Nickolay A Krotkov

List of Publications by Year
in descending order

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210 papers	13,218 citations	17405 63 h-index	30010 103 g-index
288 all docs	288 docs citations	288 times ranked	8174 citing authors

#	ARTICLE	IF	CITATIONS
1	Aura OMI observations of regional SO&lt;sub&gt;2&lt;/sub&gt; and NO&lt;sub&gt;2&lt;/sub&gt; pollution changes from 2005 to 2015. Atmospheric Chemistry and Physics, 2016, 16, 4605-4629.	1.9	521
2	Emissions estimation from satellite retrievals: A review of current capability. Atmospheric Environment, 2013, 77, 1011-1042.	1.9	323
3	A decade of global volcanic SO2 emissions measured from space. Scientific Reports, 2017, 7, 44095.	1.6	289
4	A new stratospheric and tropospheric NO&lt;sub&gt;2&lt;/sub&gt; retrieval algorithm for nadir-viewing satellite instruments: applications to OMI. Atmospheric Measurement Techniques, 2013, 6, 2607-2626.	1.2	269
5	The Ozone Monitoring Instrument: overview of 14 years in space. Atmospheric Chemistry and Physics, 2018, 18, 5699-5745.	1.9	259
6	Band residual difference algorithm for retrieval of SO/sub 2/ from the aura ozone monitoring instrument (OMI). IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1259-1266.	2.7	253
7	Tropospheric emissions: Monitoring of pollution (TEMPO). Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 186, 17-39.	1.1	239
8	SO₂emissions and lifetimes: Estimates from inverse modeling using in situ and global, space-based (SCIAMACHY and OMI) observations. Journal of Geophysical Research, 2011, 116, .	3.3	230
9	India Is Overtaking China as the Worldâ€™s Largest Emitter of Anthropogenic Sulfur Dioxide. Scientific Reports, 2017, 7, 14304.	1.6	230
10	Volcanic sulfur dioxide measurements from the total ozone mapping spectrometer instruments. Journal of Geophysical Research, 1995, 100, 14057.	3.3	217
11	Highâ€Resolution Mapping of Nitrogen Dioxide With TROPOMI: First Results and Validation Over the Canadian Oil Sands. Geophysical Research Letters, 2019, 46, 1049-1060.	1.5	209
12	Abrupt decline in tropospheric nitrogen dioxide over China after the outbreak of COVID-19. Science Advances, 2020, 6, eabc2992.	4.7	208
13	A global catalogue of large SO&lt;sub&gt;2&lt;/sub&gt; sources and emissions derived from the Ozone Monitoring Instrument. Atmospheric Chemistry and Physics, 2016, 16, 11497-11519.	1.9	200
14	The version 3 OMI NO&lt;sub&gt;2&lt;/sub&gt; standard product. Atmospheric Measurement Techniques, 2017, 10, 3133-3149.	1.2	198
15	Distribution of UV radiation at the Earth's surface from TOMS-measured UV-backscattered radiances. Journal of Geophysical Research, 1999, 104, 12059-12076.	3.3	196
16	Retrieval of large volcanic SO₂ columns from the Aura Ozone Monitoring Instrument: Comparison and limitations. Journal of Geophysical Research, 2007, 112, .	3.3	186
17	Satellite data of atmospheric pollution for U.S. air quality applications: Examples of applications, summary of data end-user resources, answers to FAQs, and common mistakes to avoid. Atmospheric Environment, 2014, 94, 647-662.	1.9	186
18	Evaluation of OMI operational standard NO&lt;sub&gt;2&lt;/sub&gt; column retrievals using in situ and surface-based NO&lt;sub&gt;2&lt;/sub&gt; observations. Atmospheric Chemistry and Physics, 2014, 14, 11587-11609.	1.9	182

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19	Satellite estimation of spectral surface UV irradiance in the presence of tropospheric aerosols: 1. Cloud-free case. Journal of Geophysical Research, 1998, 103, 8779-8793.	3.3	177
20	Scaling Relationship for NO₂ Pollution and Urban Population Size: A Satellite Perspective. Environmental Science & Technology, 2013, 47, 7855-7861.	4.6	176
21	What would have happened to the ozone layer if chlorofluorocarbons (CFCs) had not been regulated?. Atmospheric Chemistry and Physics, 2009, 9, 2113-2128.	1.9	165
22	A fast and sensitive new satellite SO₂ retrieval algorithm based on principal component analysis: Application to the ozone monitoring instrument. Geophysical Research Letters, 2013, 40, 6314-6318.	1.5	165
