John Volckens

List of Publications by Citations

140 papers	3,750 citations	30 h-index	55 g-index
168 ext. papers	4,391 ext. citations	5.7 avg, IF	5.69 L-index

#	Paper	IF	Citations
140	Multilayer paper-based device for colorimetric and electrochemical quantification of metals. *Analytical Chemistry*, **2014**, 86, 3555-62	7.8	256
139	Microfluidic paper-based analytical device for particulate metals. *Analytical Chemistry*, **2012**, 84, 4474-80	7.8	241
138	Simple, distance-based measurement for paper analytical devices. *Lab on A Chip*, **2013**, 13, 2397-404	7.2	237
137	Paper-based analytical devices for environmental analysis. *Analyst, The*, **2016**, 141, 1874-87	5	200
136	Sensitive electrochemical sensor using a graphene-polyaniline nanocomposite for simultaneous detection of Zn(II), Cd(II), and Pb(II). *Analytica Chimica Acta*, **2015**, 874, 40-8	6.6	194
135	Multiplexed paper analytical device for quantification of metals using distance-based detection. *Lab on A Chip*, **2015**, 15, 2808-18	7.2	170
134	Counting and particle transmission efficiency of the aerodynamic particle sizer. *Journal of Aerosol Science*, **2005**, 36, 1400-1408	4.3	87
133	A microfluidic paper-based analytical device for rapid quantification of particulate chromium. *Analytica Chimica Acta*, **2013**, 800, 50-5	6.6	83
132	Microfluidic paper-based analytical device for aerosol oxidative activity. *Environmental Science & Technology*, **2013**, 47, 932-40	10.3	68
131	Comparison of wildfire smoke estimation methods and associations with cardiopulmonary-related hospital admissions. *GeoHealth*, **2017**, 1, 122-136	5	67
130	Rapid flow in multilayer microfluidic paper-based analytical devices. *Lab on A Chip*, **2018**, 18, 793-802	7.2	66
129	Direct particle-to-cell deposition of coarse ambient particulate matter increases the production of inflammatory mediators from cultured human airway epithelial cells. *Environmental Science & Technology*, **2009**, 43, 4595-9	10.3	64
128	Microfluidic electrochemical sensor for on-line monitoring of aerosol oxidative activity. *Journal of the American Chemical Society*, **2012**, 134, 10562-8	16.4	63
127	Impact of a cleaner-burning cookstove intervention on blood pressure in Nicaraguan women. *Indoor Air*, **2013**, 23, 105-14	5.4	56
126	Development and evaluation of an ultrasonic personal aerosol sampler. *Indoor Air*, **2017**, 27, 409-416	5.4	55
125	The Fort Collins Commuter Study: Impact of route type and transport mode on personal exposure to multiple air pollutants. *Journal of Exposure Science and Environmental Epidemiology*, **2016**, 26, 397-404	6.7	50
124	Uncertainties in global aerosols and climate effects due to biofuel emissions. *Atmospheric Chemistry and Physics*, **2015**, 15, 8577-8596	6.8	50

123	Determination of aerosol oxidative activity using silver nanoparticle aggregation on paper-based analytical devices. *Analyst, The*, **2013**, 138, 6766-73	5	46
122	Laboratory evaluation of low-cost PurpleAir PM monitors and in-field correction using co-located portable filter samplers. *Atmospheric Environment*, **2020**, 220, 117067	5.3	44
121	Solid-Phase Extraction Coupled to a Paper-Based Technique for Trace Copper Detection in Drinking Water. *Environmental Science & Technology*, **2018**, 52, 3567-3573	10.3	43
120	Oxidative stress and aromatic hydrocarbon response of human bronchial epithelial cells exposed to petro- or biodiesel exhaust treated with a diesel particulate filter. *Toxicological Sciences*, **2014**, 141, 505-14	4.4	42
119	Exposure to household air pollution from biomass cookstoves and blood pressure among women in rural Honduras: A cross-sectional study. *Indoor Air*, **2019**, 29, 130-142	5.4	37
118	A baseline evaluation of traditional cook stove smoke exposures and indicators of cardiovascular and respiratory health among Nicaraguan women. *International Journal of Occupational and Environmental Health*, **2011**, 17, 113-21		36
