# Udo FrieÃ

List of Publications by Year
in descending order



| 37 | 1,223 | 331670 | 395702 |
|---|---|---|---|
| papers | citations | 21 h-index | 33 g-index |

| 87 | 87 | 87 | 1142 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | The Monte Carlo atmospheric radiative transfer model McArtim: Introduction and validation of Jacobians and 3D features. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 1119-1137. | 2.3 | 174 |
| 2 | MAX-DOAS formaldehyde slant column measurements during CINDI: intercomparison and analysis improvement. Atmospheric Measurement Techniques, 2013, 6, 167-185. | 3.1 | 78 |
| 3 | Iodine monoxide in the Western Pacific marine boundary layer. Atmospheric Chemistry and Physics, 2013, 13, 3363-3378. | 4.9 | 66 |
| 4 | Cloud detection and classification based on MAX-DOAS observations. Atmospheric Measurement Techniques, 2014, 7, 1289-1320. | 3.1 | 63 |
| 5 | Intercomparison of aerosol extinction profiles retrieved from MAX-DOAS measurements. Atmospheric Measurement Techniques, 2016, 9, 3205-3222. | 3.1 | 53 |
| 6 | Ozone dynamics and snowâ€atmosphere exchanges during ozone depletion events at Barrow, Alaska. Journal of Geophysical Research, 2012, 117, . | 3.3 | 52 |
| 7 | Intercomparison of NO<sub>2</sub>, O<sub>4</sub>, O<sub>3</sub> and HCHO slant column measurements by MAX-DOAS and zenith-sky UVâ€“visible spectrometers during CINDI-2. Atmospheric Measurement Techniques, 2020, 13, 2169-2208. | 3.1 | 52 |
| 8 | Observations of bromine monoxide transport in the Arctic sustained on aerosol particles. Atmospheric Chemistry and Physics, 2017, 17, 7567-7579. | 4.9 | 44 |
| 9 | Atmospheric mercury over sea ice during the OASIS-2009 campaign. Atmospheric Chemistry and Physics, 2013, 13, 7007-7021. | 4.9 | 42 |
| 10 | Dependence of the vertical distribution of bromine monoxide in the lower troposphere on meteorological factors such as wind speed and stability. Atmospheric Chemistry and Physics, 2015, 15, 2119-2137. | 4.9 | 41 |
| 11 | Glyoxal observations in the global marine boundary layer. Journal of Geophysical Research D: Atmospheres, 2014, 119, 6160-6169. | 3.3 | 38 |
| 12 | Detection of water vapour absorption around 363â€¯nm in measured atmospheric absorption spectra and its effect on DOAS evaluations. Atmospheric Chemistry and Physics, 2017, 17, 1271-1295. | 4.9 | 36 |
| 13 | Daytime HONO, NO<sub>2</sub> and aerosol distributions from MAX-DOAS observations in Melbourne. Atmospheric Chemistry and Physics, 2018, 18, 13969-13985. | 4.9 | 34 |
| 14 | Intercomparison of MAX-DOAS vertical profile retrieval algorithms: studies using synthetic data. Atmospheric Measurement Techniques, 2019, 12, 2155-2181. | 3.1 | 34 |
| 15 | The Heidelberg Airborne Imaging DOAS Instrument (HAIDI) â€“ a novel imaging DOAS device for 2-D and 3-D imaging of trace gases and aerosols. Atmospheric Measurement Techniques, 2014, 7, 3459-3485. | 3.1 | 33 |
| 16 | Intercomparison of MAX-DOAS vertical profile retrieval algorithms: studies on field data from the CINDI-2 campaign. Atmospheric Measurement Techniques, 2021, 14, 1-35. | 3.1 | 32 |
| 17 | Validation of tropospheric NO<sub>2</sub> column measurements of GOME-2A and OMI using MAX-DOAS and direct sun network observations. Atmospheric Measurement Techniques, 2020, 13, 6141-6174. | 3.1 | 31 |
| 18 | On the relative absorption strengths of water vapour in the blue wavelength range. Atmospheric Measurement Techniques, 2015, 8, 4329-4346. | 3.1 | 30 |

