

Vitali E Fioletov

List of Publications by Year in descending order

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120
papers

7,576
citations

50276

46
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60623

81
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172
all docs

172
docs citations

172
times ranked

7505
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Quantifying urban, industrial, and background changes in NO ₂ during the COVID-19 lockdown period based on TROPOMI satellite observations. Atmospheric Chemistry and Physics, 2022, 22, 4201-4236. | 4.9 | 16 |
| 2 | Tropospheric and Surface Nitrogen Dioxide Changes in the Greater Toronto Area during the First Two Years of the COVID-19 Pandemic. Remote Sensing, 2022, 14, 1625. | 4.0 | 7 |
| 3 | Global total ozone recovery trends attributed to ozone-depleting substance (ODS) changes derived from five merged ozone datasets. Atmospheric Chemistry and Physics, 2022, 22, 6843-6859. | 4.9 | 29 |
| 4 | Effect of polyoxymethylene (POM-H Delrin) off-gassing within the Pandora head sensor on direct-sun and multi-axis formaldehyde column measurements in 2016–2019. Atmospheric Measurement Techniques, 2021, 14, 647-663. | 3.1 | 6 |
| 5 | The world Brewer reference triad – updated performance assessment and new double triad. Atmospheric Measurement Techniques, 2021, 14, 2261-2283. | 3.1 | 7 |
| 6 | Unprecedented Spring 2020 Ozone Depletion in the Context of 20 Years of Measurements at Eureka, Canada. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034365. | 3.3 | 7 |
| 7 | Global Climate. Bulletin of the American Meteorological Society, 2021, 102, S11-S142. | 3.3 | 36 |
| 8 | The Arctic. Bulletin of the American Meteorological Society, 2021, 102, S263-S316. | 3.3 | 23 |
| 9 | Reevaluation of Total Column Ozone Trends and of the Effective Radiative Forcing of Ozone-Depleting Substances. Geophysical Research Letters, 2021, 48, e2021GL095376. | 4.0 | 7 |
| 10 | Inconsistencies in sulfur dioxide emissions from the Canadian oil sands and potential implications. Environmental Research Letters, 2021, 16, 014012. | 5.2 | 11 |
| 11 | A sulfur dioxide Covariance-Based Retrieval Algorithm (COBRA): application to TROPOMI reveals new emission sources. Atmospheric Chemistry and Physics, 2021, 21, 16727-16744. | 4.9 | 19 |
| 12 | Ceramic industry at Morbi as a large source of SO ₂ emissions in India. Atmospheric Environment, 2020, 223, 117243. | 4.1 | 18 |
| 13 | Record-Breaking Increases in Arctic Solar Ultraviolet Radiation Caused by Exceptionally Large Ozone Depletion in 2020. Geophysical Research Letters, 2020, 47, e2020GL090844. | 4.0 | 30 |
| 14 | Assessing the Impact of Corona-Virus-19 on Nitrogen Dioxide Levels over Southern Ontario, Canada. Remote Sensing, 2020, 12, 4112. | 4.0 | 13 |
| 15 | Validation of MAX-DOAS retrievals of aerosol extinction, SO ₂ , and NO ₂ through comparison with lidar, sun photometer, active DOAS, and aircraft measurements in the Athabasca oil sands region. Atmospheric Measurement Techniques, 2020, 13, 1129-1155. | 3.1 | 4 |
| 16 | Anthropogenic and volcanic point source SO ₂ emissions derived from TROPOMI on board Sentinel-5 Precursor: first results. Atmospheric Chemistry and Physics, 2020, 20, 5591-5607. | 4.9 | 39 |
| 17 | Assessment of the quality of TROPOMI high-spatial-resolution NO ₂ data products in the Greater Toronto Area. Atmospheric Measurement Techniques, 2020, 13, 2131-2159. | 3.1 | 69 |
| 18 | Study of SO ₂ Pollution in the Middle East Using MERRA-2, CAMS Data Assimilation Products, and High-Resolution WRF-Chem Simulations. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031993. | 3.3 | 26 |

