Nicolas Marchand

List of Publications by Year
in descending order

74 papers	4,401 citations	108046 37 h-index	139680 61 g-index
122 all docs	122 docs citations	122 times ranked	5033 citing authors

#	Article	IF	Citations
1	Wintertime aerosol chemical composition and source apportionment of the organic fraction in the metropolitan area of Paris. Atmospheric Chemistry and Physics, 2013, 13, 961-981.	1.9	391
2	Inter-comparison of source apportionment models for the estimation of wood burning aerosols during wintertime in an Alpine city (Grenoble, France). Atmospheric Chemistry and Physics, 2010, 10, 5295-5314.	1.9	261
3	Secondary organic aerosol formation from gasoline vehicle emissions in a new mobile environmental reaction chamber. Atmospheric Chemistry and Physics, 2013, 13, 9141-9158.	1.9	207
4	Black carbon physical properties and mixing state in the European megacity Paris. Atmospheric Chemistry and Physics, 2013, 13, 5831-5856.	1.9	174
5	Comprehensive primary particulate organic characterization of vehicular exhaust emissions in France. Atmospheric Environment, 2009, 43, 6190-6198.	1.9	150
6	Identification of marine and continental aerosol sources in Paris using high resolution aerosol mass spectrometry. Journal of Geophysical Research D: Atmospheres, 2013, 118, 1950-1963.	1.2	142
7	Gasoline cars produce more carbonaceous particulate matter than modern filter-equipped diesel cars. Scientific Reports, 2017, 7, 4926.	1.6	133
8	PM2.5 chemical composition in five European Mediterranean cities: A 1-year study. Atmospheric Research, 2015, 155, 102-117.	1.8	128
9	Two-stroke scooters are a dominant source of air pollution in many cities. Nature Communications, 2014, 5, 3749.	5.8	126
10	Characterization of Gas-Phase Organics Using Proton Transfer Reaction Time-of-Flight Mass Spectrometry: Cooking Emissions. Environmental Science & Technology, 2016, 50, 1243-1250.	4.6	97
11	Primary and secondary organic aerosol origin by combined gas-particle phase source apportionment. Atmospheric Chemistry and Physics, 2013, 13, 8411-8426.	1.9	96
12	Primary sources of PM_{2.5} organic aerosol in an industrial Mediterranean city, Marseille. Atmospheric Chemistry and Physics, 2011, 11, 2039-2058.	1.9	95
13	Total OH reactivity measurements in Paris during the 2010 MEGAPOLI winter campaign. Atmospheric Chemistry and Physics, 2012, 12, 9593-9612.	1.9	95
14	Identification and quantification of particulate tracers of exhaust and non-exhaust vehicle emissions. Atmospheric Chemistry and Physics, 2019, 19, 5187-5207.	1.9	93
15	In situ, satellite measurement and model evidence on the dominant regional contribution to fine particulate matter levels in the Paris megacity. Atmospheric Chemistry and Physics, 2015, 15, 9577-9591.	1.9	92
16	Insights into the secondary fraction of the organic aerosol in a Mediterranean urban area: Marseille. Atmospheric Chemistry and Physics, 2011, 11, 2059-2079.	1.9	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. Atmospheric Chemistry and Physics, 2013, 13, 7875-7894.	1.9	87
18	Characterization of gas-phase organics using proton transfer reaction time-of-flight mass spectrometry: fresh and aged residential wood combustion emissions. Atmospheric Chemistry and Physics, 2017, 17, 705-720.	1.9	79

