

A Rob Mackenzie

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6332745/publications.pdf>

Version: 2024-02-01

105
papers

3,435
citations

172457

29
h-index

189892

50
g-index

136
all docs

136
docs citations

136
times ranked

4515
citing authors

#	ARTICLE	IF	CITATIONS
1	Modeling data synthesis for the next generation of forest free-air CO ₂ enrichment (FACE) experiments. <i>New Phytologist</i> , 2016, 209, 17-28.	7.3	178
2	Nitrogen management is essential to prevent tropical oil palm plantations from causing ground-level ozone pollution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 18447-18451.	7.1	161
3	Using green infrastructure to improve urban air quality (GI4AQ). <i>Ambio</i> , 2020, 49, 62-73.	5.5	142
4	Simulating atmospheric composition over a South-East Asian tropical rainforest: performance of a chemistry box model. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 279-298.	4.9	132
5	Overview: oxidant and particle photochemical processes above a south-east Asian tropical rainforest (the OP3 project): introduction, rationale, location characteristics and tools. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 169-199.	4.9	130
6	Polar stratospheric cloud microphysics and chemistry. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2008, 70, 13-40.	1.6	125
7	Fluxes and concentrations of volatile organic compounds from a South-East Asian tropical rainforest. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 8391-8412.	4.9	119
8	Gas flaring and resultant air pollution: A review focusing on black carbon. <i>Environmental Pollution</i> , 2016, 216, 182-197.	7.5	117
9	Fully online clustering of evolving data streams into arbitrarily shaped clusters. <i>Information Sciences</i> , 2017, 382-383, 96-114.	6.9	110
10	SCOUT-O3/ACTIVE: High-altitude Aircraft Measurements around Deep Tropical Convection. <i>Bulletin of the American Meteorological Society</i> , 2008, 89, 647-662.	3.3	99
11	High-frequency monitoring of catchment nutrient exports reveals highly variable storm event responses and dynamic source zone activation. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 2265-2281.	3.0	94
12	Development and Application of an Urban Tree Air Quality Score for Photochemical Pollution Episodes Using the Birmingham, United Kingdom, Area as a Case Study. <i>Environmental Science & Technology</i> , 2005, 39, 6730-6738.	10.0	88
13	Enhanced global primary production by biogenic aerosol via diffuse radiation fertilization. <i>Nature Geoscience</i> , 2018, 11, 640-644.	12.9	87
14	Ultrathin Tropical Tropopause Clouds (UTTCs): I. Cloud morphology and occurrence. <i>Atmospheric Chemistry and Physics</i> , 2003, 3, 1083-1091.	4.9	83
15	Direct ecosystem fluxes of volatile organic compounds from oil palms in South-East Asia. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 8995-9017.	4.9	82
16	Ground-level ozone influenced by circadian control of isoprene emissions. <i>Nature Geoscience</i> , 2011, 4, 671-674.	12.9	59
17	An introduction to the SCOUT-AMMA stratospheric aircraft, balloons and sondes campaign in West Africa, August 2006: rationale and roadmap. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 2237-2256.	4.9	58
18	Urban land classification and its uncertainties using principal component and cluster analyses: A case study for the UK West Midlands. <i>Landscape and Urban Planning</i> , 2006, 78, 311-321.	7.5	57