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| 19 | The Arctic. Bulletin of the American Meteorological Society, 2020, 101, S239-S286. | 3.3 | 29 |
| 20 | Global Climate. Bulletin of the American Meteorological Society, 2020, 101, S9-S128. | 3.3 | 61 |
| 21 | Extreme smoke event over the high Arctic. Atmospheric Environment, 2019, 218, 117002. | 4.1 | 9 |
| 22 | TROPOMI/S5P total ozone column data: global ground-based validation and consistency with other satellite missions. Atmospheric Measurement Techniques, 2019, 12, 5263-5287. | 3.1 | 77 |
| 23 | Retrieval of total column and surface NO ₂ from Pandora zenith-sky measurements. Atmospheric Chemistry and Physics, 2019, 19, 10619-10642. | 4.9 | 12 |
| 24 | Assessing the impact of clouds on ground-based UV-visible total column ozone measurements in the high Arctic. Atmospheric Measurement Techniques, 2019, 12, 2463-2483. | 3.1 | 7 |
| 25 | NH ₃ emissions from large point sources derived from CrIS and IASI satellite observations. Atmospheric Chemistry and Physics, 2019, 19, 12261-12293. | 4.9 | 89 |
| 26 | High-Resolution Mapping of Nitrogen Dioxide With TROPOMI: First Results and Validation Over the Canadian Oil Sands. Geophysical Research Letters, 2019, 46, 1049-1060. | 4.0 | 209 |
| 27 | Total ozone trends from 1979 to 2016 derived from five merged observational datasets – the emergence into ozone recovery. Atmospheric Chemistry and Physics, 2018, 18, 2097-2117. | 4.9 | 118 |
| 28 | A new global anthropogenic SO ₂ emission inventory for the last decade: a mosaic of satellite-derived and bottom-up emissions. Atmospheric Chemistry and Physics, 2018, 18, 16571-16586. | 4.9 | 61 |
| 29 | Twenty-five years of spectral UV-B measurements over Canada, Europe and Japan: Trends and effects from changes in ozone, aerosols, clouds, and surface reflectivity. Comptes Rendus - Geoscience, 2018, 350, . | 1.2 | 18 |
| 30 | Application of satellite-based sulfur dioxide observations to support the cleantech sector: Detecting emission reduction from copper smelters. Environmental Technology and Innovation, 2018, 12, 172-179. | 6.1 | 11 |
| 31 | State of the Climate in 2017. Bulletin of the American Meteorological Society, 2018, 99, Si-S310. | 3.3 | 160 |
| 32 | The Ozone Monitoring Instrument: overview of 14 years in space. Atmospheric Chemistry and Physics, 2018, 18, 5699-5745. | 4.9 | 259 |
| 33 | AEROCAN, the Canadian sub-network of AERONET: Aerosol monitoring and air quality applications. Atmospheric Environment, 2017, 167, 444-457. | 4.1 | 19 |
| 34 | Comparisons of a Chemical Transport Model with a Four-Year (April to September) Analysis of Fine- and Coarse-Mode Aerosol Optical Depth Retrievals Over the Canadian Arctic. Atmosphere - Ocean, 2017, 55, 213-229. | 1.6 | 10 |
| 35 | India Is Overtaking China as the World's Largest Emitter of Anthropogenic Sulfur Dioxide. Scientific Reports, 2017, 7, 14304. | 3.3 | 230 |
| 36 | OMI satellite observations of decadal changes in ground-level sulfur dioxide over North America. Atmospheric Chemistry and Physics, 2017, 17, 5921-5929. | 4.9 | 31 |

