

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	The AeroCom evaluation and intercomparison of organic aerosol in global models. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 10845-10895.	4.9	363
2	General overview: European Integrated project on Aerosol Cloud Climate and Air Quality interactions (EUCAARI) – integrating aerosol research from nano to global scales. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 13061-13143.	4.9	278
3	An overview of the first decade of Polly<sup>NET</sup>; 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
4	Rapid changes in biomass burning aerosols by atmospheric oxidation. <i>Geophysical Research Letters</i> , 2014, 41, 2644-2651.	4.0	175
5	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
6	Biomass burning aerosols in most climate models are too absorbing. <i>Nature Communications</i> , 2021, 12, 277.	12.8	84
7	Chemical composition, main sources and temporal variability of PM<sub>1</sub> aerosols in southern African grassland. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 1909-1927.	4.9	81
8	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
9	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
10	Major secondary aerosol formation in southern African open biomass burning plumes. <i>Nature Geoscience</i> , 2018, 11, 580-583.	12.9	72
11	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
12	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
13	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
14	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
15	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
16	Ambient aromatic hydrocarbon measurements at Welgegund, South Africa. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 7075-7089.	4.9	48
17	Atmospheric trace metals measured at a regional background site (Welgegund) in South Africa. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 4251-4263.	4.9	47
18	Spatial and temporal assessment of gaseous pollutants in the Highveld of South Africa. <i>South African Journal of Science</i> , 2011, 107, .	0.7	46

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19	Re-evaluating the NO ₂ hotspot over the South African Highveld. South African Journal of Science, 2012, 108, .	0.7	42
20	Receptor modelling and risk assessment of volatile organic compounds measured at a regional background site in South Africa. Atmospheric Environment, 2018, 172, 133-148.	4.1	41
21	Seasonality of the particle number concentration and size distribution: a global analysis retrieved from the network of Global Atmosphere Watch (GAW) near-surface observatories. Atmospheric Chemistry and Physics, 2021, 21, 17185-17223.	4.9	31
22	Measurements of biogenic volatile organic compounds at a grazed savannah grassland agricultural landscape in South Africa. Atmospheric Chemistry and Physics, 2016, 16, 15665-15688.	4.9	30
23	Reevaluating the contribution of sulfuric acid and the origin of organic compounds in atmospheric nanoparticle growth. Geophysical Research Letters, 2015, 42, 10,486.	4.0	27
24	One year of Raman lidar observations of free-tropospheric aerosol layers over South Africa. Atmospheric Chemistry and Physics, 2015, 15, 5429-5442.	4.9	26
25	The anthropogenic contribution to atmospheric black carbon concentrations in southern Africa: a WRF-Chem modeling study. Atmospheric Chemistry and Physics, 2015, 15, 8809-8830.	4.9	26
26	Carbon balance of a grazed savanna grassland ecosystem in South Africa. Biogeosciences, 2017, 14, 1039-1054.	3.3	26
27	Seasonal influences on surface ozone variability in continental South Africa and implications for air quality. Atmospheric Chemistry and Physics, 2018, 18, 15491-15514.	4.9	26
28	A novel post-processing algorithm for Halo Doppler lidars. Atmospheric Measurement Techniques, 2019, 12, 839-852.	3.1	24
29	Utilisation of pre-oxidised ore in the pelletised chromite pre-reduction process. Minerals Engineering, 2016, 92, 114-124.	4.3	23
30	Unique challenges of clay binders in a pelletised chromite pre-reduction process. Minerals Engineering, 2012, 34, 55-62.	4.3	21
31	Spatial, temporal and source contribution assessments of black carbon over the northern interior of South Africa. Atmospheric Chemistry and Physics, 2017, 17, 6177-6196.	4.9	21
32	Size-resolved characterisation of organic compounds in atmospheric aerosols collected at Welgegund, South Africa. Journal of Atmospheric Chemistry, 2015, 72, 43-64.	3.2	20
33	Regional atmospheric Cr(VI) pollution from the Bushveld Complex, South Africa. Atmospheric Pollution Research, 2016, 7, 762-767.	3.8	19
34	Why is CaCO ₃ not used as an additive in the pelletised chromite pre-reduction process?. Minerals Engineering, 2013, 45, 115-120.	4.3	18
35	Differences in aerosol absorption Å ⁻¹ m exponents between correction algorithms for a particle soot absorption photometer measured on the South African Highveld. Atmospheric Measurement Techniques, 2014, 7, 4285-4298.	3.1	17
36	A survey of Cr(VI) contamination of surface water in the proximity of ferrochromium smelters in South Africa. Water S A, 2014, 40, 709.	0.4	17

