Rainer M Volkamer

List of Publications by Year in Descending Order

187 papers	11,806 citations	59 h-index	106 g-index
250 ext. papers	13,461 ext. citations	6.6 avg, IF	5.94 L-index

#	Paper	IF	Citations
187	Wildfire Smoke Observations in the Western U.S. from the Airborne Wyoming Cloud Lidar during the BB-FLUX Project. Part I: Data Description and Methodology. *Journal of Atmospheric and Oceanic Technology*, **2022**,	2	1
186	Modelling the gas–particle partitioning and water uptake of isoprene-derived secondary organic aerosol at high and low relative humidity. *Atmospheric Chemistry and Physics*, **2022**, 22, 215-244	6.8	2
185	Field observational constraints on the controllers in glyoxal (CHOCHO) reactive uptake to aerosol. *Atmospheric Chemistry and Physics*, **2022**, 22, 805-821	6.8	2
184	Quantifying Carbon Monoxide Emissions on the Scale of Large Wildfires. *Geophysical Research Letters*, **2022**, 49,	4.9	3
183	O2–O2 CIA in the gas phase: Cross-section of weak bands, and continuum absorption between 297–500 nm. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2022**, 279, 108063	2.1	0
182	Synergistic HNO-HSO-NH upper tropospheric particle formation.. *Nature*, **2022**, 605, 483-489	50.4	5
181	Origin of water-soluble organic aerosols at the Maïdo high-altitude observatory, Réunion Island, in the tropical Indian Ocean. *Atmospheric Chemistry and Physics*, **2021**, 21, 17017-17029	6.8	0
180	Chemical composition of nanoparticles from <i></i>-pinene nucleation and the influence of isoprene and relative humidity at low temperature. *Atmospheric Chemistry and Physics*, **2021**, 21, 17099-17114	6.8	1
179	Iodine chemistry in the chemistry–climate model SOCOL-AERv2-I. *Geoscientific Model Development*, **2021**, 14, 6623-6645	6.3	1
178	Validation of IASI Satellite Ammonia Observations at the Pixel Scale Using In Situ Vertical Profiles. *Journal of Geophysical Research D: Atmospheres*, **2021**, 126, e2020JD033475	4.4	4
177	Measurement of iodine species and sulfuric acid using bromide chemical ionization mass spectrometers. *Atmospheric Measurement Techniques*, **2021**, 14, 4187-4202	4	2
176	Determination of the collision rate coefficient between charged iodic acid clusters and iodic acid using the appearance time method. *Aerosol Science and Technology*, **2021**, 55, 231-242	3.4	8
175	Molecular characterization of ultrafine particles using extractive electrospray time-of-flight mass spectrometry. *Environmental Science Atmospheres*, **2021**, 1, 434-448		2
174	Role of iodine oxoacids in atmospheric aerosol nucleation. *Science*, **2021**, 371, 589-595	33.3	31
173	Global tropospheric halogen (Cl, Br, I) chemistry and its impact on oxidants. *Atmospheric Chemistry and Physics*, **2021**, 21, 13973-13996	6.8	7
172	The driving factors of new particle formation and growth in the polluted boundary layer. *Atmospheric Chemistry and Physics*, **2021**, 21, 14275-14291	6.8	8
171	Ozone depletion due to dust release of iodine in the free troposphere.. *Science Advances*, **2021**, 7, eabj6544	14.3	0

170	Biomass burning nitrogen dioxide emissions derived from space with TROPOMI: methodology and validation. *Atmospheric Measurement Techniques*, **2021**, 14, 7929-7957	4	3
169	Rapid growth of new atmospheric particles by nitric acid and ammonia condensation. *Nature*, **2020**, 581, 184-189	50.4	72
168	Photo-oxidation of Aromatic Hydrocarbons Produces Low-Volatility Organic Compounds. *Environmental Science & Technology*, **2020**, 54, 7911-7921	10.3	26
167	Molecular understanding of new-particle formation from alpha-pinene between 50 °C and 25 °C **2020**,		1
166	Enhanced growth rate of atmospheric particles from sulfuric acid. *Atmospheric Chemistry and Physics*, **2020**, 20, 7359-7372	6.8	21
165	Quantitative detection of iodine in the stratosphere. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 1860-1866	11.5	35
164	Molecular understanding of the suppression of new-particle formation by isoprene. *Atmospheric Chemistry and Physics*, **2020**, 20, 11809-11821	6.8	16
