

Nickolay A Krotkov

List of Publications by Citations

Source: <https://exaly.com/author-pdf/560288/nickolay-a-krotkov-publications-by-citations.pdf>

Version: 2024-04-25

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

223
papers

10,159
citations

60
h-index

94
g-index

288
ext. papers

11,704
ext. citations

5.4
avg, IF

6.07
L-index

#	Paper	IF	Citations
223	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
222	Emissions estimation from satellite retrievals: A review of current capability. <i>Atmospheric Environment</i> , 2013 , 77, 1011-1042	5.3	270
221	Band residual difference algorithm for retrieval of SO ₂ from the aura ozone monitoring instrument (OMI). <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2006 , 44, 1259-1266	8.1	222
220	A new stratospheric and tropospheric NO ₂ retrieval algorithm for nadir-viewing satellite instruments: applications to OMI. <i>Atmospheric Measurement Techniques</i> , 2013 , 6, 2607-2626	4	220
219	Volcanic sulfur dioxide measurements from the total ozone mapping spectrometer instruments. <i>Journal of Geophysical Research</i> , 1995 , 100, 14057		186
218	India Is Overtaking China as the World's Largest Emitter of Anthropogenic Sulfur Dioxide. <i>Scientific Reports</i> , 2017 , 7, 14304	4.9	182
217	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
216	A decade of global volcanic SO emissions measured from space. <i>Scientific Reports</i> , 2017 , 7, 44095	4.9	175
215	Distribution of UV radiation at the Earth's surface from TOMS-measured UV-backscattered radiances. <i>Journal of Geophysical Research</i> , 1999 , 104, 12059-12076		165
214	Tropospheric Emissions: Monitoring of Pollution (TEMPO). <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2017 , 186, 17-39	2.1	163
213	The Ozone Monitoring Instrument: overview of 14 years in space. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 5699-5745	6.8	163
212	Retrieval of large volcanic SO ₂ columns from the Aura Ozone Monitoring Instrument: Comparison and limitations. <i>Journal of Geophysical Research</i> , 2007 , 112,		156
211	The version 3 OMI NO ₂ standard product. <i>Atmospheric Measurement Techniques</i> , 2017 , 10, 3133-3149	4	152
210	Satellite estimation of spectral surface UV irradiance in the presence of tropospheric aerosols: 1. Cloud-free case. <i>Journal of Geophysical Research</i> , 1998 , 103, 8779-8793		152
209	A global catalogue of large SO ₂ sources and emissions derived from the Ozone Monitoring Instrument. <i>Atmospheric Chemistry and Physics</i> , 2016 , 16, 11497-11519	6.8	148
208	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. <i>Atmospheric Environment</i> , 2014 , 94, 647-662	5.3	148
207	Evaluation of OMI operational standard NO ₂ column retrievals using in situ and surface-based NO ₂ observations. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 11587-11609	6.8	143

206	A fast and sensitive new satellite SO ₂ retrieval algorithm based on principal component analysis: Application to the ozone monitoring instrument. <i>Geophysical Research Letters</i> , 2013 , 40, 6314-6318	4.9	142
205	Abrupt decline in tropospheric nitrogen dioxide over China after the outbreak of COVID-19. <i>Science Advances</i> , 2020 , 6, eabc2992	14.3	132
204	Recent large reduction in sulfur dioxide emissions from Chinese power plants observed by the Ozone Monitoring Instrument. <i>Geophysical Research Letters</i> , 2010 , 37,	4.9	130
203	Scaling relationship for NO ₂ pollution and urban population size: a satellite perspective. <i>Environmental Science & Technology</i> , 2013 , 47, 7855-61	10.3	129
202	U.S. NO ₂ trends (2005–2013): EPA Air Quality System (AQS) data versus improved observations from the Ozone Monitoring Instrument (OMI). <i>Atmospheric Environment</i> , 2015 , 110, 130-143	5.3	128
201	What would have happened to the ozone layer if chlorofluorocarbons (CFCs) had not been regulated?. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 2113-2128	6.8	128
200	Estimation of SO ₂ emissions using OMI retrievals. <i>Geophysical Research Letters</i> , 2011 , 38, n/a-n/a	4.9	126
199	Validation of SO ₂ retrievals from the Ozone Monitoring Instrument over NE China. <i>Journal of Geophysical Research</i> , 2008 , 113,		121
198	Tracking volcanic sulfur dioxide clouds for aviation hazard mitigation. <i>Natural Hazards</i> , 2009 , 51, 325-343,		117
197	High resolution mapping of nitrogen dioxide with TROPOMI: First results and validation over the Canadian oil sands. <i>Geophysical Research Letters</i> , 2019 , 46, 1049-1060	4.9	117
196	Lifetimes and emissions of SO ₂ from point sources estimated from OMI. <i>Geophysical Research Letters</i> , 2015 , 42, 1969-1976	4.9	112
195	Validation of daily erythemal doses from Ozone Monitoring Instrument with ground-based UV measurement data. <i>Journal of Geophysical Research</i> , 2007 , 112,		112
194	Improved satellite retrievals of NO ₂ and SO ₂ over the Canadian oil sands and comparisons with surface measurements. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 3637-3656	6.8	110
193	Air quality over the Canadian oil sands: A first assessment using satellite observations. <i>Geophysical Research Letters</i> , 2012 , 39, n/a-n/a	4.9	108
192	Satellite observations of changes in air quality during the 2008 Beijing Olympics and Paralympics. <i>Geophysical Research Letters</i> , 2009 , 36,	4.9	108
191	Space-based detection of missing sulfur dioxide sources of global air pollution. <i>Nature Geoscience</i> , 2016 , 9, 496-500	18.3	105
190	Photomineralization of terrigenous dissolved organic matter in Arctic coastal waters from 1979 to 2003: Interannual variability and implications of climate change. <i>Global Biogeochemical Cycles</i> , 2006 , 20, n/a-n/a	5.9	105
189	Sulfur dioxide emissions from Peruvian copper smelters detected by the Ozone Monitoring Instrument. <i>Geophysical Research Letters</i> , 2007 , 34,	4.9	100

