

# Pieter G Van Zyl

## List of Publications by Year in descending order

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Version: 2024-02-01

76  
papers

2,747  
citations

236925

25  
h-index

206112

48  
g-index

106  
all docs

106  
docs citations

106  
times ranked

3811  
citing authors

#	ARTICLE	IF	CITATIONS
1	Key challenges for tropospheric chemistry in the Southern Hemisphere. <i>Elementa</i> , 2022, 10, .	3.2	7
2	Wet season chemical composition of atmospheric wet deposition at Cape Point. <i>Clean Air Journal</i> , 2022, 32, .	0.5	0
3	Rainwater Chemistry and Total Deposition of Acidity from the Northern Savanna to the Southern Coastal Fynbos of South Africa. <i>Water, Air, and Soil Pollution</i> , 2022, 233, .	2.4	3
4	Biomass burning aerosols in most climate models are too absorbing. <i>Nature Communications</i> , 2021, 12, 277.	12.8	84
5	Assessing SO <sub>2</sub> , NO <sub>2</sub> and O <sub>3</sub> in rural areas of the North West Province. <i>Clean Air Journal</i> , 2021, 31, .	0.5	0
6	Characterisation of a Real-World SÄderberg Electrode. <i>Metals</i> , 2021, 11, 5.	2.3	2
7	Seasonality of the particle number concentration and size distribution: a global analysis retrieved from the network of Global Atmosphere Watch (GAW) near-surface observatories. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 17185-17223.	4.9	31
8	Observations of ozone formation in southern African savanna and grassland fire plumes. <i>Atmospheric Environment</i> , 2020, 223, 117256.	4.1	3
9	Twenty-one years of passive sampling monitoring of SO <sub>2</sub> , NO <sub>2</sub> and O <sub>3</sub> at the Cape Point GAW station, South Africa. <i>Atmospheric Environment</i> , 2020, 222, 117128.	4.1	9
10	Statistical analysis of factors driving surface ozone variability over continental South Africa. <i>Journal of Integrative Environmental Sciences</i> , 2020, 17, 1-28.	2.5	5
11	Rootâ€zone soil moisture variability across African savannas: From pulsed rainfall to landâ€cover switches. <i>Ecohydrology</i> , 2020, 13, e2213.	2.4	10
12	Six-year observations of aerosol optical properties at a southern African grassland savannah site. <i>Atmospheric Environment</i> , 2020, 230, 117477.	4.1	2
13	Measurement report: Statistical modelling of long-term trends of atmospheric inorganic gaseous species within proximity of the pollution hotspot in South Africa. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 10637-10665.	4.9	4
14	Characterising Particulate Organic Nitrogen at A Savannah-Grassland Region in South Africa. <i>Atmosphere</i> , 2019, 10, 492.	2.3	10
15	Assessment of polar organic aerosols at a regional background site in southern Africa. <i>Journal of Atmospheric Chemistry</i> , 2019, 76, 89-113.	3.2	5
16	A novel post-processing algorithm for Halo Doppler lidars. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 839-852.	3.1	24
17	Temporal and source assessments of organic and elemental carbon at sites in the northern South African interior. <i>Journal of Atmospheric Chemistry</i> , 2019, 76, 263-287.	3.2	5
18	Simulating effects of aerosols on rainfall in southern Africa. <i>Air Quality, Atmosphere and Health</i> , 2019, 12, 1-10.	3.3	4

