John Volckens

List of Publications by Year in Descending Order

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	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
139	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
138	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
137	Envisioning ARPA-C: A Transdisciplinary Institution for Radical Climate Research and Intervention. *Earth's Future*, **2021**, 9, e2021EF002115	7.9	0
136	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
135	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
134	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
133	Quantitative Protection Factors for Common Masks and Face Coverings. *Environmental Science & Technology*, **2021**, 55, 3136-3143	10.3	10
132	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
131	Quantifying the Health Benefits of Face Masks and Respirators to Mitigate Exposure to Severe Air Pollution. *GeoHealth*, **2021**, 5, e2021GH000482	5	2
130	Design and Testing of a Low-Cost Sensor and Sampling Platform for Indoor Air Quality. *Building and Environment*, **2021**, 206,	6.5	2
129	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
128	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
127	Bayesian nonparametric monotone regression. *Environmetrics*, **2020**, 31, e2642	1.3	0
126	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
125	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
124	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

123	Comparing regional stove-usage patterns and using those patterns to model indoor air quality impacts. *Indoor Air*, **2020**, 30, 521-533	5.4	4
122	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
121	C-reactive protein from dried blood spots: Application to household air pollution field studies. *Indoor Air*, **2020**, 30, 24-30	5.4	6
120	Measuring and modeling the primary organic aerosol volatility from a modern non-road diesel engine. *Atmospheric Environment*, **2020**, 223, 117221	5.3	3
119	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
118	Janus Electrochemical Paper-Based Analytical Devices for Metals Detection in Aerosol Samples. *Analytical Chemistry*, **2020**, 92, 1439-1446	7.8	25
117	Variability of aerosol mass and number concentrations during taconite mining operations. *Journal of Occupational and Environmental Hygiene*, **2020**, 17, 1-14	2.9	7
116	High-throughput, semi-automated dithiothreitol (DTT) assays for oxidative potential of fine particulate matter. *Atmospheric Environment*, **2020**, 222, 117132	5.3	10
115	Effects of aerosol type and simulated aging on performance of low-cost PM sensors. *Journal of Aerosol Science*, **2020**, 150, 105654	4.3	18
114	The Relationship Between MAIAC Smoke Plume Heights and Surface PM. *Geophysical Research Letters*, **2020**, 47, e2020GL088949	4.9	5
113	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
112	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
111	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
110	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
109	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
108	Performance evaluation of disposable inhalable aerosol sampler at a copper electrorefinery. *Journal of Occupational and Environmental Hygiene*, **2019**, 16, 250-257	2.9	4
107	A Laboratory Assessment of 120 Air Pollutant Emissions from Biomass and Fossil Fuel Cookstoves. *Environmental Science & Technology*, **2019**, 53, 7114-7125	10.3	28
106	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

105	Effects of Fuel Moisture Content on Emissions from a Rocket-Elbow Cookstove. *Environmental Science & Technology*, **2019**, 53, 4648-4656	10.3	8
104	Variation in gravimetric correction factors for nephelometer-derived estimates of personal exposure to PM. *Environmental Pollution*, **2019**, 250, 251-261	9.3	19
103	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
102	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
101	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
100	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
99	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
98	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
97	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
96	The Fort Collins commuter study: Variability in personal exposure to air pollutants by microenvironment. *Indoor Air*, **2019**, 29, 231-241	5.4	34
95	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
94	An Expert Survey on the Material Types used to Start Cookstoves. *Energy for Sustainable Development*, **2019**, 48, 59-66	5.4	4
93	Electrochemical Dithiothreitol Assay for Large-Scale Particulate Matter Studies. *Aerosol Science and Technology*, **2019**, 53, 268-275	3.4	3
92	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
91	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
90	Rapid flow in multilayer microfluidic paper-based analytical devices. *Lab on A Chip*, **2018**, 18, 793-802	7.2	66
89	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
88	Chemical Composition and Emissions Factors for Cookstove Startup (Ignition) Materials. *Environmental Science & Technology*, **2018**, 52, 9505-9513	10.3	8

