

Russell Dickerson

List of Publications by Citations

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180
papers

9,975
citations

54
h-index

94
g-index

208
ext. papers

11,070
ext. citations

6.3
avg, IF

5.67
L-index

| # | Paper | IF | Citations |
|-----|--|------|-----------|
| 180 | The Indian Ocean experiment: widespread air pollution from South and Southeast Asia. <i>Science</i> , 2001 , 291, 1031-6 | 33.3 | 599 |
| 179 | The impact of aerosols on solar ultraviolet radiation and photochemical smog. <i>Science</i> , 1997 , 278, 827-30 | 33.3 | 486 |
| 178 | Aura OMI observations of regional SO ₂ and NO ₂ pollution changes from 2005 to 2015. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 4605-4629 | 6.8 | 428 |
| 177 | Thunderstorms: an important mechanism in the transport of air pollutants. <i>Science</i> , 1987 , 235, 460-5 | 33.3 | 364 |
| 176 | Emissions estimation from satellite retrievals: A review of current capability. <i>Atmospheric Environment</i> , 2013 , 77, 1011-1042 | 5.3 | 270 |
| 175 | An analysis of AERONET aerosol absorption properties and classifications representative of aerosol source regions. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a | | 240 |
| 174 | Increased atmospheric ammonia over the world's major agricultural areas detected from space. <i>Geophysical Research Letters</i> , 2017 , 44, 2875-2884 | 4.9 | 189 |
| 173 | Observed relationships of ozone air pollution with temperature and emissions. <i>Geophysical Research Letters</i> , 2009 , 36, | 4.9 | 188 |
| 172 | India Is Overtaking China as the World's Largest Emitter of Anthropogenic Sulfur Dioxide. <i>Scientific Reports</i> , 2017 , 7, 14304 | 4.9 | 182 |
| 171 | SO ₂ emissions and lifetimes: Estimates from inverse modeling using in situ and global, space-based (SCIAMACHY and OMI) observations. <i>Journal of Geophysical Research</i> , 2011 , 116, | | 182 |
| 170 | Aerosol optical properties and their radiative effects in northern China. <i>Journal of Geophysical Research</i> , 2007 , 112, | | 174 |
| 169 | A ground-based intercomparison of NO, NO _x , and NO _y measurement techniques. <i>Journal of Geophysical Research</i> , 1987 , 92, 14710 | | 165 |
| 168 | NO _x Production in Lightning. <i>Journals of the Atmospheric Sciences</i> , 1977 , 34, 143-149 | 2.1 | 165 |
| 167 | Preface to special section on East Asian Studies of Tropospheric Aerosols: An International Regional Experiment (EAST-AIRE). <i>Journal of Geophysical Research</i> , 2007 , 112, | | 138 |
| 166 | Nitric oxide production by simulated lightning: Dependence on current, energy, and pressure. <i>Journal of Geophysical Research</i> , 1998 , 103, 19149-19159 | | 125 |
| 165 | Stratosphere-troposphere exchange in a midlatitude mesoscale convective complex: 1. Observations. <i>Journal of Geophysical Research</i> , 1996 , 101, 6823-6836 | | 125 |
| 164 | Free tropospheric ozone production following entrainment of urban plumes into deep convection. <i>Journal of Geophysical Research</i> , 1992 , 97, 17985 | | 124 |

