

Luca Cappellin

List of Publications by Year in descending order

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papers

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#	ARTICLE	IF	CITATIONS
1	On Quantitative Determination of Volatile Organic Compound Concentrations Using Proton Transfer Reaction Time-of-Flight Mass Spectrometry. <i>Environmental Science & Technology</i> , 2012, 46, 2283-2290.	4.6	264
2	Observations of gas- and aerosol-phase organic nitrates at BEACHON-RoMBAS 2011. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 8585-8605.	1.9	150
3	On data analysis in PTR-TOF-MS: From raw spectra to data mining. <i>Sensors and Actuators B: Chemical</i> , 2011, 155, 183-190.	4.0	146
4	Organosulfates as Tracers for Secondary Organic Aerosol (SOA) Formation from 2-Methyl-3-Buten-2-ol (MBO) in the Atmosphere. <i>Environmental Science & Technology</i> , 2012, 46, 9437-9446.	4.6	128
5	Assessment of apple (<i>Malus domestica</i> Borkh.) fruit texture by a combined acoustic-mechanical profiling strategy. <i>Postharvest Biology and Technology</i> , 2011, 61, 21-28.	2.9	123
6	Improved mass accuracy in PTR-TOF-MS: Another step towards better compound identification in PTR-MS. <i>International Journal of Mass Spectrometry</i> , 2010, 290, 60-63.	0.7	103
7	Exploring Blueberry Aroma Complexity by Chromatographic and Direct-Injection Spectrometric Techniques. <i>Frontiers in Plant Science</i> , 2017, 8, 617.	1.7	81
8	Texture dynamics during postharvest cold storage ripening in apple (<i>Malus domestica</i> Borkh.). <i>Postharvest Biology and Technology</i> , 2012, 69, 54-63.	2.9	79
9	Monitoring of volatile compound emissions during dry anaerobic digestion of the Organic Fraction of Municipal Solid Waste by Proton Transfer Reaction Time-of-Flight Mass Spectrometry. <i>Bioresource Technology</i> , 2012, 126, 254-265.	4.8	78
10	Selective measurements of isoprene and 2-methyl-3-buten-2-ol based on NO ₂ ⁺ ionization mass spectrometry. <i>Atmospheric Chemistry and Physics</i> , 2012, 12, 11877-11884.	1.9	76
11	PTR-ToF-MS, A Novel, Rapid, High Sensitivity and Non-Invasive Tool to Monitor Volatile Compound Release During Fruit Post-Harvest Storage: The Case Study of Apple Ripening. <i>Food and Bioprocess Technology</i> , 2013, 6, 2831-2843.	2.6	74
12	Growth media affect the volatilome and antimicrobial activity against <i>Phytophthora infestans</i> in four <i>Lysobacter</i> type strains. <i>Microbiological Research</i> , 2017, 201, 52-62.	2.5	74
13	Rapid "Breath-Print" of Liver Cirrhosis by Proton Transfer Reaction Time-of-Flight Mass Spectrometry. A Pilot Study. <i>PLoS ONE</i> , 2013, 8, e59658.	1.1	70
14	Target metabolite and gene transcription profiling during the development of superficial scald in apple (<i>Malus x domestica</i> Borkh.). <i>BMC Plant Biology</i> , 2014, 14, 193.	1.6	69
15	Proton transfer reaction time-of-flight mass spectrometry monitoring of the evolution of volatile compounds during lactic acid fermentation of milk. <i>Rapid Communications in Mass Spectrometry</i> , 2010, 24, 2127-2134.	0.7	67
16	Comprehensive characterization of atmospheric organic carbon at a forested site. <i>Nature Geoscience</i> , 2017, 10, 748-753.	5.4	66
17	Microbial community structure in vineyard soils across altitudinal gradients and in different seasons. <i>FEMS Microbiology Ecology</i> , 2013, 84, 588-602.	1.3	64
18	Extending the dynamic range of proton transfer reaction time-of-flight mass spectrometers by a novel dead time correction. <i>Rapid Communications in Mass Spectrometry</i> , 2011, 25, 179-183.	0.7	63

