

# Robert A Harley

## List of Publications by Year in descending order

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97  
papers

9,652  
citations

39113

52  
h-index

45040

94  
g-index

98  
all docs

98  
docs citations

98  
times ranked

8057  
citing authors

#	ARTICLE	IF	CITATIONS
1	Volatile chemical products emerging as largest petrochemical source of urban organic emissions. <i>Science</i> , 2018, 359, 760-764.	6.0	716
2	Characterization of Polycyclic Aromatic Hydrocarbons in Motor Vehicle Fuels and Exhaust Emissions. <i>Environmental Science &amp; Technology</i> , 1999, 33, 3091-3099.	4.6	501
3	Secondary organic aerosol formation and transport. <i>Atmospheric Environment Part A General Topics</i> , 1992, 26, 2269-2282.	1.3	485
4	On-Road Emissions of Particulate Polycyclic Aromatic Hydrocarbons and Black Carbon from Gasoline and Diesel Vehicles. <i>Environmental Science &amp; Technology</i> , 1998, 32, 450-455.	4.6	481
5	Elucidating secondary organic aerosol from diesel and gasoline vehicles through detailed characterization of organic carbon emissions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 18318-18323.	3.3	409
6	Review of Urban Secondary Organic Aerosol Formation from Gasoline and Diesel Motor Vehicle Emissions. <i>Environmental Science &amp; Technology</i> , 2017, 51, 1074-1093.	4.6	348
7	On-road measurement of fine particle and nitrogen oxide emissions from light- and heavy-duty motor vehicles. <i>Atmospheric Environment</i> , 1999, 33, 2955-2968.	1.9	325
8	Long-term changes in emissions of nitrogen oxides and particulate matter from on-road gasoline and diesel vehicles. <i>Atmospheric Environment</i> , 2008, 42, 220-232.	1.9	232
9	Photochemical modeling of the Southern California air quality study. <i>Environmental Science &amp; Technology</i> , 1993, 27, 378-388.	4.6	204
10	Respeciation of organic gas emissions and the detection of excess unburned gasoline in the atmosphere. <i>Environmental Science &amp; Technology</i> , 1992, 26, 2395-2408.	4.6	175
11	Measurement of Nitrous Acid in Motor Vehicle Exhaust. <i>Environmental Science &amp; Technology</i> , 1996, 30, 2843-2849.	4.6	172
12	Spectral analysis of weekday-weekend differences in ambient ozone, nitrogen oxide, and non-methane hydrocarbon time series in California. <i>Atmospheric Environment</i> , 2002, 36, 2327-2335.	1.9	169
13	Impact of Oxygenated Gasoline Use on California Light-Duty Vehicle Emissions. <i>Environmental Science &amp; Technology</i> , 1996, 30, 661-670.	4.6	162
14	Influence of future climate and emissions on regional air quality in California. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	160
15	Modeling the Effect of Weekday-Weekend Differences in Motor Vehicle Emissions on Photochemical Air Pollution in Central California. <i>Environmental Science &amp; Technology</i> , 2002, 36, 4099-4106.	4.6	154
16	Evaluation of mobile source emission trends in the United States. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	154
17	Changes in Motor Vehicle Emissions on Diurnal to Decadal Time Scales and Effects on Atmospheric Composition. <i>Environmental Science &amp; Technology</i> , 2005, 39, 5356-5362.	4.6	150
18	On-Road Measurement of Ammonia and Other Motor Vehicle Exhaust Emissions. <i>Environmental Science &amp; Technology</i> , 2000, 34, 3535-3539.	4.6	145

