

# Karine N Sartelet

## List of Publications by Year in descending order

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77  
papers

2,788  
citations

172457  
29  
h-index

223800  
46  
g-index

99  
all docs

99  
docs citations

99  
times ranked

2362  
citing authors

#	ARTICLE	IF	CITATIONS
1	Parametrization of Horizontal and Vertical Transfers for the Street-Network Model MUNICH Using the CFD Model Code_Saturne. <i>Atmosphere</i> , 2022, 13, 527.	2.3	5
2	Effect of vehicle fleet composition and mobility on outdoor population exposure: A street resolution analysis in Paris. <i>Atmospheric Pollution Research</i> , 2022, 13, 101365.	3.8	1
3	Detailed Speciation of Non-Methane Volatile Organic Compounds in Exhaust Emissions from Diesel and Gasoline Euro 5 Vehicles Using Online and Offline Measurements. <i>Toxics</i> , 2022, 10, 184.	3.7	10
4	Modeling the Contribution of Aerosols to Fog Evolution through Their Influence on Solar Radiation. <i>Climate</i> , 2022, 10, 61.	2.8	1
5	Influence of emission size distribution and nucleation on number concentrations over Greater Paris. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 8579-8596.	4.9	6
6	Simulation of primary and secondary particles in the streets of Paris using MUNICH. <i>Faraday Discussions</i> , 2021, 226, 432-456.	3.2	10
7	General discussion: Aerosol formation and growth; VOC sources and secondary organic aerosols. <i>Faraday Discussions</i> , 2021, 226, 479-501.	3.2	1
8	Combining homogeneous and heterogeneous chemistry to model inorganic compound concentrations in indoor environments: the H&lt;sup&gt;2&gt;I model (v1.0). <i>Geoscientific Model Development</i> , 2021, 14, 2747-2780.	3.6	4
9	Improvement in Modeling of OH and HO <sub>2</sub> Radical Concentrations during Toluene and Xylene Oxidation with RACM2 Using MCM/GECKO-A. <i>Atmosphere</i> , 2021, 12, 732.	2.3	4
10	Black carbon modeling in urban areas: investigating the influence of resuspension and non-exhaust emissions in streets using the Street-in-Grid model for inert particles (SinG-inert). <i>Geoscientific Model Development</i> , 2021, 14, 7001-7019.	3.6	8
11	Improvement of solar irradiance modelling during cloudy-sky days using measurements. <i>Solar Energy</i> , 2021, 230, 1175-1188.	6.1	4
12	Evolution under dark conditions of particles from old and modern diesel vehicles in a new environmental chamber characterized with fresh exhaust emissions. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 7627-7655.	3.1	3
13	Impact of mixing state on aerosol optical properties during severe wildfires over the Euro-Mediterranean region. <i>Atmospheric Environment</i> , 2020, 220, 117042.	4.1	6
14	Diesel, petrol or electric vehicles: What choices to improve urban air quality in the Ile-de-France region? A simulation platform and case study. <i>Atmospheric Environment</i> , 2020, 241, 117752.	4.1	17
15	Determination of gaseous and particulate emission factors from road transport in a Middle Eastern capital. <i>Transportation Research, Part D: Transport and Environment</i> , 2020, 83, 102361.	6.8	13
16	SSH-Aerosol v1.1: A Modular Box Model to Simulate the Evolution of Primary and Secondary Aerosols. <i>Atmosphere</i> , 2020, 11, 525.	2.3	16
17	Nonstationary modeling of NO&lt;sub&gt;2&gt;, NO and NO&lt;sub&gt;3&gt; in Paris using the Street-in-Grid model: coupling local and regional scales with a two-way dynamic approach. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 7717-7740.	4.9	18
18	Three-dimensional computational fluid dynamics modelling of sodium oxide aerosol atmospheric dispersion from indoor sodium fire. <i>Journal of Aerosol Science</i> , 2019, 137, 105433.	3.8	3