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19	Genome-wide association study unravels the genetic control of the apple volatilome and its interplay with fruit texture. <i>Journal of Experimental Botany</i> , 2017, 68, 1467-1478.	2.4	63
20	Identification of the biogenic compounds responsible for size-dependent nanoparticle growth. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	61
21	PTR-ToF-MS and data-mining methods for rapid characterisation of agro-industrial samples: influence of milk storage conditions on the volatile compounds profile of Trentingrana cheese. <i>Journal of Mass Spectrometry</i> , 2010, 45, 1065-1074.	0.7	60
22	PTR-ToF-MS and data mining methods: a new tool for fruit metabolomics. <i>Metabolomics</i> , 2012, 8, 761-770.	1.4	58
23	PTR-TOF-MS monitoring of in vitro and in vivo flavour release in cereal bars with varying sugar composition. <i>Food Chemistry</i> , 2012, 131, 477-484.	4.2	53
24	Volatile Compound Production During the Bread-Making Process: Effect of Flour, Yeast and Their Interaction. <i>Food and Bioprocess Technology</i> , 2015, 8, 1925-1937.	2.6	52
25	Rapid characterization of dry cured ham produced following different PDOs by proton transfer reaction time of flight mass spectrometry (PTR-ToF-MS). <i>Talanta</i> , 2011, 85, 386-393.	2.9	51
26	Proton transfer reaction rate coefficients between H ₃ O ⁺ and some sulphur compounds. <i>International Journal of Mass Spectrometry</i> , 2010, 295, 43-48.	0.7	49
27	Wine analysis by FastGC proton-transfer reaction-time-of-flight-mass spectrometry. <i>International Journal of Mass Spectrometry</i> , 2014, 369, 81-86.	0.7	49
28	Typicality and Geographical Origin Markers of Protected Origin Cheese from The Netherlands Revealed by PTR-MS. <i>Journal of Agricultural and Food Chemistry</i> , 2011, 59, 2554-2563.	2.4	45
29	Differentiation of specialty coffees by proton transfer reaction-mass spectrometry. <i>Food Research International</i> , 2013, 53, 433-439.	2.9	45
30	PTR-MS Characterization of VOCs Associated with Commercial Aromatic Bakery Yeasts of Wine and Beer Origin. <i>Molecules</i> , 2016, 21, 483.	1.7	45
31	QTL validation and stability for volatile organic compounds (VOCs) in apple. <i>Plant Science</i> , 2013, 211, 1-7.	1.7	44
32	Rapid and direct volatile compound profiling of black and green teas (<i>Camellia sinensis</i>) from different countries with PTR-ToF-MS. <i>Talanta</i> , 2016, 152, 45-53.	2.9	44
33	Role of strawberry volatile organic compounds in the development of <i>Botrytis cinerea</i> infection. <i>Plant Pathology</i> , 2015, 64, 709-717.	1.2	43
34	PTR-MS in Italy: A Multipurpose Sensor with Applications in Environmental, Agri-Food and Health Science. <i>Sensors</i> , 2013, 13, 11923-11955.	2.1	42
35	Volatile compound changes during shelf life of dried <i>Boletus edulis</i> : comparison between SPME-GC-MS and PTR-ToF-MS analysis. <i>Journal of Mass Spectrometry</i> , 2015, 50, 56-64.	0.7	42
36	PTR-ToF-MS characterisation of roasted coffees (<i>C. arabica</i>) from different geographic origins. <i>Journal of Mass Spectrometry</i> , 2014, 49, 929-935.	0.7	41

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37	Emission of volatile sesquiterpenes and monoterpenes in grapevine genotypes following <i>Plasmopara viticola</i> inoculation <i>in vitro</i> . <i>Journal of Mass Spectrometry</i> , 2015, 50, 1013-1022.	0.7	41
38	Comprehensive VOC profiling of an apple germplasm collection by PTR-ToF-MS. <i>Metabolomics</i> , 2015, 11, 838-850.	1.4	40