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37	Characterisation and liberation of chromium from fine ferrochrome waste materials. Minerals Engineering, 2014, 56, 112-120.	4.3	17
38	OMI Satellite and Ground-Based Pandora Observations and Their Application to Surface NO ₂ Estimations at Terrestrial and Marine Sites. Journal of Geophysical Research D: Atmospheres, 2018, 123, 1441-1459.	3.3	16
39	Characterization of satellite-based proxies for estimating nucleation mode particles over South Africa. Atmospheric Chemistry and Physics, 2015, 15, 4983-4996.	4.9	15
40	Statistical exploration of gaseous elemental mercury (GEM) measured at Cape Point from 2007 to 2011. Atmospheric Chemistry and Physics, 2015, 15, 10271-10280.	4.9	15
41	Cr(VI) formation during ozonation of Cr-containing materials in aqueous suspension – implications for water treatment. Water S A, 2012, 38, .	0.4	14
42	composition of ambient and fresh biomass burning aerosols at a savannah site, South Africa. South African Journal of Science, 2016, 112, 8.	0.7	14
43	Aqueous solubility of Cr(VI) compounds in ferrochrome bag filter dust and the implications thereof. Water S A, 2017, 43, 298.	0.4	12
44	Cr(VI) generation during sample preparation of solid samples – A chromite ore case study. Water S A, 2010, 36, .	0.4	10
45	Automated Continuous Air Monitoring. Comprehensive Analytical Chemistry, 2015, , 183-208.	1.3	10
46	Characterising Particulate Organic Nitrogen at A Savannah-Grassland Region in South Africa. Atmosphere, 2019, 10, 492.	2.3	10
47	Root-zone soil moisture variability across African savannas: From pulsed rainfall to land-cover switches. Ecohydrology, 2020, 13, e2213.	2.4	10
48	Comparison of physical properties of oxidative sintered pellets produced with UG2 or metallurgical-grade South African chromite: A case study. Journal of the South African Institute of Mining and Metallurgy, 2015, 115, 699-706.	0.5	10
49	Ozone Concentrations and Their Potential Impacts on Vegetation in Southern Africa. Developments in Environmental Science, 2013, 13, 429-450.	0.5	9
50	Submicrometer aerosols and excess CO as tracers for biomass burning air mass transport over southern Africa. Journal of Geophysical Research D: Atmospheres, 2016, 121, 10,262-10,282.	3.3	9
51	Twenty-one years of passive sampling monitoring of SO ₂ , NO ₂ and O ₃ at the Cape Point GAW station, South Africa. Atmospheric Environment, 2020, 222, 117128.	4.1	9
52	Spatial and temporal assessment of organic and black carbon at four sites in the interior of South Africa. Clean Air Journal, 2015, 25, .	0.5	9
53	The use of thermomechanical analysis to characterise SÄnderberg electrode paste raw materials. Minerals Engineering, 2013, 46-47, 167-176.	4.3	8
54	Passive Diffusion Sampling Devices for Monitoring Ambient Air Concentrations. Comprehensive Analytical Chemistry, 2015, , 13-52.	1.3	8

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55	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
56	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
57	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
58	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
59	Key challenges for tropospheric chemistry in the Southern Hemisphere. <i>Elementa</i> , 2022, 10, .	3.2	7
60	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
61	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
62	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
63	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
64	Modelling new particle formation events in the South African savannah. <i>South African Journal of Science</i> , 2014, 110, 12.	0.7	4
65	Simulating effects of aerosols on rainfall in southern Africa. <i>Air Quality, Atmosphere and Health</i> , 2019, 12, 1-10.	3.3	4
66	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
67	Recovery of $\text{KAu}(\text{CN})_2$ from granular activated carbon using supercritical CO_2 . <i>Journal of Supercritical Fluids</i> , 2008, 47, 31-36.	3.2	3
68	Observations of ozone formation in southern African savanna and grassland fire plumes. <i>Atmospheric Environment</i> , 2020, 223, 117256.	4.1	3
69	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
70	Six-year observations of aerosol optical properties at a southern African grassland savannah site. <i>Atmospheric Environment</i> , 2020, 230, 117477.	4.1	2
71	Plume characterization of a typical South African braai. <i>South African Journal of Chemistry</i> , 2015, 68, 181-194.	0.6	2
72	Characterisation of a Real-World SÄderberg Electrode. <i>Metals</i> , 2021, 11, 5.	2.3	2

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73	A Systems Engineering approach for the deployment of an atmospheric monitoring station. Incose International Symposium, 2014, 24, 552-570.	0.6	0
74	Free Tropospheric Aerosols Over South Africa. EPJ Web of Conferences, 2016, 119, 23015.	0.3	0
75	Assessing SO ₂ , NO ₂ and O ₃ in rural areas of the North West Province. Clean Air Journal, 2021, 31, .	0.5	0
76	Wet season chemical composition of atmospheric wet deposition at Cape Point. Clean Air Journal, 2022, 32, .	0.5	0