Michel Grutter

List of Publications by Year
in descending order

74	2,900	29	49
papers	citations	h-index	g-index
		172207	197535

109	109	109	3315
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Global Atmospheric OCS Trend Analysis From 22 NDACC Stations. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	12
2	Improved calibration procedures for the EM27/SUN spectrometers of the COllaborative Carbon Column Observing Network (COCCON). Atmospheric Measurement Techniques, 2022, 15, 2433-2463.	1.2	10
3	Formaldehyde total column densities over Mexico City: comparison between multi-axis differential optical absorption spectroscopy and solar-absorption Fourier transform infrared measurements. Atmospheric Measurement Techniques, 2021, 14, 595-613.	1.2	4
4	Characterization and potential for reducing optical resonances in Fourier transform infrared spectrometers of the Network for the Detection of Atmospheric Composition Change (NDACC). Atmospheric Measurement Techniques, 2021, 14, 1239-1252.	1.2	9
5	Evaluation of OMI NO2 Vertical Columns Using MAX-DOAS Observations over Mexico City. Remote Sensing, 2021, 13, 761.	1.8	2
6	Impact of the COVID-19 Lockdown on Air Quality and Resulting Public Health Benefits in the Mexico City Metropolitan Area. Frontiers in Public Health, 2021, 9, 642630.	1.3	31
7	New observations of NO₂ in the upper troposphere from TROPOMI. Atmospheric Measurement Techniques, 2021, 14, 2389-2408.	1.2	18
8	Temporal variations of black carbon, carbon monoxide, and carbon dioxide in Mexico City: Mutual correlations and evaluation of emissions inventories. Urban Climate, 2021, 37, 100855.	2.4	10
9	Validation of methane and carbon monoxide from Sentinel-5 Precursor using TCCON and NDACC-IRWG stations. Atmospheric Measurement Techniques, 2021, 14, 6249-6304.	1.2	57
10	Characterization of aerosol particles during a high pollution episode over Mexico City. Scientific Reports, 2021, 11, 22533.	1.6	11
11	Monitoring CO emissions of the metropolis Mexico City using TROPOMI CO observations. Atmospheric Chemistry and Physics, 2020, 20, 15761-15774.	1.9	22
12	TROPOMIâ€“Sentinel-5 Precursor formaldehyde validation using an extensive network of ground-based Fourier-transform infrared stations. Atmospheric Measurement Techniques, 2020, 13, 3751-3767.	1.2	66
13	Building the COllaborative Carbon Column Observing Network (COCCON): long-term stability and ensemble performance of the EM27/SUN Fourier transform spectrometer. Atmospheric Measurement Techniques, 2019, 12, 1513-1530.	1.2	82
14	NO₂ vertical profiles and column densities from MAX-DOAS measurements in Mexico City. Atmospheric Measurement Techniques, 2019, 12, 2545-2565.	1.2	29
15	Variability in the Gas Composition of the PopocatÃ©petl Volcanic Plume. Frontiers in Earth Science, 2019, 7, .	0.8	18
16	Characterization of a UV camera system for SO2 measurements from PopocatÃ©petl Volcano. Journal of Volcanology and Geothermal Research, 2019, 370, 82-94.	0.8	12
17	A low-cost long-term model of coastal observatories of global change. Journal of Operational Oceanography, 2019, 12, 34-46.	0.6	4
18	Variability of the Mixed-Layer Height Over Mexico City. Boundary-Layer Meteorology, 2018, 167, 493-507.	1.2	27