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19	Organic aerosol source apportionment by offline-AMS over a full year in Marseille. Atmospheric Chemistry and Physics, 2017, 17, 8247-8268.	1.9	75
20	Field Comparison of Particulate PAH Measurements Using a Low-Flow Denuder Device and Conventional Sampling Systems. Environmental Science & Technology, 2006, 40, 6398-6404.	4.6	71
21	Evolution of the chemical fingerprint of biomass burning organic aerosol during aging. Atmospheric Chemistry and Physics, 2018, 18, 7607-7624.	1.9	67
22	Modeling secondary organic aerosol in an urban area: application to Paris, France. Atmospheric Chemistry and Physics, 2013, 13, 983-996.	1.9	65
23	Design and Validation of a 6-Volatility Tandem Differential Mobility Analyzer (VTDMA). Aerosol Science and Technology, 2007, 41, 898-906.	1.5	59
24	Aqueous phase processing of secondary organic aerosol from isoprene photooxidation. Atmospheric Chemistry and Physics, 2012, 12, 5879-5895.	1.9	59
25	Primary emissions and secondary organic aerosol formation from the exhaust of a flex-fuel (ethanol) vehicle. Atmospheric Environment, 2015, 117, 200-211.	1.9	59
26	Comprehensive chemical characterization of industrial PM2.5 from steel industry activities. Atmospheric Environment, 2017, 152, 180-190.	1.9	55
27	Particulate PAHs observed in the surrounding of a municipal incinerator. Atmospheric Environment, 2001, 35, 6093-6104.	1.9	54
28	Aerosol studies during the ESCOMPTE experiment: an overview. Atmospheric Research, 2005, 74, 547-563.	1.8	53
29	Quantification of levoglucosan and its isomers by High Performance Liquid Chromatography â€“ Electrospray Ionization tandem Mass Spectrometry and its applications to atmospheric and soil samples. Atmospheric Measurement Techniques, 2012, 5, 141-148.	1.2	53
30	Polyols and glucose particulate species as tracers of primary biogenic organic aerosols at 28 French sites. Atmospheric Chemistry and Physics, 2019, 19, 3357-3374.	1.9	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. Particle and Fibre Toxicology, 2013, 10, 10.	2.8	52
32	Primary emissions and secondary aerosol production potential from woodstoves for residential heating: Influence of the stove technology and combustion efficiency. Atmospheric Environment, 2017, 169, 65-79.	1.9	48
33	Oxidation of Atmospheric Humic Like Substances by Ozone: A Kinetic and Structural Analysis Approach. Environmental Science & Technology, 2011, 45, 5238-5244.	4.6	47
34	Organic carbon at a remote site of the western Mediterranean Basin: sources and chemistry during the ChArMEx SOP2 field experiment. Atmospheric Chemistry and Physics, 2017, 17, 8837-8865.	1.9	45
35	Phenomenology of high-ozone episodes in NE Spain. Atmospheric Chemistry and Physics, 2017, 17, 2817-2838.	1.9	45
36	Phenomenology of summer ozone episodes over the Madrid Metropolitan Area, central Spain. Atmospheric Chemistry and Physics, 2018, 18, 6511-6533.	1.9	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. Atmospheric Chemistry and Physics, 2013, 13, 2703-2719.	1.9	41
38	Sources and mixing state of summertime background aerosol in the north-western Mediterranean basin. Atmospheric Chemistry and Physics, 2017, 17, 6975-7001.	1.9	41
39	European aerosol phenomenology â˜ 8: Harmonised source apportionment of organic aerosol using 22 Year-long ACSM/AMS datasets. Environment International, 2022, 166, 107325.	4.8	41
40	Secondary organic aerosol origin in an urban environment: influence of biogenic and fuel combustion precursors. Faraday Discussions, 2016, 189, 337-359.	1.6	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. Atmospheric Chemistry and Physics, 2019, 19, 11013-11030.	1.9	35
42	Sources of organic aerosols in Europe: a modeling study using CAMx with modified volatility basis set scheme. Atmospheric Chemistry and Physics, 2019, 19, 15247-15270.	1.9	35
43	Effect of Stove Technology and Combustion Conditions on Gas and Particulate Emissions from Residential Biomass Combustion. Environmental Science & Technology, 2019, 53, 2209-2219.	4.6	35
44	Particle-bound reactive oxygen species (PB-ROS) emissions and formation pathways in residential wood smoke under different combustion and aging conditions. Atmospheric Chemistry and Physics, 2018, 18, 6985-7000.	1.9	31
45	Characterization of Gas-Phase Organics Using Proton Transfer Reaction Time-of-Flight Mass Spectrometry: Residential Coal Combustion. Environmental Science & Technology, 2018, 52, 2612-2617.	4.6	30
46	Vertical and horizontal distribution of regional new particle formation events in Madrid. Atmospheric Chemistry and Physics, 2018, 18, 16601-16618.	1.9	30
47	Modelling organic aerosol concentrations and properties during ChArMEx summer campaigns of 2012 and 2013 in the western Mediterranean region. Atmospheric Chemistry and Physics, 2017, 17, 12509-12531.	1.9	29
48	Effect of measurement protocol on organic aerosol measurements of exhaust emissions from gasoline and diesel vehicles. Atmospheric Environment, 2016, 140, 176-187.	1.9	27
49	Simulation of fine organic aerosols in the western Mediterranean area during the ChArMEx 2013 summer campaign. Atmospheric Chemistry and Physics, 2018, 18, 7287-7312.	1.9	27
50	Molecular insights into new particle formation in Barcelona, Spain. Atmospheric Chemistry and Physics, 2020, 20, 10029-10045.	1.9	27
51	Primary marine aerosol physical flux and chemical composition during a nutrient enrichment experiment in mesocosms in the Mediterranean Sea. Atmospheric Chemistry and Physics, 2017, 17, 14645-14660.	1.9	25
52	Precursor ion scanningâ€“mass spectrometry for the determination of nitro functional groups in atmospheric particulate organic matter. Analytica Chimica Acta, 2008, 618, 184-195.	2.6	24
53	Functional group composition of ambient and source organic aerosols determined by tandem mass spectrometry. Atmospheric Chemistry and Physics, 2010, 10, 7041-7055.	1.9	24
54	Effects of alkylate fuel on exhaust emissions and secondary aerosol formation of a 2-stroke and a 4-stroke scooter. Atmospheric Environment, 2014, 94, 307-315.	1.9	24