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19	Observing continental boundary-layer structure and evolution over the South African savannah using a ceilometer. <i>Theoretical and Applied Climatology</i> , 2019, 136, 333-346.	2.8	8
20	OMI Satellite and Ground-based Pandora Observations and Their Application to Surface $\text{NO}_2$ Estimations at Terrestrial and Marine Sites. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 1441-1459.	3.3	16
21	Receptor modelling and risk assessment of volatile organic compounds measured at a regional background site in South Africa. <i>Atmospheric Environment</i> , 2018, 172, 133-148.	4.1	41
22	Seasonal influences on surface ozone variability in continental South Africa and implications for air quality. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 15491-15514.	4.9	26
23	Size-resolved characteristics of inorganic ionic species in atmospheric aerosols at a regional background site on the South African Highveld. <i>Journal of Atmospheric Chemistry</i> , 2018, 75, 285-304.	3.2	5
24	Major secondary aerosol formation in southern African open biomass burning plumes. <i>Nature Geoscience</i> , 2018, 11, 580-583.	12.9	72
25	Review of Cr(VI) environmental practices in the chromite mining and smelting industry – Relevance to development of the Ring of Fire, Canada. <i>Journal of Cleaner Production</i> , 2017, 165, 874-889.	9.3	67
26	Spatial, temporal and source contribution assessments of black carbon over the northern interior of South Africa. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 6177-6196.	4.9	21
27	Atmospheric trace metals measured at a regional background site (Welgedund) in South Africa. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 4251-4263.	4.9	47
28	Carbon balance of a grazed savanna grassland ecosystem in South Africa. <i>Biogeosciences</i> , 2017, 14, 1039-1054.	3.3	26
29	Aqueous solubility of Cr(VI) compounds in ferrochrome bag filter dust and the implications thereof. <i>Water S A</i> , 2017, 43, 298.	0.4	12
30	composition of ambient and fresh biomass burning aerosols at a savannah site, South Africa. <i>South African Journal of Science</i> , 2016, 112, 8.	0.7	14
31	Investigating atmospheric photochemistry in the Johannesburg-Pretoria megacity using a box model. <i>South African Journal of Science</i> , 2016, 112, 11.	0.7	7
32	The sensitivity of Afromontane tarns in the Maloti-Drakensberg region of South Africa and Lesotho to acidic deposition. <i>African Journal of Aquatic Science</i> , 2016, 41, 413-426.	1.1	7
33	Utilisation of pre-oxidised ore in the pelletised chromite pre-reduction process. <i>Minerals Engineering</i> , 2016, 92, 114-124.	4.3	23
34	The chemical composition and fluxes of atmospheric wet deposition at four sites in South Africa. <i>Atmospheric Environment</i> , 2016, 146, 113-131.	4.1	73
35	Submicrometer aerosols and excess CO as tracers for biomass burning air mass transport over southern Africa. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 10,262-10,282.	3.3	9
36	Optical and microphysical characterization of aerosol layers over South Africa by means of multi-wavelength depolarization and Raman lidar measurements. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 8109-8123.	4.9	51

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37	Measurements of biogenic volatile organic compounds at a grazed savannah grassland agricultural landscape in South Africa. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 15665-15688.	4.9	30
38	An overview of the first decade of Polly&lt;sup&gt;NET&lt;/sup&gt;; an emerging network of automated Raman-polarization lidars for continuous aerosol profiling. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 5111-5137.	4.9	212
39	The impact of residential combustion emissions on atmospheric aerosol, human health, and climate. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 873-905.	4.9	122
40	Free Tropospheric Aerosols Over South Africa. <i>EPJ Web of Conferences</i> , 2016, 119, 23015.	0.3	0
41	Regional atmospheric Cr(VI) pollution from the Bushveld Complex, South Africa. <i>Atmospheric Pollution Research</i> , 2016, 7, 762-767.	3.8	19
42	Reevaluating the contribution of sulfuric acid and the origin of organic compounds in atmospheric nanoparticle growth. <i>Geophysical Research Letters</i> , 2015, 42, 10,486.	4.0	27
43	Characterization of satellite-based proxies for estimating nucleation mode particles over South Africa. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 4983-4996.	4.9	15
44	One year of Raman lidar observations of free-tropospheric aerosol layers over South Africa. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 5429-5442.	4.9	26
45	The anthropogenic contribution to atmospheric black carbon concentrations in southern Africa: a WRF-Chem modeling study. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 8809-8830.	4.9	26
46	Statistical exploration of gaseous elemental mercury (GEM) measured at Cape Point from 2007 to 2011. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 10271-10280.	4.9	15
47	Short Communication: Conductivity as an indicator of surface water quality in the proximity of ferrochrome smelters in South Africa. <i>Water S A</i> , 2015, 41, 705.	0.4	7
48	Automated Continuous Air Monitoring. <i>Comprehensive Analytical Chemistry</i> , 2015, , 183-208.	1.3	10
49	Passive Diffusion Sampling Devices for Monitoring Ambient Air Concentrations. <i>Comprehensive Analytical Chemistry</i> , 2015, , 13-52.	1.3	8
50	Size-resolved characterisation of organic compounds in atmospheric aerosols collected at Welgegund, South Africa. <i>Journal of Atmospheric Chemistry</i> , 2015, 72, 43-64.	3.2	20
51	Plume characterization of a typical South African braai. <i>South African Journal of Chemistry</i> , 2015, 68, 181-194.	0.6	2
52	Spatial and temporal assessment of organic and black carbon at four sites in the interior of South Africa. <i>Clean Air Journal</i> , 2015, 25, .	0.5	9
53	Comparison of physical properties of oxidative sintered pellets produced with UG2 or metallurgical-grade South African chromite: A case study. <i>Journal of the South African Institute of Mining and Metallurgy</i> , 2015, 115, 699-706.	0.5	10
54	Differences in aerosol absorption Å...ngstrÅm exponents between correction algorithms for a particle soot absorption photometer measured on the South African Highveld. <i>Atmospheric Measurement Techniques</i> , 2014, 7, 4285-4298.	3.1	17