163	Characterisation of African biomass burning plumes and impacts on the atmospheric composition over the south-west Indian Ocean. *Atmospheric Chemistry and Physics*, **2020**, 20, 14821-14845	6.8	3
162	Molecular understanding of new-particle formation from <i></i>-pinene between 50 and +25 °C. *Atmospheric Chemistry and Physics*, **2020**, 20, 9183-9207	6.8	32
161	Intercomparison of NO₂, O₄, O₃ and HCHO slant column measurements by MAX-DOAS and zenith-sky UV–visible spectrometers during CINDI-2. *Atmospheric Measurement Techniques*, **2020**, 13, 2169-2208	4	30
160	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	4	7
159	Molecular understanding of the suppression of new-particle formation by isoprene **2020**,		1
158	Global nitrous acid emissions and levels of regional oxidants enhanced by wildfires. *Nature Geoscience*, **2020**, 13, 681-686	18.3	25
157	Molecular Composition and Volatility of Nucleated Particles from -Pinene Oxidation between -50 °C and +25 °C. *Environmental Science & Technology*, **2019**, 53, 12357-12365	10.3	14
156	Effect of sea salt aerosol on tropospheric bromine chemistry. *Atmospheric Chemistry and Physics*, **2019**, 19, 6497-6507	6.8	22
155	Importance of reactive halogens in the tropical marine atmosphere: a˙regional modelling study using WRF-Chem. *Atmospheric Chemistry and Physics*, **2019**, 19, 3161-3189	6.8	22
154	Separation of Methane Emissions From Agricultural and Natural Gas Sources in the Colorado Front Range. *Geophysical Research Letters*, **2019**, 46, 3990-3998	4.9	17
153	Update of the HITRAN collision-induced absorption section. *Icarus*, **2019**, 328, 160-175	3.8	62

152	Halogen activation and radical cycling initiated by imidazole-2-carboxaldehyde photochemistry. *Atmospheric Chemistry and Physics*, **2019**, 19, 10817-10828	6.8	5
151	Simulating the Weekly Cycle of NOx-VOC-HOx-O3 Photochemical System in the South Coast of California During CalNex-2010 Campaign. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 3532-3555	4.4	1
150	Enhanced growth rate of atmospheric particles from sulfuric acid **2019**,		1
149	Chemistry of Volatile Organic Compounds in the Los Angeles Basin: Formation of Oxygenated Compounds and Determination of Emission Ratios. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 2298-2319	4.4	24
148	Effect of sea-salt aerosol on tropospheric bromine chemistry **2018**,		1
147	Multicomponent new particle formation from sulfuric acid, ammonia, and biogenic vapors. *Science Advances*, **2018**, 4, eaau5363	14.3	105
146	Stratospheric Injection of Brominated Very Short-Lived Substances: Aircraft Observations in the Western Pacific and Representation in Global Models. *Journal of Geophysical Research D: Atmospheres*, **2018**, 123, 5690-5719	4.4	30
145	The Convective Transport of Active Species in the Tropics (CONTRAST) Experiment. *Bulletin of the American Meteorological Society*, **2017**, 98, 106-128	6.1	40
144	Erratum to Rayleigh scattering cross-section measurements of nitrogen, argon, oxygen and air J Quant Spectrosc Radiat Transf 147 (2014) 171177. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2017**, 189, 281-282	2.1	8
143	UV photochemistry of carboxylic acids at the air-sea boundary: A relevant source of glyoxal and other oxygenated VOC in the marine atmosphere. *Geophysical Research Letters*, **2017**, 44, 1079-1087	4.9	34
142	Potential of Aerosol Liquid Water to Facilitate Organic Aerosol Formation: Assessing Knowledge Gaps about Precursors and Partitioning. *Environmental Science & Technology*, **2017**, 51, 3327-3335	10.3	45
141	The CU mobile Solar Occultation Flux instrument: structure functions and emission rates of NH₃, NO₂ and C₂H₆. *Atmospheric Measurement Techniques*, **2017**, 10, 373-392	4	17
140	Importance of reactive halogens in the tropical marine atmosphere: A regional modelling study using WRF-Chem **2017**,		3
139	Can COSMOTherm Predict a Salting in Effect?. *Journal of Physical Chemistry A*, **2017**, 121, 6288-6295	2.8	14
