

# Nicolas Marchand

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

83  
papers

3,341  
citations

33  
h-index

56  
g-index

122  
ext. papers

3,870  
ext. citations

6.4  
avg, IF

4.6  
L-index

#	Paper	IF	Citations
83	Wintertime aerosol chemical composition and source apportionment of the organic fraction in the metropolitan area of Paris. <i>Atmospheric Chemistry and Physics</i> , <b>2013</b> , 13, 961-981	6.8	307
82	Inter-comparison of source apportionment models for the estimation of wood burning aerosols during wintertime in an Alpine city (Grenoble, France). <i>Atmospheric Chemistry and Physics</i> , <b>2010</b> , 10, 5295-5314	6.8	216
81	Secondary organic aerosol formation from gasoline vehicle emissions in a new mobile environmental reaction chamber. <i>Atmospheric Chemistry and Physics</i> , <b>2013</b> , 13, 9141-9158	6.8	166
80	Black carbon physical properties and mixing state in the European megacity Paris. <i>Atmospheric Chemistry and Physics</i> , <b>2013</b> , 13, 5831-5856	6.8	138
79	Comprehensive primary particulate organic characterization of vehicular exhaust emissions in France. <i>Atmospheric Environment</i> , <b>2009</b> , 43, 6190-6198	5.3	129
78	Identification of marine and continental aerosol sources in Paris using high resolution aerosol mass spectrometry. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2013</b> , 118, 1950-1963	4.4	126
77	Two-stroke scooters are a dominant source of air pollution in many cities. <i>Nature Communications</i> , <b>2014</b> , 5, 3749	17.4	103
76	PM <sub>2.5</sub> chemical composition in five European Mediterranean cities: A 1-year study. <i>Atmospheric Research</i> , <b>2015</b> , 155, 102-117	5.4	95
75	Gasoline cars produce more carbonaceous particulate matter than modern filter-equipped diesel cars. <i>Scientific Reports</i> , <b>2017</b> , 7, 4926	4.9	92
74	Primary sources of PM <sub>2.5</sub> ; organic aerosol in an industrial Mediterranean city, Marseille. <i>Atmospheric Chemistry and Physics</i> , <b>2011</b> , 11, 2039-2058	6.8	85
73	Insights into the secondary fraction of the organic aerosol in a Mediterranean urban area: Marseille. <i>Atmospheric Chemistry and Physics</i> , <b>2011</b> , 11, 2059-2079	6.8	77
72	Total OH reactivity measurements in Paris during the 2010 MEGAPOLI winter campaign. <i>Atmospheric Chemistry and Physics</i> , <b>2012</b> , 12, 9593-9612	6.8	77
71	Primary and secondary organic aerosol origin by combined gas-particle phase source apportionment. <i>Atmospheric Chemistry and Physics</i> , <b>2013</b> , 13, 8411-8426	6.8	75
70	In situ, satellite measurement and model evidence on the dominant regional contribution to fine particulate matter levels in the Paris megacity. <i>Atmospheric Chemistry and Physics</i> , <b>2015</b> , 15, 9577-9591	6.8	72
69	Towards a better understanding of the origins, chemical composition and aging of oxygenated organic aerosols: case study of a Mediterranean industrialized environment, Marseille. <i>Atmospheric Chemistry and Physics</i> , <b>2013</b> , 13, 7875-7894	6.8	72
68	Field comparison of particulate PAH measurements using a low-flow denuder device and conventional sampling systems. <i>Environmental Science &amp; Technology</i> , <b>2006</b> , 40, 6398-404	10.3	68
67	Characterization of Gas-Phase Organics Using Proton Transfer Reaction Time-of-Flight Mass Spectrometry: Cooking Emissions. <i>Environmental Science &amp; Technology</i> , <b>2016</b> , 50, 1243-50	10.3	60