39	Interference with ethylene perception at receptor level sheds light on auxin and transcriptional circuits associated with the climacteric ripening of apple fruit (<i>Malus x domestica</i> Borkh.). <i>Plant Journal</i> , 2016, 88, 963-975.	2.8	39
40	Proton transfer reaction mass spectrometry for the study of the production of volatile compounds by bakery yeast starters. <i>Journal of Mass Spectrometry</i> , 2014, 49, 850-859.	0.7	38
41	Tracing coffee origin by direct injection headspace analysis with PTR/SRI-MS. <i>Food Research International</i> , 2015, 69, 235-243.	2.9	36
42	Untargeted metabolomics investigation of volatile compounds involved in the development of apple superficial scald by PTR-ToF-MS. <i>Metabolomics</i> , 2015, 11, 341-349.	1.4	36
43	Effect of the pig rearing system on the final volatile profile of Iberian dry-cured ham as detected by PTR-ToF-MS. <i>Meat Science</i> , 2013, 93, 420-428.	2.7	35
44	Advances in wine analysis by PTR-ToF-MS: Optimization of the method and discrimination of wines from different geographical origins and fermented with different malolactic starters. <i>International Journal of Mass Spectrometry</i> , 2016, 397-398, 42-51.	0.7	34
45	Influence of co-vapors on biogas filtration for fuel cells monitored with PTR-MS (Proton Transfer) Tj ETQq1 1 0.784314 rgBT /Overlock 3.7 31	3.7	31
46	Proton transfer reaction-mass spectrometry as a rapid inline tool for filter efficiency of activated charcoal in support of the development of Solid Oxide Fuel Cells fueled with biogas. <i>Fuel Processing Technology</i> , 2015, 130, 78-86.	3.7	31
47	Linking GC-MS and PTR-TOF-MS fingerprints of food samples. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2012, 118, 301-307.	1.8	30
48	Emission of Volatile Compounds from Apple Plants Infested with <i>Pandemis heparana</i> Larvae, Antennal Response of Conspecific Adults, and Preliminary Field Trial. <i>Journal of Chemical Ecology</i> , 2016, 42, 1265-1280.	0.9	30
49	Moderate Warming in Microcosm Experiment Does Not Affect Microbial Communities in Temperate Vineyard Soils. <i>Microbial Ecology</i> , 2014, 67, 659-670.	1.4	28
50	Advances in QTL mapping for ethylene production in apple (<i>Malus domestica</i> Borkh.). <i>Postharvest Biology and Technology</i> , 2014, 87, 126-132.	2.9	28
51	Nosespace analysis by PTR-ToF-MS for the characterization of food and tasters: The case study of coffee. <i>International Journal of Mass Spectrometry</i> , 2014, 365-366, 20-27.	0.7	27
52	Monitoring of lactic fermentation driven by different starter cultures via direct injection mass spectrometric analysis of flavour-related volatile compounds. <i>Food Research International</i> , 2015, 76, 682-688.	2.9	26
53	In Planta Recapitulation of Isoprene Synthase Evolution from Ocimene Synthases. <i>Molecular Biology and Evolution</i> , 2017, 34, 2583-2599.	3.5	26
54	GLOVOCS - Master compound assignment guide for proton transfer reaction mass spectrometry users. <i>Atmospheric Environment</i> , 2021, 244, 117929.	1.9	26

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55	PTR-MS measurements and analysis of models for the calculation of Henry's law constants of monosulfides and disulfides. <i>Chemosphere</i> , 2011, 83, 311-317.	4.2	25
56	Analysis of breath by proton transfer reaction time of flight mass spectrometry in rats with steatohepatitis induced by high-fat diet. <i>Journal of Mass Spectrometry</i> , 2012, 47, 1098-1103.	0.7	25
57	Monitoring the effect of high pressure and transglutaminase treatment of milk on the evolution of flavour compounds during lactic acid fermentation using PTR-ToF-MS. <i>Food Chemistry</i> , 2013, 138, 2159-2167.	4.2	25