138	Formaldehyde in the Tropical Western Pacific: Chemical sources and sinks, convective transport, and representation in CAM-Chem and the CCMI models. *Journal of Geophysical Research D: Atmospheres*, **2017**, 122, 11201-11226	4.4	21
137	BrO and inferred Br_{<i>y</i>} profiles over the western Pacific: relevance of inorganic bromine sources and a Br_{<i>y</i>} minimum in the aged tropical tropopause layer. *Atmospheric Chemistry and Physics*, **2017**, 17, 15245-15270	6.8	22
136	Investigating differences in DOAS retrieval codes using MAD-CAT campaign data. *Atmospheric Measurement Techniques*, **2017**, 10, 955-978	4	17
135	MAX-DOAS measurements of HONO slant column densities during the MAD-CAT campaign: inter-comparison, sensitivity studies on spectral analysis settings, and error budget. *Atmospheric Measurement Techniques*, **2017**, 10, 3719-3742	4	25

134	Recent advances in understanding secondary organic aerosol: Implications for global climate forcing. *Reviews of Geophysics*, **2017**, 55, 509-559	23.1	359
133	Contribution of dissolved organic matter to submicron water-soluble organic aerosols in the marine boundary layer over the eastern equatorial Pacific **2016**,		1
132	The Two-Column Aerosol Project: Phase IDOverview and impact of elevated aerosol layers on aerosol optical depth. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 336-361	4.4	22
131	Modeling the observed tropospheric BrO background: Importance of multiphase chemistry and implications for ozone, OH, and mercury. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 11,819	4.4	86
130	An assessment of the radiative effects of ice supersaturation based on in situ observations. *Geophysical Research Letters*, **2016**, 43, 11,039-11,047	4.9	6
129	Heterogeneous photochemistry of imidazole-2-carboxaldehyde: HO₂ radical formation and aerosol growth. *Atmospheric Chemistry and Physics*, **2016**, 16, 11823-11836	6.8	31
128	Global impacts of tropospheric halogens (Cl, Br, I) on oxidants and composition in GEOS-Chem. *Atmospheric Chemistry and Physics*, **2016**, 16, 12239-12271	6.8	160
127	Mercury oxidation from bromine chemistry in the free troposphere over the southeastern´US. *Atmospheric Chemistry and Physics*, **2016**, 16, 3743-3760	6.8	28
126	Iodine's impact on tropospheric oxidants: a´global model study in GEOS-Chem. *Atmospheric Chemistry and Physics*, **2016**, 16, 1161-1186	6.8	79
125	Aqueous phase oxidation of sulphur dioxide by ozone in cloud droplets. *Atmospheric Chemistry and Physics*, **2016**, 16, 1693-1712	6.8	35
124	First detection of ammonia (NH₃) in the Asian summer monsoon upper troposphere. *Atmospheric Chemistry and Physics*, **2016**, 16, 14357-14369	6.8	37
123	Contribution of dissolved organic matter to submicron water-soluble organic aerosols in the marine boundary layer over the eastern equatorial Pacific. *Atmospheric Chemistry and Physics*, **2016**, 16, 7695-7707	6.8	14
122	Elevated aerosol layers modify the O2DO2 absorption measured by ground-based MAX-DOAS. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2016**, 176, 34-49	2.1	20
121	The CU 2-D-MAX-DOAS instrument DPart 2: Raman scattering probability measurements and retrieval of aerosol optical properties. *Atmospheric Measurement Techniques*, **2016**, 9, 3893-3910	4	7
120	Global impacts of tropospheric halogens (Cl, Br, I) on oxidants and composition in GEOS-Chem **2016** ,		3
119	Heterogeneous photochemistry of imidazole-2-carboxaldehyde: HO₂ radical formation and aerosol growth **2016**,		4
118	Development of a digital mobile solar tracker. *Atmospheric Measurement Techniques*, **2016**, 9, 963-972	4	10
117	Parameterization retrieval of trace gas volume mixing ratios from Airborne MAX-DOAS. *Atmospheric Measurement Techniques*, **2016**, 9, 5655-5675	4	14

116	Observational constraints on glyoxal production from isoprene oxidation and its contribution to organic aerosol over the Southeast United States. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 9849-9861	4.4	38