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19	Modeling the effect of non-ideality, dynamic mass transfer and viscosity on SOA formation in a 3-D air quality model. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 1241-1261.	4.9	23
20	Precursors and formation of secondary organic aerosols from wildfires in the Euro-Mediterranean region. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 5543-5569.	4.9	23
21	Impact of wildfires on particulate matter in the Euro-Mediterranean in 2007: sensitivity to some parameterizations of emissions in air quality models. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 785-812.	4.9	23
22	A first annual assessment of air quality modeling over Lebanon using WRF/Polyphemus. <i>Atmospheric Pollution Research</i> , 2018, 9, 643-654.	3.8	24
23	Emission of intermediate, semi and low volatile organic compounds from traffic and their impact on secondary organic aerosol concentrations over Greater Paris. <i>Atmospheric Environment</i> , 2018, 180, 126-137.	4.1	34
24	Modeling organic aerosol concentrations and properties during winter 2014 in the northwestern Mediterranean region. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 18079-18100.	4.9	10
25	Representation of aerosol optical properties using a chemistry transport model to improve solar irradiance modelling. <i>Solar Energy</i> , 2018, 176, 439-452.	6.1	3
26	Simulation of fine organic aerosols in the western Mediterranean area during the ChArMEx 2013 summer campaign. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 7287-7312.	4.9	27
27	Aerosol composition and the contribution of SOA formation over Mediterranean forests. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 7041-7056.	4.9	22
28	Aerosol sources in the western Mediterranean during summertime: a model-based approach. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 9631-9659.	4.9	18
29	Modelling organic aerosol concentrations and properties during ChArMEx summer campaigns of 2012 and 2013 in the western Mediterranean region. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 12509-12531.	4.9	29
30	Sources and mixing state of summertime background aerosol in the north-western Mediterranean basin. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 6975-7001.	4.9	41
31	Spatial extent of new particle formation events over the Mediterranean Basin from multiple ground-based and airborne measurements. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 9567-9583.	4.9	24
32	Numerical modelling strategies for the urban atmosphere: general discussion. <i>Faraday Discussions</i> , 2016, 189, 635-660.	3.2	0
33	Three-dimensional modeling of the mixing state of particles over Greater Paris. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 5930-5947.	3.3	16
34	Influence of boundary conditions and anthropogenic emission inventories on simulated O <sub>3</sub> and PM <sub>2.5</sub> concentrations over Lebanon. <i>Atmospheric Pollution Research</i> , 2016, 7, 971-979.	3.8	21
35	Effect of measurement protocol on organic aerosol measurements of exhaust emissions from gasoline and diesel vehicles. <i>Atmospheric Environment</i> , 2016, 140, 176-187.	4.1	27
36	Simulation of particle diversity and mixing state over Greater Paris: a model-measurement inter-comparison. <i>Faraday Discussions</i> , 2016, 189, 547-566.	3.2	23

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37	Modelling of Externally-Mixed Particles in the Atmosphere. Springer Proceedings in Complexity, 2016, , 43-48.	0.3	0
38	Continental pollution in the western Mediterranean basin: vertical profiles of aerosol and trace gases measured over the sea during TRAQA 2012 and SAFMED 2013. Atmospheric Chemistry and Physics, 2015, 15, 9611-9630.	4.9	23
39	A size-composition resolved aerosol model for simulating the dynamics of externally mixed particles: SCRAM (v 1.0). Geoscientific Model Development, 2015, 8, 1595-1612.	3.6	22
40	The Secondary Organic Aerosol Processor (SOAP v1.0) model: a unified model with different ranges of complexity based on the molecular surrogate approach. Geoscientific Model Development, 2015, 8, 1111-1138.	3.6	53
41	Decadal simulation and comprehensive evaluation of <scp>CESM</scp>/<scp>CAM</scp>5.1 with advanced chemistry, aerosol microphysics, and aerosolâ€cloud interactions. Journal of Advances in Modeling Earth Systems, 2015, 7, 110-141.	3.8	32
42	Influence of an urban canopy model and PBL schemes on vertical mixing for air quality modeling over Greater Paris. Atmospheric Environment, 2015, 107, 289-306.	4.1	37
43	Modelling and assimilation of lidar signals over Greater Paris during the MEGAPOLI summer campaign. Atmospheric Chemistry and Physics, 2014, 14, 3511-3532.	4.9	28
44	Assimilation of lidar signals: application to aerosol forecasting in the western Mediterranean basin. Atmospheric Chemistry and Physics, 2014, 14, 12031-12053.	4.9	44
45	Evaluation of the Weather Research and Forecast/Urban Model Over Greater Paris. Boundary-Layer Meteorology, 2013, 149, 105-132.	2.3	61
46	A new algorithm to solve condensation/evaporation for ultra fine, fine, and coarse particles. Journal of Aerosol Science, 2013, 55, 116-136.	3.8	7
47	Modeling coagulation of externally mixed particles: Sectional approach for both size and chemical composition. Journal of Aerosol Science, 2013, 58, 17-32.	3.8	13
48	Investigating the Impact of Aqueous-Phase Chemistry and Wet Deposition on Organic Aerosol Formation Using a Molecular Surrogate Modeling Approach. Environmental Science & Technology, 2013, 47, 914-922.	10.0	19
49	Application of WRF/Chem-MADRID and WRF/Polyphemus in Europe â€“ Part 1: Model description, evaluation of meteorological predictions, and aerosolâ€meteorology interactions. Atmospheric Chemistry and Physics, 2013, 13, 6807-6843.	4.9	45
50	Assimilation of ground versus lidar observations for PM<sub>10</sub> forecasting. Atmospheric Chemistry and Physics, 2013, 13, 269-283.	4.9	36
51	Modeling air pollution in Lebanon: evaluation at a suburban site in Beirut during summer. Atmospheric Chemistry and Physics, 2013, 13, 5873-5886.	4.9	23
52	Application of WRF/Chem-MADRID and WRF/Polyphemus in Europe â€“ Part 2: Evaluation of chemical concentrations and sensitivity simulations. Atmospheric Chemistry and Physics, 2013, 13, 6845-6875.	4.9	52
53	Modeling secondary organic aerosol in an urban area: application to Paris, France. Atmospheric Chemistry and Physics, 2013, 13, 983-996.	4.9	65
54	Evaluating the capability of regional-scale air quality models to capture the vertical distribution of pollutants. Geoscientific Model Development, 2013, 6, 791-818.	3.6	49