66	Identification and quantification of particulate tracers of exhaust and non-exhaust vehicle emissions. <i>Atmospheric Chemistry and Physics</i> , <b>2019</b> , 19, 5187-5207	6.8	56
65	Characterization of gas-phase organics using proton transfer reaction time-of-flight mass spectrometry: fresh and aged residential wood combustion emissions. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 705-720	6.8	56
64	Organic aerosol source apportionment by offline-AMS over a full year in Marseille. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 8247-8268	6.8	54
63	Modeling secondary organic aerosol in an urban area: application to Paris, France. <i>Atmospheric Chemistry and Physics</i> , <b>2013</b> , 13, 983-996	6.8	52
62	Design and Validation of a 6-Volatility Tandem Differential Mobility Analyzer (VTDMA). <i>Aerosol Science and Technology</i> , <b>2007</b> , 41, 898-906	3.4	52
61	Aqueous phase processing of secondary organic aerosol from isoprene photooxidation. <i>Atmospheric Chemistry and Physics</i> , <b>2012</b> , 12, 5879-5895	6.8	51
60	Particulate PAHs observed in the surrounding of a municipal incinerator. <i>Atmospheric Environment</i> , <b>2001</b> , 35, 6093-6104	5.3	50
59	Evolution of the chemical fingerprint of biomass burning organic aerosol during aging. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 7607-7624	6.8	49
58	Primary emissions and secondary organic aerosol formation from the exhaust of a flex-fuel (ethanol) vehicle. <i>Atmospheric Environment</i> , <b>2015</b> , 117, 200-211	5.3	48
57	Quantification of levoglucosan and its isomers by High Performance Liquid Chromatography □ Electropray Ionization tandem Mass Spectrometry and its applications to atmospheric and soil samples. <i>Atmospheric Measurement Techniques</i> , <b>2012</b> , 5, 141-148	4	46
56	Aerosol studies during the ESCOMPTE experiment: an overview. <i>Atmospheric Research</i> , <b>2005</b> , 74, 547-563	3.4	45
55	Comprehensive chemical characterization of industrial PM2.5 from steel industry activities. <i>Atmospheric Environment</i> , <b>2017</b> , 152, 180-190	5.3	38
54	Physico-chemical characterization of African urban aerosols (Bamako in Mali and Dakar in Senegal) and their toxic effects in human bronchial epithelial cells: description of a worrying situation. <i>Particle and Fibre Toxicology</i> , <b>2013</b> , 10, 10	8.4	38
53	Oxidation of atmospheric humic like substances by ozone: a kinetic and structural analysis approach. <i>Environmental Science &amp; Technology</i> , <b>2011</b> , 45, 5238-44	10.3	36
52	Chemical characterization and stable carbon isotopic composition of particulate Polycyclic Aromatic Hydrocarbons issued from combustion of 10 Mediterranean woods. <i>Atmospheric Chemistry and Physics</i> , <b>2013</b> , 13, 2703-2719	6.8	34
51	Polyols and glucose particulate species as tracers of primary biogenic organic aerosols at 28 French sites. <i>Atmospheric Chemistry and Physics</i> , <b>2019</b> , 19, 3357-3374	6.8	33
50	Phenomenology of high-ozone episodes in NE Spain. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 2817-2838	6.8	33
49	Secondary organic aerosol origin in an urban environment: influence of biogenic and fuel combustion precursors. <i>Faraday Discussions</i> , <b>2016</b> , 189, 337-59	3.6	33