115	Model representations of aerosol layers transported from North America over the Atlantic Ocean during the Two-Column Aerosol Project. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 9814-9848	4.4	11
114	Modeling the weekly cycle of NOx and CO emissions and their impacts on O3 in the Los Angeles-South Coast Air Basin during the CalNex 2010 field campaign. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 1340-1360	4.4	43
113	Measurements of hydroxyl and hydroperoxy radicals during CalNex-LA: Model comparisons and radical budgets. *Journal of Geophysical Research D: Atmospheres*, **2016**, 121, 4211-4232	4.4	58
112	Characterization of Chromophoric Water-Soluble Organic Matter in Urban, Forest, and Marine Aerosols by HR-ToF-AMS Analysis and Excitation-Emission Matrix Spectroscopy. *Environmental Science & Technology*, **2016**, 50, 10351-10360	10.3	87
111	Active and widespread halogen chemistry in the tropical and subtropical free troposphere. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 9281-6	11.5	78
110	A tribute to Mario Molina. *Journal of Physical Chemistry A*, **2015**, 119, 4277-8	2.8	1
109	Aircraft measurements of BrO, IO, glyoxal, NO₂, H₂O, O₂O₂ and aerosol extinction profiles in the tropics: comparison with aircraft-/ship-based in situ and lidar measurements. *Atmospheric Measurement Techniques*, **2015**, 8, 2121-2148	4	87
108	Aircraft measurements of bromine monoxide, iodine monoxide, and glyoxal profiles in the tropics: comparison with ship-based and in situ measurements **2015**,		2
107	Instrument intercomparison of glyoxal, methyl glyoxal and NO₂ under simulated atmospheric conditions. *Atmospheric Measurement Techniques*, **2015**, 8, 1835-1862	4	40
106	Glyoxal and Methylglyoxal Setschenow Salting Constants in Sulfate, Nitrate, and Chloride Solutions: Measurements and Gibbs Energies. *Environmental Science & Technology*, **2015**, 49, 11500-8	10.3	55
105	Injection of iodine to the stratosphere. *Geophysical Research Letters*, **2015**, 42, 6852-6859	4.9	41
104	Weakening of the weekend ozone effect over California's South Coast Air Basin. *Geophysical Research Letters*, **2015**, 42, 9457-9464	4.9	25
103	The CU 2-D-MAX-DOAS instrument Part 1: Retrieval of 3-D distributions of NO₂ and azimuth-dependent OVOC ratios. *Atmospheric Measurement Techniques*, **2015**, 8, 2371-2395	4	32
102	Ground-based direct-sun DOAS and airborne MAX-DOAS measurements of the collision-induced oxygen complex, O₂O₂, absorption with significant pressure and temperature differences. *Atmospheric Measurement Techniques*, **2015**, 8, 793-809	4	22
101	Computational study of the effect of glyoxal-sulfate clustering on the Henry's law coefficient of glyoxal. *Journal of Physical Chemistry A*, **2015**, 119, 4509-14	2.8	29
100	Measurements of the absorption cross section of (13)CHO(13)CHO at visible wavelengths and application to DOAS retrievals. *Journal of Physical Chemistry A*, **2015**, 119, 4651-7	2.8	
99	Rayleigh scattering cross-section measurements of nitrogen, argon, oxygen and air. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2014**, 147, 171-177	2.1	76

98	Formation of gas-phase carbonyls from heterogeneous oxidation of polyunsaturated fatty acids at the air□water interface and of the sea surface microlayer. *Atmospheric Chemistry and Physics*, **2014**, 14, 1371-1384	6.8	50
97	Simulation of semi-explicit mechanisms of SOA formation from glyoxal in aerosol in a 3-D model. *Atmospheric Chemistry and Physics*, **2014**, 14, 6213-6239	6.8	129
96	Measurements of diurnal variations and Eddy Covariance (EC) fluxes of glyoxal in the tropical marine boundary layer: description of the Fast LED-CE-DOAS instrument **2014**,		3
95	Direct sun and airborne MAX-DOAS measurements of the collision induced oxygen complex, O₂O₂ absorption with significant pressure and temperature differences **2014**,		5
94	Measurements of diurnal variations and eddy covariance (EC) fluxes of glyoxal in the tropical marine boundary layer: description of the Fast LED-CE-DOAS instrument. *Atmospheric Measurement Techniques*, **2014**, 7, 3579-3595	4	40