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55	Near-highway aerosol and gas-phase measurements in a high-diesel environment. Atmospheric Chemistry and Physics, 2015, 15, 4373-4387.	1.9	24
56	Spatial extent of new particle formation events over the Mediterranean Basin from multiple ground-based and airborne measurements. Atmospheric Chemistry and Physics, 2017, 17, 9567-9583.	1.9	24
57	Secondary organic aerosol formation from smoldering and flaming combustion of biomass: a box model parametrization based on volatility basis set. Atmospheric Chemistry and Physics, 2019, 19, 11461-11484.	1.9	24
58	Overview of the French Operational Network for In Situ Observation of PM Chemical Composition and Sources in Urban Environments (CARA Program). Atmosphere, 2021, 12, 207.	1.0	23
59	Evidence of atmospheric nanoparticle formation from emissions of marine microorganisms. Geophysical Research Letters, 2016, 43, 6596-6603.	1.5	21
60	Aethalometer multiple scattering correction <i>C</i>_{ref} for mineral dust aerosols. Atmospheric Measurement Techniques, 2017, 10, 2923-2939.	1.2	21
61	Carboxylic acid functional group analysis using constant neutral loss scanning-mass spectrometry. Analytica Chimica Acta, 2007, 605, 61-69.	2.6	19
62	Influence of the vapor wall loss on the degradation rate constants in chamber experiments of levoglucosan and other biomass burning markers. Atmospheric Chemistry and Physics, 2018, 18, 10915-10930.	1.9	19
63	Aerosol sources in the western Mediterranean during summertime: a model-based approach. Atmospheric Chemistry and Physics, 2018, 18, 9631-9659.	1.9	18
64	Functional group composition of organic aerosol from combustion emissions and secondary processes at two contrasted urban environments. Atmospheric Environment, 2013, 75, 308-320.	1.9	16
65	Secondary Organic Aerosol Formation from Aromatic Alkene Ozonolysis: Influence of the Precursor Structure on Yield, Chemical Composition, and Mechanism. Journal of Physical Chemistry A, 2019, 123, 1469-1484.	1.1	15
66	New method to determine the total carbonyl functional group content in extractable particulate organic matter by tandem mass spectrometry. Journal of Mass Spectrometry, 2008, 43, 1089-1098.	0.7	12
67	Measurement report: Fourteen months of real-time characterisation of the submicronic aerosol and its atmospheric dynamics at the Marseilleâ€“Longchamp supersite. Atmospheric Chemistry and Physics, 2021, 21, 7293-7319.	1.9	11
68	Simple and Reversible Transformation of an APCI/MS/MS Into an Aerosol Mass Spectrometer: Development and Characterization of a New Inlet. Aerosol Science and Technology, 2008, 42, 182-193.	1.5	7
69	Variability of the Atmospheric PM10 Microbiome in Three Climatic Regions of France. Frontiers in Microbiology, 2020, 11, 576750.	1.5	6
70	Source apportionment of carbonaceous aerosols in the vicinity of a Mediterranean industrial harbor: A coupled approach based on radiocarbon and molecular tracers. Atmospheric Environment, 2019, 212, 250-261.	1.9	5
71	Influence of biomass burning vapor wall loss correction on modeling organic aerosols in Europe by CAMx v6.50. Geoscientific Model Development, 2021, 14, 1681-1697.	1.3	5
72	Molecular characterization of gaseous and particulate oxygenated compounds at a remote site in Cape Corsica in the western Mediterranean Basin. Atmospheric Chemistry and Physics, 2021, 21, 8067-8088.	1.9	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.	0.8	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.	0.2	0