23	U.S. NO2 trends (2005â€“2013): EPA Air Quality System (AQS) data versus improved observations from the Ozone Monitoring Instrument (OMI). Atmospheric Environment, 2015, 110, 130-143.	1.9	162
24	Lifetimes and emissions of SO₂ from point sources estimated from OMI. Geophysical Research Letters, 2015, 42, 1969-1976.	1.5	152
25	Estimation of SO₂emissions using OMI retrievals. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	150
26	Space-based detection of missing sulfur dioxide sources of global air pollution. Nature Geoscience, 2016, 9, 496-500.	5.4	149
27	Recent large reduction in sulfur dioxide emissions from Chinese power plants observed by the Ozone Monitoring Instrument. Geophysical Research Letters, 2010, 37, .	1.5	147
28	Tracking volcanic sulfur dioxide clouds for aviation hazard mitigation. Natural Hazards, 2009, 51, 325-343.	1.6	141
29	Validation of SO₂ retrievals from the Ozone Monitoring Instrument over NE China. Journal of Geophysical Research, 2008, 113, .	3.3	139
30	Structural uncertainty in air mass factor calculation for NO&lt;sub&gt;2&lt;/sub&gt; and HCHO satellite retrievals. Atmospheric Measurement Techniques, 2017, 10, 759-782.	1.2	133
31	Improved satellite retrievals of NO&lt;sub&gt;2&lt;/sub&gt; and SO&lt;sub&gt;2&lt;/sub&gt; over the Canadian oil sands and comparisons with surface measurements. Atmospheric Chemistry and Physics, 2014, 14, 3637-3656.	1.9	132
32	Validation of daily erythemal doses from Ozone Monitoring Instrument with groundâ€•based UV measurement data. Journal of Geophysical Research, 2007, 112, .	3.3	129
33	Photomineralization of terrigenous dissolved organic matter in Arctic coastal waters from 1979 to 2003: Interannual variability and implications of climate change. Global Biogeochemical Cycles, 2006, 20, n/a-n/a.	1.9	126
34	Satellite observations of changes in air quality during the 2008 Beijing Olympics and Paralympics. Geophysical Research Letters, 2009, 36, .	1.5	120
35	Air quality over the Canadian oil sands: A first assessment using satellite observations. Geophysical Research Letters, 2012, 39, .	1.5	120
36	Sulfur dioxide emissions from Peruvian copper smelters detected by the Ozone Monitoring Instrument. Geophysical Research Letters, 2007, 34, .	1.5	119

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37	Daily monitoring of Ecuadorian volcanic degassing from space. Journal of Volcanology and Geothermal Research, 2008, 176, 141-150.	0.8	113
38	Ozone Monitoring Instrument Observations of Interannual Increases in SO₂ Emissions from Indian Coal-Fired Power Plants during 2005â€“2012. Environmental Science & Technology, 2013, 47, 13993-14000.	4.6	113
39	Earth Observations from DSCOVR EPIC Instrument. Bulletin of the American Meteorological Society, 2018, 99, 1829-1850.	1.7	108
40	Satellite estimation of spectral surface UV irradiance: 2. Effects of homogeneous clouds and snow. Journal of Geophysical Research, 2001, 106, 11743-11759.	3.3	106
41	Retrieval of vertical columns of sulfur dioxide from SCIAMACHY and OMI: Air mass factor algorithm development, validation, and error analysis. Journal of Geophysical Research, 2009, 114, .	3.3	105
42	Enhanced Capabilities of TROPOMI NO₂: Estimating NO_{<i>X</i>} from North American Cities and Power Plants. Environmental Science & Technology, 2019, 53, 12594-12601.	4.6	103
43	Application of OMI, SCIAMACHY, and GOMEâ€•2 satellite SO₂ retrievals for detection of large emission sources. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,399.	1.2	102
44	Fogâ€•and cloudâ€•induced aerosol modification observed by the Aerosol Robotic Network (AERONET). Journal of Geophysical Research, 2012, 117, .	3.3	99
45	The observed response of Ozone Monitoring Instrument (OMI) NO2 columns to NOx emission controls on power plants in the United States: 2005â€“2011. Atmospheric Environment, 2013, 81, 102-111.	1.9	99