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| 163 | Seasonal transition from NO _x - to hydrocarbon-limited conditions for ozone production over the eastern United States in September. <i>Journal of Geophysical Research</i> , 1995 , 100, 9315 | | 123 |
| 162 | Aerosol properties over the Indo-Gangetic Plain: A mesoscale perspective from the TIGERZ experiment. <i>Journal of Geophysical Research</i> , 2011 , 116, | | 122 |
| 161 | Validation of SO ₂ retrievals from the Ozone Monitoring Instrument over NE China. <i>Journal of Geophysical Research</i> , 2008 , 113, | | 121 |
| 160 | Model calculations of tropospheric ozone production potential following observed convective events. <i>Journal of Geophysical Research</i> , 1990 , 95, 14049 | | 120 |
| 159 | Seasonal variations in elemental carbon aerosol, carbon monoxide and sulfur dioxide: Implications for sources. <i>Geophysical Research Letters</i> , 2001 , 28, 1711-1714 | 4.9 | 118 |
| 158 | Ozone in the remote marine boundary layer: A possible role for halogens. <i>Journal of Geophysical Research</i> , 1999 , 104, 21385-21395 | | 117 |
| 157 | Roles of Urban Tree Canopy and Buildings in Urban Heat Island Effects: Parameterization and Preliminary Results. <i>Journal of Applied Meteorology and Climatology</i> , 2012 , 51, 1775-1793 | 2.7 | 115 |
| 156 | Global chemical weather forecasts for field campaign planning: predictions and observations of large-scale features during MINOS, CONTRACE, and INDOEX. <i>Atmospheric Chemistry and Physics</i> , 2003 , 3, 267-289 | 6.8 | 112 |
| 155 | Remote sensing of fugitive methane emissions from oil and gas production in North American tight geologic formations. <i>Earth's Future</i> , 2014 , 2, 548-558 | 7.9 | 109 |
| 154 | Direct measurements of ozone and nitrogen dioxide photolysis rates in the troposphere. <i>Journal of Geophysical Research</i> , 1982 , 87, 4933 | | 108 |
| 153 | Analysis of black carbon and carbon monoxide observed over the Indian Ocean: Implications for emissions and photochemistry. <i>Journal of Geophysical Research</i> , 2002 , 107, INX2 16-1 | | 104 |
| 152 | Climatologies of NO _x and NO _y : A comparison of data and models. <i>Atmospheric Environment</i> , 1997 , 31, 1851-1904 | 5.3 | 99 |
| 151 | Characterization of carbonaceous aerosols outflow from India and Arabia: Biomass/biofuel burning and fossil fuel combustion. <i>Journal of Geophysical Research</i> , 2003 , 108, | | 94 |
| 150 | Measured and modeled CO and NO _y in DISCOVER-AQ: An evaluation of emissions and chemistry over the eastern US. <i>Atmospheric Environment</i> , 2014 , 96, 78-87 | 5.3 | 92 |
| 149 | The global tropospheric ammonia distribution as seen in the 13-year AIRS measurement record. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 5467-5479 | 6.8 | 91 |
| 148 | Origins of fine aerosol mass in the Baltimore-Washington corridor: implications from observation, factor analysis, and ensemble air parcel back trajectories. <i>Atmospheric Environment</i> , 2002 , 36, 4541-4554 | 5.3 | 91 |
| 147 | Aircraft vertical profiles of trace gas and aerosol pollution over the mid-Atlantic United States: Statistics and meteorological cluster analysis. <i>Journal of Geophysical Research</i> , 2006 , 111, n/a-n/a | | 87 |
| 146 | Impact of Upstream Urbanization on the Urban Heat Island Effects along the Washington-Baltimore Corridor. <i>Journal of Applied Meteorology and Climatology</i> , 2011 , 50, 2012-2029 | 2.7 | 82 |

