Robert A Harley

List of Publications by Year
in descending order

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97 papers	9,652 citations	34105 52 h-index	39675 94 g-index
98 all docs	98 docs citations	98 times ranked	7169 citing authors

#	Article	IF	Citations
1	Volatile chemical products emerging as largest petrochemical source of urban organic emissions. Science, 2018, 359, 760-764.	12.6	716
2	Characterization of Polycyclic Aromatic Hydrocarbons in Motor Vehicle Fuels and Exhaust Emissions. Environmental Science & Technology, 1999, 33, 3091-3099.	10.0	501
3	Secondary organic aerosol formation and transport. Atmospheric Environment Part A General Topics, 1992, 26, 2269-2282.	1.3	485
4	On-Road Emissions of Particulate Polycyclic Aromatic Hydrocarbons and Black Carbon from Gasoline and Diesel Vehicles. Environmental Science & Technology, 1998, 32, 450-455.	10.0	481
5	Elucidating secondary organic aerosol from diesel and gasoline vehicles through detailed characterization of organic carbon emissions. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 18318-18323.	7.1	409
6	Review of Urban Secondary Organic Aerosol Formation from Gasoline and Diesel Motor Vehicle Emissions. Environmental Science & Technology, 2017, 51, 1074-1093.	10.0	348
7	On-road measurement of fine particle and nitrogen oxide emissions from light- and heavy-duty motor vehicles. Atmospheric Environment, 1999, 33, 2955-2968.	4.1	325
8	Long-term changes in emissions of nitrogen oxides and particulate matter from on-road gasoline and diesel vehicles. Atmospheric Environment, 2008, 42, 220-232.	4.1	232
9	Photochemical modeling of the Southern California air quality study. Environmental Science & Technology, 1993, 27, 378-388.	10.0	204
10	Respeciation of organic gas emissions and the detection of excess unburned gasoline in the atmosphere. Environmental Science & Technology, 1992, 26, 2395-2408.	10.0	175
11	Measurement of Nitrous Acid in Motor Vehicle Exhaust. Environmental Science & Technology, 1996, 30, 2843-2849.	10.0	172
12	Spectral analysis of weekdayâ€“weekend differences in ambient ozone, nitrogen oxide, and non-methane hydrocarbon time series in California. Atmospheric Environment, 2002, 36, 2327-2335.	4.1	169
13	Impact of Oxygenated Gasoline Use on California Light-Duty Vehicle Emissions. Environmental Science & Technology, 1996, 30, 661-670.	10.0	162
14	Influence of future climate and emissions on regional air quality in California. Journal of Geophysical Research, 2006, 111, .	3.3	160
15	Modeling the Effect of Weekdayâ^'Weekend Differences in Motor Vehicle Emissions on Photochemical Air Pollution in Central California. Environmental Science & Technology, 2002, 36, 4099-4106.	10.0	154
16	Evaluation of mobile source emission trends in the United States. Journal of Geophysical Research, 2010, 115, .	3.3	154
17	Changes in Motor Vehicle Emissions on Diurnal to Decadal Time Scales and Effects on Atmospheric Composition. Environmental Science & Technology, 2005, 39, 5356-5362.	10.0	150
18	On-Road Measurement of Ammonia and Other Motor Vehicle Exhaust Emissions. Environmental Science & Technology, 2000, 34, 3535-3539.	10.0	145