#	ARTICLE	IF	CITATIONS
19	Effects of fluid-dynamical stirring and mixing on the deactivation of stratospheric chlorine. <i>Journal of Geophysical Research</i> , 1998, 103, 1585-1605.	3.3	55
20	The SCOUT-O3 Darwin Aircraft Campaign: rationale and meteorology. <i>Atmospheric Chemistry and Physics</i> , 2009, 9, 93-117.	4.9	53
21	Cirrus parametrization and the role of ice nuclei. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2005, 131, 1585-1605.	2.7	50
22	Mapping and quantifying isomer sets of hydrocarbons (C ₁₂ and C ₁₃) in diesel exhaust, lubricating oil and diesel fuel samples using GC-ToF-MS. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 3047-3058.	4.4	44
23	A numerical simulation of kinetic constraints upon achievement of the ammonium nitrate dissociation equilibrium in the troposphere. <i>Atmospheric Environment Part A General Topics</i> , 1990, 24, 91-102.	1.3	41
24	BIOGENIC VOLATILE ORGANIC COMPOUND (VOC) EMISSION ESTIMATES FROM AN URBAN TREE CANOPY. , 2003, 13, 927-938.		41
25	Activation of stratospheric chlorine by reactions in liquid sulphuric acid. <i>Geophysical Research Letters</i> , 1994, 21, 1439-1442.	4.0	40
26	The influence of small-scale variations in isoprene concentrations on atmospheric chemistry over a tropical rainforest. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 4121-4134.	4.9	40
27	Spatially-varying surface roughness and ground-level air quality in an operational dispersion model. <i>Environmental Pollution</i> , 2014, 185, 44-51.	7.5	40
28	Morphology of the tropopause layer and lower stratosphere above a tropical cyclone: a case study on cyclone Davina (1999). <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 3411-3426.	4.9	38
29	The atmospheric chemistry of trace gases and particulate matter emitted by different land uses in Borneo. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2011, 366, 3177-3195.	4.0	36
30	The M-55 Geophysica as a Platform for the Airborne Polar Experiment. <i>Journal of Atmospheric and Oceanic Technology</i> , 1999, 16, 1303-1312.	1.3	34
31	Seasonal and diurnal trends in concentrations and fluxes of volatile organic compounds in central London. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 7777-7796.	4.9	34
32	The APE-THESEO Tropical Campaign: An Overview. <i>Journal of Atmospheric Chemistry</i> , 2004, 48, 1-33.	3.2	33
33	The role of biogenic hydrocarbons in the production of ozone in urban plumes in southeast England. <i>Atmospheric Environment Part A General Topics</i> , 1991, 25, 351-359.	1.3	29
34	Atmospheric Sampling on Ascension Island Using Multirotor UAVs. <i>Sensors</i> , 2017, 17, 1189.	3.8	29
35	Factors affecting the natural transmission of bovine leukaemia virus infection in Queensland dairy herds. <i>Australian Veterinary Journal</i> , 1991, 68, 230-233.	1.1	28
36	Closed-form approximations to the error and complementary error functions and their applications in atmospheric science. <i>Atmospheric Science Letters</i> , 2007, 8, 70-73.	1.9	27

