Matthieu Riva

List of Publications by Year
in descending order

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Version: 2024-02-01

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	Atmospheric Nitrous Acid Measurement in the French Landes Forest. ACS Earth and Space Chemistry, 2022, 6, 25-33.	2.7	2
2	Field Detection of Highly Oxygenated Organic Molecules in Shanghai by Chemical Ionizationâ€“Orbitrap. Environmental Science & Technology, 2022, 56, 7608-7617.	10.0	11
3	Biogenic particles formed in the Himalaya as an important source of free tropospheric aerosols. Nature Geoscience, 2021, 14, 4-9.	12.9	40
4	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
5	Decrease in sulfate aerosol light backscattering by reactive uptake of isoprene epoxydiols. Physical Chemistry Chemical Physics, 2021, 23, 5927-5935.	2.8	7
6	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
7	Differing Mechanisms of New Particle Formation at Two Arctic Sites. Geophysical Research Letters, 2021, 48, e2020GL091334.	4.0	70
8	Orbitool: a software tool for analyzing online Orbitrap mass spectrometry data. Atmospheric Measurement Techniques, 2021, 14, 2377-2387.	3.1	6
9	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
10	Measurement report: Effects of NO_{<i>x</i>} and seed aerosol on highly oxygenated organic molecules (HOMs) from cyclohexene ozonolysis. Atmospheric Chemistry and Physics, 2021, 21, 7357-7372.	4.9	5
11	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
12	High Pressure Inside Nanometer-Sized Particles Influences the Rate and Products of Chemical Reactions. Environmental Science & Technology, 2021, 55, 7786-7793.	10.0	12
13	Structures and reactivity of peroxy radicals and dimeric products revealed by online tandem mass spectrometry. Nature Communications, 2021, 12, 300.	12.8	28
14	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
15	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
16	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
17	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
18	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

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19	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
20	Online Aerosol Chemical Characterization by Extractive Electrospray Ionizationâ€“Ultrahigh-Resolution Mass Spectrometry (EESI-Orbitrap). Environmental Science & Technology, 2020, 54, 3871-3880.	10.0	25
21	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
22	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
23	Atmospheric Photosensitization: A New Pathway for Sulfate Formation. Environmental Science & Technology, 2020, 54, 3114-3120.	10.0	65
24	Experimental investigation into the volatilities of highly oxygenated organic molecules (HOMs). Atmospheric Chemistry and Physics, 2020, 20, 649-669.	4.9	45
25	Natural and Anthropogenically Influenced Isoprene Oxidation in Southeastern United States and Central Amazon. Environmental Science & Technology, 2020, 54, 5980-5991.	10.0	22
26	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
27	Methylamineâ€™s Effects on Methylglyoxal-Containing Aerosol: Chemical, Physical, and Optical Changes. ACS Earth and Space Chemistry, 2019, 3, 1706-1716.	2.7	18
28	A novel approach for simple statistical analysis of high-resolution mass spectra. Atmospheric Measurement Techniques, 2019, 12, 3761-3776.	3.1	24
29	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
30	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
31	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
32	CI-Orbitrap: An Analytical Instrument To Study Atmospheric Reactive Organic Species. Analytical Chemistry, 2019, 91, 9419-9423.	6.5	25
33	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
34	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
35	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
36	Chemical transformations in monoterpene-derived organic aerosol enhanced by inorganic composition. Npj Climate and Atmospheric Science, 2019, 2, .	6.8	36

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37	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
38	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
39	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
40	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
41	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
42	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
43	Light-Absorbing Brown Carbon Aerosol Constituents from Combustion of Indonesian Peat and Biomass. Environmental Science & Technology, 2017, 51, 4415-4423.	10.0	86
44	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
45	Gas- and particle-phase products from the photooxidation of acenaphthene and acenaphthylene by OH radicals. Atmospheric Environment, 2017, 151, 34-44.	4.1	16
46	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
47	Multiphase Chemistry of Highly Oxidized Molecules: The Case of Organic Hydroperoxides. CheM, 2016, 1, 526-528.	11.7	7
48	Effect of Organic Coatings, Humidity and Aerosol Acidity on Multiphase Chemistry of Isoprene Epoxydiols. Environmental Science & Technology, 2016, 50, 5580-5588.	10.0	68
49	Chemical Characterization of Secondary Organic Aerosol from Oxidation of Isoprene Hydroxyhydroperoxides. Environmental Science & Technology, 2016, 50, 9889-9899.	10.0	105
50	Gas and particulate phase products from the ozonolysis of acenaphthylene. Atmospheric Environment, 2016, 142, 104-113.	4.1	10
51	Ambient Gas-Particle Partitioning of Tracers for Biogenic Oxidation. Environmental Science & Technology, 2016, 50, 9952-9962.	10.0	69
52	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
53	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
54	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

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55	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
56	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
57	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
58	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
59	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
60	Light-Absorbing Oligomer Formation in Secondary Organic Aerosol from Reactive Uptake of Isoprene Epoxydiols. Environmental Science & Technology, 2014, 48, 12012-12021.	10.0	143
61	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
62	Atmospheric Chemistry of 2,3-Pentanedione: Photolysis and Reaction with OH Radicals. Journal of Physical Chemistry A, 2011, 115, 9160-9168.	2.5	16