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19	Lubricating Oil Dominates Primary Organic Aerosol Emissions from Motor Vehicles. Environmental Science & Technology, 2014, 48, 3698-3706.	10.0	145
20	Effects of Vehicle Speed and Engine Load on Motor Vehicle Emissions. Environmental Science & Technology, 2003, 37, 3739-3746.	10.0	137
21	Chemical Composition of Gas-Phase Organic Carbon Emissions from Motor Vehicles and Implications for Ozone Production. Environmental Science & Technology, 2013, 47, 11837-11848.	10.0	137
22	Carbonyl and Nitrogen Dioxide Emissions From Gasoline- and Diesel-Powered Motor Vehicles. Environmental Science & Technology, 2008, 42, 3944-3950.	10.0	130
23	Longâ€term trends in nitrogen oxide emissions from motor vehicles at national, state, and air basin scales. Journal of Geophysical Research, 2012, 117, .	3.3	130
24	Long-Term Trends in Motor Vehicle Emissions in U.S. Urban Areas. Environmental Science & Technology, 2013, 47, 10022-10031.	10.0	129
25	On-Road Measurement of Carbonyls in California Light-Duty Vehicle Emissions. Environmental Science & Technology, 2001, 35, 4198-4204.	10.0	125
26	Rate of Gas Phase Association of Hydroxyl Radical and Nitrogen Dioxide. Science, 2010, 330, 646-649.	12.6	123
27	On-Road Measurement of Gas and Particle Phase Pollutant Emission Factors for Individual Heavy-Duty Diesel Trucks. Environmental Science & Technology, 2012, 46, 8511-8518.	10.0	123
28	Analysis of motor vehicle emissions in a Houston tunnel during the Texas Air Quality Study 2000. Atmospheric Environment, 2004, 38, 3363-3372.	4.1	116
29	Impact of California Reformulated Gasoline on Motor Vehicle Emissions. 2. Volatile Organic Compound Speciation and Reactivity. Environmental Science & Technology, 1999, 33, 329-336.	10.0	109
30	Temperature dependence of volatile organic compound evaporative emissions from motor vehicles. Journal of Geophysical Research, 2006, 111, .	3.3	107
31	Impact of California Reformulated Gasoline on Motor Vehicle Emissions. 1. Mass Emission Rates. Environmental Science & Technology, 1999, 33, 318-328.	10.0	105
32	Measurement of Black Carbon and Particle Number Emission Factors from Individual Heavy-Duty Trucks. Environmental Science & Technology, 2009, 43, 1419-1424.	10.0	104
33	Measurements of volatile organic compounds during the 2006 TexAQS/GoMACCS campaign: Industrial influences, regional characteristics, and diurnal dependencies of the OH reactivity. Journal of Geophysical Research, 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. Environmental Science & Technology, 2011, 45, 10773-10779.	10.0	103
35	Quantifying On-Road Emissions from Gasoline-Powered Motor Vehicles: Accounting for the Presence of Medium- and Heavy-Duty Diesel Trucks. Environmental Science & Technology, 2013, 47, 13873-13881.	10.0	103
36	Long-Term Trends in California Mobile Source Emissions and Ambient Concentrations of Black Carbon and Organic Aerosol. Environmental Science & Technology, 2015, 49, 5178-5188.	10.0	103

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37	Diurnal and Seasonal Variability of Gasoline-Related Volatile Organic Compound Emissions in Riverside, California. Environmental Science & Technology, 2009, 43, 4247-4252.	10.0	100
38	Size-resolved particle number and volume emission factors for on-road gasoline and diesel motor vehicles. Journal of Aerosol Science, 2010, 41, 5-12.	3.8	97
39	A Fuel-Based Assessment of Off-Road Diesel Engine Emissions. Journal of the Air and Waste Management Association, 2000, 50, 1929-1939.	1.9	94
40	Highâ€resolution mapping of motor vehicle carbon dioxide emissions. Journal of Geophysical Research D: Atmospheres, 2014, 119, 5283-5298.	3.3	91
41	Formal Uncertainty Analysis of a Lagrangian Photochemical Air Pollution Model. Environmental Science & Technology, 1999, 33, 1116-1126.	10.0	89
42	A Fuel-Based Motor Vehicle Emission Inventory. Journal of the Air and Waste Management Association, 1996, 46, 581-593.	1.9	87
43	A fuel-based inventory of motor vehicle exhaust emissions in the Los Angeles area during summer 1997. Atmospheric Environment, 2000, 34, 1783-1795.	4.1	73
44	Mathematical modeling and control of the dry deposition flux of nitrogen-containing air pollutants. Environmental Science & Technology, 1993, 27, 2772-2782.	10.0	72
45	Effects of Particle Filters and Selective Catalytic Reduction on Heavy-Duty Diesel Drayage Truck Emissions at the Port of Oakland. Environmental Science & Technology, 2015, 49, 8864-8871.	10.0	72
46	Detailed chemical characterization of unresolved complex mixtures in atmospheric organics: Insights into emission sources, atmospheric processing, and secondary organic aerosol formation. Journal of Geophysical Research D: Atmospheres, 2013, 118, 6783-6796.	3.3	69
47	Scaling of Infrared Remote Sensor Hydrocarbon Measurements for Motor Vehicle Emission Inventory Calculations. Environmental Science & Technology, 1998, 32, 3241-3248.	10.0	68
48	Effects of Switching to Lower Sulfur Marine Fuel Oil on Air Quality in the San Francisco Bay Area. Environmental Science & Technology, 2013, 47, 10171-10178.	10.0	65
49	A Fuel-Based Inventory for Heavy-Duty Diesel Truck Emissions. Journal of the Air and Waste Management Association, 1998, 48, 352-358.	1.9	64
50	Temporal Changes in U.S. Benzene Emissions Inferred from Atmospheric Measurements. Environmental Science & Technology, 2005, 39, 1403-1408.	10.0	61
51	Updated Photochemical Modeling for California's South Coast Air Basin:Â Comparison of Chemical Mechanisms and Motor Vehicle Emission Inventories. Environmental Science & Technology, 1997, 31, 2829-2839.	10.0	55
52	Network design for quantifying urban CO₂ emissions: assessing trade-offs between precision and network density. Atmospheric Chemistry and Physics, 2016, 16, 13465-13475.	4.9	55
53	Photochemical aging of volatile organic compounds in the Los Angeles basin: Weekdayâ€weekend effect. Journal of Geophysical Research D: Atmospheres, 2013, 118, 5018-5028.	3.3	54
54	A Fuel-Based Approach to Estimating Motor Vehicle Cold-Start Emissions. Journal of the Air and Waste Management Association, 1999, 49, 125-135.	1.9	53

