David J Sailor

List of Publications by Year
in descending order

102 papers	9,318 citations	53660 45 h-index	39575 94 g-index
104 all docs	104 docs citations	104 times ranked	7416 citing authors

#	Article	IF	Citations
1	The integrated WRF/urban modelling system: development, evaluation, and applications to urban environmental problems. International Journal of Climatology, 2011, 31, 273-288.	1.5	875
2	A green roof model for building energy simulation programs. Energy and Buildings, 2008, 40, 1466-1478.	3.1	530
3	Public Perception of Climate Change. American Journal of Preventive Medicine, 2008, 35, 479-487.	1.6	477
4	A topâ€“down methodology for developing diurnal and seasonal anthropogenic heating profiles for urban areas. Atmospheric Environment, 2004, 38, 2737-2748.	1.9	436
5	Mitigation of urban heat islands: materials, utility programs, updates. Energy and Buildings, 1995, 22, 255-265.	3.1	395
6	A review of methods for estimating anthropogenic heat and moisture emissions in the urban environment. International Journal of Climatology, 2011, 31, 189-199.	1.5	384
7	Quantifying the influence of land-use and surface characteristics on spatial variability in the urban heat island. Theoretical and Applied Climatology, 2009, 95, 397-406.	1.3	324
8	Using building energy simulation and geospatial modeling techniques to determine high resolution building sector energy consumption profiles. Energy and Buildings, 2008, 40, 1426-1436.	3.1	258
9	Sensitivity of electricity and natural gas consumption to climate in the U.S.A.â€"Methodology and results for eight states. Energy, 1997, 22, 987-998.	4.5	249
10	Modeling the impacts of anthropogenic heating on the urban climate of Philadelphia: a comparison of implementations in two PBL schemes. Atmospheric Environment, 2005, 39, 73-84.	1.9	233
11	Climate and More Sustainable Cities: Climate Information for Improved Planning and Management of Cities (Producers/Capabilities Perspective). Procedia Environmental Sciences, 2010, 1, 247-274.	1.3	211
12	Air conditioning market saturation and long-term response of residential cooling energy demand to climate change. Energy, 2003, 28, 941-951.	4.5	202
13	Relating residential and commercial sector electricity loads to climateâ€"evaluating state level sensitivities and vulnerabilities. Energy, 2001, 26, 645-657.	4.5	190
14	Simulated Urban Climate Response to Modifications in Surface Albedo and Vegetative Cover. Journal of Applied Meteorology and Climatology, 1995, 34, 1694-1704.	1.7	187
15	Public perception and behavior change in relationship to hot weather and air pollution. Environmental Research, 2008, 107, 401-411.	3.7	183
16	Impact of tree locations and arrangements on outdoor microclimates and human thermal comfort in an urban residential environment. Urban Forestry and Urban Greening, 2018, 32, 81-91.	2.3	183
17	Modeling impacts of roof reflectivity, integrated photovoltaic panels and green roof systems on sensible heat flux into the urban environment. Building and Environment, 2011, 46, 2542-2551.	3.0	166
18	Micrometeorological simulations to predict the impacts of heat mitigation strategies on pedestrian thermal comfort in a Los Angeles neighborhood. Environmental Research Letters, 2016, 11, 024003.	2.2	138