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| 145 | Aircraft observations of dust and pollutants over northeast China: Insight into the meteorological mechanisms of transport. <i>Journal of Geophysical Research</i> , 2007 , 112, | | 82 |
| 144 | In situ measurements of trace gases and aerosol optical properties at a rural site in northern China during East Asian Study of Tropospheric Aerosols: An International Regional Experiment 2005. <i>Journal of Geophysical Research</i> , 2007 , 112, | | 80 |
| 143 | Modification of a Commercial Gas Filter Correlation CO Detector for Enhanced Sensitivity. <i>Journal of Atmospheric and Oceanic Technology</i> , 1988 , 5, 424-431 | 2 | 80 |
| 142 | Convective transport over the central United States and its role in regional CO and ozone budgets. <i>Journal of Geophysical Research</i> , 1994 , 99, 18703 | | 77 |
| 141 | Upstream urbanization exacerbates urban heat island effects. <i>Geophysical Research Letters</i> , 2009 , 36, | 4.9 | 76 |
| 140 | Organic trace gas measurements by PTR-MS during INDOEX 1999. <i>Journal of Geophysical Research</i> , 2002 , 107, INX2 23-1 | | 74 |
| 139 | Changes in seasonal and diurnal cycles of ozone and temperature in the eastern U.S.. <i>Atmospheric Environment</i> , 2010 , 44, 2543-2551 | 5.3 | 73 |
| 138 | Large-scale pollution of the atmosphere over the remote Atlantic Ocean: Evidence from Bermuda. <i>Journal of Geophysical Research</i> , 1995 , 100, 8945 | | 72 |
| 137 | Analysis of a summertime PM _{2.5} and haze episode in the mid-Atlantic region. <i>Journal of the Air and Waste Management Association</i> , 2003 , 53, 946-56 | 2.4 | 71 |
| 136 | Composition of the troposphere over the Indian Ocean during the monsoonal transition. <i>Journal of Geophysical Research</i> , 1997 , 102, 18981-18995 | | 70 |
| 135 | Regional air quality impacts of hydraulic fracturing and shale natural gas activity: Evidence from ambient VOC observations. <i>Atmospheric Environment</i> , 2015 , 110, 144-150 | 5.3 | 68 |
| 134 | Impacts of brown carbon from biomass burning on surface UV and ozone photochemistry in the Amazon Basin. <i>Scientific Reports</i> , 2016 , 6, 36940 | 4.9 | 68 |
| 133 | Ozone and NO _x chemistry in the eastern US: evaluation of CMAQ/CB05 with satellite (OMI) data. <i>Atmospheric Chemistry and Physics</i> , 2015 , 15, 10965-10982 | 6.8 | 67 |
| 132 | First observations of SO ₂ from the satellite Suomi NPP OMPS: Widespread air pollution events over China. <i>Geophysical Research Letters</i> , 2013 , 40, 4957-4962 | 4.9 | 64 |
| 131 | Photoacoustic Measurements of Amplification of the Absorption Cross Section for Coated Soot Aerosols. <i>Aerosol Science and Technology</i> , 2011 , 45, 1217-1230 | 3.4 | 62 |
| 130 | Ozone production and its sensitivity to NO _x and VOCs: results from the DISCOVER-AQ field experiment, Houston 2013. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 14463-14474 | 6.8 | 58 |
| 129 | Impact of fair-weather cumulus clouds and the Chesapeake Bay breeze on pollutant transport and transformation. <i>Atmospheric Environment</i> , 2011 , 45, 4060-4072 | 5.3 | 56 |
| 128 | Further modification of a commercial NO _x detector for high sensitivity. <i>Review of Scientific Instruments</i> , 1984 , 55, 1995-1998 | 1.7 | 56 |

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| 127 | Trace gas transport in the vicinity of frontal convective clouds. <i>Journal of Geophysical Research</i> , 1988 , 93, 759 | | 55 |
| 126 | Direct measurements of the photolysis rate coefficients and Henry's law constants of several alkyl nitrates. <i>Journal of Geophysical Research</i> , 1989 , 94, 14905-14921 | | 54 |
| 125 | Impact of Bay-Breeze Circulations on Surface Air Quality and Boundary Layer Export. <i>Journal of Applied Meteorology and Climatology</i> , 2014 , 53, 1697-1713 | 2.7 | 53 |
| 124 | Pollutant transport during a regional O ₃ -episode in the mid-Atlantic states. <i>Journal of the Air and Waste Management Association</i> , 1998 , 48, 786-97 | 2.4 | 52 |
| 123 | Modification of a commercial NO _x detector for high sensitivity. <i>Review of Scientific Instruments</i> , 1982 , 53, 1899-1902 | 1.7 | 51 |
| 122 | Transport of ozone and pollutants from North America to the North Atlantic Ocean during the 1996 Atmosphere/Ocean Chemistry Experiment (AEROCE) intensive. <i>Journal of Geophysical Research</i> , 1999 , 104, 26219-26233 | | 50 |
| 121 | New methodology for estimating biofuel consumption for cooking: Atmospheric emissions of black carbon and sulfur dioxide from India. <i>Global Biogeochemical Cycles</i> , 2004 , 18, n/a-n/a | 5.9 | 49 |
| 120 | Trends in emissions and concentrations of air pollutants in the lower troposphere in the Baltimore/Washington airshed from 1997 to 2011. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 7859-7874 | 6.8 | 48 |
| 119 | SO ₂ over central China: Measurements, numerical simulations and the tropospheric sulfur budget. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a | | 47 |
| 118 | Trace gas concentrations and meteorology in rural Virginia: 1. Ozone and carbon monoxide. <i>Journal of Geophysical Research</i> , 1991 , 96, 22461 | | 47 |
| 117 | Evaluation and environmental correction of ambient CO measurements from a low-cost NDIR sensor. <i>Atmospheric Measurement Techniques</i> , 2017 , 10, | 4 | 46 |
| 116 | Identification of sources and formation processes of atmospheric sulfate by sulfur isotope and scanning electron microscope measurements. <i>Journal of Geophysical Research</i> , 2010 , 115, | | 46 |
| 115 | Ozone, oxides of nitrogen, and carbon monoxide during pollution events over the eastern United States: An evaluation of emissions and vertical mixing. <i>Journal of Geophysical Research</i> , 2011 , 116, | | 45 |
| 114 | Origins of chemical pollution derived from Mid-Atlantic aircraft profiles using a clustering technique. <i>Atmospheric Environment</i> , 2008 , 42, 1727-1741 | 5.3 | 45 |
| 113 | Tropospheric chemistry over the lower Great Plains of the United States 2. Trace gas profiles and distributions. <i>Journal of Geophysical Research</i> , 1992 , 97, 20647 | | 44 |
| 112 | Vertical profiles of NO ₂ , SO ₂ , HONO, HCHO, CHOCHO and aerosols derived from MAX-DOAS measurements at a rural site in the central western North China Plain and their relation to emission sources and effects of regional transport. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 5417-5449 | 6.8 | 43 |
| 111 | Nitric oxide production by lightning discharges. <i>Journal of Geophysical Research</i> , 1993 , 98, 18333-18338 | | 42 |
| 110 | Tropospheric O ₃ distribution over the Indian Ocean during spring 1995 evaluated with a chemistry-climate model. <i>Journal of Geophysical Research</i> , 1999 , 104, 13881-13893 | | 41 |