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55	A hydrophilic/hydrophobic organic ( $H_2O$ ) aerosol model: Development, evaluation and sensitivity analysis. Journal of Geophysical Research, 2012, 117, .	3.3	82
56	Impact of biogenic emissions on air quality over Europe and North America. Atmospheric Environment, 2012, 53, 131-141.	4.1	124
57	Model evaluation and ensemble modelling of surface-level ozone in Europe and North America in the context of AQMEII. Atmospheric Environment, 2012, 53, 60-74.	4.1	192
58	Operational model evaluation for particulate matter in Europe and North America in the context of AQMEII. Atmospheric Environment, 2012, 53, 75-92.	4.1	214
59	Comparison of lidar-derived $PM_{10}$ with regional modeling and ground-based observations in the frame of MEGAPOLI experiment. Atmospheric Chemistry and Physics, 2011, 11, 10705-10726.	4.9	50
60	Modeling of photolysis rates over Europe: impact on chemical gaseous species and aerosols. Atmospheric Chemistry and Physics, 2011, 11, 1711-1727.	4.9	47
61	Formation of secondary aerosols over Europe: comparison of two gas-phase chemical mechanisms. Atmospheric Chemistry and Physics, 2011, 11, 583-598.	4.9	51
62	Comparison of Different Gas-Phase Mechanisms and Aerosol Modules for Simulating Particulate Matter Formation. Journal of the Air and Waste Management Association, 2011, 61, 1218-1226.	1.9	52
63	Modelling aerosol number distributions from a vehicle exhaust with an aerosol CFD model. Atmospheric Environment, 2010, 44, 1126-1137.	4.1	50
64	Simulation of aerosols and gas-phase species over Europe with the Polyphemus system. Part II: Model sensitivity analysis for 2001. Atmospheric Environment, 2010, 44, 4219-4229.	4.1	22
65	Comparison of two gas-phase chemical kinetic mechanisms of ozone formation over Europe. Journal of Atmospheric Chemistry, 2009, 62, 89-119.	3.2	46
66	MICS Asia Phase II – Sensitivity to the aerosol module. Atmospheric Environment, 2008, 42, 3562-3570.	4.1	19
67	MICS-Asia II: The model intercomparison study for Asia Phase II methodology and overview of findings. Atmospheric Environment, 2008, 42, 3468-3490.	4.1	113
68	MICS-Asia II: Model intercomparison and evaluation of ozone and relevant species. Atmospheric Environment, 2008, 42, 3491-3509.	4.1	67
69	MICS-Asia II: Model intercomparison and evaluation of particulate sulfate, nitrate and ammonium. Atmospheric Environment, 2008, 42, 3510-3527.	4.1	33
70	MICS-Asia II: Impact of global emissions on regional air quality in Asia. Atmospheric Environment, 2008, 42, 3543-3561.	4.1	40
71	MICS-Asia II: Model inter-comparison and evaluation of acid deposition. Atmospheric Environment, 2008, 42, 3528-3542.	4.1	52
72	Technical Note: A new Size Resolved Aerosol Model (SIREAM). Atmospheric Chemistry and Physics, 2007, 7, 1537-1547.	4.9	88

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73	Technical Note: The air quality modeling system Polyphemus. Atmospheric Chemistry and Physics, 2007, 7, 5479-5487.	4.9	146
74	Dominant aerosol processes during high-pollution episodes over Greater Tokyo. Journal of Geophysical Research, 2007, 112, .	3.3	8
75	Simulation of aerosols and gas-phase species over Europe with the Polyphemus system: Part I – Model-to-data comparison for 2001. Atmospheric Environment, 2007, 41, 6116-6131.	4.1	103
76	Development and Preliminary Validation of a Modal Aerosol Model for Tropospheric Chemistry: MAM. Aerosol Science and Technology, 2006, 40, 118-127.	3.1	31
77	O <sub>3</sub> – NO <sub>y</sub> photochemistry in boundary layer polluted plumes: insights from the MEGAPOLI (Paris), ChArMEx/SAFMED (North West Mediterranean) and DACCWA (southern) Tj ETQq1 1 0.784314 8gBT /Overl	2.7	4314