188	Retrieval of vertical columns of sulfur dioxide from SCIAMACHY and OMI: Air mass factor algorithm development, validation, and error analysis. <i>Journal of Geophysical Research</i> , 2009 , 114,		93
187	Daily monitoring of Ecuadorian volcanic degassing from space. <i>Journal of Volcanology and Geothermal Research</i> , 2008 , 176, 141-150	2.8	92
186	Structural uncertainty in air mass factor calculation for NO ₂ and HCHO satellite retrievals. <i>Atmospheric Measurement Techniques</i> , 2017 , 10, 759-782	4	91
185	Application of OMI, SCIAMACHY, and GOME-2 satellite SO ₂ retrievals for detection of large emission sources. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013 , 118, 11,399-11,418	4.4	91
184	Satellite estimation of spectral surface UV irradiance: 2. Effects of homogeneous clouds and snow. <i>Journal of Geophysical Research</i> , 2001 , 106, 11743-11759		89
183	Ozone monitoring instrument observations of interannual increases in SO ₂ emissions from Indian coal-fired power plants during 2005-2012. <i>Environmental Science & Technology</i> , 2013 , 47, 13993-4000	10.3	88
182	Dispersion and lifetime of the SO ₂ cloud from the August 2008 Kasatochi eruption. <i>Journal of Geophysical Research</i> , 2010 , 115,		82
181	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
180	Hit from both sides: tracking industrial and volcanic plumes in Mexico City with surface measurements and OMI SO ₂ retrievals during the MILAGRO field campaign. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 9599-9617	6.8	80
179	Surface ultraviolet irradiance from OMI. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2006 , 44, 1267-1271	8.1	77
178	The observed response of Ozone Monitoring Instrument (OMI) NO ₂ columns to NO _x emission controls on power plants in the United States: 2005-2011. <i>Atmospheric Environment</i> , 2013 , 81, 102-111	5.3	76
177	Comparison of Brewer ultraviolet irradiance measurements with total ozone mapping spectrometer satellite retrievals. <i>Optical Engineering</i> , 2002 , 41, 3051	1.1	73
176	Earth Observations from DSCOVR/EPIC Instrument. <i>Bulletin of the American Meteorological Society</i> , 2018 , 99, 1829-1850	6.1	72
175	Fog- and cloud-induced aerosol modification observed by the Aerosol Robotic Network (AERONET). <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		70
174	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
173	Volcanic eruption detection by the Total Ozone Mapping Spectrometer (TOMS) instruments: a 22-year record of sulphur dioxide and ash emissions. <i>Geological Society Special Publication</i> , 2003 , 213, 177-202	1.7	68
172	Direct retrieval of sulfur dioxide amount and altitude from spaceborne hyperspectral UV measurements: Theory and application. <i>Journal of Geophysical Research</i> , 2010 , 115,		67
171	Comparison of daily UV doses estimated from Nimbus 7/TOMS measurements and ground-based spectroradiometric data. <i>Journal of Geophysical Research</i> , 2000 , 105, 5059-5067		66