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|----|--|------|-----------|
| 37 | 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. | 4.9 | 50 |
| 38 | Assessment of the aerosol optical depths measured by satellite-based passive remote sensors in the Alberta oil sands region. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 1931-1943. | 4.9 | 11 |
| 39 | Detecting volcanic sulfur dioxide plumes in the Northern Hemisphere using the Brewer spectrophotometers, other networks, and satellite observations. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 551-574. | 4.9 | 18 |
| 40 | An Analysis of Factors Associated with 25-Hydroxyvitamin D Levels in White and Non-White Canadians. <i>Journal of AOAC INTERNATIONAL</i> , 2017, 100, 1345-1354. | 1.5 | 18 |
| 41 | Continuation of long-term global SO ₂ pollution monitoring from OMI to OMPS. <i>Atmospheric Measurement Techniques</i> , 2017, 10, 1495-1509. | 3.1 | 50 |
| 42 | State of the Climate in 2016. <i>Bulletin of the American Meteorological Society</i> , 2017, 98, Si-S280. | 3.3 | 132 |
| 43 | Sulfur dioxide (SO ₂) vertical column density measurements by Pandora spectrometer over the Canadian oil sands. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 2961-2976. | 3.1 | 23 |
| 44 | State of the Climate in 2015. <i>Bulletin of the American Meteorological Society</i> , 2016, 97, Si-S275. | 3.3 | 142 |
| 45 | 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. | 4.9 | 521 |
| 46 | Carbon monoxide climatology derived from the trajectory mapping of global MOZAIC-IAGOS data. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 10263-10282. | 4.9 | 16 |
| 47 | 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. | 4.9 | 200 |
| 48 | Space-based detection of missing sulfur dioxide sources of global air pollution. <i>Nature Geoscience</i> , 2016, 9, 496-500. | 12.9 | 149 |
| 49 | Vitamin D at the Expense of Skin Cancer Protection: Is It Worth the Risk?. <i>Journal of Investigative Dermatology</i> , 2016, 136, 2104-2105. | 0.7 | 7 |
| 50 | 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, 331-337. | 10.0 | 52 |
| 51 | Accuracy, precision, and temperature dependence of Pandora total ozone measurements estimated from a comparison with the Brewer triad in Toronto. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 5747-5761. | 3.1 | 12 |
| 52 | Comparison of OMI UV observations with ground-based measurements at high northern latitudes. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 7391-7412. | 4.9 | 40 |
| 53 | Spatial mapping of ground-based observations of total ozone. <i>Atmospheric Measurement Techniques</i> , 2015, 8, 4487-4505. | 3.1 | 11 |
| 54 | Lifetimes and emissions of SO ₂ from point sources estimated from OMI. <i>Geophysical Research Letters</i> , 2015, 42, 1969-1976. | 4.0 | 152 |

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| 55 | Comparison of profile total ozone from SBUV (v8.6) with GOME-type and ground-based total ozone for a 16-year period (1996 to 2011). <i>Atmospheric Measurement Techniques</i> , 2014, 7, 1681-1692. | 3.1 | 17 |
| 56 | Reconciliation of halogen-induced ozone loss with the total-column ozone record. <i>Nature Geoscience</i> , 2014, 7, 443-449. | 12.9 | 78 |
| 57 | 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. | 4.9 | 132 |
| 58 | Trend and variability in ozone in the tropical lower stratosphere over 2.5 solar cycles observed by SAGE II and OSIRIS. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 3479-3496. | 4.9 | 40 |
| 59 | The link between springtime total ozone and summer UV radiation in Northern Hemisphere extratropics. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 8649-8661. | 3.3 | 16 |
| 60 | Validation of Environment Canada and NOAA UV Index Forecasts with Brewer Measurements from Canada. <i>Journal of Applied Meteorology and Climatology</i> , 2013, 52, 1477-1489. | 1.5 | 13 |
| 61 | A global ozone climatology from ozone soundings via trajectory mapping: a stratospheric perspective. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 11441-11464. | 4.9 | 52 |
| 62 | High levels of ultraviolet radiation observed by ground-based instruments below the 2011 Arctic ozone hole. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 10573-10590. | 4.9 | 39 |
| 63 | A global tropospheric ozone climatology from trajectory-mapped ozone soundings. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 10659-10675. | 4.9 | 59 |
| 64 | State of the Climate in 2012. <i>Bulletin of the American Meteorological Society</i> , 2013, 94, S1-S258. | 3.3 | 129 |
| 65 | 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. | 3.3 | 102 |
| 66 | State of the Climate in 2011. <i>Bulletin of the American Meteorological Society</i> , 2012, 93, S1-S282. | 3.3 | 121 |
| 67 | Air quality over the Canadian oil sands: A first assessment using satellite observations. <i>Geophysical Research Letters</i> , 2012, 39, . | 4.0 | 120 |
| 68 | Quantifying stratospheric ozone trends: Complications due to stratospheric cooling. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a. | 4.0 | 26 |
| 69 | New method for deriving total ozone from Brewer zenith sky observations. <i>Journal of Geophysical Research</i> , 2011, 116, . | 3.3 | 10 |
| 70 | Estimation of SO ₂ emissions using OMI retrievals. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a. | 4.0 | 150 |
| 71 | State of the Climate in 2010. <i>Bulletin of the American Meteorological Society</i> , 2011, 92, S1-S236. | 3.3 | 135 |
| 72 | Estimated ultraviolet exposure levels for a sufficient vitamin D status in North America. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2010, 100, 57-66. | 3.8 | 56 |

