

# Nicolas Marchand

## List of Publications by Year in descending order

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74  
papers

4,401  
citations

94433

37  
h-index

123424

61  
g-index

122  
all docs

122  
docs citations

122  
times ranked

4466  
citing authors

#	ARTICLE	IF	CITATIONS
1	Wintertime aerosol chemical composition and source apportionment of the organic fraction in the metropolitan area of Paris. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 961-981.	4.9	391
2	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> , 2010, 10, 5295-5314.	4.9	261
3	Secondary organic aerosol formation from gasoline vehicle emissions in a new mobile environmental reaction chamber. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 9141-9158.	4.9	207
4	Black carbon physical properties and mixing state in the European megacity Paris. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 5831-5856.	4.9	174
5	Comprehensive primary particulate organic characterization of vehicular exhaust emissions in France. <i>Atmospheric Environment</i> , 2009, 43, 6190-6198.	4.1	150
6	Identification of marine and continental aerosol sources in Paris using high resolution aerosol mass spectrometry. <i>Journal of Geophysical Research D: Atmospheres</i> , 2013, 118, 1950-1963.	3.3	142
7	Gasoline cars produce more carbonaceous particulate matter than modern filter-equipped diesel cars. <i>Scientific Reports</i> , 2017, 7, 4926.	3.3	133
8	PM <sub>2.5</sub> chemical composition in five European Mediterranean cities: A 1-year study. <i>Atmospheric Research</i> , 2015, 155, 102-117.	4.1	128
9	Two-stroke scooters are a dominant source of air pollution in many cities. <i>Nature Communications</i> , 2014, 5, 3749.	12.8	126
10	Characterization of Gas-Phase Organics Using Proton Transfer Reaction Time-of-Flight Mass Spectrometry: Cooking Emissions. <i>Environmental Science &amp; Technology</i> , 2016, 50, 1243-1250.	10.0	97
11	Primary and secondary organic aerosol origin by combined gas-particle phase source apportionment. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 8411-8426.	4.9	96
12	Primary sources of PM <sub>2.5</sub> organic aerosol in an industrial Mediterranean city, Marseille. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 2039-2058.	4.9	95
13	Total OH reactivity measurements in Paris during the 2010 MEGAPOLI winter campaign. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 9593-9612.	4.9	95
14	Identification and quantification of particulate tracers of exhaust and non-exhaust vehicle emissions. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 5187-5207.	4.9	93
15	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> , 2015, 15, 9577-9591.	4.9	92
16	Insights into the secondary fraction of the organic aerosol in a Mediterranean urban area: Marseille. <i>Atmospheric Chemistry and Physics</i> , 2011, 11, 2059-2079.	4.9	90
17	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> , 2013, 13, 7875-7894.	4.9	87
18	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> , 2017, 17, 705-720.	4.9	79

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19	Organic aerosol source apportionment by offline-AMS over a full year in Marseille. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 8247-8268.	4.9	75
20	Field Comparison of Particulate PAH Measurements Using a Low-Flow Denuder Device and Conventional Sampling Systems. <i>Environmental Science &amp; Technology</i> , 2006, 40, 6398-6404.	10.0	71
21	Evolution of the chemical fingerprint of biomass burning organic aerosol during aging. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 7607-7624.	4.9	67
22	Modeling secondary organic aerosol in an urban area: application to Paris, France. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 983-996.	4.9	65
23	Design and Validation of a 6-Volatility Tandem Differential Mobility Analyzer (VTDMA). <i>Aerosol Science and Technology</i> , 2007, 41, 898-906.	3.1	59
24	Aqueous phase processing of secondary organic aerosol from isoprene photooxidation. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 5879-5895.	4.9	59
25	Primary emissions and secondary organic aerosol formation from the exhaust of a flex-fuel (ethanol) vehicle. <i>Atmospheric Environment</i> , 2015, 117, 200-211.	4.1	59
26	Comprehensive chemical characterization of industrial PM <sub>2.5</sub> from steel industry activities. <i>Atmospheric Environment</i> , 2017, 152, 180-190.	4.1	55
27	Particulate PAHs observed in the surrounding of a municipal incinerator. <i>Atmospheric Environment</i> , 2001, 35, 6093-6104.	4.1	54
28	Aerosol studies during the ESCOMPTE experiment: an overview. <i>Atmospheric Research</i> , 2005, 74, 547-563.	4.1	53
29	Quantification of levoglucosan and its isomers by High Performance Liquid Chromatography “Electrospray Ionization tandem Mass Spectrometry and its applications to atmospheric and soil samples. <i>Atmospheric Measurement Techniques</i> , 2012, 5, 141-148.	3.1	53
30	Polyols and glucose particulate species as tracers of primary biogenic organic aerosols at 28 French sites. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 3357-3374.	4.9	53
31	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> , 2013, 10, 10.	6.2	52
32	Primary emissions and secondary aerosol production potential from woodstoves for residential heating: Influence of the stove technology and combustion efficiency. <i>Atmospheric Environment</i> , 2017, 169, 65-79.	4.1	48
33	Oxidation of Atmospheric Humic Like Substances by Ozone: A Kinetic and Structural Analysis Approach. <i>Environmental Science &amp; Technology</i> , 2011, 45, 5238-5244.	10.0	47
34	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> , 2017, 17, 8837-8865.	4.9	45
35	Phenomenology of high-ozone episodes in NE Spain. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 2817-2838.	4.9	45
36	Phenomenology of summer ozone episodes over the Madrid Metropolitan Area, central Spain. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 6511-6533.	4.9	42