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55	Spatial inhomogeneity in pollutant concentrations, and their implications for air quality model evaluation. Atmospheric Environment, 1996, 30, 4291-4301.	4.1	51
56	Effects of Reformulated Gasoline and Motor Vehicle Fleet Turnover on Emissions and Ambient Concentrations of Benzene. Environmental Science & Technology, 2006, 40, 5084-5088.	10.0	50
57	Relating Liquid Fuel and Headspace Vapor Composition for California Reformulated Gasoline Samples Containing Ethanol. Environmental Science & Technology, 2000, 34, 4088-4094.	10.0	47
58	Effect of alternative boundary conditions on predicted ozone control strategy performance: A case study in the Los Angeles area. Atmospheric Environment, 1995, 29, 3451-3464.	4.1	45
59	A process-analysis based study of the ozone weekend effect. Atmospheric Environment, 2008, 42, 7728-7736.	4.1	42
60	Mathematical modeling of the concentrations of volatile organic compounds: model performance using a lumped chemical mechanism. Environmental Science & Technology, 1993, 27, 1638-1649.	10.0	38
61	Evaluation of Incremental Reactivity and Its Uncertainty in Southern California. Environmental Science & Technology, 2003, 37, 1598-1608.	10.0	38
62	Adjoint Sensitivity Analysis for a Three-Dimensional Photochemical Model:â€‰ Application to Southern California. Environmental Science & Technology, 2006, 40, 4200-4210.	10.0	38
63	Effects of Retrofitting Emission Control Systems on In-Use Heavy Diesel Vehicles. Environmental Science & Technology, 2010, 44, 5042-5048.	10.0	37
64	Implementation of a high-resolution Source-Oriented WRF/Chem model at the Port of Oakland. Atmospheric Environment, 2014, 82, 351-363.	4.1	37
65	Modeling the concentrations of gas-phase toxic organic air pollutants: direct emissions and atmospheric formation. Environmental Science & Technology, 1994, 28, 88-98.	10.0	36
66	Analysis of motor vehicle emissions during the Nashville/Middle Tennessee Ozone Study. Journal of Geophysical Research, 2001, 106, 3559-3567.	3.3	36
67	First- and Second-Order Sensitivity Analysis of a Photochemically Reactive System (a Green's Function) Tj ETQq1 1 0.784314 rgBT /Ov	10.0	35
68	Air quality model simulating photochemical formation of pollutants: the Sao Paulo Metropolitan Area, Brazil. International Journal of Environment and Pollution, 2004, 22, 460.	0.2	35
69	Biogenic 2â€methylâ€3â€butenâ€2â€ol increases regional ozone and HO_x sources. Geophysical Research Letters, 2007, 34, .	4.0	33
70	Formation of photochemical air pollution in central California 1. Development of a revised motor vehicle emission inventory. Journal of Geophysical Research, 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. Environmental Science & Technology, 2008, 42, 3683-3689.	10.0	32
72	Control Technology-Driven Changes to In-Use Heavy-Duty Diesel Truck Emissions of Nitrogenous Species and Related Environmental Impacts. Environmental Science & Technology, 2019, 53, 14568-14576.	10.0	32