117	Development of a method for personal, spatiotemporal exposure assessment. *Journal of Environmental Monitoring*, **2009**, 11, 1331-9		35
116	Proinflammatory effects of cookstove emissions on human bronchial epithelial cells. *Indoor Air*, **2013**, 23, 4-13	5.4	34
115	The Fort Collins commuter study: Variability in personal exposure to air pollutants by microenvironment. *Indoor Air*, **2019**, 29, 231-241	5.4	34
114	Field measurements of solid-fuel cookstove emissions from uncontrolled cooking in China, Honduras, Uganda, and India. *Atmospheric Environment*, **2018**, 190, 116-125	5.3	34
113	Influence of stove type and cooking pot temperature on particulate matter emissions from biomass cook stoves. *Energy for Sustainable Development*, **2012**, 16, 448-455	5.4	33
112	Effects of sampling bias on gas–particle partitioning of semi-volatile compounds. *Atmospheric Environment*, **2003**, 37, 3385-3393	5.3	32
111	Linking Load, Fuel, and Emission Controls to Photochemical Production of Secondary Organic Aerosol from a Diesel Engine. *Environmental Science & Technology*, **2017**, 51, 1377-1386	10.3	31
110	AgNP/Bi/Nafion-modified Disposable Electrodes for Sensitive Zn(II), Cd(II), and Pb(II) Detection in Aerosol Samples. *Electroanalysis*, **2017**, 29, 880-889	3	30
109	Comparison of methods for measuring gas-particle partitioning of semivolatile compounds. *Atmospheric Environment*, **2003**, 37, 3177-3188	5.3	30
108	A Laboratory Assessment of 120 Air Pollutant Emissions from Biomass and Fossil Fuel Cookstoves. *Environmental Science & Technology*, **2019**, 53, 7114-7125	10.3	28
107	Quantifying the Contribution to Uncertainty in Mortality Attributed to Household, Ambient, and Joint Exposure to PM From Residential Solid Fuel Use. *GeoHealth*, **2018**, 2, 25-39	5	28
106	Exposure to household air pollution from biomass-burning cookstoves and HbA1c and diabetic status among Honduran women. *Indoor Air*, **2018**, 28, 768	5.4	27

105	Biodiesel effects on particulate radiocarbon (14C) emissions from a diesel engine. *Journal of Aerosol Science*, **2008**, 39, 667-678	4.3	27
104	Airborne Transmission of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2): What We Know. *Clinical Infectious Diseases*, **2021**, 73, 1924-1926	11.6	27
103	Technical Note: Performance of a Personal Electrostatic Precipitator Particle Sampler. *Aerosol Science and Technology*, **2002**, 36, 162-165	3.4	25
102	Janus Electrochemical Paper-Based Analytical Devices for Metals Detection in Aerosol Samples. *Analytical Chemistry*, **2020**, 92, 1439-1446	7.8	25
101	Measurement of Gaseous and Particulate Emissions from Algae-Based Fatty Acid Methyl Esters. *SAE International Journal of Fuels and Lubricants*, **2010**, 3, 292-321	1.8	24
100	A Personal, Thermophoretic Sampler for Airborne Nanoparticles. *Aerosol Science and Technology*, **2011**, 45, 744-750	3.4	24
99	Oil Mist Concentration: A Comparison of Sampling Methods. *AIHA Journal*, **1999**, 60, 684-689		24
98	Within-microenvironment exposure to particulate matter and health effects in children with asthma: a pilot study utilizing real-time personal monitoring with GPS interface. *Environmental Health*, **2016**, 15, 96	6	24
97	Size, Composition, and Source Profiles of Inhalable Bioaerosols from Colorado Dairies. *Environmental Science & Technology*, **2017**, 51, 6430-6440	10.3	23
96	Oil Mist Concentration: A Comparison of Sampling Methods. *AIHA Journal*, **1999**, 60, 684-689		23
95	A low-cost particulate matter (PM_{2.5}) monitor for wildland fire smoke. *Atmospheric Measurement Techniques*, **2018**, 11, 1087-1097	4	23
94	Development of a Transfer Function for a Personal, Thermophoretic Nanoparticle Sampler. *Aerosol Science and Technology*, **2014**, 48, 81-89	3.4	20
93	Emissions profile from new and in-use handheld, 2-stroke engines. *Atmospheric Environment*, **2007**, 41, 640-649	5.3	20
