Vinayak Sinha

List of Publications by Year
in descending order

63 papers	3,706 citations	136885 32 h-index	149623 56 g-index
116 all docs	116 docs citations	116 times ranked	3650 citing authors

#	Article	IF	Citations
1	Enhanced secondary aerosol formation driven by excess ammonia during fog episodes in Delhi, India. Chemosphere, 2022, 289, 133155.	4.2	19
2	Air pollution scenario analyses of fleet replacement strategies to accomplish reductions in criteria air pollutants and 74 VOCs over India. Atmospheric Environment: X, 2022, 13, 100150.	0.8	7
3	Nocturnal Atmospheric Oxidative Processes in the Indoâ€Gangetic Plain and Their Variation During the COVIDâ€19 Lockdowns. Geophysical Research Letters, 2022, 49, .	1.5	6
4	Cropland trees need to be included for accurate model simulations of land-atmosphere heat fluxes, temperature, boundary layer height, and ozone. Science of the Total Environment, 2021, 751, 141728.	3.9	5
5	Appraisal of regional haze event and its relationship with PM2.5 concentration, crop residue burning and meteorology in Chandigarh, India. Chemosphere, 2021, 273, 128562.	4.2	32
6	The improved comparative reactivity method (ICRM): measurements of OH reactivity under high-NO_{<i>x</i>} conditions in ambient air. Atmospheric Measurement Techniques, 2021, 14, 2285-2298.	1.2	5
7	Comparative assessment of TROPOMI and OMI formaldehyde observations and validation against MAX-DOAS network column measurements. Atmospheric Chemistry and Physics, 2021, 21, 12561-12593.	1.9	57
8	RTEII: A new high-resolution (0.1Â° Ã— 0.1Â°) road transport emission inventory for India of 74 speciated NMVOCs, CO, NOx, NH3, CH4, CO2, PM2.5 reveals massive overestimation of NOx and CO and missing nitromethane emissions by existing inventories. Atmospheric Environment: X, 2021, 11, 100118.	0.8	8
9	Gridded 1 km Ã— 1 km emission inventory for paddy stubble burning emissions over north-west India constrained by measured emission factors of 77 VOCs and district-wise crop yield data. Science of the Total Environment, 2021, 789, 148064.	3.9	25
10	Season-wise analyses of VOCs, hydroxyl radicals and ozone formation chemistry over north-west India reveal isoprene and acetaldehyde as the most potent ozone precursors throughout the year. Chemosphere, 2021, 283, 131184.	4.2	24
11	Probing wintertime air pollution sources in the Indo-Gangetic Plain through 52 hydrocarbons measured rarely at Delhi & Mohali. Science of the Total Environment, 2021, 801, 149711.	3.9	5
12	Quantitative assessment of nitrous oxide levels in room air of operation theaters and recovery area: An observational study. Indian Journal of Occupational and Environmental Medicine, 2021, 25, 147.	0.6	2
13	Countries of the Indo-Gangetic Plain must unite against air pollution. Nature, 2021, 598, 415-415.	13.7	4
14	Glyoxal tropospheric column retrievals from TROPOMI â€" multi-satellite intercomparison and ground-based validation. Atmospheric Measurement Techniques, 2021, 14, 7775-7807.	1.2	7
15	Emission drivers and variability of ambient isoprene, formaldehyde and acetaldehyde in north-west India during monsoon season. Environmental Pollution, 2020, 267, 115538.	3.7	15
16	How Much Does Large-Scale Crop Residue Burning Affect the Air Quality in Delhi?. Environmental Science & Technology, 2020, 54, 4790-4799.	4.6	70
17	Significant emissions of dimethyl sulfide and monoterpenes by big-leaf mahogany trees: discovery of a missing dimethyl sulfide source to the atmospheric environment. Atmospheric Chemistry and Physics, 2020, 20, 375-389.	1.9	18
18	Non-methane hydrocarbon (NMHC) fingerprints of major urban and agricultural emission sources for use in source apportionment studies. Atmospheric Chemistry and Physics, 2020, 20, 12133-12152.	1.9	29