46	Surface ultraviolet irradiance from OMI. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 1267-1271.	2.7	98
47	Aircraft observations of dust and pollutants over northeast China: Insight into the meteorological mechanisms of transport. Journal of Geophysical Research, 2007, 112, .	3.3	98
48	Hit from both sides: tracking industrial and volcanic plumes in Mexico City with surface measurements and OMI SO&lt;sub&gt;2&lt;/sub&gt; retrievals during the MILAGRO field campaign. Atmospheric Chemistry and Physics, 2009, 9, 9599-9617.	1.9	96
49	Dispersion and lifetime of the SO₂ cloud from the August 2008 Kasatochi eruption. Journal of Geophysical Research, 2010, 115, .	3.3	91
50	Impacts of brown carbon from biomass burning on surface UV and ozone photochemistry in the Amazon Basin. Scientific Reports, 2016, 6, 36940.	1.6	90
51	Global fine-scale changes in ambient NO2 during COVID-19 lockdowns. Nature, 2022, 601, 380-387.	13.7	90
52	Ozone Monitoring Instrument (OMI) Aura nitrogen dioxide standard product version 4.0 with improved surface and cloud treatments. Atmospheric Measurement Techniques, 2021, 14, 455-479.	1.2	89
53	Comparison of Brewer ultraviolet irradiance measurements with total ozone mapping spectrometer satellite retrievals. Optical Engineering, 2002, 41, 3051.	0.5	88
54	Comparison of daily UV doses estimated from Nimbus 7/TOMS measurements and ground-based spectroradiometric data. Journal of Geophysical Research, 2000, 105, 5059-5067.	3.3	87

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55	Volcanic eruption detection by the Total Ozone Mapping Spectrometer (TOMS) instruments: a 22-year record of sulphur dioxide and ash emissions. Geological Society Special Publication, 2003, 213, 177-202.	0.8	84
56	UV index climatology over the United States and Canada from ground-based and satellite estimates. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	80
57	Sulfur dioxide vertical column DOAS retrievals from the Ozone Monitoring Instrument: Global observations and comparison to groundâ€based and satellite data. Journal of Geophysical Research D: Atmospheres, 2015, 120, 2470-2491.	1.2	79
58	Direct retrieval of sulfur dioxide amount and altitude from spaceborne hyperspectral UV measurements: Theory and application. Journal of Geophysical Research, 2010, 115, .	3.3	78
59	New-generation NASA Aura Ozone Monitoring Instrument (OMI) volcanic SO&lt;sub&gt;2&lt;/sub&gt; dataset: algorithm description, initial results, and continuation with the Suomi-NPP Ozone Mapping and Profiler Suite (OMPS). Atmospheric Measurement Techniques, 2017, 10, 445-458.	1.2	78
60	Spatially and seasonally resolved estimate of the ratio of organic mass to organic carbon. Atmospheric Environment, 2014, 87, 34-40.	1.9	76
61	Assessment of TOMS UV bias due to absorbing aerosols. Journal of Geophysical Research, 2005, 110, .	3.3	73
62	Ozone Monitoring Instrument spectral UV irradiance products: comparison with ground based measurements at an urban environment. Atmospheric Chemistry and Physics, 2009, 9, 585-594.	1.9	73
63	Revising the slant column density retrieval of nitrogen dioxide observed by the Ozone Monitoring Instrument. Journal of Geophysical Research D: Atmospheres, 2015, 120, 5670-5692.	1.2	72
64	A new approach to correct for absorbing aerosols in OMI UV. Geophysical Research Letters, 2009, 36, .	1.5	71
65	Detection of volcanic ash clouds from Nimbus 7/total ozone mapping spectrometer. Journal of Geophysical Research, 1997, 102, 16749-16759.	3.3	68
66	Retrieval of aerosol single scattering albedo at ultraviolet wavelengths at the T1 site during MILAGRO. Atmospheric Chemistry and Physics, 2009, 9, 5813-5827.	1.9	68
67	Measurements of nitrogen dioxide total column amounts using a Brewer double spectrophotometer in direct Sun mode. Journal of Geophysical Research, 2006, 111, .	3.3	66
68	Effect of particle non-sphericity on satellite monitoring of drifting volcanic ash clouds. Journal of Quantitative Spectroscopy and Radiative Transfer, 1999, 63, 613-630.	1.1	65