87	The Firepower Sweep Test: A novel approach to cookstove laboratory testing. *Indoor Air*, **2018**, 28, 936-949	5.4	16
86	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
85	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
84	Ambient Particulate Matter Size Distributions Drive Regional and Global Variability in Particle Deposition in the Respiratory Tract. *GeoHealth*, **2018**, 2, 298-312	5	16
83	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
82	Aerosol Optical Properties and Climate Implications of Emissions from Traditional and Improved Cookstoves. *Environmental Science & Technology*, **2018**, 52, 13647-13656	10.3	6
81	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
80	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
79	A low-cost particulate matter (PM_{2.5}) monitor for wildland fire smoke. *Atmospheric Measurement Techniques*, **2018**, 11, 1087-1097	4	23
78	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
77	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
76	Size, Composition, and Source Profiles of Inhalable Bioaerosols from Colorado Dairies. *Environmental Science & Technology*, **2017**, 51, 6430-6440	10.3	23
75	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
74	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
73	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
72	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
71	Comparison of wildfire smoke estimation methods and associations with cardiopulmonary-related hospital admissions. *GeoHealth*, **2017**, 1, 122-136	5	67
70	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

69	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
68	Development and evaluation of an ultrasonic personal aerosol sampler. *Indoor Air*, **2017**, 27, 409-416	5.4	55
67	A Simple and Disposable Sampler for Inhalable Aerosol. *Annals of Occupational Hygiene*, **2016**, 60, 150-60		11
66	Short-term markers of DNA damage among roofers who work with hot asphalt. *Environmental Health*, **2016**, 15, 99	6	6
65	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
64	Paper-based analytical devices for environmental analysis. *Analyst, The*, **2016**, 141, 1874-87	5	200
63	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
62	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
61	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
60	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
59	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
58	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
57	Multiplexed paper analytical device for quantification of metals using distance-based detection. *Lab on A Chip*, **2015**, 15, 2808-18	7.2	170
56	A quantitative model of cookstove variability and field performance: Implications for sample size. *Biomass and Bioenergy*, **2015**, 72, 233-241	5.3	10
55	Uncertainties in global aerosols and climate effects due to biofuel emissions. *Atmospheric Chemistry and Physics*, **2015**, 15, 8577-8596	6.8	50
54	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
53	Novel Instrument to Separate Large Inhalable Particles. *Aerosol Science and Technology*, **2015**, 49, 1195-1209	3.4	3
52	Multilayer paper-based device for colorimetric and electrochemical quantification of metals. *Analytical Chemistry*, **2014**, 86, 3555-62	7.8	256

51	LABORATORY EVALUATION OF A MICROFLUIDIC ELECTROCHEMICAL SENSOR FOR AEROSOL OXIDATIVE LOAD. *Aerosol Science and Technology*, **2014**, 48, 489-497	3.4	19
50	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
49	Aerosol size distribution in the Schwartzwalder uranium mine. *Health Physics*, **2014**, 106, S20-4	2.3	1
48	Rapid detection of transition metals in welding fumes using paper-based analytical devices. *Annals of Occupational Hygiene*, **2014**, 58, 413-23		18
47	Development of a Transfer Function for a Personal, Thermophoretic Nanoparticle Sampler. *Aerosol Science and Technology*, **2014**, 48, 81-89	3.4	20
46	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
45	Proinflammatory effects of cookstove emissions on human bronchial epithelial cells. *Indoor Air*, **2013**, 23, 4-13	5.4	34
44	Microfluidic paper-based analytical device for aerosol oxidative activity. *Environmental Science & Technology*, **2013**, 47, 932-40	10.3	68
43	A microfluidic paper-based analytical device for rapid quantification of particulate chromium. *Analytica Chimica Acta*, **2013**, 800, 50-5	6.6	83
42	Determination of aerosol oxidative activity using silver nanoparticle aggregation on paper-based analytical devices. *Analyst, The*, **2013**, 138, 6766-73	5	46
41	Impact of a cleaner-burning cookstove intervention on blood pressure in Nicaraguan women. *Indoor Air*, **2013**, 23, 105-14	5.4	56
40	Simple, distance-based measurement for paper analytical devices. *Lab on A Chip*, **2013**, 13, 2397-404	7.2	237
39	Development of a sampler to estimate regional deposition of aerosol in the human respiratory tract. *Annals of Occupational Hygiene*, **2013**, 57, 1138-47		10
38	Microfluidic paper-based analytical device for particulate metals. *Analytical Chemistry*, **2012**, 84, 4474-80	7.8	241
37	Microfluidic electrochemical sensor for on-line monitoring of aerosol oxidative activity. *Journal of the American Chemical Society*, **2012**, 134, 10562-8	16.4	63
36	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
35	Solid versus liquid particle sampling efficiency of three personal aerosol samplers when facing the wind. *Annals of Occupational Hygiene*, **2012**, 56, 194-206		13
34	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