170	Sulfur dioxide vertical column DOAS retrievals from the Ozone Monitoring Instrument: Global observations and comparison to ground-based and satellite data. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015 , 120, 2470-2491	4.4	65
169	A new approach to correct for absorbing aerosols in OMI UV. <i>Geophysical Research Letters</i> , 2009 , 36,	4.9	63
168	Assessment of TOMS UV bias due to absorbing aerosols. <i>Journal of Geophysical Research</i> , 2005 , 110,		63
167	Ozone Monitoring Instrument spectral UV irradiance products: comparison with ground based measurements at an urban environment. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 585-594	6.8	62
166	UV index climatology over the United States and Canada from ground-based and satellite estimates. <i>Journal of Geophysical Research</i> , 2004 , 109, n/a-n/a		62
165	Revising the slant column density retrieval of nitrogen dioxide observed by the Ozone Monitoring Instrument. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015 , 120, 5670-5692	4.4	61
164	Retrieval of aerosol single scattering albedo at ultraviolet wavelengths at the T1 site during MILAGRO. <i>Atmospheric Chemistry and Physics</i> , 2009 , 9, 5813-5827	6.8	60
163	Effect of particle non-sphericity on satellite monitoring of drifting volcanic ash clouds. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 1999 , 63, 613-630	2.1	60
162	Global dry deposition of nitrogen dioxide and sulfur dioxide inferred from space-based measurements. <i>Global Biogeochemical Cycles</i> , 2014 , 28, 1025-1043	5.9	58
161	Measurements of nitrogen dioxide total column amounts using a Brewer double spectrophotometer in direct Sun mode. <i>Journal of Geophysical Research</i> , 2006 , 111,		58
160	New-generation NASA Aura Ozone Monitoring Instrument (OMI) volcanic SO ₂ dataset: algorithm description, initial results, and continuation with the Suomi-NPP Ozone Mapping and Profiler Suite (OMPS). <i>Atmospheric Measurement Techniques</i> , 2017 , 10, 445-458	4	55
159	Global satellite analysis of the relation between aerosols and short-lived trace gases. <i>Atmospheric Chemistry and Physics</i> , 2011 , 11, 1255-1267	6.8	55
158	Spectral properties of backscattered UV radiation in cloudy atmospheres. <i>Journal of Geophysical Research</i> , 2004 , 109,		55
157	Spatially and seasonally resolved estimate of the ratio of organic mass to organic carbon. <i>Atmospheric Environment</i> , 2014 , 87, 34-40	5.3	53
156	Detection of volcanic ash clouds from Nimbus 7/total ozone mapping spectrometer. <i>Journal of Geophysical Research</i> , 1997 , 102, 16749-16759		53
155	Enhanced Capabilities of TROPOMI NO: Estimating NO from North American Cities and Power Plants. <i>Environmental Science & Technology</i> , 2019 , 53, 12594-12601	10.3	52
154	Comparison of TOMS and AVHRR volcanic ash retrievals from the August 1992 eruption of Mt. Spurr. <i>Geophysical Research Letters</i> , 1999 , 26, 455-458	4.9	52
153	Measuring global volcanic degassing with the Ozone Monitoring Instrument (OMI). <i>Geological Society Special Publication</i> , 2013 , 380, 229-257	1.7	51