#	ARTICLE	IF	CITATIONS
37	The impact of local surface changes in Borneo on atmospheric composition at wider spatial scales: coastal processes, land-use change and air quality. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2011, 366, 3210-3224.	4.0	27
38	Emissions of biogenic volatile organic compounds and subsequent photochemical production of secondary organic aerosol in mesocosm studies of temperate and tropical plant species. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 12781-12801.	4.9	27
39	Concentrations of selected volatile organic compounds at kerbside and background sites in central London. <i>Atmospheric Environment</i> , 2014, 95, 456-467.	4.1	26
40	Distinct chemical and mineralogical composition of Icelandic dust compared to northern African and Asian dust. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 13521-13539.	4.9	26
41	Coordinated Airborne Studies in the Tropics (CAST). <i>Bulletin of the American Meteorological Society</i> , 2017, 98, 145-162.	3.3	25
42	A Lagrangian model of air-mass photochemistry and mixing using a trajectory ensemble: the Cambridge Tropospheric Trajectory model of Chemistry And Transport (CiTTyCAT) version 4.2. <i>Geoscientific Model Development</i> , 2012, 5, 193-221.	3.6	24
43	Diesel exhaust nanoparticles and their behaviour in the atmosphere. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2018, 474, 20180492.	2.1	24
44	Delivering a Multi-Functional and Resilient Urban Forest. <i>Sustainability</i> , 2015, 7, 4600-4624.	3.2	23
45	Study of finely divided aqueous systems as an aid to understanding the formation mechanism of polar stratospheric clouds: Case of HNO ₃ /H ₂ O and H ₂ SO ₄ /H ₂ O systems. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	22
46	<i>Campylobacter hyointestinalis</i> -associated enteritis in Moluccan rusa deer (<i>Cervus timorensis</i> subsp.) <i>Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5</i>	9.4	21
47	Airborne Polar Experiment-Polar Ozone, Leewaves, Chemistry, and Transport (APE-POLECAT): Rationale, road map and summary of measurements. <i>Journal of Geophysical Research</i> , 1999, 104, 23941-23959.	3.3	21
48	Using bright sunshine at low-elevation angles to compile an historical record of the effect of aerosol on incoming solar radiation. <i>Atmospheric Environment</i> , 2008, 42, 7600-7610.	4.1	21
49	High-Resolution Stratospheric Tracer Fields Reconstructed with Lagrangian Techniques: A Comparative Analysis of Predictive Skill. <i>Journals of the Atmospheric Sciences</i> , 2002, 59, 1943-1958.	1.7	20
50	Tropopause and hygropause variability over the equatorial Indian Ocean during February and March 1999. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	18
51	Detection of a gas flaring signature in the AERONET optical properties of aerosols at a tropical station in West Africa. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 14,513.	3.3	18
52	Air Pollution and Climate Forcing of the Charcoal Industry in Africa. <i>Environmental Science & Technology</i> , 2020, 54, 13429-13438.	10.0	18
53	A Lagrangian model with simple primary and secondary aerosol scheme 1: comparison with UK PM _{2.5} data. <i>Atmospheric Chemistry and Physics</i> , 2004, 4, 2161-2170.	4.9	17
54	Modelling component evaporation and composition change of traffic-induced ultrafine particles during travel from street canyon to urban background. <i>Faraday Discussions</i> , 2016, 189, 529-546.	3.2	17

#	ARTICLE	IF	CITATIONS
55	Modelling traffic-induced multicomponent ultrafine particles in urban street canyon compartments: Factors that inhibit mixing. <i>Environmental Pollution</i> , 2018, 238, 186-195.	7.5	17
56	Ozone measurements during the Airborne Polar Experiment: Aircraft instrument validation, isentropic trends, and hemispheric fields prior to the 1997 Arctic ozone depletion. <i>Journal of Geophysical Research</i> , 2000, 105, 14599-14611.	3.3	16
57	Liquid particle composition and heterogeneous reactions in a mountain wave Polar Stratospheric Cloud. <i>Atmospheric Chemistry and Physics</i> , 2006, 6, 3611-3623.	4.9	16
58	Dispersion of gas flaring emissions in the Niger delta: Impact of prevailing meteorological conditions and flare characteristics. <i>Environmental Pollution</i> , 2019, 246, 284-293.	7.5	16
59	Is photosynthetic enhancement sustained through three years of elevated CO ₂ exposure in 175-year-old <i>Quercus robur</i> ? <i>Tree Physiology</i> , 2022, 42, 130-144.	3.1	15
60	Trajectory model studies of ClO activation during the 1991/92 northern hemispheric winter. <i>Geophysical Research Letters</i> , 1994, 21, 1419-1422.	4.0	14
61	What role do type I polar stratospheric cloud and aerosol parameterizations play in modelled lower stratospheric chlorine activation and ozone loss?. <i>Journal of Geophysical Research</i> , 1996, 101, 28817-28835.	3.3	14
62	A seroepidemiological study of bovine pestivirus in Queensland beef and dairy herds conducted in 1994/95. <i>Australian Veterinary Journal</i> , 2006, 84, 163-168.	1.1	14
63	Diagnosis of processes controlling water vapour in the tropical tropopause layer by a Lagrangian cirrus model. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 5401-5413.	4.9	14
64	Methane mole fraction and $\hat{\nu}^{13}\text{C}$ above and below the trade wind inversion at Ascension Island in air sampled by aerial robotics. <i>Geophysical Research Letters</i> , 2016, 43, 11,893.	4.0	14
65	Salmonella Dublin infection in Queensland dairy cattle. <i>Australian Veterinary Journal</i> , 1996, 74, 367-369.	1.1	13
66	Calibrated digital images of Campbell's Stokes recorder card archives for direct solar irradiance studies. <i>Atmospheric Measurement Techniques</i> , 2013, 6, 1371-1379.	3.1	13
67	The ozone increments in urban plumes. <i>Science of the Total Environment</i> , 1995, 159, 91-99.	8.0	11
68	Trans-hemispheric effects of large volcanic eruptions as recorded by an early 19th century diary. <i>International Journal of Climatology</i> , 2010, 30, 2217-2228.	3.5	11
69	Experimental vapour pressures of eight n-alkanes (C ₁₇ , C ₁₈ , C ₂₀ , C ₂₂ , C ₂₄ , C ₂₆ , C ₂₈ and C ₃₁) measured at ambient temperatures. <i>Atmospheric Environment</i> , 2019, 213, 739-745.	4.1	11
70	Introducing the Green Infrastructure for Roadside Air Quality (GI4RAQ) Platform: Estimating Site-Specific Changes in the Dispersion of Vehicular Pollution Close to Source. <i>Forests</i> , 2021, 12, 769.	2.1	11
71	Observational studies of the role of polar regions in mid-latitude ozone loss. <i>Geophysical Research Letters</i> , 1995, 22, 3485-3488.	4.0	10
72	A condensed-mass advection based model for the simulation of liquid polar stratospheric clouds. <i>Atmospheric Chemistry and Physics</i> , 2003, 3, 29-38.	4.9	10