93	Novel Pathways to Form Secondary Organic Aerosols: Glyoxal SOA in WRF/Chem. *Springer Proceedings in Complexity*, **2014**, 149-154	0.3	
92	Temperature dependent absorption cross-sections of O2-O2 collision pairs between 340 and 630 nm and at atmospherically relevant pressure. *Physical Chemistry Chemical Physics*, **2013**, 15, 15371-81	3.6	235
91	The 2010 California Research at the Nexus of Air Quality and Climate Change (CalNex) field study. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 5830-5866	4.4	178
90	Effective Henry's law partitioning and the salting constant of glyoxal in aerosols containing sulfate. *Environmental Science & Technology*, **2013**, 47, 4236-44	10.3	91
89	Parameterizing radiative transfer to convert MAX-DOAS dSCDs into near-surface box-averaged mixing ratios. *Atmospheric Measurement Techniques*, **2013**, 6, 1521-1532	4	25
88	The CU Airborne MAX-DOAS instrument: vertical profiling of aerosol extinction and trace gases. *Atmospheric Measurement Techniques*, **2013**, 6, 719-739	4	72
87	Detection of iodine monoxide in the tropical free troposphere. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 2035-40	11.5	79
86	Organic aerosol composition and sources in Pasadena, California, during the 2010 CalNex campaign. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 9233-9257	4.4	201
85	Secondary organic aerosol formation from semi- and intermediate-volatility organic compounds and glyoxal: Relevance of O/C as a tracer for aqueous multiphase chemistry. *Geophysical Research Letters*, **2013**, 40, 978-982	4.9	63
84	Airborne MAX-DOAS measurements over California: Testing the NASA OMI tropospheric NO2 product. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 7400-7413	4.4	25
83	The CU Airborne MAX-DOAS instrument: ground based validation, and vertical profiling of aerosol extinction and trace gases **2012**,		3
82	Overview of the 2010 Carbonaceous Aerosols and Radiative Effects Study (CARES). *Atmospheric Chemistry and Physics*, **2012**, 12, 7647-7687	6.8	79
81	Detailed comparisons of airborne formaldehyde measurements with box models during the 2006 INTEX-B and MILAGRO campaigns: potential evidence for significant impacts of unmeasured and multi-generation volatile organic carbon compounds. *Atmospheric Chemistry and Physics*, **2011**, 11, 11867-11894	6.8	32

80	Modeling the multiday evolution and aging of secondary organic aerosol during MILAGRO 2006. *Environmental Science & Technology*, **2011**, 45, 3496-503	10.3	85
79	Development and characterization of the CU ground MAX-DOAS instrument: lowering RMS noise and first measurements of BrO, IO, and CHOCHO near Pensacola, FL **2011**,		2
78	The CU ground MAX-DOAS instrument: characterization of RMS noise limitations and first measurements near Pensacola, FL of BrO, IO, and CHOCHO. *Atmospheric Measurement Techniques*, **2011**, 4, 2421-2439	4	49
77	Inherent calibration of a novel LED-CE-DOAS instrument to measure iodine oxide, glyoxal, methyl glyoxal, nitrogen dioxide, water vapour and aerosol extinction in open cavity mode **2010**,		3
76	Inherent calibration of a blue LED-CE-DOAS instrument to measure iodine oxide, glyoxal, methyl glyoxal, nitrogen dioxide, water vapour and aerosol extinction in open cavity mode. *Atmospheric Measurement Techniques*, **2010**, 3, 1797-1814	4	115
75	Impacts of HONO sources on the photochemistry in Mexico City during the MCMA-2006/MILAGO Campaign. *Atmospheric Chemistry and Physics*, **2010**, 10, 6551-6567	6.8	172
74	Oxidative capacity of the Mexico City atmosphere Part 2: A RO_x radical cycling perspective. *Atmospheric Chemistry and Physics*, **2010**, 10, 6993-7008	6.8	53
73	An overview of the MILAGRO 2006 Campaign: Mexico City emissions and their transport and transformation. *Atmospheric Chemistry and Physics*, **2010**, 10, 8697-8760	6.8	296
72	Ship-based detection of glyoxal over the remote tropical Pacific Ocean. *Atmospheric Chemistry and Physics*, **2010**, 10, 11359-11371	6.8	113
