Matthieu Riva

List of Publications by Year
in descending order

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62	3,202	172457	161849
papers	citations	29 h-index	54 g-index

90	90	90	2879
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Highly Oxygenated Organic Molecules (HOM) from Gas-Phase Autoxidation Involving Peroxy Radicals: A Key Contributor to Atmospheric Aerosol. Chemical Reviews, 2019, 119, 3472-3509.	47.7	460
2	Characterization of a real-time tracer for isoprene epoxydiols-derived secondary organic aerosol (IEPOX-SOA) from aerosol mass spectrometer measurements. Atmospheric Chemistry and Physics, 2015, 15, 11807-11833.	4.9	185
3	Evidence for an Unrecognized Secondary Anthropogenic Source of Organosulfates and Sulfonates: Gas-Phase Oxidation of Polycyclic Aromatic Hydrocarbons in the Presence of Sulfate Aerosol. Environmental Science & Technology, 2015, 49, 6654-6664.	10.0	151
4	Light-Absorbing Oligomer Formation in Secondary Organic Aerosol from Reactive Uptake of Isoprene Epoxydiols. Environmental Science & Technology, 2014, 48, 12012-12021.	10.0	143
5	Evaluating the performance of five different chemical ionization techniques for detecting gaseous oxygenated organic species. Atmospheric Measurement Techniques, 2019, 12, 2403-2421.	3.1	119
6	Chemical characterization of secondary organic aerosol constituents from isoprene ozonolysis in the presence of acidic aerosol. Atmospheric Environment, 2016, 130, 5-13.	4.1	118
7	Increasing Isoprene Epoxydiol-to-Inorganic Sulfate Aerosol Ratio Results in Extensive Conversion of Inorganic Sulfate to Organosulfur Forms: Implications for Aerosol Physicochemical Properties. Environmental Science & Technology, 2019, 53, 8682-8694.	10.0	111
8	Chemical Characterization of Secondary Organic Aerosol from Oxidation of Isoprene Hydroxyhydroperoxides. Environmental Science & Technology, 2016, 50, 9889-9899.	10.0	105
9	Assessing the impact of anthropogenic pollution on isoprene-derived secondary organic aerosol formation in PM_{2.5} collected from the Birmingham, Alabama, ground site during the 2013 Southern OxidantÂand Aerosol Study. Atmospheric Chemistry and Physics, 2016, 16, 4897-4914.	4.9	105
10	Chemical characterization of organosulfates in secondary organic aerosol derived from the photooxidation of alkanes. Atmospheric Chemistry and Physics, 2016, 16, 11001-11018.	4.9	102
11	Light-Absorbing Brown Carbon Aerosol Constituents from Combustion of Indonesian Peat and Biomass. Environmental Science & Technology, 2017, 51, 4415-4423.	10.0	86
12	Multiphase reactivity of gaseous hydroperoxide oligomers produced from isoprene ozonolysis in the presence of acidified aerosols. Atmospheric Environment, 2017, 152, 314-322.	4.1	80
13	Joint Impacts of Acidity and Viscosity on the Formation of Secondary Organic Aerosol from Isoprene Epoxydiols (IEPOX) in Phase Separated Particles. ACS Earth and Space Chemistry, 2019, 3, 2646-2658.	2.7	80
14	Differing Mechanisms of New Particle Formation at Two Arctic Sites. Geophysical Research Letters, 2021, 48, e2020GL091334.	4.0	70
15	Ambient Gas-Particle Partitioning of Tracers for Biogenic Oxidation. Environmental Science & Technology, 2016, 50, 9952-9962.	10.0	69
16	Effect of Organic Coatings, Humidity and Aerosol Acidity on Multiphase Chemistry of Isoprene Epoxydiols. Environmental Science & Technology, 2016, 50, 5580-5588.	10.0	68
17	The role of highly oxygenated moleculesÂ(HOMs) in determining the composition of ambient ions in the boreal forest. Atmospheric Chemistry and Physics, 2017, 17, 13819-13831.	4.9	66
18	Atmospheric Photosensitization: A New Pathway for Sulfate Formation. Environmental Science & Technology, 2020, 54, 3114-3120.	10.0	65