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19	Climate change implications for wind power resources in the Northwest United States. Renewable Energy, 2008, 33, 2393-2406.	4.3	136
20	Vulnerability of wind power resources to climate change in the continental United States. Renewable Energy, 2002, 27, 585-598.	4.3	135
21	Thermal assessment of heat mitigation strategies: The case of Portland State University, Oregon, USA. Building and Environment, 2014, 73, 138-150.	3.0	129
22	Evaluation of phase change materials for improving thermal comfort in a super-insulated residential building. Energy and Buildings, 2014, 79, 32-40.	3.1	126
23	National Urban Database and Access Portal Tool. Bulletin of the American Meteorological Society, 2009, 90, 1157-1168.	1.7	125
24	Development of a national anthropogenic heating database with an extrapolation for international cities. Atmospheric Environment, 2015, 118, 7-18.	1.9	121
25	Exploring the building energy impacts of green roof design decisions â€“ a modeling study of buildings in four distinct climates. Journal of Building Physics, 2012, 35, 372-391.	1.2	119
26	Evaluating the ENVI-met microscale model for suitability in analysis of targeted urban heat mitigation strategies. Urban Climate, 2018, 26, 188-197.	2.4	119
27	PROGRESS IN URBAN GREENERY MITIGATION SCIENCE â€“ ASSESSMENT METHODOLOGIES ADVANCED TECHNOLOGIES AND IMPACT ON CITIES. Journal of Civil Engineering and Management, 2018, 24, 638-671.	1.9	109
28	Thermal property measurements for ecoroof soils common in the western U.S.. Energy and Buildings, 2008, 40, 1246-1251.	3.1	107
29	Heat in courtyards: A validated and calibrated parametric study of heat mitigation strategies for urban courtyards in the Netherlands. Solar Energy, 2014, 103, 108-124.	2.9	105
30	Cooling hot cities: a systematic and critical review of the numerical modelling literature. Environmental Research Letters, 2021, 16, 053007.	2.2	85
31	A neural network approach to local downscaling of GCM output for assessing wind power implications of climate change. Renewable Energy, 2000, 19, 359-378.	4.3	83
32	An updated and expanded set of thermal property data for green roof growing media. Energy and Buildings, 2011, 43, 2298-2303.	3.1	83
33	Effect of variable duty cycle flow pulsations on heat transfer enhancement for an impinging air jet. International Journal of Heat and Fluid Flow, 1999, 20, 574-580.	1.1	82
34	Risks of summertime extreme thermal conditions in buildings as a result of climate change and exacerbation of urban heat islands. Building and Environment, 2014, 78, 81-88.	3.0	81
35	Experimental and numerical investigation of urban street canyons to evaluate the impact of green roof inside and outside buildings. Applied Energy, 2014, 114, 273-282.	5.1	81
36	Modeling the diurnal variability of effective albedo for cities. Atmospheric Environment, 2002, 36, 713-725.	1.9	80

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37	Potential energy and climate benefits of super-cool materials as a rooftop strategy. Urban Climate, 2019, 29, 100495.	2.4	72
38	Urban heat and air pollution: A framework for integrating population vulnerability and indoor exposure in health risk analyses. Science of the Total Environment, 2019, 660, 715-723.	3.9	72
39	Development and application of a building energy performance metric for green roof systems. Energy and Buildings, 2013, 60, 262-269.	3.1	66
40	Water Cooling Method to Improve the Performance of Field-Mounted, Insulated, and Concentrating Photovoltaic Modules. Journal of Solar Energy Engineering, Transactions of the ASME, 2014, 136, .	1.1	64
41	Heat mitigation strategies in winter and summer: Field measurements in temperate climates. Building and Environment, 2014, 81, 309-319.	3.0	62
42	The Observed Effects of Utility-Scale Photovoltaics on Near-Surface Air Temperature and Energy Balance. Journal of Applied Meteorology and Climatology, 2019, 58, 989-1006.	0.6	56
43	Direct and indirect effects of high-albedo roofs on energy consumption and thermal comfort of residential buildings. Energy and Buildings, 2018, 178, 71-83.	3.1	52
44	Modeling the reduction of urban excess heat by green roofs with respect to different irrigation scenarios. Building and Environment, 2018, 131, 174-183.	3.0	50
45	The urban heat island Mitigation Impact Screening Tool (MIST). Environmental Modelling and Software, 2007, 22, 1529-1541.	1.9	49
46	A Semiempirical Downscaling Approach for Predicting Regional Temperature Impacts Associated with Climatic Change. Journal of Climate, 1999, 12, 103-114.	1.2	47
47	Field measurement of albedo for limited extent test surfaces. Solar Energy, 2006, 80, 589-599.	2.9	46
48	Effects of urbanization on regional meteorology and air qualityÂinÂSouthernÂCalifornia. Atmospheric Chemistry and Physics, 2019, 19, 4439-4457.	1.9	46
49	Correcting aggregate energy consumption data to account for variability in local weather. Environmental Modelling and Software, 2006, 21, 733-738.	1.9	45
50	Energy efficiency vs resiliency to extreme heat and power outages: The role of evolving building energy codes. Building and Environment, 2018, 139, 86-94.	3.0	45
51	Simulations of annual degree day impacts of urban vegetative augmentation. Atmospheric Environment, 1998, 32, 43-52.	1.9	43
52	Effects of substrate depth and precipitation characteristics on stormwater retention by two green roofs in Portland OR. Journal of Hydrology: Regional Studies, 2018, 18, 110-118.	1.0	43
53	Daytime Variation of Urban Heat Islands: The Case Study of Doha, Qatar. Climate, 2016, 4, 32.	1.2	41
54	The impact of heat mitigation strategies on the energy balance of a neighborhood in Los Angeles. Solar Energy, 2019, 177, 604-611.	2.9	41