71	Ozone response to emission changes: a modeling study during the MCMA-2006/MILAGRO Campaign. *Atmospheric Chemistry and Physics*, **2010**, 10, 3827-3846	6.8	63
70	Mexico city aerosol analysis during MILAGRO using high resolution aerosol mass spectrometry at the urban supersite (T0) Part 2: Analysis of the biomass burning contribution and the non-fossil carbon fraction. *Atmospheric Chemistry and Physics*, **2010**, 10, 5315-5341	6.8	157
69	Oxidative capacity of the Mexico City atmosphere Part 1: A radical source perspective. *Atmospheric Chemistry and Physics*, **2010**, 10, 6969-6991	6.8	124
68	Glyoxal processing by aerosol multiphase chemistry: towards a kinetic modeling framework of secondary organic aerosol formation in aqueous particles. *Atmospheric Chemistry and Physics*, **2010**, 10, 8219-8244	6.8	279
67	Implications of the In-Situ Measured Mass Absorption Cross Section of Organic Aerosols in Mexico City on the Atmospheric Energy Balance, Satellite Retrievals, and Photochemistry **2009**,		2
66	Dealkylation of alkylbenzenes: a significant pathway in the toluene, o-, m-, p-xylene + OH reaction. *Journal of Physical Chemistry A*, **2009**, 113, 9658-66	2.8	40
65	Light emitting diode cavity enhanced differential optical absorption spectroscopy (LED-CE-DOAS): a novel technique for monitoring atmospheric trace gases **2009**,		2
64	Impact of primary formaldehyde on air pollution in the Mexico City Metropolitan Area. *Atmospheric Chemistry and Physics*, **2009**, 9, 2607-2618	6.8	58
63	Evaluation of recently-proposed secondary organic aerosol models for a case study in Mexico City. *Atmospheric Chemistry and Physics*, **2009**, 9, 5681-5709	6.8	236

62	Measurements of OH and HO₂ concentrations during the MCMA-2006 field campaign Part 1: Deployment of the Indiana University laser-induced fluorescence instrument. *Atmospheric Chemistry and Physics*, **2009**, 9, 1665-1685	6.8	92
61	Secondary Organic Aerosol Formation from Acetylene (C₂H₂): seed effect on SOA yields due to organic photochemistry in the aerosol aqueous phase. *Atmospheric Chemistry and Physics*, **2009**, 9, 1907-1928	6.8	292
60	Measurements of Volatile Organic Compounds Using Proton Transfer Reaction Mass Spectrometry during the MILAGRO 2006 Campaign. *Atmospheric Chemistry and Physics*, **2009**, 9, 467-481	6.8	71
59	Mexico City aerosol analysis during MILAGRO using high resolution aerosol mass spectrometry at the urban supersite (T0) Part 1: Fine particle composition and organic source apportionment. *Atmospheric Chemistry and Physics*, **2009**, 9, 6633-6653	6.8	440
58	Measurements of OH and HO₂ concentrations during the MCMA-2006 field campaign Part 2: Model comparison and radical budget. *Atmospheric Chemistry and Physics*, **2009**, 9, 6655-6675	6.8	94
57	MAX-DOAS observations from ground, ship, and research aircraft: maximizing signal-to-noise to measure 'weak' absorbers **2009**,		18
56	The influence of natural and anthropogenic secondary sources on the glyoxal global distribution. *Atmospheric Chemistry and Physics*, **2008**, 8, 4965-4981	6.8	149
55	Estimation of the mass absorption cross section of the organic carbon component of aerosols in the Mexico City Metropolitan Area. *Atmospheric Chemistry and Physics*, **2008**, 8, 6665-6679	6.8	119
54	Measurements of HNO₃ and N₂O₅ using ion drift-chemical ionization mass spectrometry during the MILAGRO/MCMA-2006 campaign. *Atmospheric Chemistry and Physics*, **2008**, 8, 6823-6838	6.8	73
53	Characterizing ozone production and response under different meteorological conditions in Mexico City. *Atmospheric Chemistry and Physics*, **2008**, 8, 7571-7581	6.8	51
52	A missing sink for gas-phase glyoxal in Mexico City: Formation of secondary organic aerosol. *Geophysical Research Letters*, **2007**, 34,	4.9	376
51	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	6.8	77
50	Characterizing ozone production in the Mexico City Metropolitan Area: a case study using a chemical transport model. *Atmospheric Chemistry and Physics*, **2007**, 7, 1347-1366	6.8	134