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| 73 | The UV Index: Definition, Distribution and Factors Affecting It. Canadian Journal of Public Health, 2010, 101, 15-19. | 2.3 | 111 |
| 74 | High-resolution tropospheric ozone fields for INTEX and ARCTAS from IONS ozonesondes. Journal of Geophysical Research, 2010, 115, . | 3.3 | 35 |
| 75 | Seasonal persistence of ozone and zonal wind anomalies in the equatorial stratosphere. Journal of Geophysical Research, 2010, 115, . | 3.3 | 2 |
| 76 | A global picture of the seasonal persistence of stratospheric ozone anomalies. Journal of Geophysical Research, 2010, 115, . | 3.3 | 3 |
| 77 | On the statistical modeling of persistence in total ozone anomalies. Journal of Geophysical Research, 2010, 115, . | 3.3 | 17 |
| 78 | Data Quality Objectives (DQO) for Solar Ultraviolet Radiation. , 2009, , . | | 0 |
| 79 | On the relationship between erythemal and vitamin D action spectrum weighted ultraviolet radiation. Journal of Photochemistry and Photobiology B: Biology, 2009, 95, 9-16. | 3.8 | 65 |
| 80 | Estimating the 27-day and 11-year solar cycle variations in tropical upper stratospheric ozone. Journal of Geophysical Research, 2009, 114, . | 3.3 | 43 |
| 81 | Ozone correlation lengths and measurement uncertainties from analysis of historical ozonesonde data in North America and Europe. Journal of Geophysical Research, 2009, 114, . | 3.3 | 42 |
| 82 | Technical Note: A SAGE-corrected SBUV zonal-mean ozone data set. Atmospheric Chemistry and Physics, 2009, 9, 7963-7972. | 4.9 | 40 |
| 83 | Intercomparison of Aerosol Optical Depth from Brewer Ozone spectrophotometers and CIMEL sunphotometers measurements. Atmospheric Chemistry and Physics, 2009, 9, 733-741. | 4.9 | 15 |
| 84 | Evaluation of ozone total column measurements by the Ozone Monitoring Instrument using a data assimilation system. Journal of Geophysical Research, 2008, 113, . | 3.3 | 3 |
| 85 | Performance of the ground-based total ozone network assessed using satellite data. Journal of Geophysical Research, 2008, 113, . | 3.3 | 96 |
| 86 | Seasonal persistence of northern low- and middle-latitude anomalies of ozone and other trace gases in the upper stratosphere. Journal of Geophysical Research, 2008, 113, . | 3.3 | 10 |
| 87 | Ozone climatology, trends, and substances that control ozone. Atmosphere - Ocean, 2008, 46, 39-67. | 1.6 | 47 |
| 88 | Surface ultraviolet radiation. Atmosphere - Ocean, 2008, 46, 159-184. | 1.6 | 90 |
| 89 | An evaluation of Odin/OSIRIS limb pointing and stratospheric ozone through comparisons with ozonesondes. Canadian Journal of Physics, 2007, 85, 1125-1141. | 1.1 | 13 |
| 90 | Impact of long-range correlations on trend detection in total ozone. Journal of Geophysical Research, 2007, 112, . | 3.3 | 59 |