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55	The growing threat of heat disasters. Environmental Research Letters, 2019, 14, 054006.	2.2	40
56	Synergies and trade-offs between energy efficiency and resiliency to extreme heat â€" A case study. Building and Environment, 2018, 132, 263-272.	3.0	36
57	Photovoltaics in the built environment: A critical review. Energy and Buildings, 2021, 253, 111479.	3.1	35
58	Passive survivability of buildings under changing urban climates across eight US cities. Environmental Research Letters, 2019, 14, 074028.	2.2	33
59	Pulse Combustion: Impinging Jet Heat Transfer Enhancement1. Combustion Science and Technology, 1993, 94, 147-165.	1.2	32
60	The impact of urban form on outdoor thermal comfort in hot arid environments during daylight hours, case study: New Aswan. Building and Environment, 2020, 184, 107222.	3.0	32
61	Thermal footprint effect of rooftop urban cooling strategies. Urban Climate, 2015, 14, 268-277.	2.4	31
62	Effectiveness of indoor plants for passive removal of indoor ozone. Building and Environment, 2017, 119, 62-70.	3.0	31
63	THE EFFECT OF MICROENCAPSULATED PHASE-CHANGE MATERIAL ON THE COMPRESSIVE STRENGTH OF STRUCTURAL CONCRETE. Journal of Green Building, 2013, 8, 116-124.	0.4	30
64	Measuring the Effect of Vegetated Roofs on the Performance of Photovoltaic Panels in a Combined System. Journal of Solar Energy Engineering, Transactions of the ASME, 2016, 138, .	1.1	29
65	Biometeorology for cities. International Journal of Biometeorology, 2017, 61, 59-69.	1.3	28
66	Transforming a passive house into a net-zero energy house: a case study in the Pacific Northwest of the U.S.. Energy Conversion and Management, 2018, 172, 39-49.	4.4	28
67	A regression approach for estimation of anthropogenic heat flux based on a bottom-up air pollutant emission database. Atmospheric Environment, 2014, 95, 629-633.	1.9	27
68	A modelling methodology for assessing the impact of climate variability and climatic change on hydroelectric generation. Energy Conversion and Management, 1998, 39, 1459-1469.	4.4	26
69	Effects of Natural and Manual Cleaning on Photovoltaic Output. Journal of Solar Energy Engineering, Transactions of the ASME, 2013, 135, .	1.1	26
70	Comparing photovoltaic and reflective shade surfaces in the urban environment: Effects on surface sensible heat flux and pedestrian thermal comfort. Urban Climate, 2019, 29, 100500.	2.4	26
71	Effect of fiber material on ozone removal and carbonyl production from carpets. Atmospheric Environment, 2017, 148, 42-48.	1.9	25
72	Introduction, evaluation and application of an energy balance model for photovoltaic modules. Solar Energy, 2020, 195, 382-395.	2.9	25