#	Article	IF	Citations
19	Mapping carbon monoxide pollution from space down to city scales with daily global coverage. Atmospheric Measurement Techniques, 2018, 11, 5507-5518.	1.2	75
20	NDACC harmonized formaldehyde time series from 21 FTIR stations covering a wide range of column abundances. Atmospheric Measurement Techniques, 2018, 11, 5049-5073.	1.2	37
21	Continuous measurements of SiF 4 and SO 2 by thermal emission spectroscopy: Insight from a 6-month survey at the PopocatÃ©petl volcano. Journal of Volcanology and Geothermal Research, 2017, 341, 255-268.	0.8	20
22	Tropospheric emissions: Monitoring of pollution (TEMPO). Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 186, 17-39.	1.1	239
23	Investigating differences in DOAS retrieval codes using MAD-CAT campaign data. Atmospheric Measurement Techniques, 2017, 10, 955-978.	1.2	20
24	Background CO₂ levels and error analysis from ground-based solar absorption IR measurements in central Mexico. Atmospheric Measurement Techniques, 2017, 10, 2425-2434.	1.2	8
25	Comparison of the GOSAT TANSO-FTS TIR CH₄ volume mixing ratio vertical profiles with those measured by ACE-FTS, ESA MIPAS, IMK-IAA MIPAS, and 16 NDACC stations. Atmospheric Measurement Techniques, 2017, 10, 3697-3718.	1.2	10
26	Validation of the CrIS fast physical NH₃ retrieval with ground-based FTIR. Atmospheric Measurement Techniques, 2017, 10, 2645-2667.	1.2	52
27	Ground-based remote sensing of O₃ by high- and medium-resolution FTIR spectrometers over the Mexico City basin. Atmospheric Measurement Techniques, 2017, 10, 2703-2725.	1.2	9
28	Tropospheric water vapour isotopologue data (H₂¹⁶O,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3 Earth System Science Data, 2017, 9, 15-29.	3.7	26
29	The MAX-DOAS network in Mexico City to measure atmospheric pollutants. Atmosfera, 2016, 29, 157.	0.3	6
30	Fostering a Collaborative Atmospheric Chemistry Research Community in the Latin America and Caribbean Region. Bulletin of the American Meteorological Society, 2016, 97, 1929-1939.	1.7	8
31	An evaluation of IASI-NH₃ with ground-based Fourier transform infrared spectroscopy measurements. Atmospheric Chemistry and Physics, 2016, 16, 10351-10368.	1.9	56
32	First detection of ammonia (NH₃) in the Asian summer monsoon upper troposphere. Atmospheric Chemistry and Physics, 2016, 16, 14357-14369.	1.9	51
33	Spatial distribution and transport patterns of NO 2 in the Tijuana â€“ San Diego area. Atmospheric Pollution Research, 2015, 6, 230-238.	1.8	6
34	Solar absorption infrared spectroscopic measurements over Mexico City: Methane enhancements. Atmosfera, 2014, 27, 173-183.	0.3	10
35	NO2 fluxes from Tijuana using a mobile mini-DOAS during Cal-Mex 2010. Atmospheric Environment, 2013, 70, 532-539.	1.9	6
36	Volcanic SO₂ and SiF₄ visualization using 2-D thermal emission spectroscopy â€“ Part 2: Wind propagation and emission rates. Atmospheric Measurement Techniques, 2013, 6, 47-61.	1.2	16

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37	Nitrogen dioxide DOAS measurements from ground and space: comparison of zenith scattered sunlight ground-based measurements and OMI data in Central Mexico. Atmosfera, 2013, 26, 401-414.	0.3	13
38	Top-down estimation of carbon monoxide emissions from the Mexico Megacity based on FTIR measurements from ground and space. Atmospheric Chemistry and Physics, 2013, 13, 1357-1376.	1.9	31
39	Volcanic SO₂ and SiF₄ visualization using 2-D thermal emission spectroscopy â€“ Part 1: Slant-columns and their ratios. Atmospheric Measurement Techniques, 2012, 5, 275-288.	1.2	37
40	Physical and chemical properties of the regional mixed layer of Mexico's Megapolis Part II: evaluation of measured and modeled trace gases and particle size distributions. Atmospheric Chemistry and Physics, 2012, 12, 10161-10179.	1.9	2
41	Characterizing the Aging of Biomass Burning Organic Aerosol by Use of Mixing Ratios: A Meta-analysis of Four Regions. Environmental Science & Technology, 2012, 46, 13093-13102.	4.6	109
42	Gas composition of PopocatÃ©petl Volcano between 2007 and 2008: FTIR spectroscopic measurements of an explosive event and during quiescent degassing. Earth and Planetary Science Letters, 2011, 301, 502-510.	1.8	37
43	An evaluation of the hybrid car technology for the Mexico Mega City. Journal of Power Sources, 2011, 196, 5704-5718.	4.0	10
44	Global distribution and variability of formic acid as observed by MIPASâ€ENVISAT. Journal of Geophysical Research, 2010, 115, .	3.3	41
45	Detection of pollution transport events southeast of Mexico City using ground-based visible spectroscopy measurements of nitrogen dioxide. Atmospheric Chemistry and Physics, 2009, 9, 4827-4840.	1.9	16
46	Physical and chemical properties of the regional mixed layer of Mexico's Megapolis. Atmospheric Chemistry and Physics, 2009, 9, 5711-5727.	1.9	34
47	Using ground-based solar and lunar infrared spectroscopy to study the diurnal trend of carbon monoxide in the Mexico City boundary layer. Atmospheric Chemistry and Physics, 2009, 9, 8061-8078.	1.9	24
48	SO₂ emissions from PopocatÃ©petl volcano: emission rates and plume imaging using optical remote sensing techniques. Atmospheric Chemistry and Physics, 2008, 8, 6655-6663.	1.9	67
49	Modelling constraints on the emission inventory and on vertical dispersion for CO and SO₂ in the Mexico City Metropolitan Area using Solar FTIR and zenith sky UV spectroscopy. Atmospheric Chemistry and Physics, 2007, 7, 781-801.	1.9	82
50	Evaluation of nitrogen dioxide chemiluminescence monitors in a polluted urban environment. Atmospheric Chemistry and Physics, 2007, 7, 2691-2704.	1.9	343
51	Distribution, magnitudes, reactivities, ratios and diurnal patterns of volatile organic compounds in the Valley of Mexico during the MCMA 2002 & 2003 field campaigns. Atmospheric Chemistry and Physics, 2007, 7, 329-353.	1.9	167
52	Higher Excited Electronic Transitions of Polyacetylene Cations HC₂<i>_n</i>H⁺ <i>n</i> = 2â^'7 in Neon Matrixes. Journal of Physical Chemistry A, 2007, 111, 11831-11836.	1.1	20
53	Technical note: Evaluation of standard ultraviolet absorption ozone monitors in a polluted urban environment. Atmospheric Chemistry and Physics, 2006, 6, 3163-3180.	1.9	37
54	Implementation of a Markov Chain Monte Carlo method to inorganic aerosol modeling of observations from the MCMA-2003 campaign â€“ PartÂ I: Model description and application to the La Merced site. Atmospheric Chemistry and Physics, 2006, 6, 4867-4888.	1.9	16