69	Global satellite analysis of the relation between aerosols and short-lived trace gases. Atmospheric Chemistry and Physics, 2011, 11, 1255-1267.	1.9	65
70	Global dry deposition of nitrogen dioxide and sulfur dioxide inferred from spaceâ€based measurements. Global Biogeochemical Cycles, 2014, 28, 1025-1043.	1.9	65
71	Spectral properties of backscattered UV radiation in cloudy atmospheres. Journal of Geophysical Research, 2004, 109, .	3.3	63
72	Stratospheric Injection of Massive Smoke Plume From Canadian Boreal Fires in 2017 as Seen by DSCOVRâ€EPIC, CALIOP, and OMPSâ€LP Observations. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032579.	1.2	63

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73	Dry Deposition of Reactive Nitrogen From Satellite Observations of Ammonia and Nitrogen Dioxide Over North America. Geophysical Research Letters, 2018, 45, 1157-1166.	1.5	62
74	A new global anthropogenic SO&lt;sub&gt;2&lt;/sub&gt; emission inventory for the last decade: a mosaic of satellite-derived and bottom-up emissions. Atmospheric Chemistry and Physics, 2018, 18, 16571-16586.	1.9	61
75	Measuring global volcanic degassing with the Ozone Monitoring Instrument (OMI). Geological Society Special Publication, 2013, 380, 229-257.	0.8	60
76	Extending the longâ€term record of volcanic SO₂ emissions with the Ozone Mapping and Profiler Suite nadir mapper. Geophysical Research Letters, 2015, 42, 925-932.	1.5	58
77	Comparison of TOMS and AVHRR volcanic ash retrievals from the August 1992 eruption of Mt. Spurr. Geophysical Research Letters, 1999, 26, 455-458.	1.5	57
78	Aerosol ultraviolet absorption experiment (2002 to 2004), part 2: absorption optical thickness, refractive index, and single scattering albedo. Optical Engineering, 2005, 44, 041005.	0.5	57
79	The Februaryâ€“March 2000 eruption of Hekla, Iceland from a satellite perspective. Geophysical Monograph Series, 2003, , 107-132.	0.1	56
80	SO₂ over central China: Measurements, numerical simulations and the tropospheric sulfur budget. Journal of Geophysical Research, 2012, 117, .	3.3	55
81	Ultraviolet optical model of volcanic clouds for remote sensing of ash and sulfur dioxide. Journal of Geophysical Research, 1997, 102, 21891-21904.	3.3	54
82	Fire at Iraqi sulfur plant emits SO2clouds detected by Earth Probe TOMS. Geophysical Research Letters, 2004, 31, .	1.5	52
83	Estimates of lightning NO<i>_x</i> production based on OMI NO₂ observations over the Gulf of Mexico. Journal of Geophysical Research D: Atmospheres, 2016, 121, 8668-8691.	1.2	52
84	A Decade of Change in NO₂ and SO₂ over the Canadian Oil Sands As Seen from Space. Environmental Science & Technology, 2016, 50, 331-337.	4.6	52
85	Validation of ozone monitoring instrument SO₂ measurements in the Okmok volcanic cloud over Pullman, WA, July 2008. Journal of Geophysical Research, 2010, 115, .	3.3	50
86	Multi-source SO&lt;sub&gt;2&lt;/sub&gt; emission retrievals and consistency of satellite and surface measurements with reported emissions. Atmospheric Chemistry and Physics, 2017, 17, 12597-12616.	1.9	50
87	Continuation of long-term global SO&lt;sub&gt;2&lt;/sub&gt; pollution monitoring from OMI to OMPS. Atmospheric Measurement Techniques, 2017, 10, 1495-1509.	1.2	50
88	Global mapping of underwater UV irradiances and DNA-weighted exposures using Total Ozone Mapping Spectrometer and Sea-viewing Wide Field-of-view Sensor data products. Journal of Geophysical Research, 2001, 106, 27205-27219.	3.3	49
89	El Chichon: The genesis of volcanic sulfur dioxide monitoring from space. Journal of Volcanology and Geothermal Research, 2008, 175, 408-414.	0.8	49
90	Improving retrieval of volcanic sulfur dioxide from backscattered UV satellite observations. Geophysical Research Letters, 2009, 36, .	1.5	48

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91	International Photolysis Frequency Measurement and Model Intercomparison (IPMMI): Spectral actinic solar flux measurements and modeling. Journal of Geophysical Research, 2003, 108, .	3.3	47