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73	Natural gas consumption and climate: a comprehensive set of predictive state-level models for the United States. Energy, 1998, 23, 91-103.	4.5	24
74	Comparative estimates of anthropogenic heat emission in relation to surface energy balance of a subtropical urban neighborhood. Atmospheric Environment, 2016, 126, 182-191.	1.9	24
75	Impact of evolving building morphology on microclimate in a hot arid climate. Sustainable Cities and Society, 2020, 54, 102011.	5.1	23
76	The relative role of solar reflectance and thermal emittance for passive daytime radiative cooling technologies applied to rooftops. Sustainable Cities and Society, 2021, 65, 102612.	5.1	23
77	Effectiveness of phase change materials for improving the resiliency of residential buildings to extreme thermal conditions. Solar Energy, 2019, 188, 190-199.	2.9	22
78	Improving Heat-Related Health Outcomes in an Urban Environment with Science-Based Policy. Sustainability, 2016, 8, 1015.	1.6	21
79	Application of tree-structured regression for regional precipitation prediction using general circulation model output. Climate Research, 2000, 16, 17-30.	0.4	17
80	A new perspective for understanding actual anthropogenic heat emissions from buildings. Energy and Buildings, 2022, 258, 111860.	3.1	17
81	Building energy savings potential of a hybrid roofing system involving high albedo, moisture retaining foam materials. Energy and Buildings, 2018, 169, 283-294.	3.1	13
82	A Case-Crossover Analysis of Indoor Heat Exposure on Mortality and Hospitalizations among the Elderly in Houston, Texas. Environmental Health Perspectives, 2020, 128, 127007.	2.8	13
83	Increasing trees and high-albedo surfaces decreases heat impacts and mortality in Los Angeles, CA. International Journal of Biometeorology, 2022, 66, 911-925.	1.3	12
84	Evaluating the Effects of Radiative Forcing Feedback in Modelling Urban Ozone Air Quality in Portland, Oregon: Two-Way Coupled MM5â€“CMAQ Numerical Model Simulations. Boundary-Layer Meteorology, 2010, 137, 291-305.	1.2	11
85	Ozone removal efficiency and surface analysis of green and white roof HVAC filters. Building and Environment, 2018, 136, 118-127.	3.0	9
86	Between aspiration and actuality: A systematic review of morphological heat mitigation strategies in hot urban deserts. Urban Climate, 2020, 31, 100570.	2.4	9
87	Effects of Rooftop Photovoltaics on Building Cooling Demand and Sensible Heat Flux Into the Environment for an Installation on a White Roof. ASME Journal of Engineering for Sustainable Buildings and Cities, 2020, 1, .	0.6	9
88	Urban Heat Implications from Parking, Roads, and Cars: a Case Study of Metro Phoenix. Sustainable and Resilient Infrastructure, 2020, , 1-19.	1.7	8
89	Potential overall heat exposure reduction associated with implementation of heat mitigation strategies in Los Angeles. International Journal of Biometeorology, 2021, 65, 407-418.	1.3	8
90	MEETING SUMMARIES. Bulletin of the American Meteorological Society, 2008, 89, 1727-1734.	1.7	7

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91	Thermal effects of microinverter placement on the performance of silicon photovoltaics. Solar Energy, 2016, 125, 444-452.	2.9	7
92	Role of pavement radiative and thermal properties in reducing excess heat in cities. Solar Energy, 2022, 242, 413-423.	2.9	6
93	Phase Change Materials as Thermal Storage for High Performance Homes. , 2011, , .		5
94	Effectiveness of Mechanical Air Conditioning as a Protective Factor Against Indoor Exposure to Heat Among the Elderly. ASME Journal of Engineering for Sustainable Buildings and Cities, 2020, 1, .	0.6	5
95	Indoor air quality and thermal comfort for elderly residents in Houston TXâ€"a case study. , 2018, , .		5
96	Corrections to the Mathematical Formulation of a Backwards Lagrangian Particle Dispersion Model. Boundary-Layer Meteorology, 2012, 145, 399-406.	1.2	3
97	Energy Buildings and Urban Environment. , 2013, , 167-182.		3
98	Heat and Cold Roses of U.S. Cities: a New Tool for Optimizing Urban Climate. Sustainable Cities and Society, 2019, 51, 101777.	5.1	3
99	Energy Performance of Sustainable Roofing Systems. , 2013, , .		2
100	Technical Research Needs for Sustainable Buildings: Results from a Multidisciplinary NSF Workshop. Journal of Green Building, 2009, 4, 101-112.	0.4	1
101	The Potential Impact of Cool Roof Technologies upon Heat Wave Meteorology and Human Health in Boston and Chicago. , 2020, , 1-27.		1
102	In Situ Evaluation of Vanguard Technologies for High Performance Residential Buildings. , 2013, , .		0