48	Sources and mixing state of summertime background aerosol in the north-western Mediterranean basin. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 6975-7001	6.8	32
47	Organic carbon at a remote site of the western Mediterranean Basin: sources and chemistry during the ChArMEx SOP2 field experiment. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 8837-8865	6.8	31
46	Primary emissions and secondary aerosol production potential from woodstoves for residential heating: Influence of the stove technology and combustion efficiency. <i>Atmospheric Environment</i> , <b>2017</b> , 169, 65-79	5.3	29
45	Phenomenology of summer ozone episodes over the Madrid Metropolitan Area, central Spain. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 6511-6533	6.8	24
44	Characterization of Gas-Phase Organics Using Proton Transfer Reaction Time-of-Flight Mass Spectrometry: Residential Coal Combustion. <i>Environmental Science &amp; Technology</i> , <b>2018</b> , 52, 2612-2619	5.3	23
43	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> , <b>2017</b> , 17, 12509-12531	6.8	22
42	Effect of measurement protocol on organic aerosol measurements of exhaust emissions from gasoline and diesel vehicles. <i>Atmospheric Environment</i> , <b>2016</b> , 140, 176-187	5.3	21
41	Effects of alkylate fuel on exhaust emissions and secondary aerosol formation of a 2-stroke and a 4-stroke scooter. <i>Atmospheric Environment</i> , <b>2014</b> , 94, 307-315	5.3	21
40	Particle-bound reactive oxygen species (PB-ROS) emissions and formation pathways in residential wood smoke under different combustion and aging conditions. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 6985-7000	6.8	21
39	Vertical and horizontal distribution of regional new particle formation events in Madrid. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 16601-16618	6.8	21
38	Functional group composition of ambient and source organic aerosols determined by tandem mass spectrometry. <i>Atmospheric Chemistry and Physics</i> , <b>2010</b> , 10, 7041-7055	6.8	20
37	Precursor ion scanning-mass spectrometry for the determination of nitro functional groups in atmospheric particulate organic matter. <i>Analytica Chimica Acta</i> , <b>2008</b> , 618, 184-95	6.6	20
36	Effect of Stove Technology and Combustion Conditions on Gas and Particulate Emissions from Residential Biomass Combustion. <i>Environmental Science &amp; Technology</i> , <b>2019</b> , 53, 2209-2219	10.3	19
35	Arabitol, mannitol, and glucose as tracers of primary biogenic organic aerosol: the influence of environmental factors on ambient air concentrations and spatial distribution over France. <i>Atmospheric Chemistry and Physics</i> , <b>2019</b> , 19, 11013-11030	6.8	18
34	Near-highway aerosol and gas-phase measurements in a high-diesel environment. <i>Atmospheric Chemistry and Physics</i> , <b>2015</b> , 15, 4373-4387	6.8	18
33	Spatial extent of new particle formation events over the Mediterranean Basin from multiple ground-based and airborne measurements. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 9567-9583	6.8	17
32	Carboxylic acid functional group analysis using constant neutral loss scanning-mass spectrometry. <i>Analytica Chimica Acta</i> , <b>2007</b> , 605, 61-9	6.6	17
31	Simulation of fine organic aerosols in the western Mediterranean area during the ChArMEx 2013 summer campaign. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 7287-7312	6.8	17