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| 109 | Photolysis frequency of NO ₂ : Measurement and modeling during the International Photolysis Frequency Measurement and Modeling Intercomparison (IPMMI). <i>Journal of Geophysical Research</i> , 2003 , 108, | | 40 |
| 108 | A photothermal interferometer for gas-phase ammonia detection. <i>Analytical Chemistry</i> , 1999 , 71, 1391-97.8 | | 40 |
| 107 | Clear-sky vertical profiles of trace gases as influenced by upstream convective activity. <i>Journal of Geophysical Research</i> , 1989 , 94, 14879-14892 | | 40 |
| 106 | Higher surface ozone concentrations over the Chesapeake Bay than over the adjacent land: Observations and models from the DISCOVER-AQ and CBODAQ campaigns. <i>Atmospheric Environment</i> , 2014 , 84, 9-19 | 5.3 | 39 |
| 105 | Relationship between back trajectories and tropospheric trace gas concentrations in rural Virginia. <i>Atmospheric Environment</i> , 1994 , 28, 2789-2800 | 5.3 | 39 |
| 104 | Reactive nitrogen compounds in the Arctic. <i>Journal of Geophysical Research</i> , 1985 , 90, 10739-10743 | | 39 |
| 103 | Bay breeze influence on surface ozone at Edgewood, MD during July 2011. <i>Journal of Atmospheric Chemistry</i> , 2015 , 72, 335-353 | 3.2 | 36 |
| 102 | Relationship between column-density and surface mixing ratio: Statistical analysis of O ₃ and NO ₂ data from the July 2011 Maryland DISCOVER-AQ mission. <i>Atmospheric Environment</i> , 2014 , 92, 429-441 | 5.3 | 36 |
| 101 | Smoke over haze: Aircraft observations of chemical and optical properties and the effects on heating rates and stability. <i>Journal of Geophysical Research</i> , 2004 , 109, | | 36 |
| 100 | High ozone concentrations on hot days: The role of electric power demand and NO _x emissions. <i>Geophysical Research Letters</i> , 2013 , 40, 5291-5294 | 4.9 | 35 |
| 99 | Rate of NO ₂ photolysis from the surface to 7.6 km altitude in clear-sky and clouds. <i>Geophysical Research Letters</i> , 1995 , 22, 2621-2624 | 4.9 | 35 |
| 98 | Actinometric measurements and theoretical calculations of j(O ₃) the rate of photolysis of ozone to O(¹ D). <i>Geophysical Research Letters</i> , 1979 , 6, 833-836 | 4.9 | 35 |
| 97 | Latitudinal gradients in O ₃ and CO during INDOEX 1999. <i>Journal of Geophysical Research</i> , 2002 , 107, INX2 15-1 | | 34 |
| 96 | Response of SO ₂ and particulate air pollution to local and regional emission controls: A case study in Maryland. <i>Earth's Future</i> , 2016 , 4, 94-109 | 7.9 | 33 |
| 95 | CAMx Ozone Source Attribution in the Eastern United States using Guidance from Observations during DISCOVER-AQ Maryland. <i>Geophysical Research Letters</i> , 2016 , 43, 2249-2258 | 4.9 | 32 |
| 94 | Direct measurements of the photolysis rate coefficient of ethyl nitrate. <i>Geophysical Research Letters</i> , 1988 , 15, 1181-1184 | 4.9 | 32 |
| 93 | An elevated reservoir of air pollutants over the Mid-Atlantic States during the 2011 DISCOVER-AQ campaign: Airborne measurements and numerical simulations. <i>Atmospheric Environment</i> , 2014 , 85, 18-30 | 5.3 | 30 |
| 92 | Evaluation of GEOS-5 sulfur dioxide simulations during the Frostburg, MD 2010 field campaign. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 1929-1941 | 6.8 | 30 |