92	Estimating the altitude of volcanic sulfur dioxide plumes from space borne hyperâ€spectral UV measurements. Geophysical Research Letters, 2009, 36, .	1.5	47
93	Comparison of satellite-derived UV irradiances with ground-based measurements at four European stations. Journal of Geophysical Research, 2006, 111, .	3.3	46
94	Relationship between column-density and surface mixing ratio: Statistical analysis of O3 and NO2 data from the July 2011 Maryland DISCOVER-AQ mission. Atmospheric Environment, 2014, 92, 429-441.	1.9	46
95	Comparison of OMI NO&lt;sub&gt;2&lt;/sub&gt; observations and their seasonal and weekly cycles with ground-based measurements in Helsinki. Atmospheric Measurement Techniques, 2016, 9, 5203-5212.	1.2	46
96	Satelliteâ€based global volcanic SO₂ emissions and sulfate direct radiative forcing during 2005â€"2012. Journal of Geophysical Research D: Atmospheres, 2016, 121, 3446-3464.	1.2	45
97	Accounting for the effects of surface BRDF on satellite cloud andÂtrace-gas retrievals: aÂnew approach based on geometry-dependentÂLambertian equivalent reflectivityÂappliedÂtoÂOMIÂalgorithms. Atmospheric Measurement Techniques, 2017, 10, 333-349.	1.2	44
98	Version 2 total ozone mapping spectrometer ultraviolet algorithm: problems and enhancements. Optical Engineering, 2002, 41, 3028.	0.5	41
99	In situ measurements of tropospheric volcanic plumes in Ecuador and Colombia during TC⁴. Journal of Geophysical Research, 2011, 116, .	3.3	41
100	Comparison of UV irradiances from Aura/Ozone Monitoring Instrument (OMI) with Brewer measurements at El Arenosillo (Spain) â€" Part 1: Analysis of parameter influence. Atmospheric Chemistry and Physics, 2010, 10, 5979-5989.	1.9	40
101	A methodology to constrain carbon dioxide emissions from coal-fired power plants using satellite observations of co-emitted nitrogen dioxide. Atmospheric Chemistry and Physics, 2020, 20, 99-116.	1.9	40
102	Anthropogenic and volcanic point source SO&lt;sub&gt;2&lt;/sub&gt; emissions derived from TROPOMI on board Sentinel-5 Precursor: first results. Atmospheric Chemistry and Physics, 2020, 20, 5591-5607.	1.9	39
103	Response of SO₂ and particulate air pollution to local and regional emission controls: A case study in Maryland. Earth's Future, 2016, 4, 94-109.	2.4	38
104	Highâ€resolution NO₂ observations from the Airborne Compact Atmospheric Mapper: Retrieval and validation. Journal of Geophysical Research D: Atmospheres, 2017, 122, 1953-1970.	1.2	38
105	Modeling of 2008 Kasatochi volcanic sulfate direct radiative forcing: assimilation of OMI SO&lt;sub&gt;2&lt;/sub&gt; plume height data and comparison with MODIS and CALIOP observations. Atmospheric Chemistry and Physics, 2013, 13, 1895-1912.	1.9	37
106	Evaluation of GEOS-5 sulfur dioxide simulations during the Frostburg, MD 2010 field campaign. Atmospheric Chemistry and Physics, 2014, 14, 1929-1941.	1.9	37
107	Exploiting OMI NO2 satellite observations to infer fossil-fuel CO2 emissions from U.S. megacities. Science of the Total Environment, 2019, 695, 133805.	3.9	37
108	Satellite-derived emissions of carbon monoxide, ammonia, and nitrogen dioxide from the 2016 Horse River wildfire in the Fort McMurray area. Atmospheric Chemistry and Physics, 2019, 19, 2577-2599.	1.9	37

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109	Ultraviolet remote sensing of volcanic emissions. Geophysical Monograph Series, 2000, , 25-43.	0.1	35
110	Aerosol ultraviolet absorption experiment (2002 to 2004), part 1: ultraviolet multifilter rotating shadowband radiometer calibration and intercomparison with CIMEL sunphotometers. Optical Engineering, 2005, 44, 041004.	0.5	34
111	Transport and evolution of a pollution plume from northern China: A satelliteâ€based case study. Journal of Geophysical Research, 2010, 115, .	3.3	34
112	Anthropogenic sulphur dioxide load over China as observed from different satellite sensors. Atmospheric Environment, 2016, 145, 45-59.	1.9	33