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19	Lubricating Oil Dominates Primary Organic Aerosol Emissions from Motor Vehicles. <i>Environmental Science &amp; Technology</i> , 2014, 48, 3698-3706.	4.6	145
20	Effects of Vehicle Speed and Engine Load on Motor Vehicle Emissions. <i>Environmental Science &amp; Technology</i> , 2003, 37, 3739-3746.	4.6	137
21	Chemical Composition of Gas-Phase Organic Carbon Emissions from Motor Vehicles and Implications for Ozone Production. <i>Environmental Science &amp; Technology</i> , 2013, 47, 11837-11848.	4.6	137
22	Carbonyl and Nitrogen Dioxide Emissions From Gasoline- and Diesel-Powered Motor Vehicles. <i>Environmental Science &amp; Technology</i> , 2008, 42, 3944-3950.	4.6	130
23	Long-term trends in nitrogen oxide emissions from motor vehicles at national, state, and air basin scales. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	130
24	Long-Term Trends in Motor Vehicle Emissions in U.S. Urban Areas. <i>Environmental Science &amp; Technology</i> , 2013, 47, 10022-10031.	4.6	129
25	On-Road Measurement of Carbonyls in California Light-Duty Vehicle Emissions. <i>Environmental Science &amp; Technology</i> , 2001, 35, 4198-4204.	4.6	125
26	Rate of Gas Phase Association of Hydroxyl Radical and Nitrogen Dioxide. <i>Science</i> , 2010, 330, 646-649.	6.0	123
27	On-Road Measurement of Gas and Particle Phase Pollutant Emission Factors for Individual Heavy-Duty Diesel Trucks. <i>Environmental Science &amp; Technology</i> , 2012, 46, 8511-8518.	4.6	123
28	Analysis of motor vehicle emissions in a Houston tunnel during the Texas Air Quality Study 2000. <i>Atmospheric Environment</i> , 2004, 38, 3363-3372.	1.9	116
29	Impact of California Reformulated Gasoline on Motor Vehicle Emissions. 2. Volatile Organic Compound Speciation and Reactivity. <i>Environmental Science &amp; Technology</i> , 1999, 33, 329-336.	4.6	109
30	Temperature dependence of volatile organic compound evaporative emissions from motor vehicles. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	107
31	Impact of California Reformulated Gasoline on Motor Vehicle Emissions. 1. Mass Emission Rates. <i>Environmental Science &amp; Technology</i> , 1999, 33, 318-328.	4.6	105
32	Measurement of Black Carbon and Particle Number Emission Factors from Individual Heavy-Duty Trucks. <i>Environmental Science &amp; Technology</i> , 2009, 43, 1419-1424.	4.6	104
33	Measurements of volatile organic compounds during the 2006 TexAQS/GoMACCS campaign: Industrial influences, regional characteristics, and diurnal dependencies of the OH reactivity. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	103
34	Effects of Diesel Particle Filter Retrofits and Accelerated Fleet Turnover on Drayage Truck Emissions at the Port of Oakland. <i>Environmental Science &amp; Technology</i> , 2011, 45, 10773-10779.	4.6	103
35	Quantifying On-Road Emissions from Gasoline-Powered Motor Vehicles: Accounting for the Presence of Medium- and Heavy-Duty Diesel Trucks. <i>Environmental Science &amp; Technology</i> , 2013, 47, 13873-13881.	4.6	103
36	Long-Term Trends in California Mobile Source Emissions and Ambient Concentrations of Black Carbon and Organic Aerosol. <i>Environmental Science &amp; Technology</i> , 2015, 49, 5178-5188.	4.6	103

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37	Diurnal and Seasonal Variability of Gasoline-Related Volatile Organic Compound Emissions in Riverside, California. <i>Environmental Science &amp; Technology</i> , 2009, 43, 4247-4252.	4.6	100
38	Size-resolved particle number and volume emission factors for on-road gasoline and diesel motor vehicles. <i>Journal of Aerosol Science</i> , 2010, 41, 5-12.	1.8	97
39	A Fuel-Based Assessment of Off-Road Diesel Engine Emissions. <i>Journal of the Air and Waste Management Association</i> , 2000, 50, 1929-1939.	0.9	94
40	High-resolution mapping of motor vehicle carbon dioxide emissions. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 5283-5298.	1.2	91
41	Formal Uncertainty Analysis of a Lagrangian Photochemical Air Pollution Model. <i>Environmental Science &amp; Technology</i> , 1999, 33, 1116-1126.	4.6	89
42	A Fuel-Based Motor Vehicle Emission Inventory. <i>Journal of the Air and Waste Management Association</i> , 1996, 46, 581-593.	0.9	87
43	A fuel-based inventory of motor vehicle exhaust emissions in the Los Angeles area during summer 1997. <i>Atmospheric Environment</i> , 2000, 34, 1783-1795.	1.9	73
44	Mathematical modeling and control of the dry deposition flux of nitrogen-containing air pollutants. <i>Environmental Science &amp; Technology</i> , 1993, 27, 2772-2782.	4.6	72
45	Effects of Particle Filters and Selective Catalytic Reduction on Heavy-Duty Diesel Drayage Truck Emissions at the Port of Oakland. <i>Environmental Science &amp; Technology</i> , 2015, 49, 8864-8871.	4.6	72
46	Detailed chemical characterization of unresolved complex mixtures in atmospheric organics: Insights into emission sources, atmospheric processing, and secondary organic aerosol formation. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 6783-6796.	1.2	69
47	Scaling of Infrared Remote Sensor Hydrocarbon Measurements for Motor Vehicle Emission Inventory Calculations. <i>Environmental Science &amp; Technology</i> , 1998, 32, 3241-3248.	4.6	68
48	Effects of Switching to Lower Sulfur Marine Fuel Oil on Air Quality in the San Francisco Bay Area. <i>Environmental Science &amp; Technology</i> , 2013, 47, 10171-10178.	4.6	65
49	A Fuel-Based Inventory for Heavy-Duty Diesel Truck Emissions. <i>Journal of the Air and Waste Management Association</i> , 1998, 48, 352-358.	0.9	64
50	Temporal Changes in U.S. Benzene Emissions Inferred from Atmospheric Measurements. <i>Environmental Science &amp; Technology</i> , 2005, 39, 1403-1408.	4.6	61
51	Updated Photochemical Modeling for California's South Coast Air Basin: A Comparison of Chemical Mechanisms and Motor Vehicle Emission Inventories. <i>Environmental Science &amp; Technology</i> , 1997, 31, 2829-2839.	4.6	55
52	Network design for quantifying urban CO <sub>2</sub> emissions: assessing trade-offs between precision and network density. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 13465-13475.	1.9	55
53	Photochemical aging of volatile organic compounds in the Los Angeles basin: Weekday-weekend effect. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 5018-5028.	1.2	54
54	A Fuel-Based Approach to Estimating Motor Vehicle Cold-Start Emissions. <i>Journal of the Air and Waste Management Association</i> , 1999, 49, 125-135.	0.9	53