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| 91 | Characterization of an eastern U.S. severe air pollution episode using WRF/Chem. <i>Journal of Geophysical Research</i> , 2011 , 116, | | 30 |
| 90 | Transport and evolution of a pollution plume from northern China: A satellite-based case study. <i>Journal of Geophysical Research</i> , 2010 , 115, | | 30 |
| 89 | Airborne Characterization of the Chemical, Optical, and Meteorological Properties, and Origins of a Combined Ozone-Haze Episode over the Eastern United States. <i>Journals of the Atmospheric Sciences</i> , 2004 , 61, 1781-1793 | 2.1 | 30 |
| 88 | Marine boundary layer peroxy radical chemistry during the AEROSOLS99 campaign: Measurements and analysis. <i>Journal of Geophysical Research</i> , 2001 , 106, 20833-20846 | | 30 |
| 87 | Source analysis of carbon monoxide pollution during INDOEX 1999. <i>Journal of Geophysical Research</i> , 2001 , 106, 28481-28495 | | 30 |
| 86 | SO Emission Estimates Using OMI SO Retrievals for 2005-2017. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019 , 124, 8336-8359 | 4.4 | 28 |
| 85 | Trace gas and radical diurnal behavior in the marine boundary layer during INDOEX 1999. <i>Journal of Geophysical Research</i> , 2003 , 108, | | 28 |
| 84 | A pervasive role for biomass burning in tropical high ozone/low water structures. <i>Nature Communications</i> , 2016 , 7, 10267 | 17.4 | 27 |
| 83 | The 2003 North American electrical blackout: An accidental experiment in atmospheric chemistry. <i>Geophysical Research Letters</i> , 2004 , 31, n/a-n/a | 4.9 | 26 |
| 82 | Evaluation of the use of a commercially available cavity ringdown absorption spectrometer for measuring NO ₂ in flight, and observations over the Mid-Atlantic States, during DISCOVER-AQ. <i>Journal of Atmospheric Chemistry</i> , 2015 , 72, 503-521 | 3.2 | 25 |
| 81 | Methane Emissions From the Baltimore-Washington Area Based on Airborne Observations: Comparison to Emissions Inventories. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018 , 123, 8869-8882 | 4.4 | 25 |
| 80 | Anthropogenic air pollution observed near dust source regions in northwestern China during springtime 2008. <i>Journal of Geophysical Research</i> , 2010 , 115, | | 25 |
| 79 | Trace gas concentrations and meteorology in rural Virginia: 2. Reactive nitrogen compounds. <i>Journal of Geophysical Research</i> , 1992 , 97, 20631 | | 25 |
| 78 | Estimating Methane Emissions From Underground Coal and Natural Gas Production in Southwestern Pennsylvania. <i>Geophysical Research Letters</i> , 2019 , 46, 4531-4540 | 4.9 | 24 |
| 77 | Bulk and size-segregated aerosol composition observed during INDOEX 1999: Overview of meteorology and continental impacts. <i>Journal of Geophysical Research</i> , 2003 , 108, | | 24 |
| 76 | Top-Down Estimates of NO _x and CO Emissions From Washington, D.C.-Baltimore During the WINTER Campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018 , 123, 7705-7724 | 4.4 | 24 |
| 75 | The flux of reactive nitrogen compounds from eastern North America to the western Atlantic Ocean. <i>Global Biogeochemical Cycles</i> , 1987 , 1, 329-343 | 5.9 | 23 |
| 74 | Advancing measurements of tropospheric NO ₂ from space: New algorithm and first global results from OMPS. <i>Geophysical Research Letters</i> , 2014 , 41, 4777-4786 | 4.9 | 22 |