113	Comparisons of spectral aerosol single scattering albedo in Seoul, South Korea. Atmospheric Measurement Techniques, 2018, 11, 2295-2311.	1.2	33
114	Assessment of NO&lt;sub&gt;2&lt;/sub&gt; observations during DISCOVER-AQ and KORUS-AQ field campaigns. Atmospheric Measurement Techniques, 2020, 13, 2523-2546.	1.2	31
115	A new method for global retrievals of HCHO total columns from the Suomi National Polarâ€orbiting Partnership Ozone Mapping and Profiler Suite. Geophysical Research Letters, 2015, 42, 2515-2522.	1.5	30
116	Flux calculation using CARIBIC DOAS aircraft measurements: SO₂ emission of Norilsk. Journal of Geophysical Research, 2012, 117, .	3.3	29
117	First estimates of global free-tropospheric NO&lt;sub&gt;2&lt;/sub&gt; abundances derived using a cloud-slicing technique applied to satellite observations from the Aura Ozone Monitoring Instrument (OMI). Atmospheric Chemistry and Physics, 2014, 14, 10565-10588.	1.9	29
118	Satellite observation of pollutant emissions from gas flaring activities near the Arctic. Atmospheric Environment, 2016, 133, 1-11.	1.9	29
119	Comparisons between ground measurements of broadband ultraviolet irradiance (300 to 380 nm) and total ozone mapping spectrometer ultraviolet estimates at Moscow from 1979 to 2000. Optical Engineering, 2002, 41, 3070.	0.5	28
120	Comparison of UV irradiances from Aura/Ozone Monitoring Instrument (OMI) with Brewer measurements at El Arenosillo (Spain) â€" Part 2: Analysis of site aerosol influence. Atmospheric Chemistry and Physics, 2010, 10, 11867-11880.	1.9	28
121	Version 2 Ozone Monitoring Instrument SO&lt;sub&gt;2&lt;/sub&gt; product (OMSO2) Tj ETQq1 1 0.784314 rgBT / Atmospheric Measurement Techniques, 2020, 13, 6175-6191.	1.2	27
122	Airborne MAXâ€DOAS measurements over California: Testing the NASA OMI tropospheric NO₂ product. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7400-7413.	1.2	26
123	Five decades observing Earthâ€™s atmospheric trace gases using ultraviolet and visible backscatter solar radiation from space. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 238, 106478.	1.1	26
124	Study of SO Pollution in the Middle East Using MERRAâ€2, CAMS Data Assimilation Products, and Highâ€Resolution WRFâ€Chem Simulations. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031993.	1.2	26
125	A new approach to estimating the albedo for snow-covered surfaces in the satellite UV method. Journal of Geophysical Research, 2003, 108, .	3.3	25
126	Midlatitude Lightning NO_x Production Efficiency Inferred From OMI and WWLLN Data. Journal of Geophysical Research D: Atmospheres, 2019, 124, 13475-13497.	1.2	25

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127	Characterization of OMI tropospheric NO&lt;sub&gt;2&lt;/sub&gt; over the Baltic Sea region. Atmospheric Chemistry and Physics, 2014, 14, 7795-7805.	1.9	24
128	Comparison of operational satellite SO&lt;sub&gt;2&lt;/sub&gt; products with ground-based observations in northern Finland during the Icelandic Holuhraun fissure eruption. Atmospheric Measurement Techniques, 2015, 8, 2279-2289.	1.2	24
129	First Observations of Volcanic Eruption Clouds From the L1 Earthâ€Sun Lagrange Point by DSCOVR/EPIC. Geophysical Research Letters, 2018, 45, 11,456.	1.5	23
130	The TROPOMI surface UV algorithm. Atmospheric Measurement Techniques, 2018, 11, 997-1008.	1.2	23
131	Problems in assessment of the ultraviolet penetration into natural waters from space-based measurements. Optical Engineering, 2002, 41, 3019.	0.5	21
132	Applications of Satellite-Based Sulfur Dioxide Monitoring. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2009, 2, 293-298.	2.3	21
133	Rapid transpacific transport in autumn observed by the Aâ€train satellites. Journal of Geophysical Research, 2012, 117, .	3.3	21
134	A cloud algorithm based on the O&lt;sub&gt;2&lt;/sub&gt;-O&lt;sub&gt;2&lt;/sub&gt; 477â€‰nm absorption band featuring an advanced spectral fitting method and the use of surface geometry-dependent Lambertian-equivalent reflectivity. Atmospheric Measurement Techniques, 2018, 11, 4093-4107.	1.2	21
