

# Simona M Cristescu

## List of Publications by Year in descending order

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112  
papers

5,020  
citations

81900

39  
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95266

68  
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116  
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116  
docs citations

116  
times ranked

6636  
citing authors

#	ARTICLE	IF	CITATIONS
1	A European Respiratory Society technical standard: exhaled biomarkers in lung disease. <i>European Respiratory Journal</i> , 2017, 49, 1600965.	6.7	432
2	Nitric oxide in plants: an assessment of the current state of knowledge. <i>AoB PLANTS</i> , 2013, 5, pls052-pls052.	2.3	392
3	Jasmonates act with salicylic acid to confer basal thermotolerance in <i>Arabidopsis thaliana</i> . <i>New Phytologist</i> , 2009, 182, 175-187.	7.3	311
4	Ethylene Production by <i>Botrytis cinerea</i> In Vitro and in Tomatoes. <i>Applied and Environmental Microbiology</i> , 2002, 68, 5342-5350.	3.1	173
5	<i>Serratia odorifera</i> : analysis of volatile emission and biological impact of volatile compounds on <i>Arabidopsis thaliana</i> . <i>Applied Microbiology and Biotechnology</i> , 2010, 88, 965-976.	3.6	141
6	Systems analysis of the responses to long-term magnesium deficiency and restoration in <i>Arabidopsis thaliana</i> . <i>New Phytologist</i> , 2010, 187, 132-144.	7.3	140
7	Current methods for detecting ethylene in plants. <i>Annals of Botany</i> , 2013, 111, 347-360.	2.9	125
8	Reactive oxygen species, abscisic acid and ethylene interact to regulate sunflower seed germination. <i>Plant, Cell and Environment</i> , 2015, 38, 364-374.	5.7	125
9	Laser spectroscopy for breath analysis: towards clinical implementation. <i>Applied Physics B: Lasers and Optics</i> , 2018, 124, 161.	2.2	124
10	Methods of nitric oxide detection in plants: A commentary. <i>Plant Science</i> , 2011, 181, 509-519.	3.6	119
11	Haemoglobin modulates salicylate and jasmonate/ethylene-mediated resistance mechanisms against pathogens. <i>Journal of Experimental Botany</i> , 2012, 63, 4375-4387.	4.8	117
12	The form of nitrogen nutrition affects resistance against <i>Pseudomonas syringae</i> pv. <i>phaseolicola</i> in tobacco. <i>Journal of Experimental Botany</i> , 2013, 64, 553-568.	4.8	116
13	Haemoglobin modulates NO emission and hyponasty under hypoxia-related stress in <i>Arabidopsis thaliana</i> . <i>Journal of Experimental Botany</i> , 2012, 63, 5581-5591.	4.8	108
14	The suitability of Tedlar bags for breath sampling in medical diagnostic research. <i>Physiological Measurement</i> , 2007, 28, 73-84.	2.1	102
15	A Co-Opted Hormonal Cascade Activates Dormant Adventitious Root Primordia upon Flooding in <i>Solanum dulcamara</i> . <i>Plant Physiology</i> , 2016, 170, 2351-2364.	4.8	80
16	Reduced nitric oxide levels during drought stress promote drought tolerance in barley and is associated with elevated polyamine biosynthesis. <i>Scientific Reports</i> , 2017, 7, 13311.	3.3	79
17	Metabolomic approaches reveal that cell wall modifications play a major role in ethylene-mediated resistance against <i>Botrytis cinerea</i> . <i>Plant Journal</i> , 2011, 67, 852-868.	5.7	77
18	Photoperiodic regulation of the sucrose transporter StSUT4 affects the expression of circadian-regulated genes and ethylene production. <i>Frontiers in Plant Science</i> , 2013, 4, 26.	3.6	76