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55	A survey of Cr(VI) contamination of surface water in the proximity of ferrochromium smelters in South Africa. <i>Water S A</i> , 2014, 40, 709.	0.4	17
56	Modelling new particle formation events in the South African savannah. <i>South African Journal of Science</i> , 2014, 110, 12.	0.7	4
57	Characterisation and liberation of chromium from fine ferrochrome waste materials. <i>Minerals Engineering</i> , 2014, 56, 112-120.	4.3	17
58	Rapid changes in biomass burning aerosols by atmospheric oxidation. <i>Geophysical Research Letters</i> , 2014, 41, 2644-2651.	4.0	175
59	The AeroCom evaluation and intercomparison of organic aerosol in global models. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 10845-10895.	4.9	363
60	Chemical composition, main sources and temporal variability of PM <sub>10</sub> aerosols in southern African grassland. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 1909-1927.	4.9	81
61	Atmospheric boundary layer top height in South Africa: measurements with lidar and radiosonde compared to three atmospheric models. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 4263-4278.	4.9	65
62	Ambient aromatic hydrocarbon measurements at Welgegund, South Africa. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 7075-7089.	4.9	48
63	A Systems Engineering approach for the deployment of an atmospheric monitoring station. <i>Incose International Symposium</i> , 2014, 24, 552-570.	0.6	0
64	The use of thermomechanical analysis to characterise SÄnderberg electrode paste raw materials. <i>Minerals Engineering</i> , 2013, 46-47, 167-176.	4.3	8
65	Ozone Concentrations and Their Potential Impacts on Vegetation in Southern Africa. <i>Developments in Environmental Science</i> , 2013, 13, 429-450.	0.5	9
66	Why is CaCO <sub>3</sub> not used as an additive in the pelletised chromite pre-reduction process?. <i>Minerals Engineering</i> , 2013, 45, 115-120.	4.3	18
67	Correction for a measurement artifact of the Multi-Angle Absorption Photometer (MAAP) at high black carbon mass concentration levels. <i>Atmospheric Measurement Techniques</i> , 2013, 6, 81-90.	3.1	77
68	South African EUCAARI measurements: seasonal variation of trace gases and aerosol optical properties. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 1847-1864.	4.9	62
69	Re-evaluating the NO <sub>2</sub> hotspot over the South African Highveld. <i>South African Journal of Science</i> , 2012, 108, .	0.7	42
70	An air quality assessment in the industrialised western Bushveld Igneous Complex, South Africa. <i>South African Journal of Science</i> , 2012, 108, .	0.7	66
71	Cr(VI) formation during ozonation of Cr-containing materials in aqueous suspension – implications for water treatment. <i>Water S A</i> , 2012, 38, .	0.4	14
72	Unique challenges of clay binders in a pelletised chromite pre-reduction process. <i>Minerals Engineering</i> , 2012, 34, 55-62.	4.3	21

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73	General overview: European Integrated project on Aerosol Cloud Climate and Air Quality interactions (EUCAARI) – integrating aerosol research from nano to global scales. Atmospheric Chemistry and Physics, 2011, 11, 13061-13143.	4.9	278
74	Spatial and temporal assessment of gaseous pollutants in the Highveld of South Africa. South African Journal of Science, 2011, 107, .	0.7	46
75	Cr(VI) generation during sample preparation of solid samples – A chromite ore case study. Water S A, 2010, 36, .	0.4	10
76	Recovery of $KAu(CN)_2$ from granular activated carbon using supercritical $CO_2$ . Journal of Supercritical Fluids, 2008, 47, 31-36.	3.2	3