33	A rotating bluff-body disc for reduced variability in wind tunnel aerosol studies. *Annals of Occupational Hygiene*, **2011**, 55, 86-96		3
32	A Personal, Thermophoretic Sampler for Airborne Nanoparticles. *Aerosol Science and Technology*, **2011**, 45, 744-750	3.4	24
31	Prospects and pitfalls of occupational hazard mapping: 'between these lines there be dragons'. *Annals of Occupational Hygiene*, **2011**, 55, 829-40		16
30	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
29	Design and computational fluid dynamics investigation of a personal, high flow inhalable sampler. *Annals of Occupational Hygiene*, **2010**, 54, 427-42		7
28	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
27	Development of a sampler for total aerosol deposition in the human respiratory tract. *Annals of Occupational Hygiene*, **2009**, 53, 731-8		13
26	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
25	An improved model for particle deposition in porous foams. *Journal of Aerosol Science*, **2009**, 40, 563-572	4.3	13
24	Development of a method for personal, spatiotemporal exposure assessment. *Journal of Environmental Monitoring*, **2009**, 11, 1331-9		35
23	Carbonaceous species emitted from handheld two-stroke engines. *Atmospheric Environment*, **2008**, 42, 1239-1248	5.3	19
22	Biodiesel effects on particulate radiocarbon (14C) emissions from a diesel engine. *Journal of Aerosol Science*, **2008**, 39, 667-678	4.3	27
21	Evaluation of the pDR-1200 real-time aerosol monitor. *Journal of Occupational and Environmental Hygiene*, **2008**, 5, 353-9	2.9	12
20	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
19	Emissions profile from new and in-use handheld, 2-stroke engines. *Atmospheric Environment*, **2007**, 41, 640-649	5.3	20
18	Absence of 14C in PM2.5 Emissions from Gasohol Combustion in Small Engines. *Aerosol Science and Technology*, **2006**, 40, 657-663	3.4	4
17	Counting and particle transmission efficiency of the aerodynamic particle sizer. *Journal of Aerosol Science*, **2005**, 36, 1400-1408	4.3	87
16	Control methods for mineral oil mists. *Journal of Occupational and Environmental Hygiene*, **2003**, 18, 883-9		4

15	Comparison of methods for measuring gas-particle partitioning of semivolatile compounds. *Atmospheric Environment*, **2003**, 37, 3177-3188	5.3	30
14	Effects of sampling bias on gas–particle partitioning of semi-volatile compounds. *Atmospheric Environment*, **2003**, 37, 3385-3393	5.3	32
13	Response to Comment on "Electrostatic Sampler for Semivolatile Aerosols: Chemical Artifacts" and "Filter and Electrostatic Samplers for Semivolatile Aerosols: Physical Artifacts" *Environmental Science & Technology*, **2003**, 37, 2023-2023	10.3	
12	Partitioning theory for respiratory deposition of semivolatile aerosols. *Annals of Occupational Hygiene*, **2003**, 47, 157-64		20
11	Filter and electrostatic samplers for semivolatile aerosols: physical artifacts. *Environmental Science & Technology*, **2002**, 36, 4613-7	10.3	16
10	Electrostatic sampler for semivolatile aerosols: chemical artifacts. *Environmental Science & Technology*, **2002**, 36, 4608-12	10.3	18
9	Technical Note: Performance of a Personal Electrostatic Precipitator Particle Sampler. *Aerosol Science and Technology*, **2002**, 36, 162-165	3.4	25
8	Mist concentration measurements. II: Laboratory and field evaluations. *Journal of Occupational and Environmental Hygiene*, **2000**, 15, 370-9		13
7	Modeling evaporative loss of oil mist collected by sampling filters. *Journal of Occupational and Environmental Hygiene*, **2000**, 15, 90-6		15
6	Oil Mist Concentration: A Comparison of Sampling Methods. *AIHA Journal*, **1999**, 60, 684-689		23
5	Oil Mist Concentration: A Comparison of Sampling Methods. *AIHA Journal*, **1999**, 60, 684-689		24
4	An Aerosol Generation System for the Production of Respirable Grain Dust. *Journal of Occupational and Environmental Hygiene*, **1998**, 13, 122-126		3
3	A Baseline Evaluation of Traditional Cook Stove Smoke Exposures and Indicators of Cardiovascular and Respiratory Health among Nicaraguan Women		18
2	A direct-reading particle sizer with elemental composition analysis for large inhalable particles. *Aerosol Science and Technology*,1-11	3.4	1
1	Uncertainties in global aerosols and climate effects due to biofuel emissions		4