49	Evaluation of nitrogen dioxide chemiluminescence monitors in a polluted urban environment. *Atmospheric Chemistry and Physics*, **2007**, 7, 2691-2704	6.8	279
48	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	6.8	149
47	MAX-DOAS detection of glyoxal during ICARTT 2004. *Atmospheric Chemistry and Physics*, **2007**, 7, 1293-1303	6.8	68
46	Intercomparison of the DOAS and LOPAP techniques for the detection of nitrous acid (HONO). *Atmospheric Environment*, **2006**, 40, 3640-3652	5.3	131
45	Secondary organic aerosol formation from anthropogenic air pollution: Rapid and higher than expected. *Geophysical Research Letters*, **2006**, 33,	4.9	895

44	Simultaneous global observations of glyoxal and formaldehyde from space. *Geophysical Research Letters*, **2006**, 33,	4.9	237
43	Atmospheric oxidation in the Mexico City Metropolitan Area (MCMA) during April 2003. *Atmospheric Chemistry and Physics*, **2006**, 6, 2753-2765	6.8	183
42	Technical note: Evaluation of standard ultraviolet absorption ozone monitors in a polluted urban environment. *Atmospheric Chemistry and Physics*, **2006**, 6, 3163-3180	6.8	34
41	Implementation of a Markov Chain Monte Carlo method to inorganic aerosol modeling of observations from the MCMA-2003 campaign Part II: Model application to the CENICA, Pedregal and Santa Ana sites. *Atmospheric Chemistry and Physics*, **2006**, 6, 4889-4904	6.8	29
40	Separation of emitted and photochemical formaldehyde in Mexico City using a statistical analysis and a new pair of gas-phase tracers. *Atmospheric Chemistry and Physics*, **2006**, 6, 4545-4557	6.8	116
39	Characterization of ambient aerosols in Mexico City during the MCMA-2003 campaign with Aerosol Mass Spectrometry: results from the CENICA Supersite. *Atmospheric Chemistry and Physics*, **2006**, 6, 925-946	6.8	302
38	Remote Sensing of Glyoxal by Differential Optical Absorption Spectroscopy (DOAS): Advancements in Simulation Chamber and Field Experiments **2006**, 129-141		8
37	DOAS measurement of glyoxal as an indicator for fast VOC chemistry in urban air. *Geophysical Research Letters*, **2005**, 32,	4.9	189
36	Intercomparison of four different in-situ techniques for ambient formaldehyde measurements in urban air. *Atmospheric Chemistry and Physics*, **2005**, 5, 2881-2900	6.8	124
35	Development of a detailed chemical mechanism (MCMv3.1) for the atmospheric oxidation of aromatic hydrocarbons. *Atmospheric Chemistry and Physics*, **2005**, 5, 641-664	6.8	364
34	High-resolution absorption cross-section of glyoxal in the UV vis and IR spectral ranges. *Journal of Photochemistry and Photobiology A: Chemistry*, **2005**, 172, 35-46	4.7	190
33	Fast gas chromatography with luminol chemiluminescence detection for the simultaneous determination of nitrogen dioxide and peroxyacetyl nitrate in the atmosphere. *Review of Scientific Instruments*, **2004**, 75, 4595-4605	1.7	29
32	OH-initiated oxidation of benzene. *Physical Chemistry Chemical Physics*, **2002**, 4, 4399-4411	3.6	63
31	OH-initiated oxidation of benzene. *Physical Chemistry Chemical Physics*, **2002**, 4, 1598-1610	3.6	146
30	Primary and Secondary Glyoxal Formation from Aromatics: Experimental Evidence for the Bicycloalkyl Radical Pathway from Benzene, Toluene, and p-Xylene. *Journal of Physical Chemistry A*, **2001**, 105, 7865-7874	2.8	227
29	Correction of the oxygen interference with UV spectroscopic (DOAS) measurements of monocyclic aromatic hydrocarbons in the atmosphere. *Atmospheric Environment*, **1998**, 32, 3731-3747	5.3	72
28	Atmospheric Oxidation of Toluene in a Large-Volume Outdoor Photoreactor: In Situ Determination of Ring-Retaining Product Yields. *Journal of Physical Chemistry A*, **1998**, 102, 10289-10299	2.8	115
27	The CU Airborne Solar Occultation Flux Instrument: Performance Evaluation during BB-FLUX. *ACS Earth and Space Chemistry*,	3.2	3

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26	Glyoxal processing outside clouds: towards a kinetic modeling framework of secondary organic aerosol formation in aqueous particles	9
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