152	The February/March 2000 Eruption of Hekla, Iceland from a Satellite Perspective. <i>Geophysical Monograph Series</i> , 2003 , 107-132	1.1	48
151	Aerosol ultraviolet absorption experiment (2002 to 2004), part 2: absorption optical thickness, refractive index, and single scattering albedo. <i>Optical Engineering</i> , 2005 , 44, 041005	1.1	48
150	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
149	A Decade of Change in NO ₂ and SO ₂ over the Canadian Oil Sands As Seen From Space. <i>Environmental Science & Technology</i> , 2016 , 50, 331-7	10.3	46
148	A new global anthropogenic SO ₂ emission inventory for the last decade: a mosaic of satellite-derived and bottom-up emissions. <i>Atmospheric Chemistry and Physics</i> , 2018 , 18, 16571-16586	6.8	45
147	Extending the long-term record of volcanic SO ₂ emissions with the Ozone Mapping and Profiler Suite nadir mapper. <i>Geophysical Research Letters</i> , 2015 , 42, 925-932	4.9	44
146	Fire at Iraqi sulfur plant emits SO ₂ clouds detected by Earth Probe TOMS. <i>Geophysical Research Letters</i> , 2004 , 31,	4.9	44
145	Validation of ozone monitoring instrument SO ₂ measurements in the Okmok volcanic cloud over Pullman, WA, July 2008. <i>Journal of Geophysical Research</i> , 2010 , 115,		43
144	El Chichon: The genesis of volcanic sulfur dioxide monitoring from space. <i>Journal of Volcanology and Geothermal Research</i> , 2008 , 175, 408-414	2.8	43
143	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. <i>Journal of Geophysical Research</i> , 2001 , 106, 27205-27219		43
142	Estimates of lightning NO _x production based on OMI NO ₂ observations over the Gulf of Mexico. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 8668-8691	4.4	43
141	Ultraviolet optical model of volcanic clouds for remote sensing of ash and sulfur dioxide. <i>Journal of Geophysical Research</i> , 1997 , 102, 21891-21904		42
140	Extended observations of volcanic SO ₂ and sulfate aerosol in the stratosphere		42
139	Dry Deposition of Reactive Nitrogen From Satellite Observations of Ammonia and Nitrogen Dioxide Over North America. <i>Geophysical Research Letters</i> , 2018 , 45, 1157-1166	4.9	42
138	Estimating the altitude of volcanic sulfur dioxide plumes from space borne hyper-spectral UV measurements. <i>Geophysical Research Letters</i> , 2009 , 36,	4.9	40
137	Improving retrieval of volcanic sulfur dioxide from backscattered UV satellite observations. <i>Geophysical Research Letters</i> , 2009 , 36, n/a-n/a	4.9	39
136	Multi-source SO ₂ emission retrievals and consistency of satellite and surface measurements with reported emissions. <i>Atmospheric Chemistry and Physics</i> , 2017 , 17, 12597-12616	6.8	37
135	Comparison of satellite-derived UV irradiances with ground-based measurements at four European stations. <i>Journal of Geophysical Research</i> , 2006 , 111,		37

134	Stratospheric Injection of Massive Smoke Plume From Canadian Boreal Fires in 2017 as Seen by DSCOVR-EPIC, CALIOP, and OMPS-LP Observations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020 , 125, e2020JD032579	4.4	36
133	Continuation of long-term global SO ₂ pollution monitoring from OMI to OMPS. <i>Atmospheric Measurement Techniques</i> , 2017 , 10, 1495-1509	4	36
132	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
131	Comparison of UV irradiances from Aura/Ozone Monitoring Instrument (OMI) with Brewer measurements at El Arenosillo (Spain) [Part 1: Analysis of parameter influence. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 5979-5989	6.8	36
130	International Photolysis Frequency Measurement and Model Intercomparison (IPMMI): Spectral actinic solar flux measurements and modeling. <i>Journal of Geophysical Research</i> , 2003 , 108,		36
129	Version 2 total ozone mapping spectrometer ultraviolet algorithm: problems and enhancements. <i>Optical Engineering</i> , 2002 , 41, 3028	1.1	36
128	Comparison of OMI NO ₂ observations and their seasonal and weekly cycles with ground-based measurements in Helsinki. <i>Atmospheric Measurement Techniques</i> , 2016 , 9, 5203-5212	4	35
127	In situ measurements of tropospheric volcanic plumes in Ecuador and Colombia during TC4. <i>Journal of Geophysical Research</i> , 2011 , 116,		33
126	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
125	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
124	Accounting for the effects of surface BRDF on satellite cloud and trace-gas retrievals: a new approach based on geometry-dependent Lambertian equivalent reflectivity applied to OMI algorithms. <i>Atmospheric Measurement Techniques</i> , 2017 , 10, 333-349	4	30
123	Transport and evolution of a pollution plume from northern China: A satellite-based case study. <i>Journal of Geophysical Research</i> , 2010 , 115,		30
122	Satellite-based global volcanic SO ₂ emissions and sulfate direct radiative forcing during 2005-2012. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016 , 121, 3446-3464	4.4	29
121	High-resolution NO ₂ observations from the Airborne Compact Atmospheric Mapper: Retrieval and validation. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017 , 122, 1953-1970	4.4	28
120	Modeling of 2008 Kasatochi volcanic sulfate direct radiative forcing: assimilation of OMI SO ₂ plume height data and comparison with MODIS and CALIOP observations. <i>Atmospheric Chemistry and Physics</i> , 2013 , 13, 1895-1912	6.8	28
119	Aerosol ultraviolet absorption experiment (2002 to 2004), part 1: ultraviolet multifilter rotating shadowband radiometer calibration and intercomparison with CIMEL sunphotometers. <i>Optical Engineering</i> , 2005 , 44, 041004	1.1	28
118	Anthropogenic sulphur dioxide load over China as observed from different satellite sensors. <i>Atmospheric Environment</i> , 2016 , 145, 45-59	5.3	27
117	Comparisons of spectral aerosol single scattering albedo in Seoul, South Korea. <i>Atmospheric Measurement Techniques</i> , 2018 , 11, 2295-2311	4	27