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37	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> , 2013, 13, 2703-2719.	4.9	41
38	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
39	European aerosol phenomenology â 8: Harmonised source apportionment of organic aerosol using 22 Year-long ACSM/AMS datasets. <i>Environment International</i> , 2022, 166, 107325.	10.0	41
40	Secondary organic aerosol origin in an urban environment: influence of biogenic and fuel combustion precursors. <i>Faraday Discussions</i> , 2016, 189, 337-359.	3.2	40
41	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> , 2019, 19, 11013-11030.	4.9	35
42	Sources of organic aerosols in Europe: a modeling study using CAMx with modified volatility basis set scheme. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 15247-15270.	4.9	35
43	Effect of Stove Technology and Combustion Conditions on Gas and Particulate Emissions from Residential Biomass Combustion. <i>Environmental Science &amp; Technology</i> , 2019, 53, 2209-2219.	10.0	35
44	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> , 2018, 18, 6985-7000.	4.9	31
45	Characterization of Gas-Phase Organics Using Proton Transfer Reaction Time-of-Flight Mass Spectrometry: Residential Coal Combustion. <i>Environmental Science &amp; Technology</i> , 2018, 52, 2612-2617.	10.0	30
46	Vertical and horizontal distribution of regional new particle formation events in Madrid. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 16601-16618.	4.9	30
47	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
48	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
49	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
50	Molecular insights into new particle formation in Barcelona, Spain. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 10029-10045.	4.9	27
51	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> , 2017, 17, 14645-14660.	4.9	25
52	Precursor ion scanningâmass spectrometry for the determination of nitro functional groups in atmospheric particulate organic matter. <i>Analytica Chimica Acta</i> , 2008, 618, 184-195.	5.4	24
53	Functional group composition of ambient and source organic aerosols determined by tandem mass spectrometry. <i>Atmospheric Chemistry and Physics</i> , 2010, 10, 7041-7055.	4.9	24
54	Effects of alkylate fuel on exhaust emissions and secondary aerosol formation of a 2-stroke and a 4-stroke scooter. <i>Atmospheric Environment</i> , 2014, 94, 307-315.	4.1	24

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55	Near-highway aerosol and gas-phase measurements in a high-diesel environment. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 4373-4387.	4.9	24
56	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
57	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> , 2019, 19, 11461-11484.	4.9	24
58	Overview of the French Operational Network for In Situ Observation of PM Chemical Composition and Sources in Urban Environments (CARA Program). <i>Atmosphere</i> , 2021, 12, 207.	2.3	23
59	Evidence of atmospheric nanoparticle formation from emissions of marine microorganisms. <i>Geophysical Research Letters</i> , 2016, 43, 6596-6603.	4.0	21
60	Aethalometer multiple scattering correction &lt;i>C</i> for mineral dust aerosols. <i>Atmospheric Measurement Techniques</i> , 2017, 10, 2923-2939.	3.1	21
61	Carboxylic acid functional group analysis using constant neutral loss scanning-mass spectrometry. <i>Analytica Chimica Acta</i> , 2007, 605, 61-69.	5.4	19
62	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> , 2018, 18, 10915-10930.	4.9	19
63	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
64	Functional group composition of organic aerosol from combustion emissions and secondary processes at two contrasted urban environments. <i>Atmospheric Environment</i> , 2013, 75, 308-320.	4.1	16
65	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> , 2019, 123, 1469-1484.	2.5	15
66	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> , 2008, 43, 1089-1098.	1.6	12
67	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> , 2021, 21, 7293-7319.	4.9	11
68	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> , 2008, 42, 182-193.	3.1	7
69	Variability of the Atmospheric PM10 Microbiome in Three Climatic Regions of France. <i>Frontiers in Microbiology</i> , 2020, 11, 576750.	3.5	6
70	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> , 2019, 212, 250-261.	4.1	5
71	Influence of biomass burning vapor wall loss correction on modeling organic aerosols in Europe by CAMx v6.50. <i>Geoscientific Model Development</i> , 2021, 14, 1681-1697.	3.6	5
72	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> , 2021, 21, 8067-8088.	4.9	5

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73	Organic aerosol source apportionment by using rolling positive matrix factorization: Application to a Mediterranean coastal city. Atmospheric Environment: X, 2022, 14, 100176.	1.4	4
74	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. Springer Proceedings in Complexity, 2016, , 85-90.	0.3	0