58	Ethylene: Absolute real-time high-sensitivity detection with PTR/SRI-MS. The example of fruits, leaves and bacteria. <i>International Journal of Mass Spectrometry</i> , 2014, 365-366, 33-41.	0.7	25
59	Dynamic volatile organic compound fingerprinting of apple fruit during processing. <i>LWT - Food Science and Technology</i> , 2015, 63, 21-28.	2.5	25
60	Classification of 7 monofloral honey varieties by PTR-ToF-MS direct headspace analysis and chemometrics. <i>Talanta</i> , 2016, 147, 213-219.	2.9	25
61	A mechanism for biogenic production and emission of MEK from MVK decoupled from isoprene biosynthesis. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 3125-3135.	1.9	25
62	PTR-TOF-MS Analysis for Influence of Milk Base Supplementation on Texture and Headspace Concentration of Endogenous Volatile Compounds in Yogurt. <i>Food and Bioprocess Technology</i> , 2012, 5, 2085-2097.	2.6	24
63	Validation of a functional molecular marker suitable for marker-assisted breeding for fruit texture in apple (<i>Malus domestica</i> Borkh.). <i>Molecular Breeding</i> , 2013, 32, 841-852.	1.0	24
64	Non-invasive real time monitoring of yeast volatilome by PTR-ToF-MS. <i>Metabolomics</i> , 2017, 13, 118.	1.4	22
65	Unveiling the Molecular Basis of Mascarpone Cheese Aroma: VOCs analysis by SPME-GC/MS and PTR-ToF-MS. <i>Molecules</i> , 2020, 25, 1242.	1.7	22
66	Field observations of volatile organic compound (VOC) exchange in red oaks. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 4189-4207.	1.9	21
67	Apple Flavor: Linking Sensory Perception to Volatile Release and Textural Properties. <i>Journal of Sensory Studies</i> , 2015, 30, 195-210.	0.8	20
68	Detection of Volatile Organic Compounds with Secondary Electrospray Ionization and Proton Transfer Reaction High-Resolution Mass Spectrometry: A Feature Comparison. <i>Journal of the American Society for Mass Spectrometry</i> , 2020, 31, 1632-1640.	1.2	20
69	Proton transfer reaction time-of-flight mass spectrometry: A high-throughput and innovative method to study the influence of dairy system and cow characteristics on the volatile compound fingerprint of cheeses. <i>Journal of Dairy Science</i> , 2015, 98, 8414-8427.	1.4	19
70	QTL Analysis Coupled with PTR-ToF-MS and Candidate Gene-Based Association Mapping Validate the Role of Md-AAT1 as a Major Gene in the Control of Flavor in Apple Fruit. <i>Plant Molecular Biology Reporter</i> , 2015, 33, 239-252.	1.0	19
71	<i>In Vitro</i> and <i>In Vivo</i> Flavor Release from Intact and Fresh-Cut Apple in Relation with Genetic, Textural, and Physicochemical Parameters. <i>Journal of Food Science</i> , 2012, 77, C1226-33.	1.5	18
72	Application of PTR-TOF-MS to investigate metabolites in exhaled breath of patients affected by coeliac disease under gluten free diet. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2014, 966, 208-213.	1.2	18

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73	PTR-ToF-MS Coupled with an Automated Sampling System and Tailored Data Analysis for Food Studies: Bioprocess Monitoring, Screening and Nose-space Analysis. <i>Journal of Visualized Experiments</i> , 2017, , .	0.2	18
74	Monitoring single coffee bean roasting by direct volatile compound analysis with proton transfer reaction time-of-flight mass spectrometry. <i>Journal of Mass Spectrometry</i> , 2016, 51, 690-697.	0.7	17
75	Diel rhythms in the volatile emission of apple and grape foliage. <i>Phytochemistry</i> , 2017, 138, 104-115.	1.4	17