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| 73 | Particulate polycyclic aromatic hydrocarbons in the Atlantic and Indian Ocean atmospheres during the Indian Ocean Experiment and Aerosols99: Continental sources to the marine atmosphere. <i>Journal of Geophysical Research</i> , 2004 , 109, | | 22 |
| 72 | Using Short-Term CO/CO ₂ Ratios to Assess Air Mass Differences Over the Korean Peninsula During KORUS-AQ. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019 , 124, 10951-10972 | 4.4 | 21 |
| 71 | Method for characterization of low molecular weight organic acids in atmospheric aerosols using ion chromatography mass spectrometry. <i>Analytical Chemistry</i> , 2014 , 86, 7328-36 | 7.8 | 21 |
| 70 | Formaldehyde in the Tropical Western Pacific: Chemical sources and sinks, convective transport, and representation in CAM-Chem and the CCM1 models. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017 , 122, 11201-11226 | 4.4 | 21 |
| 69 | Observations of NO _y , CO, and SO ₂ and the origin of reactive nitrogen in the eastern United States. <i>Journal of Geophysical Research</i> , 2000 , 105, 3553-3563 | | 21 |
| 68 | Evaluating commercial marine emissions and their role in air quality policy using observations and the CMAQ model. <i>Atmospheric Environment</i> , 2018 , 173, 96-107 | 5.3 | 21 |
| 67 | On the use of data from commercial NO _x analyzers for air pollution studies. <i>Atmospheric Environment</i> , 2019 , 214, 116873 | 5.3 | 20 |
| 66 | Nitric oxide soil emissions from tilled and untilled cornfields. <i>Agricultural and Forest Meteorology</i> , 1998 , 90, 307-311 | 5.8 | 20 |
| 65 | In situ measurements of aerosol mass concentration and radiative properties in Xianghe, southeast of Beijing. <i>Journal of Geophysical Research</i> , 2007 , 112, | | 20 |
| 64 | A side-by-side comparison of filter-based PM _{2.5} measurements at a suburban site: A closure study. <i>Atmospheric Environment</i> , 2007 , 41, 6167-6184 | 5.3 | 19 |
| 63 | Precision of nitrogen dioxide photolysis rate measurements. <i>Environmental Science & Technology</i> , 1980 , 14, 1261-1262 | 10.3 | 19 |
| 62 | Aura OMI observations of regional SO ₂ and NO ₂ pollution changes from 2005 to 2014 | | 19 |
| 61 | Vertical distributions of aerosol optical properties during the spring 2016 ARIAs airborne campaign in the North China Plain. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 8995-9010 | 6.8 | 19 |
| 60 | Observations and tropospheric photochemistry in central North Carolina. <i>Journal of Geophysical Research</i> , 1994 , 99, 10553 | | 18 |
| 59 | Methane Emissions from the Marcellus Shale in Southwestern Pennsylvania and Northern West Virginia Based on Airborne Measurements. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019 , 124, 1862-1878 | 4.4 | 18 |
| 58 | An observationally constrained evaluation of the oxidative capacity in the tropical western Pacific troposphere. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 7461-7488 | 4.4 | 17 |
| 57 | Regional air pollution and its radiative forcing: Studies with a single-column chemical and radiation transport model. <i>Journal of Geophysical Research</i> , 2001 , 106, 28751-28770 | | 16 |
| 56 | Interannual variability over the eastern North Atlantic Ocean: Chemical and meteorological evidence for tropical influence on regional-scale transport in the extratropics. <i>Journal of Geophysical Research</i> , 1994 , 99, 22923 | | 16 |