116	Ozone Monitoring Instrument (OMI) Aura nitrogen dioxide standard product version 4.0 with improved surface and cloud treatments. <i>Atmospheric Measurement Techniques</i> , 2021 , 14, 455-479	4	27
115	Ultraviolet Remote Sensing of Volcanic Emissions. <i>Geophysical Monograph Series</i> , 2000 , 25-43	1.1	26
114	Airborne MAX-DOAS measurements over California: Testing the NASA OMI tropospheric NO ₂ product. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013 , 118, 7400-7413	4.4	25
113	Flux calculation using CARIBIC DOAS aircraft measurements: SO ₂ emission of Norilsk. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		24
112	Satellite-derived emissions of carbon monoxide, ammonia, and nitrogen dioxide from the 2016 Horse River wildfire in the Fort McMurray area. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 2577-2599	6.8	23
111	First estimates of global free-tropospheric NO _x abundances derived using a cloud-slicing technique applied to satellite observations from the Aura Ozone Monitoring Instrument (OMI). <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 10565-10588	6.8	23
110	A new method for global retrievals of HCHO total columns from the Suomi National Polar-orbiting Partnership Ozone Mapping and Profiler Suite. <i>Geophysical Research Letters</i> , 2015 , 42, 2515-2522	4.9	23
109	Comparison of UV irradiances from Aura/Ozone Monitoring Instrument (OMI) with Brewer measurements at El Arenosillo (Spain) Part 2: Analysis of site aerosol influence. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 11867-11880	6.8	23
108	Comparison of operational satellite SO ₂ products with ground-based observations in northern Finland during the Icelandic Holuhraun fissure eruption. <i>Atmospheric Measurement Techniques</i> , 2015 , 8, 2279-2289	4	22
107	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. <i>Optical Engineering</i> , 2002 , 41, 3070	1.1	21
106	Characterization of OMI tropospheric NO _x over the Baltic Sea region. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 7795-7805	6.8	20
105	Rapid transpacific transport in autumn observed by the A-train satellites. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		19
104	A new approach to estimating the albedo for snow-covered surfaces in the satellite UV method. <i>Journal of Geophysical Research</i> , 2003 , 108,		19
103	Problems in assessment of the ultraviolet penetration into natural waters from space-based measurements. <i>Optical Engineering</i> , 2002 , 41, 3019	1.1	19
102	Aura OMI observations of regional SO ₂ and NO _x pollution changes from 2005 to 2014		19
101	Exploiting OMI NO satellite observations to infer fossil-fuel CO emissions from U.S. megacities. <i>Science of the Total Environment</i> , 2019 , 695, 133805	10.2	17
100	A new stratospheric and tropospheric NO _x retrieval algorithm for nadir-viewing satellite instruments: applications to OMI 2013 ,		17
99	Total ozone mapping spectrometer retrievals of noon erythemal-CIE ultraviolet irradiance compared with Brewer ground-based measurements at El Arenosillo (southwestern Spain). <i>Journal of Geophysical Research</i> , 2007 , 112,		17