76	Rapid non-invasive quality control of semi-finished products for the food industry by direct injection mass spectrometry headspace analysis: the case of milk powder, whey powder and anhydrous milk fat. <i>Journal of Mass Spectrometry</i> , 2016, 51, 782-791.	0.7	16
77	Sulfides: chemical ionization induced fragmentation studied with Proton Transfer Reaction-Mass Spectrometry and density functional calculations. <i>Journal of Mass Spectrometry</i> , 2013, 48, 367-378.	0.7	15
78	Polarized thermal emission by thin metal wires. <i>New Journal of Physics</i> , 2009, 11, 033014.	1.2	14
79	Development of a novel phenotyping method to assess downy mildew symptoms on grapevine inflorescences. <i>Scientia Horticulturae</i> , 2018, 236, 79-89.	1.7	14
80	Weeds influence soil bacterial and fungal communities. <i>Plant and Soil</i> , 2013, 373, 107-123.	1.8	13
81	Species-Specific Induction of Plant Volatiles by Two Aphid Species in Apple: Real Time Measurement of Plant Emission and Attraction of Lacewings in the Wind Tunnel. <i>Journal of Chemical Ecology</i> , 2021, 47, 653-663.	0.9	13
82	Withering of plucked <i>Trachelospermum jasminoides</i> (star jasmine) flowers – Time-dependent volatile compound profile obtained with SPME/GC-MS and proton transfer reaction-mass spectrometry (PTR-MS). <i>Postharvest Biology and Technology</i> , 2017, 123, 1-11.	2.9	12
83	Simultaneous Proton Transfer Reaction-Mass Spectrometry and electronic nose study of the volatile compounds released by <i>Plasmodium falciparum</i> infected red blood cells in vitro. <i>Scientific Reports</i> , 2019, 9, 12360.	1.6	12
84	Effect of hot water treatment on peach volatile emission and <i>Monilinia fructicola</i> development. <i>Plant Pathology</i> , 2015, 64, 1120-1129.	1.2	11
85	Linking monoterpenes and abiotic stress resistance in grapevines. <i>BIO Web of Conferences</i> , 2019, 13, 01003.	0.1	11
86	Enhancement of the pH measurement of a PVDF-supported colorimetric sensor by tailoring hue changes with the addition of a second dye. <i>Microchemical Journal</i> , 2020, 154, 104552.	2.3	11
87	Leaf Monoterpene Emission Limits Photosynthetic Downregulation under Heat Stress in Field-Grown Grapevine. <i>Plants</i> , 2021, 10, 181.	1.6	11
88	Fast Direct Injection Mass-Spectrometric Characterization of Stimuli for Insect Electrophysiology by Proton Transfer Reaction-Time of Flight Mass-Spectrometry (PTR-ToF-MS). <i>Sensors</i> , 2012, 12, 4091-4104.	2.1	10
89	Rapid and noninvasive quality control of anhydrous milk fat by PTR-MS: The effect of storage time and packaging. <i>Journal of Mass Spectrometry</i> , 2018, 53, 753-762.	0.7	10
90	Behavior of Sulfonephthalein and Azo dyes as effective pH sensors in hybrid materials. <i>Microchemical Journal</i> , 2021, 160, 105605.	2.3	10

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91	Plasma-Activated Water Triggers Rapid and Sustained Cytosolic Ca ²⁺ Elevations in <i>Arabidopsis thaliana</i> . <i>Plants</i> , 2021, 10, 2516.	1.6	10
92	Multiclass methods in the analysis of metabolomic datasets: The example of raspberry cultivar volatile compounds detected by GC-MS and PTR-MS. <i>Food Research International</i> , 2013, 54, 1313-1320.	2.9	9
93	Double clustering of PTR-ToF-MS data enables the mapping of QTLs related to apple fruit volatile. <i>Scientia Horticulturae</i> , 2015, 197, 24-32.	1.7	9
94	Investigating the in-vitro and in-vivo flavour release from 21 fresh-cut apples. <i>Food Chemistry</i> , 2016, 212, 543-551.	4.2	9
95	Thermal Desorption-Vocus Enables Online Nondestructive Quantification of 2,4,6-Trichloroanisole in Cork Stoppers below the Perception Threshold. <i>Analytical Chemistry</i> , 2020, 92, 9823-9829.	3.2	9