92	Partitioning theory for respiratory deposition of semivolatile aerosols. *Annals of Occupational Hygiene*, **2003**, 47, 157-64		20
91	Personal Exposure to PM Black Carbon and Aerosol Oxidative Potential using an Automated Microenvironmental Aerosol Sampler (AMAS). *Environmental Science & Technology*, **2018**, 52, 11267-11275	10.3	20
90	Paper-based microfluidics for experimental design: screening masking agents for simultaneous determination of Mn(II) and Co(II). *Analytical Methods*, **2017**, 9, 534-540	3.2	19
89	An accurate filter loading correction is essential for assessing personal exposure to black carbon using an Aethalometer. *Journal of Exposure Science and Environmental Epidemiology*, **2017**, 27, 409-416	6.7	19
88	Variation in gravimetric correction factors for nephelometer-derived estimates of personal exposure to PM. *Environmental Pollution*, **2019**, 250, 251-261	9.3	19

87	LABORATORY EVALUATION OF A MICROFLUIDIC ELECTROCHEMICAL SENSOR FOR AEROSOL OXIDATIVE LOAD. *Aerosol Science and Technology*, **2014**, 48, 489-497	3.4	19
86	Carbonaceous species emitted from handheld two-stroke engines. *Atmospheric Environment*, **2008**, 42, 1239-1248	5.3	19
85	Household air pollution from biomass-burning cookstoves and metabolic syndrome, blood lipid concentrations, and waist circumference in Honduran women: A cross-sectional study. *Environmental Research*, **2019**, 170, 46-55	7.9	19
84	Rapid detection of transition metals in welding fumes using paper-based analytical devices. *Annals of Occupational Hygiene*, **2014**, 58, 413-23		18
83	Time course of bronchial cell inflammation following exposure to diesel particulate matter using a modified EAVES. *Toxicology in Vitro*, **2014**, 28, 829-37	3.6	18
82	Electrostatic sampler for semivolatile aerosols: chemical artifacts. *Environmental Science & Technology*, **2002**, 36, 4608-12	10.3	18
81	A Baseline Evaluation of Traditional Cook Stove Smoke Exposures and Indicators of Cardiovascular and Respiratory Health among Nicaraguan Women		18
80	Effects of aerosol type and simulated aging on performance of low-cost PM sensors. *Journal of Aerosol Science*, **2020**, 150, 105654	4.3	18
79	Murine precision-cut lung slices exhibit acute responses following exposure to gasoline direct injection engine emissions. *Science of the Total Environment*, **2016**, 568, 1102-1109	10.2	18
78	Low-Cost Reusable Sensor for Cobalt and Nickel Detection in Aerosols Using Adsorptive Cathodic Square-Wave Stripping Voltammetry. *Journal of Electroanalytical Chemistry*, **2017**, 805, 75-82	4.1	17
77	Differential response of human nasal and bronchial epithelial cells upon exposure to size-fractionated dairy dust. *Journal of Toxicology and Environmental Health - Part A: Current Issues*, **2015**, 78, 583-94	3.2	17
76	The association between wildfire smoke exposure and asthma-specific medical care utilization in Oregon during the 2013 wildfire season. *Journal of Exposure Science and Environmental Epidemiology*, **2020**, 30, 618-628	6.7	17
75	Air Pollution Monitoring for Health Research and Patient Care. An Official American Thoracic Society Workshop Report. *Annals of the American Thoracic Society*, **2019**, 16, 1207-1214	4.7	16
74	The Firepower Sweep Test: A novel approach to cookstove laboratory testing. *Indoor Air*, **2018**, 28, 936-949	5.4	16
73	Acute Effects on Blood Pressure Following Controlled Exposure to Cookstove Air Pollution in the STOVES Study. *Journal of the American Heart Association*, **2019**, 8, e012246	6	16
72	Prospects and pitfalls of occupational hazard mapping: 'between these lines there be dragons'. *Annals of Occupational Hygiene*, **2011**, 55, 829-40		16
71	Filter and electrostatic samplers for semivolatile aerosols: physical artifacts. *Environmental Science & Technology*, **2002**, 36, 4613-7	10.3	16