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19	Long-term MAX-DOAS measurements of NO₂, HCHO, and aerosols and evaluation of corresponding satellite data products over Mohali in the Indo-Gangetic Plain. Atmospheric Chemistry and Physics, 2020, 20, 14183-14235.	1.9	28
20	Intercomparison of NO₂, O₄, O₃ and HCHO slant column measurements by MAX-DOAS and zenith-sky UVâ€“visible spectrometers during CINDI-2. Atmospheric Measurement Techniques, 2020, 13, 2169-2208.	1.2	52
21	Atmospheric Aerosols and Trace Gases. , 2020, , 93-116.		3
22	Volatile organic compound measurements point to fog-induced biomass burning feedback to air quality in the megacity of Delhi. Science of the Total Environment, 2019, 689, 295-304.	3.9	27
23	Tropospheric ozone over the Indian subcontinent from 2000 to 2015: Data set and simulation using GEOS-Chem chemical transport model. Atmospheric Environment, 2019, 219, 117039.	1.9	21
24	Gridded Emissions of CO, NO_{<i>x</i>}, SO₂, CO₂, NH₃, HCl, CH₄, PM_{2.5}, PM₁₀, BC, and NMVOC from Open Municipal Waste Burning in India. Environmental Science & Technology, 2019, 53, 4765-4774.	4.6	71
25	Source apportionment of volatile organic compounds in the northwest Indo-Gangetic Plain using a positive matrix factorization model. Atmospheric Chemistry and Physics, 2019, 19, 15467-15482.	1.9	40
26	Advances in Identification and Quantification of Non-methane Volatile Organic Compounds Emitted from Biomass Fires through Laboratory Fire Experiments. , 2019, , 169-197.		4
27	Large unexplained suite of chemically reactive compounds present in ambient air due to biomass fires. Scientific Reports, 2018, 8, 626.	1.6	49
28	Tropospheric Ozone Assessment Report: Present-day tropospheric ozone distribution and trends relevant to vegetation. Elementa, 2018, 6, .	1.1	212
29	Oddâ€“Even Traffic Rule Implementation during Winter 2016 in Delhi Did Not Reduce Traffic Emissions of VOCs, Carbon Dioxide, Methane and Carbon Monoxide. Current Science, 2018, 114, 1318.	0.4	17
30	Storage stability studies and field application of low cost glass flasks for analyses of thirteen ambient VOCs using proton transfer reaction mass spectrometry. International Journal of Mass Spectrometry, 2017, 419, 11-19.	0.7	19
31	Estimating the atmospheric concentration of Criegee intermediates and their possible interference in a FAGE-LIF instrument. Atmospheric Chemistry and Physics, 2017, 17, 7807-7826.	1.9	82
32	Source apportionment of NMVOCs in the Kathmandu Valley during the SusKat-ABC international field campaign using positive matrix factorization. Atmospheric Chemistry and Physics, 2017, 17, 8129-8156.	1.9	73
33	Tropospheric Ozone Assessment Report: Database and metrics data of global surface ozone observations. Elementa, 2017, 5, .	1.1	172
34	Winter Fog Experiment Over the Indo-Gangetic Plains of India. Current Science, 2017, 112, 767.	0.4	87
35	Influence of postâ€harvest crop residue fires on surface ozone mixing ratios in the N.W. IGP analyzed using 2â€‰years of continuous in situ trace gas measurements. Journal of Geophysical Research D: Atmospheres, 2016, 121, 3619-3633.	1.2	46
36	Overview of VOC emissions and chemistry from PTR-TOF-MS measurements during the SusKat-ABC campaign: high acetaldehyde, isoprene and isocyanic acid in wintertime air of the Kathmandu Valley. Atmospheric Chemistry and Physics, 2016, 16, 3979-4003.	1.9	102