96	pH Colorimetric Sensor Arrays: Role of the Color Space Adopted for the Calculation of the Prediction Error. <i>Sensors</i> , 2020, 20, 6036.	2.1	8
97	Phenotyping methods to assess heat stress resilience in grapevine. <i>Journal of Experimental Botany</i> , 2022, 73, 5128-5148.	2.4	8
98	Desorption kinetics with PTR-MS: Isothermal differential desorption kinetics from a heterogeneous inlet surface at ambient pressure and a new concept for compound identification. <i>International Journal of Mass Spectrometry</i> , 2012, 314, 33-41.	0.7	7
99	Interplay of apple volatile organic compounds with <i>Neofabraea vagabunda</i> and other post-harvest pathogens. <i>Plant Pathology</i> , 2019, 68, 1508-1524.	1.2	7
100	The good, the bad and the aged: Predicting sensory quality of anhydrous milk fat by PTR/SRI-ToF-MS analysis and data mining. <i>International Dairy Journal</i> , 2020, 109, 104729.	1.5	7
101	Immune-spaying as an alternative to surgical spaying in Iberian Duroc females: Effect on the VOC profile of dry-cured shoulders and dry-cured loins as detected by PTR-ToF-MS. <i>Meat Science</i> , 2015, 110, 169-173.	2.7	6
102	High-throughput screening for in planta characterization of VOC biosynthetic genes by PTR-ToF-MS. <i>Journal of Plant Research</i> , 2020, 133, 123-131.	1.2	6
103	Stearoyl-CoA desaturase and sterol regulatory binding protein 1 markers: Effect on the volatile profile of dry-cured Parma, San Daniele and Toscano hams as detected by PTR-ToF-MS. <i>International Journal of Mass Spectrometry</i> , 2014, 365-366, 343-350.	0.7	4
104	Static and dynamic headspace analysis of instant coffee blends by proton transfer reaction mass spectrometry. <i>Journal of Mass Spectrometry</i> , 2015, 50, 1057-1062.	0.7	4
105	DETECTION OF Î-FARNESENE AND 6-METHYL-5-HEPTEN-2-ONE INVOLVED IN THE DEVELOPMENT OF APPLE SUPERFICIAL SCALD BY PTR-TOF-MS. <i>Acta Horticulturae</i> , 2015, , 365-372.	0.1	3
106	Modeling the Dichromatic Behavior of Bromophenol Blue to Enhance the Analytical Performance of pH Colorimetric Sensor Arrays. <i>Chemosensors</i> , 2022, 10, 87.	1.8	3
107	209 ONLINE ANALYSIS OF BREATH BY PROTON TRANSFER REACTION TIME OF FLIGHT MASS SPECTROMETRY IN CIRRHOTIC PATIENTS. <i>Journal of Hepatology</i> , 2013, 58, S91.	1.8	2
108	Ab initio calculation of the proton transfer reaction rate coefficients to volatile organic compounds related to cork taint in wine. <i>Journal of Mass Spectrometry</i> , 2020, 55, e4592.	0.7	2

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109	Refill liquids for electronic cigarettes display peculiar toxicity on human endothelial cells. Toxicology Reports, 2021, 8, 456-462.	1.6	2
110	Calculated rate coefficients between CI-MS reagent ions and organosulfur compounds causing food taints and off-flavours. International Journal of Mass Spectrometry, 2022, 478, 116860.	0.7	2
111	Scald-Cold: Joint Austrian-Italian consortium in the Euregio project for the comprehensive dissection of the superficial scald in apples. NIR News, 2020, 31, 5-9.	1.6	1
112	Theoretical Investigation of Charge Transfer from NO ⁺ and O ₂ ⁺ Ions to Wine-Related Volatile Compounds for Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2022, 33, 251-264.	1.2	1
113	The Application of Proton Transfer Reaction Mass Spectrometry to the Analysis of Foods. , 2016, , .		0
114	Can strawberry volatile emissions influence <i>Botrytis cinerea</i> growth?. Acta Horticulturae, 2016, , 37-42.	0.1	0
115	Metabolic engineering of volatile isoprenoids in grapevine. Acta Horticulturae, 2017, , 91-94.	0.1	0