	3
74	Greater Contribution From Agricultural Sources to Future Reactive Nitrogen Deposition in the United States. Earth's Future, 2020, 8, e2019EF001453.	2.4	3
75	Comment on â€œGeographic Sensitivity of Fine Particle Mass to Emissions of SO2and NOxâ€• Environmental Science & Technology, 2004, 38, 4910-4910.	4.6	2
76	Biases in air quality models capturing ozone trends at the urban, regional and national scales: Impacts on Relative Response Factors (RRFs). Atmospheric Environment, 2021, 266, 118722.	1.9	2
77	Ozone Sensitivity and Uncertainty Analysis Using DDM-3D in a Photochemical Air Quality Model. , 2000, , 183-194.		2
78	Emerging Air Quality Modeling Technologies for High Performance Computing and Communication Environments. , 1996, , 491-502.		2
79	Adaptive Grids in Air Pollution Modeling: Towards an Operational Model. , 2004, , 541-549.		1
80	Chapter 2.14 Forecasting ozone and PM2.5 in southeastern U.S.. Developments in Environmental Science, 2007, 6, 220-229.	0.5	0
81	Source-Impact Forecasting for Dynamic Air Quality Management: Application to Prescribed Burn Management. Springer Proceedings in Complexity, 2016, , 575-579.	0.2	0
82	Estimates of Future PM2.5 Levels in Southeastern United States. , 2004, , 163-170.		0
83	The Impact of Anthropogenic and Biogenic Emissions on Surface Ozone Concentrations in Istanbul: A Modeling Study. NATO Science for Peace and Security Series C: Environmental Security, 2011, , 103-106.	0.1	0
84	Development and Evaluation of an Air Quality Model for Predicting the Impacts of Prescribed Burns. NATO Science for Peace and Security Series C: Environmental Security, 2014, , 517-521.	0.1	0
85	Atmospheric Plume Modeling with a Three-Dimensional Refinement Adaptive Grid Method. Springer Proceedings in Complexity, 2016, , 409-413.	0.2	0
86	Study of Air Pollutant Transport in Northern and Western Turkey. , 2007, , 656-658.		0