98	Retrieval of ozone column from global irradiance measurements and comparison with TOMS data. A year of data in the Alps. <i>Geophysical Research Letters</i> , 2002 , 29, 23-1-23-4	4.9	17
97	A methodology to constrain carbon dioxide emissions from coal-fired power plants using satellite observations of co-emitted nitrogen dioxide. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 99-116	6.8	16
96	Anthropogenic and volcanic point source SO ₂ emissions derived from TROPOMI on board Sentinel-5 Precursor: first results. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 5591-5607	6.8	16
95	Satellite observation of pollutant emissions from gas flaring activities near the Arctic. <i>Atmospheric Environment</i> , 2016 , 133, 1-11	5.3	16
94	Optical, microphysical and compositional properties of the Eyjafjallajökull volcanic ash. <i>Atmospheric Chemistry and Physics</i> , 2014 , 14, 10649-10661	6.8	16
93	The TROPOMI surface UV algorithm. <i>Atmospheric Measurement Techniques</i> , 2018 , 11, 997-1008	4	16
92	Midlatitude Lightning NO _x Production Efficiency Inferred From OMI and WWLLN Data. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019 , 124, 13475-13497	4.4	15
91	Applications of Satellite-Based Sulfur Dioxide Monitoring. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2009 , 2, 293-298	4.7	15
90	First Observations of Volcanic Eruption Clouds From the L1 Earth-Sun Lagrange Point by DISCOVER/EPIC. <i>Geophysical Research Letters</i> , 2018 , 45, 11,456	4.9	15
89	Assessment of NO observations during DISCOVER-AQ and KORUS-AQ field campaigns. <i>Atmospheric Measurement Techniques</i> , 2020 , 13,	4	14
88	Likely seeding of cirrus clouds by stratospheric Kasatochi volcanic aerosol particles near a mid-latitude tropopause fold. <i>Atmospheric Environment</i> , 2012 , 46, 441-448	5.3	14
87	Version 2 Ozone Monitoring Instrument SO ₂ product (OMSO2 V2): new anthropogenic SO ₂ vertical column density dataset. <i>Atmospheric Measurement Techniques</i> , 2020 , 13, 6175-6191	4	14
86	A cloud algorithm based on the O ₂ -O ₂ 477 nm absorption band featuring an advanced spectral fitting method and the use of surface geometry-dependent Lambertian-equivalent reflectivity. <i>Atmospheric Measurement Techniques</i> , 2018 , 11, 4093-4107	4	13
85	Five decades observing Earth's atmospheric trace gases using ultraviolet and visible backscatter solar radiation from space. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2019 , 238, 106478 ¹	7.1	12
84	Ultraviolet Satellite Measurements of Volcanic Ash 2016 , 217-231		12
83	Surface erythematous UV irradiance in the continental United States derived from ground-based and OMI observations: quality assessment, trend analysis and sampling issues. <i>Atmospheric Chemistry and Physics</i> , 2019 , 19, 2165-2181	6.8	11
82	A Balloon Sounding Technique for Measuring SO ₂ Plumes. <i>Journal of Atmospheric and Oceanic Technology</i> , 2010 , 27, 1318-1330	2	11
81	Lightning NO _x Production in the Tropics as Determined Using OMI NO ₂ Retrievals and WWLLN Stroke Data. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019 , 124, 13498-13518	4.4	11

80	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
79	Using CATS near-real-time lidar observations to monitor and constrain volcanic sulfur dioxide (SO ₂) forecasts. <i>Geophysical Research Letters</i> , 2016 , 43, 11,089-11,097	4.9	10
78	Comparisons of USDA UV shadow-band irradiance measurements with TOMS satellite and DISORT model retrievals under all sky conditions 2002 ,		10
77	Ceramic industry at Morbi as a large source of SO ₂ emissions in India. <i>Atmospheric Environment</i> , 2020 , 223, 117243	5.3	10
76	Study of SO Pollution in the Middle East Using MERRA-2, CAMS Data Assimilation Products, and High-Resolution WRF-Chem Simulations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020 , 125, e2019JD031993	4.4	10
75	A geometry-dependent surface Lambertian-equivalent reflectivity product for UV _{vis} retrievals □ Part 1: Evaluation over land surfaces using measurements from OMI at 466 nm. <i>Atmospheric Measurement Techniques</i> , 2019 , 12, 3997-4017	4	9
74	The GeoTASO airborne spectrometer project 2014 ,		9
73	Influence of desert dust intrusions on ground-based and satellite-derived ultraviolet irradiance in southeastern Spain. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		9
72	Partitioning between aerosol and NO ₂ absorption in the UV spectral region 2005 , 5886, 588601		9
71	VolKilauea: Volcano Rapid Response Balloon Campaign during the 2018 Kilauea Eruption. <i>Bulletin of the American Meteorological Society</i> , 2020 , 101, E1602-E1618	6.1	8
70	Description and validation of the OMI very fast delivery products. <i>Journal of Geophysical Research</i> , 2008 , 113,		8
69	Global fine-scale changes in ambient NO during COVID-19 lockdowns.. <i>Nature</i> , 2022 , 601, 380-387	50.4	8
68	TEMPO Green Paper: Chemistry, physics, and meteorology experiments with the Tropospheric Emissions: monitoring of pollution instrument 2019 ,		8
67	Limb lidar matching using non-coincident NO ₂ observations: proof of concept and the OMI-minus-OSIRIS prototype product. <i>Atmospheric Measurement Techniques</i> , 2016 , 9, 4103-4122	4	8
66	Revised and extended benchmark results for Rayleigh scattering of sunlight in spherical atmospheres. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020 , 254, 107181	2.1	7
65	Long-term UV irradiance changes over Moscow and comparisons with UV estimates from TOMS and METEOSAT 2005 , 5886, 83		7
64	High-resolution mapping of SO ₂ using airborne observations from the GeoTASO instrument during the KORUS-AQ field study: PCA-based vertical column retrievals. <i>Remote Sensing of Environment</i> , 2020 , 241, 111725	13.2	6
63	Aerosol column absorption measurements using co-located UV-MFRSR and AERONET CIMEL instruments 2009 ,		6