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55	Spatial inhomogeneity in pollutant concentrations, and their implications for air quality model evaluation. <i>Atmospheric Environment</i> , 1996, 30, 4291-4301.	1.9	51
56	Effects of Reformulated Gasoline and Motor Vehicle Fleet Turnover on Emissions and Ambient Concentrations of Benzene. <i>Environmental Science &amp; Technology</i> , 2006, 40, 5084-5088.	4.6	50
57	Relating Liquid Fuel and Headspace Vapor Composition for California Reformulated Gasoline Samples Containing Ethanol. <i>Environmental Science &amp; Technology</i> , 2000, 34, 4088-4094.	4.6	47
58	Effect of alternative boundary conditions on predicted ozone control strategy performance: A case study in the Los Angeles area. <i>Atmospheric Environment</i> , 1995, 29, 3451-3464.	1.9	45
59	A process-analysis based study of the ozone weekend effect. <i>Atmospheric Environment</i> , 2008, 42, 7728-7736.	1.9	42
60	Mathematical modeling of the concentrations of volatile organic compounds: model performance using a lumped chemical mechanism. <i>Environmental Science &amp; Technology</i> , 1993, 27, 1638-1649.	4.6	38
61	Evaluation of Incremental Reactivity and Its Uncertainty in Southern California. <i>Environmental Science &amp; Technology</i> , 2003, 37, 1598-1608.	4.6	38
62	Adjoint Sensitivity Analysis for a Three-Dimensional Photochemical Model: Application to Southern California. <i>Environmental Science &amp; Technology</i> , 2006, 40, 4200-4210.	4.6	38
63	Effects of Retrofitting Emission Control Systems on In-Use Heavy Diesel Vehicles. <i>Environmental Science &amp; Technology</i> , 2010, 44, 5042-5048.	4.6	37
64	Implementation of a high-resolution Source-Oriented WRF/Chem model at the Port of Oakland. <i>Atmospheric Environment</i> , 2014, 82, 351-363.	1.9	37
65	Modeling the concentrations of gas-phase toxic organic air pollutants: direct emissions and atmospheric formation. <i>Environmental Science &amp; Technology</i> , 1994, 28, 88-98.	4.6	36
66	Analysis of motor vehicle emissions during the Nashville/Middle Tennessee Ozone Study. <i>Journal of Geophysical Research</i> , 2001, 106, 3559-3567.	3.3	36
67	First- and Second-Order Sensitivity Analysis of a Photochemically Reactive System (a Green's Function) $T_j ETQq_1$ $1.0784314$ $rgBT/OV$	4.6	35
68	Air quality model simulating photochemical formation of pollutants: the Sao Paulo Metropolitan Area, Brazil. <i>International Journal of Environment and Pollution</i> , 2004, 22, 460.	0.2	35
69	Biogenic 2-methyl-3-butene increases regional ozone and HO <sub>x</sub> sources. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	33
70	Formation of photochemical air pollution in central California 1. Development of a revised motor vehicle emission inventory. <i>Journal of Geophysical Research</i> , 2002, 107, ACH 5-1-ACH 5-9.	3.3	32
71	Sensitivity Analysis of Ozone Formation and Transport for a Central California Air Pollution Episode. <i>Environmental Science &amp; Technology</i> , 2008, 42, 3683-3689.	4.6	32
72	Control Technology-Driven Changes to In-Use Heavy-Duty Diesel Truck Emissions of Nitrogenous Species and Related Environmental Impacts. <i>Environmental Science &amp; Technology</i> , 2019, 53, 14568-14576.	4.6	32