70	Ambient Particulate Matter Size Distributions Drive Regional and Global Variability in Particle Deposition in the Respiratory Tract. *GeoHealth*, **2018**, 2, 298-312	5	16

69	Design and evaluation of a portable PM monitor featuring a low-cost sensor in line with an active filter sampler. *Environmental Sciences: Processes and Impacts*, **2019**, 21, 1403-1415	4.3	15
68	Modeling evaporative loss of oil mist collected by sampling filters. *Journal of Occupational and Environmental Hygiene*, **2000**, 15, 90-6		15
67	Effects of operational mode on particle size and number emissions from a biomass gasifier cookstove. *Aerosol Science and Technology*, **2018**, 52, 87-97	3.4	14
66	Development of a sampler for total aerosol deposition in the human respiratory tract. *Annals of Occupational Hygiene*, **2009**, 53, 731-8		13
65	Solid versus liquid particle sampling efficiency of three personal aerosol samplers when facing the wind. *Annals of Occupational Hygiene*, **2012**, 56, 194-206		13
64	An improved model for particle deposition in porous foams. *Journal of Aerosol Science*, **2009**, 40, 563-572	4.3	13
63	Mist concentration measurements. II: Laboratory and field evaluations. *Journal of Occupational and Environmental Hygiene*, **2000**, 15, 370-9		13
62	Evaluation of the pDR-1200 real-time aerosol monitor. *Journal of Occupational and Environmental Hygiene*, **2008**, 5, 353-9	2.9	12
61	A Simple and Disposable Sampler for Inhalable Aerosol. *Annals of Occupational Hygiene*, **2016**, 60, 150-60		11
60	A low-cost monitor for measurement of fine particulate matter and aerosol optical depth Part 2: Citizen-science pilot campaign in northern Colorado. *Atmospheric Measurement Techniques*, **2019**, 12, 6385-6399	4	11
59	Effects of data sparsity and spatiotemporal variability on hazard maps of workplace noise. *Journal of Occupational and Environmental Hygiene*, **2015**, 12, 256-65	2.9	10
58	A quantitative model of cookstove variability and field performance: Implications for sample size. *Biomass and Bioenergy*, **2015**, 72, 233-241	5.3	10
57	Development of a sampler to estimate regional deposition of aerosol in the human respiratory tract. *Annals of Occupational Hygiene*, **2013**, 57, 1138-47		10
56	Flexible low-cost system for small animal aerosol inhalation exposure to drugs, proteins, inflammatory agents, and infectious agents. *BioTechniques*, **2009**, 46, Piii-Pviii	2.5	10
55	High-throughput, semi-automated dithiothreitol (DTT) assays for oxidative potential of fine particulate matter. *Atmospheric Environment*, **2020**, 222, 117132	5.3	10
54	Quantitative Protection Factors for Common Masks and Face Coverings. *Environmental Science & Technology*, **2021**, 55, 3136-3143	10.3	10
53	A low-cost monitor for simultaneous measurement of fine particulate matter and aerosol optical depth Part 1: Specifications and testing. *Atmospheric Measurement Techniques*, **2019**, 12, 5431-5441	4	9
52	Effects of Fuel Moisture Content on Emissions from a Rocket-Elbow Cookstove. *Environmental Science & Technology*, **2019**, 53, 4648-4656	10.3	8

51	Secondary organic aerosol formation from evaporated biofuels: comparison to gasoline and correction for vapor wall losses. *Environmental Sciences: Processes and Impacts*, **2020**, 22, 1461-1474	4.3	8
50	Chemical Composition and Emissions Factors for Cookstove Startup (Ignition) Materials. *Environmental Science & Technology*, **2018**, 52, 9505-9513	10.3	8
49	Acute differences in pulse wave velocity, augmentation index, and central pulse pressure following controlled exposures to cookstove air pollution in the Subclinical Tests of Volunteers Exposed to Smoke (SToVES) study. *Environmental Research*, **2020**, 180, 108831	7.9	8
48	Design and computational fluid dynamics investigation of a personal, high flow inhalable sampler. *Annals of Occupational Hygiene*, **2010**, 54, 427-42		7