#	ARTICLE	IF	CITATIONS
73	Mapping gas-phase organic reactivity and concomitant secondary organic aerosol formation: chemometric dimension reduction techniques for the deconvolution of complex atmospheric data sets. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 8077-8100.	4.9	10
74	Neighbourhood-Scale Flow Regimes and Pollution Transport in Cities. <i>Boundary-Layer Meteorology</i> , 2021, 179, 259-289.	2.3	10
75	Traffic-induced multicomponent ultrafine particle microphysics in the WRF v3.6.1 large eddy simulation model: General behaviour from idealised scenarios at the neighbourhood-scale. <i>Atmospheric Environment</i> , 2020, 223, 117213.	4.1	9
76	Disease of geese caused by a new herpesvirus. <i>Australian Veterinary Journal</i> , 1990, 67, 446-448.	1.1	8
77	Study of finely divided aqueous systems as an aid to understanding the surface chemistry of polar stratospheric clouds: Case of HCl/H ₂ O and HNO ₃ /HCl/H ₂ O systems. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	8
78	<sc>BIFoR FACE</sc>: Waterâ€“soilâ€“vegetationâ€“atmosphere data from a temperate deciduous forest catchment, including under elevated <sc>CO₂</sc>. <i>Hydrological Processes</i> , 2021, 35, e14096.	2.6	8
79	Are the (Solidâˆ“Liquid) Kelvin Equation and the Theory of Interfacial Tension Components Commensurate?. <i>Journal of Physical Chemistry B</i> , 1997, 101, 1817-1823.	2.6	7
80	Title is missing!. <i>Journal of Atmospheric Chemistry</i> , 2000, 35, 273-293.	3.2	7
81	Modelling chemistry and transport in urban street canyons: Comparing offline multi-box models with large-eddy simulation. <i>Atmospheric Environment</i> , 2021, 264, 118709.	4.1	7
82	The spatial and temporal extent of chlorine activation by polar stratospheric clouds in the northern hemisphere winters of 1988/89 and 1991/92. <i>Geophysical Research Letters</i> , 1994, 21, 1423-1426.	4.0	6
83	Temporal patterns, sources, and sinks of C8-C16hydrocarbons in the atmosphere of Mace Head, Ireland. <i>Journal of Geophysical Research</i> , 2002, 107, PAR 4-1.	3.3	6
84	Neighbourhood-scale dispersion of traffic-induced ultrafine particles in central London: WRF large eddy simulations. <i>Environmental Pollution</i> , 2020, 266, 115223.	7.5	6
85	Realistic Forests and the Modeling of Forestâ€“Atmosphere Exchange. <i>Reviews of Geophysics</i> , 2022, 60, e2021RG000746.	23.0	6
86	Corrigendum to "Overview: oxidant and particle photochemical processes above a south-east Asian tropical rainforest (the OP3 project): introduction, rationale, location characteristics and tools" published in <i>Atmos. Chem. Phys.</i> , 10, 169â€“199, 2010. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 563-563.	4.9	5
87	World War II contrails: a case study of aviationâ€“induced cloudiness. <i>International Journal of Climatology</i> , 2012, 32, 1745-1753.	3.5	5
88	The influence of particle composition upon the evolution of urban ultrafine diesel particles on the neighbourhood scale. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 17143-17155.	4.9	5
89	The impact of local emissions on the formation of secondary pollutants in urban plumes. <i>Science of the Total Environment</i> , 1990, 93, 245-254.	8.0	4
90	Two-year (1996/1997) ozone DIAL measurement over Dumont d'Urville (Antarctica). <i>Geophysical Research Letters</i> , 1999, 26, 463-466.	4.0	4