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|---|---|---|---|
| 19 | MAX-DOAS retrieval of aerosol extinction properties in Madrid, Spain. Atmospheric Measurement Techniques, 2016, 9, 5089-5101. | 3.1 | 30 |
| 20 | The impact of vibrational Raman scattering of air on DOAS measurements of atmospheric trace gases. Atmospheric Measurement Techniques, 2015, 8, 3767-3787. | 3.1 | 27 |
| 21 | Horizontal and vertical structure of reactive bromine events probed by bromine monoxide MAX-DOAS. Atmospheric Chemistry and Physics, 2017, 17, 9291-9309. | 4.9 | 27 |
| 22 | Biogenic halocarbons from the Peruvian upwelling region as tropospheric halogen source. Atmospheric Chemistry and Physics, 2016, 16, 12219-12237. | 4.9 | 22 |
| 23 | Springtime Bromine Activation over Coastal and Inland Arctic Snowpacks. ACS Earth and Space Chemistry, 2018, 2, 1075-1086. | 2.7 | 22 |
| 24 | Is a scaling factor required to obtain closure between measured and modelled atmospheric O<sub>4</sub> absorptions? An assessment of uncertainties of measurements and radiative transfer simulations for 2 selected days during the MAD-CAT campaign. Atmospheric Measurement Techniques, 2019, 12, 2745-2817. | 3.1 | 22 |
| 25 | Inter-comparison of MAX-DOAS measurements of tropospheric HONO slant column densities and vertical profiles during the CINDI-2 campaign. Atmospheric Measurement Techniques, 2020, 13, 5087-5116. | 3.1 | 18 |
| 26 | Vertical distribution of BrO in the boundary layer at the Dead Sea. Environmental Chemistry, 2015, 12, 438. | 1.5 | 16 |
| 27 | Time-dependent 3D simulations of tropospheric ozone depletion events in the Arctic spring using the Weather Research and Forecasting model coupled with Chemistry (WRF-Chem). Atmospheric Chemistry and Physics, 2021, 21, 7611-7638. | 4.9 | 13 |
| 28 | Evaluating different methods for elevation calibration of MAX-DOAS (Multi AXis Differential Optical) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5<br>Techniques, 2020, 13, 685-712. | 3.1 | 11 |
| 29 | CARIBIC DOAS observations of nitrous acid and formaldehyde in a large convective cloud. Atmospheric Chemistry and Physics, 2014, 14, 6621-6642. | 4.9 | 8 |
| 30 | Detection of O<sub>4</sub> absorption around 328 and 419â€¯nm in measured atmospheric absorption spectra. Atmospheric Chemistry and Physics, 2018, 18, 1671-1683. | 4.9 | 7 |
| 31 | Recent improvements of long-path DOAS measurements: impact on accuracy and stability of short-term and automated long-term observations. Atmospheric Measurement Techniques, 2019, 12, 4149-4169. | 3.1 | 7 |
| 32 | The role of open lead interactions in atmospheric ozone variability between Arctic coastal and inland sites. Elementa, 2016, 4, . | 3.2 | 6 |
| 33 | Validation of MAX-DOAS retrievals of aerosol extinction, SO<sub>2</sub>, and NO<sub>2</sub> 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 |
| 34 | Evolution of observed ozone, trace gases, and meteorological variables over Arrival Heights, Antarctica (77.8°S, 166.7°E) during the 2019 Antarctic stratospheric sudden warming. Tellus, Series B: Chemical and Physical Meteorology, 2022, 73, 1933783. | 1.6 | 3 |
| 35 | Retrieval algorithm for OClO from TROPOMI (TROPOspheric Monitoring Instrument) by differential optical absorption spectroscopy. Atmospheric Measurement Techniques, 2021, 14, 7595-7625. | 3.1 | 2 |
| 36 | Enhancing MAX-DOAS atmospheric state retrievals by multispectral polarimetry â€“ studies using synthetic data. Atmospheric Measurement Techniques, 2022, 15, 2077-2098. | 3.1 | 2 |

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|---|---|---|---|
| 37 | Ground-based validation of the MetOp-A and MetOp-B GOME-2 OClO measurements. Atmospheric Measurement Techniques, 2022, 15, 3439-3463. | 3.1 | 0 |