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19	Nitrogen-Containing, Light-Absorbing Oligomers Produced in Aerosol Particles Exposed to Methylglyoxal, Photolysis, and Cloud Cycling. Environmental Science & Technology, 2018, 52, 4061-4071.	10.0	59
20	Terpenes and their oxidation products in the French Landes forest: insights from Vocus PTR-TOF measurements. Atmospheric Chemistry and Physics, 2020, 20, 1941-1959.	4.9	46
21	Experimental investigation into the volatilities of highly oxygenated organic molecules (HOMs). Atmospheric Chemistry and Physics, 2020, 20, 649-669.	4.9	45
22	Photochemical Aging of Secondary Organic Aerosols Generated from the Photooxidation of Polycyclic Aromatic Hydrocarbons in the Gas-Phase. Environmental Science & Technology, 2015, 49, 5407-5416.	10.0	41
23	Seasonal variations of fine particulate organosulfates derived from biogenic and anthropogenic hydrocarbons in the mid-Atlantic United States. Atmospheric Environment, 2016, 145, 405-414.	4.1	41
24	Biogenic particles formed in the Himalaya as an important source of free tropospheric aerosols. Nature Geoscience, 2021, 14, 4-9.	12.9	40
25	Chemical transformations in monoterpene-derived organic aerosol enhanced by inorganic composition. Npj Climate and Atmospheric Science, 2019, 2, .	6.8	36
26	Gas- and Particle-Phase Products from the Chlorine-Initiated Oxidation of Polycyclic Aromatic Hydrocarbons. Journal of Physical Chemistry A, 2015, 119, 11170-11181.	2.5	35
27	Optical Properties of Secondary Organic Aerosol Produced by Nitrate Radical Oxidation of Biogenic Volatile Organic Compounds. Environmental Science & Technology, 2021, 55, 2878-2889.	10.0	35
28	Vertical characterization of highly oxygenated molecules (HOMs) below and above a boreal forest canopy. Atmospheric Chemistry and Physics, 2018, 18, 17437-17450.	4.9	34
29	Primary Formation of Highly Oxidized Multifunctional Products in the OH-Initiated Oxidation of Isoprene: A Combined Theoretical and Experimental Study. Environmental Science & Technology, 2018, 52, 12255-12264.	10.0	33
30	Alkyl nitrates in the boreal forest: formation via the NO₃-, OH- and O₃-induced oxidation of biogenic volatile organic compounds and ambient lifetimes. Atmospheric Chemistry and Physics, 2019, 19, 10391-10403.	4.9	28
31	Structures and reactivity of peroxy radicals and dimeric products revealed by online tandem mass spectrometry. Nature Communications, 2021, 12, 300.	12.8	28
32	Long-term sub-micrometer aerosol chemical composition in the boreal forest: inter- and intra-annual variability. Atmospheric Chemistry and Physics, 2020, 20, 3151-3180.	4.9	26
33	Chemical Characterization of Gas- and Particle-Phase Products from the Ozonolysis of Î±-Pinene in the Presence of Dimethylamine. Environmental Science & Technology, 2017, 51, 5602-5610.	10.0	25
34	CI-Orbitrap: An Analytical Instrument To Study Atmospheric Reactive Organic Species. Analytical Chemistry, 2019, 91, 9419-9423.	6.5	25
35	Online Aerosol Chemical Characterization by Extractive Electrospray Ionizationâ€“Ultrahigh-Resolution Mass Spectrometry (EESI-Orbitrap). Environmental Science & Technology, 2020, 54, 3871-3880.	10.0	25
36	Dominant contribution of oxygenated organic aerosol to haze particles from real-time observation in Singapore during an Indonesian wildfire event in 2015. Atmospheric Chemistry and Physics, 2018, 18, 16481-16498.	4.9	24