#	ARTICLE	IF	CITATIONS
91	Avian Sensor Packages for Meteorological Measurements. Bulletin of the American Meteorological Society, 2018, 99, 499-511.	3.3	4
92	Allometric scaling of thermal infrared emitted from UK cities and its relation to urban form. City and Environment Interactions, 2020, 5, 100037.	4.2	4
93	Self-consistent estimates of emission factors of carboncontaining pollutants from a typical gas flare. Ipe Journal of Science, 2020, 22, 135-149.	0.3	4
94	Seasonality of isoprene emissions and oxidation products above the remote Amazon. Environmental Science Atmospheres, 2022, 2, 230-240.	2.4	4
95	Ozone and water vapour in the austral polar stratospheric vortex and sub-vortex. Annales Geophysicae, 2004, 22, 4035-4041.	1.6	3
96	Urban form strongly mediates the allometric scaling of airshed pollution concentrations. Environmental Research Letters, 2019, 14, 124078.	5.2	3
97	Mass concentration measurements of autumn bioaerosol using low-cost sensors in a mature temperate woodland free-air carbon dioxide enrichment (FACE) experiment: investigating the role of meteorology and carbon dioxide levels. Biogeosciences, 2022, 19, 2653-2669.	3.3	3
98	Ultrathin subvisible cirrus clouds at the tropical tropopause. AIP Conference Proceedings, 2000, , .	0.4	2
99	Are chlorophyll concentrations and nitrogen across the vertical canopy profile affected by elevated CO2 in mature Quercus trees?. Trees - Structure and Function, 2022, 36, 1797-1809.	1.9	2
100	Tracers and traceability: implementing the cirrus parameterisation from LACM in the TOMCAT/SIMCAT chemistry transport model as an example of the application of quality assurance to legacy models. Geoscientific Model Development, 2010, 3, 189-203.	3.6	1
101	Extending Manley's Lancashire Plain Temperature Record: 1753â€“2007. International Journal of Climatology, 2012, 32, 1899-1908.	3.5	1
102	Reply to: Complexities between plants and the atmosphere. Nature Geoscience, 2019, 12, 695-695.	12.9	1
103	The Impact of Acute Diesel Exhaust Exposure on Executive Brain Function. Journal of Vision, 2021, 21, 2562.	0.3	0
104	DSC STUDY OF PHASE TRANSITIONS IN FINELY DIVIDED AQUEOUS SYSTEMS: IMPLICATIONS FOR POLAR STRATOSPHERIC CLOUDS. Journal of Aerosol Science, 2001, 32, 13-14.	3.8	0
105	Modelling Cirrus Cloud Fields for Climate and Atmospheric Chemistry Studies. , 2007, , 601-604.		0