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37	Contribution of post-harvest agricultural paddy residue fires in the N.W. Indo-Gangetic Plain to ambient carcinogenic benzenoids, toxic isocyanic acid and carbon monoxide. Environment International, 2016, 88, 187-197.	4.8	71
38	Limitation of the Use of the Absorption Angstrom Exponent for Source Apportionment of Equivalent Black Carbon: a Case Study from the North West Indo-Gangetic Plain. Environmental Science & Technology, 2016, 50, 814-824.	4.6	69
39	Assessment of crop yield losses in Punjab and Haryana using 2 years of continuous in situ ozone measurements. Atmospheric Chemistry and Physics, 2015, 15, 9555-9576.	1.9	93
40	Intercomparison of the comparative reactivity method (CRM) and pumpâ€“probe technique for measuring total OH reactivity in an urban environment. Atmospheric Measurement Techniques, 2015, 8, 4243-4264.	1.2	30
41	Intercomparison of two comparative reactivity method instruments inf the Mediterranean basin during summer 2013. Atmospheric Measurement Techniques, 2015, 8, 3851-3865.	1.2	21
42	Atmospheric benzenoid emissions from plants rival those from fossil fuels. Scientific Reports, 2015, 5, 12064.	1.6	104
43	VOCâ€“OHM: A new technique for rapid measurements of ambient total OH reactivity and volatile organic compounds using a single proton transfer reaction mass spectrometer. International Journal of Mass Spectrometry, 2014, 374, 55-63.	0.7	26
44	Meteorology during the DOMINO campaign and its connection with trace gases and aerosols. Atmospheric Chemistry and Physics, 2014, 14, 2325-2342.	1.9	11
45	Chemical composition of pre-monsoon air in the Indo-Gangetic Plain measured using a new air quality facility and PTR-MS: high surface ozone and strong influence of biomass burning. Atmospheric Chemistry and Physics, 2014, 14, 5921-5941.	1.9	134
46	Observation and modelling of HO_x radicals in a boreal forest. Atmospheric Chemistry and Physics, 2014, 14, 8723-8747.	1.9	109
47	Diel peroxy radicals in a semi-industrial coastal area: nighttime formation of free radicals. Atmospheric Chemistry and Physics, 2013, 13, 5731-5749.	1.9	10
48	Total OH reactivity measurements using a new fast Gas Chromatographic Photo-Ionization Detector (GC-PID). Atmospheric Measurement Techniques, 2012, 5, 2981-2992.	1.2	37
49	Constraints on instantaneous ozone production rates and regimes during DOMINO derived using in-situ OH reactivity measurements. Atmospheric Chemistry and Physics, 2012, 12, 7269-7283.	1.9	81
50	Summertime total OH reactivity measurements from boreal forest during HUMPPA-COPEC 2010. Atmospheric Chemistry and Physics, 2012, 12, 8257-8270.	1.9	111
51	Total OH reactivity measurements in Paris during the 2010 MEGAPOLI winter campaign. Atmospheric Chemistry and Physics, 2012, 12, 9593-9612.	1.9	95
52	Case study of the diurnal variability of chemically active species with respect to boundary layer dynamics during DOMINO. Atmospheric Chemistry and Physics, 2012, 12, 5329-5341.	1.9	35
53	The summertime Boreal forest field measurement intensive (HUMPPA-COPEC-2010): an overview of meteorological and chemical influences. Atmospheric Chemistry and Physics, 2011, 11, 10599-10618.	1.9	108
54	Modelling atmospheric OH-reactivity in a boreal forest ecosystem. Atmospheric Chemistry and Physics, 2011, 11, 9709-9719.	1.9	69

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55	Global atmospheric budget of acetaldehyde: 3-D model analysis and constraints from in-situ and satellite observations. Atmospheric Chemistry and Physics, 2010, 10, 3405-3425.	1.9	278
56	OH Reactivity Measurements within a Boreal Forest: Evidence for Unknown Reactive Emissions. Environmental Science & Technology, 2010, 44, 6614-6620.	4.6	127
57	The effect of relative humidity on the detection of pyrrole by PTR-MS for OH reactivity measurements. International Journal of Mass Spectrometry, 2009, 282, 108-111.	0.7	47
58	Flux estimates of isoprene, methanol and acetone from airborne PTR-MS measurements over the tropical rainforest during the GABRIEL 2005 campaign. Atmospheric Chemistry and Physics, 2009, 9, 4207-4227.	1.9	64
59	VOC measurements within a boreal forest during spring 2005: on the occurrence of elevated monoterpene concentrations during night time intense particle concentration events. Atmospheric Chemistry and Physics, 2009, 9, 8331-8350.	1.9	51
60	The Comparative Reactivity Method â€" a new tool to measure total OH Reactivity in ambient air. Atmospheric Chemistry and Physics, 2008, 8, 2213-2227.	1.9	188
61	Surface and boundary layer exchanges of volatile organic compounds, nitrogen oxides and ozone during the GABRIEL campaign. Atmospheric Chemistry and Physics, 2008, 8, 6223-6243.	1.9	76
62	Air-sea fluxes of methanol, acetone, acetaldehyde, isoprene and DMS from a Norwegian fjord following a phytoplankton bloom in a mesocosm experiment. Atmospheric Chemistry and Physics, 2007, 7, 739-755.	1.9	120
63	Issues in Indian Science. Science, 2005, 309, 557-558.	6.0	0