62	Geophysicists unite to validate volcanic SO ₂ measurements. <i>Eos</i> , 1997 , 78, 217-223	1.5	6
61	A new technique for retrieval of tropospheric and stratospheric ozone profiles using sky radiance measurements at multiple view angles: Application to a Brewer spectrometer. <i>Journal of Geophysical Research</i> , 2008 , 113,		6
60	Deriving aerosol parameters from absolute UV sky radiance measurements using a Brewer double spectrometer 2003 , 5156, 323		6
59	Evaluation of OMI operational standard NO ₂ column retrievals using in situ and surface-based NO ₂ observations		6
58	OMI/Aura Nitrogen Dioxide Standard Product with Improved Surface and Cloud Treatments		6
57	Global distribution and 14-year changes in erythemal irradiance, UV atmospheric transmission, and total column ozone for 2005-2018 estimated from OMI and EPIC observations. <i>Atmospheric Chemistry and Physics</i> , 2020 , 20, 8351-8380	6.8	6
56	Reduction of skylight reflection effects in the above-water measurement of diffuse marine reflectance: comment. <i>Applied Optics</i> , 2000 , 39, 1379-81	1.7	5
55	A global catalogue of large SO ₂ sources and emissions derived from the Ozone Monitoring Instrument 2016 ,		5
54	A geometry-dependent surface Lambertian-equivalent reflectivity product for UV _A retrievals Part 2: Evaluation over open ocean. <i>Atmospheric Measurement Techniques</i> , 2019 , 12, 6749-6769	4	5
53	Application of satellite-based sulfur dioxide observations to support the cleantech sector: Detecting emission reduction from copper smelters. <i>Environmental Technology and Innovation</i> , 2018 , 12, 172-179	7	5
52	SO ₂ trajectories in a complex terrain environment using CALPUFF dispersion model, OMI and MODIS data. <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2018 , 69, 99-109	7.3	4
51	Comparison of TOMS retrievals and UVMRP measurements of surface spectral UV radiation in the United States. <i>Atmospheric Chemistry and Physics</i> , 2010 , 10, 8669-8683	6.8	4
50	Version 2 TOMS UV algorithm: problems and enhancements 2002 , 4482, 82		4
49	A new discrete wavelength backscattered ultraviolet algorithm for consistent volcanic SO ₂ retrievals from multiple satellite missions. <i>Atmospheric Measurement Techniques</i> , 2019 , 12, 5137-5153	4	4
48	Tracking aerosols and SO ₂ clouds from the Raikoke eruption: 3D view from satellite observations		4
47	Tracking aerosols and SO ₂ clouds from the Raikoke eruption: 3D view from satellite observations. <i>Atmospheric Measurement Techniques</i> , 2021 , 14, 7545-7563	4	4
46	The net decay time of anomalies in concentrations of atmospheric pollutants. <i>Atmospheric Environment</i> , 2017 , 160, 19-26	5.3	3
45	Chemical climatology of atmospheric pollutants in the eastern United States: Seasonal/diurnal cycles and contrast under clear/cloudy conditions for remote sensing. <i>Atmospheric Environment</i> , 2019 , 206, 85-107	5.3	3

44	Validation of satellite SO ₂ observations in northern Finland during the Icelandic Holuhraun fissure eruption 2015 ,		3
43	Assessment of TOMS UV bias due to absorbing aerosols 2004 ,		3
42	Comparison of Brewer UV irradiance measurements with TOMS satellite retrievals 2002 ,		3
41	A New Database Program for Spectral Surface UV Measurements. <i>Journal of Atmospheric and Oceanic Technology</i> , 1996 , 13, 1291-1299	2	3
40	A sulfur dioxide Covariance-Based Retrieval Algorithm (COBRA): application to TROPOMI reveals new emission sources. <i>Atmospheric Chemistry and Physics</i> , 2021 , 21, 16727-16744	6.8	3
39	Comparison of UV irradiances from Aura/Ozone Monitoring Instrument (OMI) with Brewer measurements at El Arenosillo (Spain) [Part 1: Analysis of parameter influence		3
38	Improved satellite retrievals of NO ₂ and SO ₂ over the Canadian oil sands and comparisons with surface measurements		3
37	Optical, microphysical and compositional properties of the Eyjafjallajökull volcanic ash		3
36	New-generation NASA Aura Ozone Monitoring Instrument (OMI) volcanic SO ₂ dataset: Algorithm description, initial results, and continuation with the Suomi-NPP Ozone Mapping and Profiler Suite (OMPS)		3
35	Continuation of long-term global SO ₂ pollution monitoring from OMI to OMPS		3
34	The version 3 OMI NO ₂ standard product		3
33	Assessment of NO ₂ observations during DISCOVER-AQ and KORUS-AQ field campaigns		3
32	Inconsistencies in sulfur dioxide emissions from the Canadian oil sands and potential implications. <i>Environmental Research Letters</i> , 2021 , 16, 014012	6.2	3
31	Ground-based retrievals of aerosol column absorption in the UV spectral region and their implications for GEMS measurements. <i>Remote Sensing of Environment</i> , 2020 , 245, 111759	13.2	2
30	The Ozone Monitoring Instrument: Overview of twelve years in space 2017 ,		2
29	Retrieval of volcanic SO ₂ from HIRS/2 using optimal estimation. <i>Atmospheric Measurement Techniques</i> , 2017 , 10, 2687-2702	4	2
28	Enhanced monitoring of sulfur dioxide sources with hyperspectral UV sensors 2009 ,		2
27	Measuring aerosol UV absorption optical thickness by combining use of shadowband and almucantar techniques 2004 ,		2