47	Kitchen concentrations of fine particulate matter and particle number concentration in households using biomass cookstoves in rural Honduras. *Environmental Pollution*, **2020**, 258, 113697	9.3	7
46	Variability of aerosol mass and number concentrations during taconite mining operations. *Journal of Occupational and Environmental Hygiene*, **2020**, 17, 1-14	2.9	7
45	Short-term differences in cardiac function following controlled exposure to cookstove air pollution: The subclinical tests on volunteers exposed to smoke (STOVES) study. *Environment International*, **2021**, 146, 106254	12.9	7
44	Short-term markers of DNA damage among roofers who work with hot asphalt. *Environmental Health*, **2016**, 15, 99	6	6
43	Study protocol for a stepped-wedge randomized cookstove intervention in rural Honduras: household air pollution and cardiometabolic health. *BMC Public Health*, **2019**, 19, 903	4.1	6
42	C-reactive protein from dried blood spots: Application to household air pollution field studies. *Indoor Air*, **2020**, 30, 24-30	5.4	6
41	Development and validation of models to predict personal ventilation rate for air pollution research. *Journal of Exposure Science and Environmental Epidemiology*, **2019**, 29, 568-577	6.7	6
40	Exposure to Household Air Pollution from Biomass Cookstoves and Levels of Fractional Exhaled Nitric Oxide (FeNO) among Honduran Women. *International Journal of Environmental Research and Public Health*, **2018**, 15,	4.6	6
39	Aerosol Optical Properties and Climate Implications of Emissions from Traditional and Improved Cookstoves. *Environmental Science & Technology*, **2018**, 52, 13647-13656	10.3	6
38	Design and performance of UPAS inlets for respirable and thoracic mass sampling. *Journal of Occupational and Environmental Hygiene*, **2020**, 17, 274-282	2.9	5
37	The Relationship Between MAIAC Smoke Plume Heights and Surface PM. *Geophysical Research Letters*, **2020**, 47, e2020GL088949	4.9	5
36	Impact of the wood-burning Justa cookstove on fine particulate matter exposure: A stepped-wedge randomized trial in rural Honduras. *Science of the Total Environment*, **2021**, 767, 144369	10.2	5
35	Nanoscale aerovirology: An efficient yet simple method to analyze the viral distribution of single bioaerosols. *Aerosol Science and Technology*, **2016**, 50, 732-739	3.4	5
34	Exposure to household air pollution from biomass cookstoves and self-reported symptoms among women in rural Honduras. *International Journal of Environmental Health Research*, **2020**, 30, 160-173	3.6	5

33	Performance evaluation of disposable inhalable aerosol sampler at a copper electrorefinery. *Journal of Occupational and Environmental Hygiene*, **2019**, 16, 250-257	2.9	4
32	Comparing regional stove-usage patterns and using those patterns to model indoor air quality impacts. *Indoor Air*, **2020**, 30, 521-533	5.4	4
31	Sampling efficiency of modified 37-mm sampling cassettes using computational fluid dynamics. *Journal of Occupational and Environmental Hygiene*, **2016**, 13, 148-58	2.9	4
30	Performance of prototype high-flow inhalable dust sampler in a livestock production facility. *Journal of Occupational and Environmental Hygiene*, **2017**, 14, 313-322	2.9	4
29	Characterization of Particulate Matter Emissions From a Four-Stroke, Lean-Burn, Natural Gas Engine. *Journal of Engineering for Gas Turbines and Power*, **2008**, 130,	1.7	4
28	Absence of 14C in PM2.5 Emissions from Gasohol Combustion in Small Engines. *Aerosol Science and Technology*, **2006**, 40, 657-663	3.4	4
27	Control methods for mineral oil mists. *Journal of Occupational and Environmental Hygiene*, **2003**, 18, 883-9		4
26	Uncertainties in global aerosols and climate effects due to biofuel emissions		4
25	An Expert Survey on the Material Types used to Start Cookstoves. *Energy for Sustainable Development*, **2019**, 48, 59-66	5.4	4
24	Assessment of increased sampling pump flow rates in a disposable, inhalable aerosol sampler. *Journal of Occupational and Environmental Hygiene*, **2017**, 14, 207-213	2.9	3