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19	Involvement of ethylene and nitric oxide in cell death in mastoparan-treated unicellular alga <i>Chlamydomonas reinhardtii</i> . <i>Cell Biology International</i> , 2010, 34, 301-308.	3.0	68
20	Two-crystal mid-infrared optical parametric oscillator for absorption and dispersion dual-comb spectroscopy. <i>Optics Letters</i> , 2014, 39, 3270.	3.3	67
21	Continuous-wave optical parametric oscillator based infrared spectroscopy for sensitive molecular gas sensing. <i>Laser and Photonics Reviews</i> , 2013, 7, 188-206.	8.7	66
22	ABA Suppresses Botrytis cinerea Elicited NO Production in Tomato to Influence H <sub>2</sub> O <sub>2</sub> Generation and Increase Host Susceptibility. <i>Frontiers in Plant Science</i> , 2016, 7, 709.	3.6	65
23	Drought and flooding have distinct effects on herbivore-induced responses and resistance in <i>Solanum dulcamara</i> . <i>Plant, Cell and Environment</i> , 2016, 39, 1485-1499.	5.7	59
24	SAM levels, gene expression of SAM synthetase, methionine synthase and ACC oxidase, and ethylene emission from <i>N. suaveolens</i> flowers. <i>Plant Molecular Biology</i> , 2009, 70, 535-546.	3.9	58
25	Cadmium toxicity in cultured tomato cells—Role of ethylene, proteases and oxidative stress in cell death signaling. <i>Cell Biology International</i> , 2008, 32, 1521-1529.	3.0	56
26	On-line detection of root-induced volatiles in Brassica nigra plants infested with Delia radicum L. root fly larvae. <i>Phytochemistry</i> , 2012, 84, 68-77.	2.9	55
27	Alien interference: disruption of infochemical networks by invasive insect herbivores. <i>Plant, Cell and Environment</i> , 2014, 37, 1854-1865.	5.7	55
28	Ethanol and Methanol as Possible Odor Cues for Egyptian Fruit Bats ( <i>Rousettus aegyptiacus</i> ). <i>Journal of Chemical Ecology</i> , 2006, 32, 1289-1300.	1.8	54
29	Exhaled nitric oxide monitoring by quantum cascade laser: comparison with chemiluminescent and electrochemical sensors. <i>Journal of Biomedical Optics</i> , 2012, 17, 017003.	2.6	51
30	Rapid Tomato Volatile Profiling by Using Proton-Transfer Reaction Mass Spectrometry (PTR-MS). <i>Journal of Food Science</i> , 2012, 77, C551-9.	3.1	51
31	Tracing Hidden Herbivores: Time-Resolved Non-Invasive Analysis of Belowground Volatiles by Proton-Transfer-Reaction Mass Spectrometry (PTR-MS). <i>Journal of Chemical Ecology</i> , 2012, 38, 785-794.	1.8	50
32	Herbivore-induced plant volatiles accurately predict history of coexistence, diet breadth, and feeding mode of herbivores. <i>New Phytologist</i> , 2018, 220, 726-738.	7.3	50
33	Real-time, subsecond, multicomponent breath analysis by Optical Parametric Oscillator based Off-Axis Integrated Cavity Output Spectroscopy. <i>Optics Express</i> , 2011, 19, 24078.	3.4	48
34	Femtosecond optical parametric oscillators toward real-time dual-comb spectroscopy. <i>Applied Physics B: Lasers and Optics</i> , 2015, 119, 65-74.	2.2	47
35	On-line monitoring of UV-induced lipid peroxidation products from human skin in vivo using proton-transfer reaction mass spectrometry. <i>International Journal of Mass Spectrometry</i> , 2006, 253, 58-64.	1.5	45
36	Chilling-Induced Changes in Aroma Volatile Profiles in Tomato. <i>Food and Bioprocess Technology</i> , 2015, 8, 1442-1454.	4.7	44