26	Comparisons between ground measurements of UV irradiance 290 to 380nm and TOMS UV estimates over Moscow for 1979-2000 2002 ,		2
25	Optimization of the polarization remote-sensing techniques of the ocean 1992 ,		2
24	What would have happened to the ozone layer if chlorofluorocarbons (CFCs) had not been regulated?		2
23	Retrieval of aerosol single scattering albedo at ultraviolet wavelengths at the T1 site during MILAGRO		2
22	Accounting for the effects of surface BRDF on satellite cloud and trace-gas retrievals: A new approach based on geometry-dependent Lambertian-equivalent reflectivity applied to OMI algorithms		2
21	Comparisons of spectral aerosol absorption in Seoul, South Korea		2
20	Explicit and consistent aerosol correction for visible wavelength satellite cloud and nitrogen dioxide retrievals based on optical properties from a global aerosol analysis		2
19	Volcanic SO ₂ effective layer height retrieval for the Ozone Monitoring Instrument (OMI) using a machine-learning approach. <i>Atmospheric Measurement Techniques</i> , 2021 , 14, 3673-3691	4	2
18	Quantifying urban, industrial, and background changes in NO ₂ during the COVID-19 lockdown period based on TROPOMI satellite observations. <i>Atmospheric Chemistry and Physics</i> , 2022 , 22, 4201-4236	6.8	2
17	Numerical Results for Polarized Light Scattering in a Spherical Atmosphere. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2022 , 108194	2.1	2
16	Real Time Volcanic Cloud Products and Predictions for Aviation Alerts 2014 ,		1
15	Goddard UV aerosol absorption closure experiment (2002-03) 2003 , 5156, 54		1
14	Problems in assessment of the UV penetration into natural waters from space-based measurements 2002 ,		1
13	Comparison of TOMS retrievals and UVMRP measurements of surface spectral UV radiation in the United States		1
12	Characterization of OMI tropospheric NO ₂ over the Baltic Sea region		1
11	Ozone Monitoring Instrument spectral UV irradiance products: comparison with ground based measurements at an urban environment		1
10	Comparison of UV irradiances from Aura/Ozone Monitoring Instrument (OMI) with Brewer measurements at El Arenosillo (Spain) [Part 2: Analysis of site aerosol influence		1
9	OMI surface UV irradiance in the continental United States: quality assessment, trend analysis, and sampling issues 2018 ,		1

8	Using Machine Learning for Timely Estimates of Ocean Color Information From Hyperspectral Satellite Measurements in the Presence of Clouds, Aerosols, and Sun glint. <i>Frontiers in Remote Sensing</i> , 2022 , 3,	1	1
7	Day/Night Monitoring of Volcanic SO ₂ and Ash Clouds for Aviation Avoidance at Northern Polar Latitudes. <i>Remote Sensing</i> , 2021 , 13, 4003	5	0
6	Rethinking the correction for absorbing aerosols in the OMI- and TROPOMI-like surface UV algorithms. <i>Atmospheric Measurement Techniques</i> , 2021 , 14, 4947-4957	4	0
5	Spectral distribution of UV-B irradiance derived by synthetic model compared with simulation results of TUV and ground measurements 2006 , 6298, 153		
4	Simulation of the thermospheric infrared emissions in the aurora 1993 , 2049, 256		
3	Hit from Both Sides 2011 , 75-108		
2	Explicit and consistent aerosol correction for visible wavelength satellite cloud and nitrogen dioxide retrievals based on optical properties from a global aerosol analysis. <i>Atmospheric Measurement Techniques</i> , 2021 , 14, 2857-2871	4	
1	Estimates of Hyperspectral Surface and Underwater UV Planar and Scalar Irradiances from OMI Measurements and Radiative Transfer Computations. <i>Remote Sensing</i> , 2022 , 14, 2278	5	