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73	Unintended environmental impacts of nighttime freight logistics activities. <i>Transportation Research, Part A: Policy and Practice</i> , 2010, 44, 642-659.	2.0	31
74	Adjoint Sensitivity Analysis for a Three-Dimensional Photochemical Model:Â Implementation and Method Comparison. <i>Environmental Science &amp; Technology</i> , 2006, 40, 2663-2670.	4.6	30
75	Evaluation of Nitrogen Oxide Emission Inventories and Trends for On-Road Gasoline and Diesel Vehicles. <i>Environmental Science &amp; Technology</i> , 2021, 55, 6655-6664.	4.6	29
76	Ozone pollution regimes modeled for a summer season in Californiaâ€™s San Joaquin Valley: A cluster analysis. <i>Atmospheric Environment</i> , 2011, 45, 4707-4718.	1.9	25
77	Revised estimates of construction activity and emissions: Effects on ozone and elemental carbon concentrations in southern California. <i>Atmospheric Environment</i> , 2009, 43, 6328-6335.	1.9	24
78	Weekly cycles in fine particulate nitrate. <i>Atmospheric Environment</i> , 2008, 42, 632-641.	1.9	22
79	Evaluation of nitrogen dioxide photolysis rates in an urban area using data from the 1997 Southern California Ozone Study. <i>Atmospheric Environment</i> , 2001, 35, 6525-6537.	1.9	19
80	Particulate Matter Emissions Reductions due to Adoption of Clean Diesel Technology at a Major Shipping Port. <i>Aerosol Science and Technology</i> , 2013, 47, 29-36.	1.5	18
81	In-Use Performance and Durability of Particle Filters on Heavy-Duty Diesel Trucks. <i>Environmental Science &amp; Technology</i> , 2018, 52, 11913-11921.	4.6	18
82	Evaluating near-roadway concentrations of diesel-related air pollution using RLINE. <i>Atmospheric Environment</i> , 2019, 199, 244-251.	1.9	18
83	Seasonal versus episodic performance evaluation for an Eulerian photochemical air quality model. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	17
84	A New, Portable, Real-Time Ozone Monitor. <i>Environmental Science &amp; Technology</i> , 2000, 34, 3031-3040.	4.6	16
85	High-Resolution Mapping of Sources Contributing to Urban Air Pollution Using Adjoint Sensitivity Analysis: Benzene and Diesel Black Carbon. <i>Environmental Science &amp; Technology</i> , 2015, 49, 7276-7284.	4.6	14
86	Variability in ultraviolet total optical depth during the Southern California Ozone Study (SCOS97). <i>Atmospheric Environment</i> , 2001, 35, 1111-1122.	1.9	12
87	Effects of Freeway Rerouting and Boulevard Replacement on Air Pollution Exposure and Neighborhood Attributes. <i>International Journal of Environmental Research and Public Health</i> , 2019, 16, 4072.	1.2	12
88	Comparison of SAPRC99 and SAPRC07 mechanisms in photochemical modeling for central California. <i>Atmospheric Environment</i> , 2012, 46, 205-216.	1.9	9
89	Ethylene Glycol Emissions from On-road Vehicles. <i>Environmental Science &amp; Technology</i> , 2015, 49, 3322-3329.	4.6	9
90	Reducing the Risk of Accidental Death Due to Vehicle-Related Carbon Monoxide Poisoning. <i>Journal of the Air and Waste Management Association</i> , 1998, 48, 899-906.	0.9	8

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91	Formation of photochemical air pollution in central California 2. Impact of revised emissions on Eulerian model predictions. <i>Journal of Geophysical Research</i> , 2002, 107, ACH 6-1-ACH 6-11.	3.3	7
92	Effects of Diesel Engine Emission Controls on Environmental Equity and Justice. <i>Environmental Justice</i> , 2021, 14, 360-371.	0.8	7
93	Trends in Exhaust Emissions from In-Use California Light-Duty Vehicles, 1994-2001. , 2002, , .		6
94	Changes in fine particulate matter measurement methods and ambient concentrations in California. <i>Atmospheric Environment</i> , 2014, 98, 676-684.	1.9	5
95	Responses of Photochemical Air Pollution in California's San Joaquin Valley to Spatially and Temporally Resolved Changes in Precursor Emissions. <i>Environmental Science &amp; Technology</i> , 2022, 56, 7074-7082.	4.6	4
96	Contributions to local- and regional-scale formaldehyde concentrations. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 8363-8381.	1.9	3
97	High-Resolution Modeling and Apportionment of Diesel-Related Contributions to Black Carbon Concentrations. <i>Environmental Science &amp; Technology</i> , 2021, 55, 12250-12260.	4.6	1