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| 91 | Validation of daily erythemal doses from Ozone Monitoring Instrument with ground-based UV measurement data. <i>Journal of Geophysical Research</i> , 2007, 112, . | 3.3 | 129 |
| 92 | Estimating ozone variability and instrument uncertainties from SBUV(/2), ozonesonde, Umkehr, and SAGE II measurements: Short-term variations. <i>Journal of Geophysical Research</i> , 2006, 111, . | 3.3 | 68 |
| 93 | Measurements of historical total ozone from the Chalonge-Divan stellar spectrum program: A reanalysis of the 1953â€“1972 data and a comparison with simultaneous Dobson Arosa measurements. <i>Journal of Geophysical Research</i> , 2006, 111, . | 3.3 | 0 |
| 94 | Examination of ozonesonde data for trends and trend changes incorporating solar and Arctic oscillation signals. <i>Journal of Geophysical Research</i> , 2006, 111, . | 3.3 | 27 |
| 95 | Cloudless aerosol forcing efficiency in the UV region from AERONET and WOUDC databases. <i>Geophysical Research Letters</i> , 2006, 33, . | 4.0 | 15 |
| 96 | Assessment of temperature, trace species, and ozone in chemistry-climate model simulations of the recent past. <i>Journal of Geophysical Research</i> , 2006, 111, . | 3.3 | 414 |
| 97 | Summertime total ozone variations over middle and polar latitudes. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a. | 4.0 | 55 |
| 98 | Changes in the vertical distribution of ozone over Canada from ozonesondes: 1980â€“2001. <i>Journal of Geophysical Research</i> , 2005, 110, . | 3.3 | 91 |
| 99 | The Brewer reference triad. <i>Geophysical Research Letters</i> , 2005, 32, . | 4.0 | 77 |
| 100 | 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. | 3.3 | 80 |
| 101 | Seasonal persistence of midlatitude total ozone anomalies. <i>Geophysical Research Letters</i> , 2003, 30, . | 4.0 | 86 |
| 102 | A new approach to estimating the albedo for snow-covered surfaces in the satellite UV method. <i>Journal of Geophysical Research</i> , 2003, 108, . | 3.3 | 25 |
| 103 | Climatology and trends of surface UV radiation: Survey article. <i>Atmosphere - Ocean</i> , 2003, 41, 121-138. | 1.6 | 35 |
| 104 | Estimating UV index climatology over North America. , 2003, , . | | 0 |
| 105 | Comparison of Brewer ultraviolet irradiance measurements with total ozone mapping spectrometer satellite retrievals. <i>Optical Engineering</i> , 2002, 41, 3051. | 1.0 | 88 |
| 106 | <title>UV-B over Canada measured by Brewer spectrophotometers and estimated from ozone and pyranometer observations</title>. , 2002, , . | | 0 |
| 107 | <title>Comparison of Brewer UV irradiance measurements with TOMS satellite retrievals</title>. , 2002, , . | | 4 |
| 108 | Global and zonal total ozone variations estimated from ground-based and satellite measurements: 1964â€“2000. <i>Journal of Geophysical Research</i> , 2002, 107, ACH 21-1. | 3.3 | 193 |

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| 109 | Vertical ozone distribution characteristics deduced from 44,000 re-evaluated Umkehr profiles (1957-2000). <i>Meteorology and Atmospheric Physics</i> , 2002, 79, 127-158. | 2.0 | 19 |
| 110 | Satellite estimation of spectral surface UV irradiance: 2. Effects of homogeneous clouds and snow. <i>Journal of Geophysical Research</i> , 2001, 106, 11743-11759. | 3.3 | 106 |
| 111 | Influence of volcanic sulfur dioxide on spectral UV irradiance as measured by Brewer Spectrophotometers. <i>Geophysical Research Letters</i> , 1998, 25, 1665-1668. | 4.0 | 40 |
| 112 | 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. | 3.3 | 177 |
| 113 | Long-term ozone decline over the Canadian Arctic to early 1997 from ground-based and balloon observations. <i>Geophysical Research Letters</i> , 1997, 24, 2705-2708. | 4.0 | 49 |
| 114 | The relationship between total ozone and spectral UV irradiance from Brewer observations and its use for derivation of total ozone from UV measurements. <i>Geophysical Research Letters</i> , 1997, 24, 2997-3000. | 4.0 | 48 |
| 115 | Changes of the lower stratospheric ozone over Europe and Canada. <i>Journal of Geophysical Research</i> , 1997, 102, 1337-1347. | 3.3 | 40 |
| 116 | The relationship between solar UV irradiance and total ozone from observations over southern Argentina. <i>Geophysical Research Letters</i> , 1995, 22, 1249-1252. | 4.0 | 33 |
| 117 | Further ozone decline during the northern hemisphere winter-spring of 1994-1995 and the new record low ozone over Siberia. <i>Geophysical Research Letters</i> , 1995, 22, 2729-2732. | 4.0 | 27 |
| 118 | Estimating the global ozone characteristics during the last 30 years. <i>Journal of Geophysical Research</i> , 1995, 100, 16537. | 3.3 | 129 |
| 119 | Total ozone trends from quality-controlled ground-based data (1964-1994). <i>Journal of Geophysical Research</i> , 1995, 100, 25867. | 3.3 | 80 |
| 120 | Total ozone changes over Eurasia since 1973 based on reevaluated filter ozonometer data. <i>Journal of Geophysical Research</i> , 1994, 99, 22985. | 3.3 | 40 |