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37	A novel approach for simple statistical analysis of high-resolution mass spectra. Atmospheric Measurement Techniques, 2019, 12, 3761-3776.	3.1	24
38	Superoxide and Nitrous Acid Production from Nitrate Photolysis Is Enhanced by Dissolved Aliphatic Organic Matter. Environmental Science and Technology Letters, 2021, 8, 53-58.	8.7	24
39	Atmospheric organic vapors in two European pine forests measured by a Vocus PTR-TOF: insights into monoterpene and sesquiterpene oxidation processes. Atmospheric Chemistry and Physics, 2021, 21, 4123-4147.	4.9	23
40	Natural and Anthropogenically Influenced Isoprene Oxidation in Southeastern United States and Central Amazon. Environmental Science & Technology, 2020, 54, 5980-5991.	10.0	22
41	Chemical Characterization of Cloudwater Collected at Puy de DÃ´me by FT-ICR MS Reveals the Presence of SOA Components. ACS Earth and Space Chemistry, 2019, 3, 2076-2087.	2.7	21
42	Formation of highly oxygenated organic molecules from chlorine-atom-initiated oxidation of alpha-pinene. Atmospheric Chemistry and Physics, 2020, 20, 5145-5155.	4.9	20
43	Capability of CI-Orbitrap for Gas-Phase Analysis in Atmospheric Chemistry: A Comparison with the CI-APi-TOF Technique. Analytical Chemistry, 2020, 92, 8142-8150.	6.5	19
44	Pyruvic acid in the boreal forest: gas-phase mixing ratios and impact on radical chemistry. Atmospheric Chemistry and Physics, 2020, 20, 3697-3711.	4.9	19
45	Methylamineâ€™s Effects on Methylglyoxal-Containing Aerosol: Chemical, Physical, and Optical Changes. ACS Earth and Space Chemistry, 2019, 3, 1706-1716.	2.7	18
46	Chemical characterization of organosulfates from the hydroxyl radical-initiated oxidation and ozonolysis of cis-3-hexen-1-ol. Atmospheric Environment, 2017, 162, 141-151.	4.1	17
47	Atmospheric Chemistry of 2,3-Pentanedione: Photolysis and Reaction with OH Radicals. Journal of Physical Chemistry A, 2011, 115, 9160-9168.	2.5	16
48	Kinetics of the Gas-Phase Reactions of Chlorine Atoms with Naphthalene, Acenaphthene, and Acenaphthylene. Journal of Physical Chemistry A, 2014, 118, 3535-3540.	2.5	16
49	Gas- and particle-phase products from the photooxidation of acenaphthene and acenaphthylene by OH radicals. Atmospheric Environment, 2017, 151, 34-44.	4.1	16
50	Chemical Characteristics and Brown Carbon Chromophores of Atmospheric Organic Aerosols Over the Yangtze River Channel: A Cruise Campaign. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032497.	3.3	16
51	Overestimation of Monoterpene Organosulfate Abundance in Aerosol Particles by Sampling in the Presence of SO₂. Environmental Science and Technology Letters, 2021, 8, 206-211.	8.7	15
52	High Pressure Inside Nanometer-Sized Particles Influences the Rate and Products of Chemical Reactions. Environmental Science & Technology, 2021, 55, 7786-7793.	10.0	12
53	Insights into atmospheric oxidation processes by performing factor analyses on subranges of mass spectra. Atmospheric Chemistry and Physics, 2020, 20, 5945-5961.	4.9	11
54	Field Detection of Highly Oxygenated Organic Molecules in Shanghai by Chemical Ionizationâ€“Orbitrap. Environmental Science & Technology, 2022, 56, 7608-7617.	10.0	11

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55	Gas and particulate phase products from the ozonolysis of acenaphthylene. Atmospheric Environment, 2016, 142, 104-113.	4.1	10
56	Multiphase Chemistry of Highly Oxidized Molecules: The Case of Organic Hydroperoxides. CheM, 2016, 1, 526-528.	11.7	7
57	Decrease in sulfate aerosol light backscattering by reactive uptake of isoprene epoxydiols. Physical Chemistry Chemical Physics, 2021, 23, 5927-5935.	2.8	7
58	Modeling the Size Distribution and Chemical Composition of Secondary Organic Aerosols during the Reactive Uptake of Isoprene-Derived Epoxydiols under Low-Humidity Condition. ACS Earth and Space Chemistry, 2021, 5, 3247-3257.	2.7	7
59	Orbitool: a software tool for analyzing online Orbitrap mass spectrometry data. Atmospheric Measurement Techniques, 2021, 14, 2377-2387.	3.1	6
60	Elucidating an Atmospheric Brown Carbon Speciesâ€"Toward Supplanting Chemical Intuition with Exhaustive Enumeration and Machine Learning. Environmental Science & Technology, 2021, 55, 8447-8457.	10.0	6
61	Measurement report: Effects of NO_x and seed aerosol on highly oxygenated organic molecules (HOMs) from cyclohexene ozonolysis. Atmospheric Chemistry and Physics, 2021, 21, 7357-7372.	4.9	5
62	Atmospheric Nitrous Acid Measurement in the French Landes Forest. ACS Earth and Space Chemistry, 2022, 6, 25-33.	2.7	2