23	Novel Instrument to Separate Large Inhalable Particles. *Aerosol Science and Technology*, **2015**, 49, 1195-1209	3.4	3
22	A rotating bluff-body disc for reduced variability in wind tunnel aerosol studies. *Annals of Occupational Hygiene*, **2011**, 55, 86-96		3
21	An Aerosol Generation System for the Production of Respirable Grain Dust. *Journal of Occupational and Environmental Hygiene*, **1998**, 13, 122-126		3
20	SARS-CoV-2 indoor air transmission is a threat that can be addressed with science. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	3
19	Measuring and modeling the primary organic aerosol volatility from a modern non-road diesel engine. *Atmospheric Environment*, **2020**, 223, 117221	5.3	3
18	Electrochemical Dithiothreitol Assay for Large-Scale Particulate Matter Studies. *Aerosol Science and Technology*, **2019**, 53, 268-275	3.4	3
17	Dynamic classification of personal microenvironments using a suite of wearable, low-cost sensors. *Journal of Exposure Science and Environmental Epidemiology*, **2020**, 30, 962-970	6.7	2
16	The power of the crowd: Prospects and pitfalls for citizen science in occupational health. *Journal of Occupational and Environmental Hygiene*, **2019**, 16, 191-198	2.9	2

15	Acute changes in lung function following controlled exposure to cookstove air pollution in the subclinical tests of volunteers exposed to smoke (STOVES) study. *Inhalation Toxicology*, **2020**, 32, 115-123	2.7	2
14	Quantifying the Health Benefits of Face Masks and Respirators to Mitigate Exposure to Severe Air Pollution. *GeoHealth*, **2021**, 5, e2021GH000482	5	2
13	Design and Testing of a Low-Cost Sensor and Sampling Platform for Indoor Air Quality. *Building and Environment*, **2021**, 206,	6.5	2
12	A method for the improved detection of aerosolized influenza viruses and the male-specific (F+) RNA coliphage MS2. *Journal of Virological Methods*, **2017**, 246, 38-41	2.6	1
11	Emerging investigator series: oxidative potential of diesel exhaust particles: role of fuel, engine load, and emissions control. *Environmental Sciences: Processes and Impacts*, **2019**, 21, 819-830	4.3	1
10	Emissions and radiative impacts of sub-10 nm particles from biofuel and fossil fuel cookstoves. *Aerosol Science and Technology*, **2020**, 54, 1231-1243	3.4	1
9	Acute differences in blood lipids and inflammatory biomarkers following controlled exposures to cookstove air pollution in the STOVES study. *International Journal of Environmental Health Research* , **2020**, 1-14	3.6	1
8	Aerosol size distribution in the Schwartzwalder uranium mine. *Health Physics*, **2014**, 106, S20-4	2.3	1
7	A direct-reading particle sizer with elemental composition analysis for large inhalable particles. *Aerosol Science and Technology*,1-11	3.4	1
6	Field Evaluation of the Ultrasonic Personal Aerosol Sampler (UPAS) for Respirable Dust Exposure in a Taconite Mine. *Annals of Work Exposures and Health*, **2021**, 65, 127-135	2.4	1
5	A low-cost monitor for simultaneous measurement of fine particulate matter and aerosol optical depth □Part□3: Automation and design improvements. *Atmospheric Measurement Techniques*, **2021**, 14, 6023-6038	4	1
4	Household air pollution from wood-burning cookstoves and C-reactive protein among women in rural Honduras.. *International Journal of Hygiene and Environmental Health*, **2022**, 241, 113949	6.9	1
3	Bayesian nonparametric monotone regression. *Environmetrics*, **2020**, 31, e2642	1.3	0
2	Envisioning ARPA-C: A Transdisciplinary Institution for Radical Climate Research and Intervention. *Earth's Future*, **2021**, 9, e2021EF002115	7.9	0
1	Response to Comment on □lectrostatic Sampler for Semivolatile Aerosols: Chemical Artifacts□and □ilter and Electrostatic Samplers for Semivolatile Aerosols: Physical Artifacts□*Environmental Science & Technology*, **2003**, 37, 2023-2023	10.3	