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73	Unintended environmental impacts of nighttime freight logistics activities. Transportation Research, Part A: Policy and Practice, 2010, 44, 642-659.	4.2	31
74	Adjoint Sensitivity Analysis for a Three-Dimensional Photochemical Model:Â Implementation and Method Comparison. Environmental Science & Technology, 2006, 40, 2663-2670.	10.0	30
75	Evaluation of Nitrogen Oxide Emission Inventories and Trends for On-Road Gasoline and Diesel Vehicles. Environmental Science & Technology, 2021, 55, 6655-6664.	10.0	29
76	Ozone pollution regimes modeled for a summer season in Californiaâ€™s San Joaquin Valley: A cluster analysis. Atmospheric Environment, 2011, 45, 4707-4718.	4.1	25
77	Revised estimates of construction activity and emissions: Effects on ozone and elemental carbon concentrations in southern California. Atmospheric Environment, 2009, 43, 6328-6335.	4.1	24
78	Weekly cycles in fine particulate nitrate. Atmospheric Environment, 2008, 42, 632-641.	4.1	22
79	Evaluation of nitrogen dioxide photolysis rates in an urban area using data from the 1997 Southern California Ozone Study. Atmospheric Environment, 2001, 35, 6525-6537.	4.1	19
80	Particulate Matter Emissions Reductions due to Adoption of Clean Diesel Technology at a Major Shipping Port. Aerosol Science and Technology, 2013, 47, 29-36.	3.1	18
81	In-Use Performance and Durability of Particle Filters on Heavy-Duty Diesel Trucks. Environmental Science & Technology, 2018, 52, 11913-11921.	10.0	18
82	Evaluating near-roadway concentrations of diesel-related air pollution using RLINE. Atmospheric Environment, 2019, 199, 244-251.	4.1	18
83	Seasonal versus episodic performance evaluation for an Eulerian photochemical air quality model. Journal of Geophysical Research, 2010, 115, .	3.3	17
84	A New, Portable, Real-Time Ozone Monitor. Environmental Science & Technology, 2000, 34, 3031-3040.	10.0	16
85	High-Resolution Mapping of Sources Contributing to Urban Air Pollution Using Adjoint Sensitivity Analysis: Benzene and Diesel Black Carbon. Environmental Science & Technology, 2015, 49, 7276-7284.	10.0	14
86	Variability in ultraviolet total optical depth during the Southern California Ozone Study (SCOS97). Atmospheric Environment, 2001, 35, 1111-1122.	4.1	12
87	Effects of Freeway Rerouting and Boulevard Replacement on Air Pollution Exposure and Neighborhood Attributes. International Journal of Environmental Research and Public Health, 2019, 16, 4072.	2.6	12
88	Comparison of SAPRC99 and SAPRC07 mechanisms in photochemical modeling for central California. Atmospheric Environment, 2012, 46, 205-216.	4.1	9
89	Ethylene Glycol Emissions from On-road Vehicles. Environmental Science & Technology, 2015, 49, 3322-3329.	10.0	9
90	Reducing the Risk of Accidental Death Due to Vehicle-Related Carbon Monoxide Poisoning. Journal of the Air and Waste Management Association, 1998, 48, 899-906.	1.9	8

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91	Formation of photochemical air pollution in central California 2. Impact of revised emissions on Eulerian model predictions. Journal of Geophysical Research, 2002, 107, ACH 6-1-ACH 6-11.	3.3	7
92	Effects of Diesel Engine Emission Controls on Environmental Equity and Justice. Environmental Justice, 2021, 14, 360-371.	1.5	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. Atmospheric Environment, 2014, 98, 676-684.	4.1	5
95	Responses of Photochemical Air Pollution in Californiaâ€™s San Joaquin Valley to Spatially and Temporally Resolved Changes in Precursor Emissions. Environmental Science & Technology, 2022, 56, 7074-7082.	10.0	4
96	Contributions to local- and regional-scale formaldehyde concentrations. Atmospheric Chemistry and Physics, 2019, 19, 8363-8381.	4.9	3
97	High-Resolution Modeling and Apportionment of Diesel-Related Contributions to Black Carbon Concentrations. Environmental Science & Technology, 2021, 55, 12250-12260.	10.0	1