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37	RP-ACS1, a flooding-induced 1-aminocyclopropane-1-carboxylate synthase gene of <i>Rumex palustris</i> , is involved in rhythmic ethylene production. <i>Journal of Experimental Botany</i> , 2005, 56, 841-849.	4.8	42
38	Aboveground and Belowground Herbivores Synergistically Induce Volatile Organic Sulfur Compound Emissions from Shoots but Not from Roots. <i>Journal of Chemical Ecology</i> , 2015, 41, 631-640.	1.8	42
39	Biological relevance of volatile organic compounds emitted during the pathogenic interactions between apple plants and <i>Erwinia amylovora</i> . <i>Molecular Plant Pathology</i> , 2018, 19, 158-168.	4.2	42
40	Human Monocyte-Derived Dendritic Cells Produce Millimolar Concentrations of ROS in Phagosomes Per Second. <i>Frontiers in Immunology</i> , 2019, 10, 1216.	4.8	42
41	Time-resolved mid-infrared dual-comb spectroscopy. <i>Scientific Reports</i> , 2019, 9, 17247.	3.3	42
42	A benchmarking protocol for breath analysis: the peppermint experiment. <i>Journal of Breath Research</i> , 2020, 14, 046008.	3.0	41
43	Real-time analysis of sulfur-containing volatiles in Brassica plants infested with root-feeding <i>Delia radicum</i> larvae using proton-transfer reaction mass spectrometry. <i>AoB PLANTS</i> , 2012, 2012, pls021.	2.3	37
44	Proton transfer reaction time-of-flight mass spectrometric measurements of volatile compounds contained in peppermint oil capsules of relevance to real-time pharmacokinetic breath studies. <i>Journal of Breath Research</i> , 2019, 13, 046009.	3.0	34
45	Ethylene, an early marker of systemic inflammation in humans. <i>Scientific Reports</i> , 2017, 7, 6889.	3.3	32
46	Reduction of ethylene emission from Scots pine elicited by insect egg secretion. <i>Journal of Experimental Botany</i> , 2007, 58, 1835-1842.	4.8	31
47	Tobacco LSU-like protein couples sulphur-deficiency response with ethylene signalling pathway. <i>Journal of Experimental Botany</i> , 2013, 64, 5173-5182.	4.8	31
48	An assessment of the biotechnological use of hemoglobin modulation in cereals. <i>Physiologia Plantarum</i> , 2014, 150, 593-603.	5.2	30
49	Optical parametric oscillator based off-axis integrated cavity output spectroscopy for rapid chemical sensing. <i>Optics Letters</i> , 2010, 35, 3300.	3.3	29
50	Real-time monitoring of hydrogen cyanide (HCN) and ammonia (NH <sub>3</sub> ) emitted by <i>Pseudomonas aeruginosa</i> . <i>Journal of Breath Research</i> , 2015, 9, 027102.	3.0	29
51	Biphasic ethylene production during the hypersensitive response in <i>Arabidopsis</i> . <i>Plant Signaling and Behavior</i> , 2009, 4, 610-613.	2.4	28
52	Emission of volatile compounds by <i>Erwinia amylovora</i> : biological activity in vitro and possible exploitation for bacterial identification. <i>Trees - Structure and Function</i> , 2012, 26, 141-152.	1.9	28
53	Identification of Volatile Markers in Potato Brown Rot and Ring Rot by Combined GC-MS and PTR-MS Techniques: Study on in Vitro and in Vivo Samples. <i>Journal of Agricultural and Food Chemistry</i> , 2014, 62, 337-347.	5.2	28
54	Quantum cascade laser-based sensors for the detection of exhaled carbon monoxide. <i>Applied Physics B: Lasers and Optics</i> , 2016, 122, 1.	2.2	28