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55	Tecnical Note: Analysis of non-regulated vehicular emissions by extractive FTIR spectrometry: tests on a hybrid car in Mexico City. Atmospheric Chemistry and Physics, 2006, 6, 5339-5346.	1.9	14
56	Evolution of anthropogenic aerosols in the coastal town of Salina Cruz, Mexico: Part I particle dynamics and landâ€“sea interactions. Science of the Total Environment, 2006, 367, 288-301.	3.9	23
57	Evolution of anthropogenic aerosols in the coastal town of Salina Cruz, Mexico: Part II particulate phase chemistry. Science of the Total Environment, 2006, 372, 287-298.	3.9	9
58	Formaldehyde levels in downtown Mexico City during 2003. Atmospheric Environment, 2005, 39, 1027-1034.	1.9	59
59	Electronic absorption spectra of C2nHâˆ’, C2nâˆ’1Nâˆ’â€‰(n=4â€“7), and C2nâˆ’1Nâ€‰(n=3â€“7) chains in neon matrices. Journal of Chemical Physics, 1999, 110, 1492-1496.	1.2	38
60	Electronic absorption spectra of linear C6, C8 and cyclic C10, C12 in neon matrices. Journal of Chemical Physics, 1999, 111, 7397-7401.	1.2	58
61	Electronic spectra of carbon chain anions: C2nHâˆ’â€‰(n=5â€“12). Journal of Chemical Physics, 1999, 111, 9280-9286.	1.2	21
62	Electronic spectra of long odd-number carbon chains C17â€“C21 and C13âˆ’â€“C21âˆ’. Chemical Physics Letters, 1999, 304, 35-38.	1.2	37
63	A2Î£+â†•X2Î Electronic Absorption Spectrum of CCO-in a Neon Matrix. Journal of Physical Chemistry A, 1998, 102, 3459-3461.	1.1	19
64	Electronic Absorption Spectra of BC, BC-, BC2, and B in Neon Matrices. Journal of Physical Chemistry A, 1998, 102, 9106-9108.	1.1	38
65	Electronic Absorption Spectra of the Polyacetylene Chains HC2nH, HC2nH-, and HC2n-1N- (n = 6âˆ’12) in Neon Matrixes. Journal of Physical Chemistry A, 1998, 102, 9785-9790.	1.1	56
66	Electronic absorption spectra of C4âˆ’ and C6âˆ’ chains in neon matrices. Journal of Chemical Physics, 1997, 107, 22-27.	1.2	45
67	Diffusion of mass-selected carbon atoms and molecules in argon and neon matrices. Journal of Chemical Physics, 1997, 107, 5356-5360.	1.2	6
68	Electronic absorption spectra of carbon chain anions C2nâˆ’ (n=4â€“7) in neon matrices. Journal of Chemical Physics, 1997, 107, 4468-4472.	1.2	27
69	Electronic Absorption Spectra of Carbon Chain Anions (n = 2âˆ’5) in Neon Matrices. Journal of Physical Chemistry A, 1997, 101, 5292-5295.	1.1	34
70	Electronic Absorption Spectra of SiC- and SiC in Neon Matrices. Journal of Physical Chemistry A, 1997, 101, 275-277.	1.1	23
71	Infrared bands of mass-selected carbon chains Cn (n = 8âˆ’12) and Cnâˆ’ (n = 5âˆ’10, 12) in neon matrices. Chemical Physics, 1997, 216, 401-406.	0.9	49
72	Emission spectrum of mass-selected C4âˆ’:C2Îu â†’ X2Îg in a neon matrix. Chemical Physics Letters, 1996, 260, 406-408.	1.2	17

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73	The 3Î£uâˆ' â†•X3Î£gâˆ' electronic absorption spectrum of linear C4 in a neon matrix. Chemical Physics Letters, 1996, 249, 191-194.	1.2	35
74	Electronic absorption spectra of linear carbon chains in neon matrices. IV. C2n+1 n=2â€“7. Journal of Chemical Physics, 1996, 104, 4954-4960.	1.2	100