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| 55 | Full-coverage mapping and spatiotemporal variations of ground-level ozone (O ₃) pollution from 2013 to 2020 across China. <i>Remote Sensing of Environment</i> , 2021 , 270, 112775 | 13.2 | 16 |
| 54 | Urban Emissions of Water Vapor in Winter. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017 , 122, 9467-9484 | 4.4 | 13 |
| 53 | Aircraft measurements of SO ₂ and aerosols over northeastern China: Vertical profiles and the influence of weather on air quality. <i>Atmospheric Environment</i> , 2012 , 62, 492-501 | 5.3 | 13 |
| 52 | The sensitivity of modeled ozone to the temporal distribution of point, area, and mobile source emissions in the eastern United States. <i>Atmospheric Environment</i> , 2009 , 43, 4603-4611 | 5.3 | 13 |
| 51 | Correcting model biases of CO in East Asia: impact on oxidant distributions during KORUS-AQ. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 14617-14647 | 6.8 | 13 |
| 50 | Concentrations and origins of atmospheric lead and other trace species at a rural site in northern China. <i>Journal of Geophysical Research</i> , 2010 , 115, | | 12 |
| 49 | Carbon monoxide in the U.S. mid-Atlantic troposphere: Evidence for a decreasing trend. <i>Geophysical Research Letters</i> , 1999 , 26, 2861-2864 | 4.9 | 12 |
| 48 | Use of tethered sonde and aircraft profiles to study the impact of mesoscale and microscale meteorology on air quality. <i>Atmospheric Environment</i> , 2017 , 149, 55-69 | 5.3 | 11 |
| 47 | Modification of a commercial cavity ring-down spectroscopy NO ₂ detector for enhanced sensitivity. <i>Review of Scientific Instruments</i> , 2009 , 80, 113107 | 1.7 | 11 |
| 46 | Nonmethane hydrocarbon mixing ratios in continental outflow air from eastern North America: Export of ozone precursors to Bermuda. <i>Journal of Geophysical Research</i> , 2000 , 105, 9981-9990 | | 11 |
| 45 | Linking improvements in sulfur dioxide emissions to decreasing sulfate wet deposition by combining satellite and surface observations with trajectory analysis. <i>Atmospheric Environment</i> , 2019 , 199, 210-223 | 5.3 | 11 |
| 44 | Volatile chemical product emissions enhance ozone and modulate urban chemistry. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118, | 11.5 | 11 |
| 43 | Wintertime CO, CH ₄ , and CO Emissions Estimation for the Washington, DC-Baltimore Metropolitan Area Using an Inverse Modeling Technique. <i>Environmental Science & Technology</i> , 2020 , 54, 2606-2614 | 10.3 | 10 |
| 42 | A new gas-phase nitric acid calibration system. <i>Environmental Science & Technology</i> , 1989 , 23, 106-110. | 10.3 | 10 |
| 41 | Observations of tropospheric trace gases and meteorology in rural Virginia using an unattended monitoring system: Hurricane Hugo (1989), A case study. <i>Journal of Geophysical Research</i> , 1991 , 96, 9341 | | 10 |
| 40 | The global tropospheric ammonia distribution as seen in the 13 year AIRS measurement record | | 10 |
| 39 | Methane emissions from the Marcellus Shale in southwestern Pennsylvania and northern West Virginia based on airborne measurements. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017 , 122, 4639-4653 | 4.4 | 9 |
| 38 | Ground-based and airborne observations of carbon monoxide during NASA Measurements of Air Pollution From Satellite (MAPS) missions SRL-1 and SRL-2. <i>Journal of Geophysical Research</i> , 1998 , 103, 19305-19316 | | 9 |

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| 37 | Assessing Measurements of Pollution in the Troposphere (MOPITT) carbon monoxide retrievals over urban versus non-urban regions. <i>Atmospheric Measurement Techniques</i> , 2020 , 13, 1337-1356 | 4 | 8 |
| 36 | Using near-road observations of CO, NO _y , and CO ₂ to investigate emissions from vehicles: Evidence for an impact of ambient temperature and specific humidity. <i>Atmospheric Environment</i> , 2020 , 232, 117558 | 5.3 | 8 |
| 35 | Evidence for an increase in the ozone photochemical lifetime in the eastern United States using a regional air quality model. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015 , 120, 12778-12793 | 4.4 | 8 |
| 34 | Tropospheric chemistry over the lower Great Plains of the United States. 1. Meteorology. <i>Journal of Geophysical Research</i> , 1992 , 97, 17963 | | 8 |
| 33 | Smoke over haze: Comparative analysis of satellite, surface radiometer, and airborne in situ measurements of aerosol optical properties and radiative forcing over the eastern United States. <i>Journal of Geophysical Research</i> , 2005 , 110, | | 7 |
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