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55	Online, real-time detection of volatile emissions from plant tissue. <i>AoB PLANTS</i> , 2013, 5, plt003.	2.3	27
56	Real-time monitoring of endogenous lipid peroxidation by exhaled ethylene in patients undergoing cardiac surgery. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2014, 307, L509-L515.	2.9	27
57	A Broadband Mid-Infrared Trace Gas Sensor Using Supercontinuum Light Source: Applications for Real-Time Quality Control for Fruit Storage. <i>Sensors</i> , 2019, 19, 2334.	3.8	27
58	Aroma volatile release kinetics of tomato genotypes measured by PTR-MS following artificial chewing. <i>Food Research International</i> , 2013, 54, 1579-1588.	6.2	25
59	Sensitive Spectroscopy of Acetone Using a Widely Tunable External-Cavity Quantum Cascade Laser. <i>Sensors</i> , 2018, 18, 2050.	3.8	25
60	Peptides interfering with protein-protein interactions in the ethylene signaling pathway delay tomato fruit ripening. <i>Scientific Reports</i> , 2016, 6, 30634.	3.3	24
61	Sensitive multi-species trace gas sensor based on a high repetition rate mid-infrared supercontinuum source. <i>Optics Express</i> , 2020, 28, 26091.	3.4	24
62	Breath acetone to monitor life style interventions in field conditions: An exploratory study. <i>Obesity</i> , 2014, 22, 980-983.	3.0	23
63	Optical parametric oscillator-based photoacoustic detection of hydrogen cyanide for biomedical applications. <i>Journal of Biomedical Optics</i> , 2013, 18, 107002.	2.6	22
64	A widely tunable, near-infrared laser-based trace gas sensor for hydrogen cyanide (HCN) detection in exhaled breath. <i>Applied Physics B: Lasers and Optics</i> , 2017, 123, 1.	2.2	21
65	Tomato ACS4 is necessary for timely start of and progression through the climacteric phase of fruit ripening. <i>Frontiers in Plant Science</i> , 2014, 5, 466.	3.6	19
66	Changes in urine headspace composition as an effect of strenuous walking. <i>Metabolomics</i> , 2015, 11, 1656-1666.	3.0	19
67	Influence of Ethanol on Breath Acetone Measurements Using an External Cavity Quantum Cascade Laser. <i>Photonics</i> , 2016, 3, 22.	2.0	17
68	Interactive Responses of <i>Solanum Dulcamara</i> to Drought and Insect Feeding are Herbivore Species-Specific. <i>International Journal of Molecular Sciences</i> , 2018, 19, 3845.	4.1	17
69	Implementation and characterization of an RF ion funnel ion guide as a proton transfer reaction chamber. <i>International Journal of Mass Spectrometry</i> , 2017, 414, 31-38.	1.5	16
70	The peppermint breath test benchmark for PTR-MS and SIFT-MS. <i>Journal of Breath Research</i> , 2021, 15, 046005.	3.0	15
71	Proton transfer reaction mass spectrometry (PTRMS) in combination with thermal desorption (TD) for sensitive off-line analysis of volatiles. <i>Rapid Communications in Mass Spectrometry</i> , 2012, 26, 990-996.	1.5	13
72	Intensity enhancement in off-axis integrated cavity output spectroscopy. <i>Applied Optics</i> , 2018, 57, 8536.	1.8	13

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73	Dynamic changes of the ethylene biosynthesis in 'Jonagold'™ apple. <i>Physiologia Plantarum</i> , 2014, 150, 161-173.	5.2	12
74	Lipid peroxidation in cardiac surgery: towards consensus on biomonitoring, diagnostic tools and therapeutic implementation. <i>Journal of Breath Research</i> , 2018, 12, 027109.	3.0	12
75	A Breach in Plant Defences: <i>Pseudomonas syringae</i> pv. <i>actinidiae</i> Targets Ethylene Signalling to Overcome <i>Actinidia chinensis</i> Pathogen Responses. <i>International Journal of Molecular Sciences</i> , 2021, 22, 4375.	4.1	12
76	Comprehensive three-dimensional ray tracing model for three-mirror cavity-enhanced spectroscopy. <i>Applied Optics</i> , 2018, 57, 154.	1.8	11
77	Characterization of particulate and gaseous pollutants from a French dairy and sheep farm. <i>Science of the Total Environment</i> , 2020, 712, 135598.	8.0	11
78	Optimization and sensitive detection of sulfur compounds emitted from plants using proton transfer reaction mass spectrometry. <i>International Journal of Mass Spectrometry</i> , 2015, 386, 6-14.	1.5	10
79	Hydrogen cyanide emission in the lung by <i>Staphylococcus aureus</i> . <i>European Respiratory Journal</i> , 2016, 48, 577-579.	6.7	10
80	Nitrite and nitric oxide are important in the adjustment of primary metabolism during the hypersensitive response in tobacco. <i>Journal of Experimental Botany</i> , 2019, 70, 4571-4582.	4.8	10
81	Reactive oxygen production induced by near-infrared radiation in three strains of the Chl d-containing cyanobacterium <i>Acaryochloris marina</i> . <i>F1000Research</i> , 2013, 2, 44.	1.6	10
82	A Comparative Study of Ethylene Emanation upon Nitrogen Deficiency in Natural Accessions of <i>Arabidopsis thaliana</i> . <i>Frontiers in Plant Science</i> , 2016, 7, 70.	3.6	9
83	Combining ANOVA-PCA with POCHEMON to analyse micro-organism development in a polymicrobial environment. <i>Analytica Chimica Acta</i> , 2017, 963, 1-16.	5.4	8
84	Exhaled Breath Reflects Prolonged Exercise and Statin Use during a Field Campaign. <i>Metabolites</i> , 2021, 11, 192.	2.9	8
85	Non-Invasive Monitoring of Inflammation in Inflammatory Bowel Disease Patients during Prolonged Exercise via Exhaled Breath Volatile Organic Compounds. <i>Metabolites</i> , 2022, 12, 224.	2.9	8
86	Cell death associated release of volatile organic sulphur compounds with antioxidant properties in chemical-challenged tobacco BY-2 suspension cultured cells. <i>Journal of Plant Physiology</i> , 2020, 251, 153223.	3.5	7
87	Mid-infrared dual-comb spectroscopy with absolute frequency calibration using a passive optical reference. <i>Optics Express</i> , 2019, 27, 19282.	3.4	7
88	Cell death signaling and morphology in chemical-treated tobacco BY-2 suspension cultured cells. <i>Environmental and Experimental Botany</i> , 2019, 164, 157-169.	4.2	6
89	Volatile Organic Compounds in the Azteca/ <i>Cecropia</i> Ant-Plant Symbiosis and the Role of Black Fungi. <i>Journal of Fungi (Basel, Switzerland)</i> , 2021, 7, 836.	3.5	5
90	Real-Time Non-Invasive Monitoring of Short-Chain Fatty Acids in Exhaled Breath. <i>Frontiers in Chemistry</i> , 0, 10, .	3.6	4