30	Primary marine aerosol physical flux and chemical composition during a nutrient enrichment experiment in mesocosms in the Mediterranean Sea. <i>Atmospheric Chemistry and Physics</i> , <b>2017</b> , 17, 14645-14660	6.8	16
29	Sources of organic aerosols in Europe: a modeling study using CAMx with modified volatility basis set scheme. <i>Atmospheric Chemistry and Physics</i> , <b>2019</b> , 19, 15247-15270	6.8	16
28	Evidence of atmospheric nanoparticle formation from emissions of marine microorganisms. <i>Geophysical Research Letters</i> , <b>2016</b> , 43, 6596-6603	4.9	15
27	Molecular insights into new particle formation in Barcelona, Spain. <i>Atmospheric Chemistry and Physics</i> , <b>2020</b> , 20, 10029-10045	6.8	14
26	Functional group composition of organic aerosol from combustion emissions and secondary processes at two contrasted urban environments. <i>Atmospheric Environment</i> , <b>2013</b> , 75, 308-320	5.3	13
25	Secondary organic aerosol formation from smoldering and flaming combustion of biomass: a box model parametrization based on volatility basis set. <i>Atmospheric Chemistry and Physics</i> , <b>2019</b> , 19, 11461-11484	6.8	13
24	Influence of the vapor wall loss on the degradation rate constants in chamber experiments of levoglucosan and other biomass burning markers. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 10915-10930	6.8	13
23	Aerosol sources in the western Mediterranean during summertime: a model-based approach. <i>Atmospheric Chemistry and Physics</i> , <b>2018</b> , 18, 9631-9659	6.8	12
22	Aethalometer multiple scattering correction &lt;i>C</i>&lt;sub>ref</sub> for mineral dust aerosols. <i>Atmospheric Measurement Techniques</i> , <b>2017</b> , 10, 2923-2939	4	12
21	New method to determine the total carbonyl functional group content in extractable particulate organic matter by tandem mass spectrometry. <i>Journal of Mass Spectrometry</i> , <b>2008</b> , 43, 1089-98	2.2	9
20	Secondary Organic Aerosol Formation from Aromatic Alkene Ozonolysis: Influence of the Precursor Structure on Yield, Chemical Composition, and Mechanism. <i>Journal of Physical Chemistry A</i> , <b>2019</b> , 123, 1469-1484	2.8	8
19	Overview of the French Operational Network for In Situ Observation of PM Chemical Composition and Sources in Urban Environments (CARA Program). <i>Atmosphere</i> , <b>2021</b> , 12, 207	2.7	8
18	Simple and Reversible Transformation of an APCI/MS/MS Into an Aerosol Mass Spectrometer: Development and Characterization of a New Inlet. <i>Aerosol Science and Technology</i> , <b>2008</b> , 42, 182-193	3.4	6
17	Measurement report: Fourteen months of real-time characterisation of the submicronic aerosol and its atmospheric dynamics at the Marseille-Longchamp supersite. <i>Atmospheric Chemistry and Physics</i> , <b>2021</b> , 21, 7293-7319	6.8	4
16	Variability of the Atmospheric PM Microbiome in Three Climatic Regions of France. <i>Frontiers in Microbiology</i> , <b>2020</b> , 11, 576750	5.7	4
15	Source apportionment of carbonaceous aerosols in the vicinity of a Mediterranean industrial harbor: A coupled approach based on radiocarbon and molecular tracers. <i>Atmospheric Environment</i> , <b>2019</b> , 212, 250-261	5.3	3
14	Organic aerosol source apportionment by offline-AMS over a full year in Marseille <b>2017</b> ,		3
13	Molecular characterization of gaseous and particulate oxygenated compounds at a remote site in Cape Corsica in the western Mediterranean Basin. <i>Atmospheric Chemistry and Physics</i> , <b>2021</b> , 21, 8067-8088	6.8	3

12	Secondary organic aerosol formation from smoldering and flaming combustion of biomass: a box model parametrization based on volatility basis set <b>2019</b> ,		2
11	Influence of biomass burning vapor wall loss correction on modeling organic aerosols in Europe by CAMx v6.50. <i>Geoscientific Model Development</i> , <b>2021</b> , 14, 1681-1697	6.3	2
10	Modelling organic aerosol concentrations and properties during ChArMEx summer campaigns of 2012 and 2013 in the western Mediterranean region <b>2017</b> ,		1
9	Organic carbon at a remote site of the western Mediterranean Basin: composition, sources and chemistry during the ChArMEx SOP2 field experiment <b>2017</b> ,		1
8	Primary and secondary organic aerosol origin by combined gas-particle phase source apportionment		1
7	Influence of the vapor wall loss on the degradation rate constants in chamber experiments of levoglucosan and other biomass burning markers <b>2018</b> ,		1
6	Vertical and horizontal distribution of regional new particle formation events in Madrid <b>2018</b> ,		1
5	Aerosol sources in the western Mediterranean during summertime: A model-based approach <b>2018</b> ,		1
4	Identification and quantification of particulate tracers of exhaust and non-exhaust vehicle emissions <b>2018</b> ,		1
3	Organic aerosol source apportionment by using rolling positive matrix factorization: Application to a Mediterranean coastal city. <i>Atmospheric Environment: X</i> , <b>2022</b> , 14, 100176	2.8	1
2	European Aerosol Phenomenology - 8: Harmonised Source Apportionment of Organic Aerosol using 22 Year-long ACSM/AMS Datasets. <i>Environment International</i> , <b>2022</b> , 107325	12.9	1
1	A Modelling Perspective of the Summer 2013 and 2014 ChArMEx/SAFMED Chemistry Intensive Campaigns: Origin of Photo-Oxidant and Aerosol Formation over the Western Mediterranean. <i>Springer Proceedings in Complexity</i> , <b>2016</b> , 85-90	0.3	