135	Retrieval of ozone column from global irradiance measurements and comparison with TOMS data. A year of data in the Alps. Geophysical Research Letters, 2002, 29, 23-1-23-4.	1.5	20
136	Optical, microphysical and compositional properties of the EyjafjallajÃ¶kull volcanic ash. Atmospheric Chemistry and Physics, 2014, 14, 10649-10661.	1.9	20
137	A geometry-dependent surface Lambertian-equivalent reflectivity product for UVâ€"Vis retrievals â€" Part 1: Evaluation over land surfaces using measurements from OMI at 466â€‰nm. Atmospheric Measurement Techniques, 2019, 12, 3997-4017.	1.2	19
138	A sulfur dioxide Covariance-Based Retrieval Algorithm (COBRA): application to TROPOMI reveals new emission sources. Atmospheric Chemistry and Physics, 2021, 21, 16727-16744.	1.9	19
139	Total ozone mapping spectrometer retrievals of noon erythemal-CIE ultraviolet irradiance compared with Brewer ground-based measurements at El Arenosillo (southwestern Spain). Journal of Geophysical Research, 2007, 112, .	3.3	18
140	Ceramic industry at Morbi as a large source of SO2 emissions in India. Atmospheric Environment, 2020, 223, 117243.	1.9	18
141	Tracking aerosols and SO&lt;sub&gt;2&lt;/sub&gt; clouds from the Raikoke eruption: 3D view from satellite observations. Atmospheric Measurement Techniques, 2021, 14, 7545-7563.	1.2	18
142	Lightning NO_x Production in the Tropics as Determined Using OMI NO₂ Retrievals and WWLLN Stroke Data. Journal of Geophysical Research D: Atmospheres, 2019, 124, 13498-13518.	1.2	17
143	The GeoTASO airborne spectrometer project. Proceedings of SPIE, 2014, , .	0.8	16
144	Quantifying urban, industrial, and background changes in NO&lt;sub&gt;2&lt;/sub&gt; during the COVID-19 lockdown period based on TROPOMI satellite observations. Atmospheric Chemistry and Physics, 2022, 22, 4201-4236.	1.9	16

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145	Surface erythemal UVÂirradiance in the continental United States derived from ground-based and OMI observations: quality assessment, trend analysis and sampling issues. Atmospheric Chemistry and Physics, 2019, 19, 2165-2181.	1.9	15
146	A Balloon Sounding Technique for Measuring SO2 Plumes. Journal of Atmospheric and Oceanic Technology, 2010, 27, 1318-1330.	0.5	14
147	Likely seeding of cirrus clouds by stratospheric Kasatochi volcanic aerosol particles near a mid-latitude tropopause fold. Atmospheric Environment, 2012, 46, 441-448.	1.9	14
148	Ultraviolet Satellite Measurements ofÂVolcanicÂAsh. , 2016, , 217-231.		14
149	Using CATS nearâ€realâ€time lidar observations to monitor and constrain volcanic sulfur dioxide (SO₂) forecasts. Geophysical Research Letters, 2016, 43, 11,089.	1.5	14
150	Linking improvements in sulfur dioxide emissions to decreasing sulfate wet deposition by combining satellite and surface observations with trajectory analysis. Atmospheric Environment, 2019, 199, 210-223.	1.9	14
151	TEMPO Green Paper: Chemistry, physics, and meteorology experiments with the Tropospheric Emissions: monitoring of pollution instrument. , 2019, , .		14
152	<title>Comparisons of USDA UV shadow-band irradiance measurements with TOMS satellite and DISORT model retrievels under all sky conditions</title>. , 2002, , .		13
153	A geometry-dependent surface Lambertian-equivalent reflectivity product for UVâ€"Vis retrievals â€" Part 2: Evaluation over open ocean. Atmospheric Measurement Techniques, 2019, 12, 6749-6769.	1.2	13
154	Description and validation of the OMI very fast delivery products. Journal of Geophysical Research, 2008, 113, .	3.3	12
155	Revised and extended benchmark results for Rayleigh scattering of sunlight in spherical atmospheres. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 254, 107181.	1.1	12
156	VolKilau: Volcano Rapid Response Balloon Campaign during the 2018 Kilauea Eruption. Bulletin of the American Meteorological Society, 2020, 101, E1602-E1618.	1.7	12
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