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91	Experimental-based comparison between off-axis integrated cavity output spectroscopy and multipass-assisted wavelength modulation spectroscopy at 77â€¦. OSA Continuum, 2019, 2, 2667.	1.8	3
92	Photoacoustic detection of ethylene released by biological samples under stress conditions. , 1998, 3405, 627.		2
93	Quantum Cascade Lasers-Based Detection of Nitric Oxide. Methods in Molecular Biology, 2018, 1747, 49-57.	0.9	2
94	<title>Photoacoustic trace gas detection of ethene released by UV-induced lipid peroxidation in humans</title>. , 2000, , .		1
95	[Letter to the editor] Ethylene emitted by nylon membrane filters questions their usefulness to transfer plant seedlings between media. BioTechniques, 2011, 51, 329-30, 333.	1.8	1
96	How to Assess Alveolar Nitric Oxide. Chest, 2014, 146, e234-e235.	0.8	1
97	Laser-Based Methods for Detection of Nitric Oxide in Plants. Methods in Molecular Biology, 2016, 1424, 113-126.	0.9	1
98	Optical spectroscopy. , 2020, , 221-238.		1
99	Towards Broadband Multi-species Trace Gas Detection Using a Mid-infrared Supercontinuum Source. , 2018, , .		1
100	Research Tools: Ethylene Detection. , 2015, , 263-286.		1
101	Dual frequency combs fourier transform spectrometer in mid-infrared region based on femtosecond optical parametric oscillators. , 2013, , .		0
102	Mid-infrared frequency comb based-on low threshold optical parametric oscillator. , 2013, , .		0
103	Multi-nonlinear Effects in a Two-crystal Optical Parametric Oscillator. , 2015, , .		0
104	Mid-infrared Two-color Optical Parametric Oscillator across a 30 THz Spectral Range. , 2015, , .		0
105	Mid-infrared dual-comb spectroscopy for real-time gas analysis with an optical parametric oscillator. , 2017, , .		0
106	Broadband Mid-infrared Dual-comb Spectroscopy with a Two-crystal Optical Parametric Oscillator. , 2014, , .		0
107	Two-crystal Optical Parametric Oscillator for Broadband Dual-comb Spectroscopy. , 2015, , .		0
108	Mid-Infrared Gas Sensing with Optical Parametric Oscillator based Dual-Comb Spectrometer. , 2016, , .		0

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109	Online Gas Monitoring with Mid-Infrared Optical Parametric Oscillator Based Dual-Comb Spectrometer. , 2017, , .		0
110	Optical re-injection in Off-Axis Integrated Cavity Output Spectroscopy, modelling and experiments. , 2018, , .		0
111	Enhanced off-axis integrated cavity output spectroscopy using optical reinjection in the mid-IR wavelength region. , 2018, , .		0
112	Biological effect of VOCs produced during <i>Pseudomonas syringae</i> pv. <i>actinidiae</i> infection of kiwifruit plant. Acta Horticulturae, 2019, , 7-14.	0.2	0