Simona M Cristescu

List of Publications by Year
in descending order

112	5,020	81839	95218
papers	citations	39 h-index	68 g-index

116	116	116	6636
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A European Respiratory Society technical standard: exhaled biomarkers in lung disease. European Respiratory Journal, 2017, 49, 1600965.	3.1	432
2	Nitric oxide in plants: an assessment of the current state of knowledge. AoB PLANTS, 2013, 5, pls052-pls052.	1.2	392
3	Jasmonates act with salicylic acid to confer basal thermotolerance in Arabidopsis thaliana. New Phytologist, 2009, 182, 175-187.	3.5	311
4	Ethylene Production by Botrytis cinerea In Vitro and in Tomatoes. Applied and Environmental Microbiology, 2002, 68, 5342-5350.	1.4	173
5	Serratia odorifera: analysis of volatile emission and biological impact of volatile compounds on Arabidopsis thaliana. Applied Microbiology and Biotechnology, 2010, 88, 965-976.	1.7	141
6	Systems analysis of the responses to longâ€term magnesium deficiency and restoration in Arabidopsis thaliana. New Phytologist, 2010, 187, 132-144.	3.5	140
7	Current methods for detecting ethylene in plants. Annals of Botany, 2013, 111, 347-360.	1.4	125
8	Reactive oxygen species, abscisic acid and ethylene interact to regulate sunflower seed germination. Plant, Cell and Environment, 2015, 38, 364-374.	2.8	125
9	Laser spectroscopy for breath analysis: towards clinical implementation. Applied Physics B: Lasers and Optics, 2018, 124, 161.	1.1	124
10	Methods of nitric oxide detection in plants: A commentary. Plant Science, 2011, 181, 509-519.	1.7	119
11	Haemoglobin modulates salicylate and jasmonate/ethylene-mediated resistance mechanisms against pathogens. Journal of Experimental Botany, 2012, 63, 4375-4387.	2.4	117
12	The form of nitrogen nutrition affects resistance against Pseudomonas syringae pv. phaseolicola in tobacco. Journal of Experimental Botany, 2013, 64, 553-568.	2.4	116
13	Haemoglobin modulates NO emission and hyponasty under hypoxia-related stress in Arabidopsis thaliana. Journal of Experimental Botany, 2012, 63, 5581-5591.	2.4	108
14	The suitability of Tedlar bags for breath sampling in medical diagnostic research. Physiological Measurement, 2007, 28, 73-84.	1.2	102
15	A Co-Opted Hormonal Cascade Activates Dormant Adventitious Root Primordia upon Flooding in Solanum dulcamara. Plant Physiology, 2016, 170, 2351-2364.	2.3	80
16	Reduced nitric oxide levels during drought stress promote drought tolerance in barley and is associated with elevated polyamine biosynthesis. Scientific Reports, 2017, 7, 13311.	1.6	79
17	Metabolomic approaches reveal that cell wall modifications play a major role in ethyleneâ€mediated resistance against Botrytis cinerea. Plant Journal, 2011, 67, 852-868.	2.8	77
18	Photoperiodic regulation of the sucrose transporter StSUT4 affects the expression of circadian-regulated genes and ethylene production. Frontiers in Plant Science, 2013, 4, 26.	1.7	76

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19	Involvement of ethylene and nitric oxide in cell death in mastoparanâ€treated unicellular alga Chlamydomonas reinhardtii. Cell Biology International, 2010, 34, 301-308.	1.4	68
20	Two-crystal mid-infrared optical parametric oscillator for absorption and dispersion dual-comb spectroscopy. Optics Letters, 2014, 39, 3270.	1.7	67
21	Continuousâ€wave optical parametric oscillator based infrared spectroscopy for sensitive molecular gas sensing. Laser and Photonics Reviews, 2013, 7, 188-206.	4.4	66
22	ABA Suppresses Botrytis cinerea Elicited NO Production in Tomato to Influence H2O2 Generation and Increase Host Susceptibility. Frontiers in Plant Science, 2016, 7, 709.	1.7	65
23	Drought and flooding have distinct effects on herbivoreâ€induced responses and resistance in Solanum dulcamara. Plant, Cell and Environment, 2016, 39, 1485-1499.	2.8	59
24	SAM levels, gene expression of SAM synthetase, methionine synthase and ACC oxidase, and ethylene emission from N. suaveolens flowers. Plant Molecular Biology, 2009, 70, 535-546.	2.0	58
25	Cadmium toxicity in cultured tomato cellsâ€”Role of ethylene, proteases and oxidative stress in cell death signaling. Cell Biology International, 2008, 32, 1521-1529.	1.4	56
26	On-line detection of root-induced volatiles in Brassica nigra plants infested with Delia radicum L. root fly larvae. Phytochemistry, 2012, 84, 68-77.	1.4	55
27	Alien interference: disruption of infochemical networks by invasive insect herbivores. Plant, Cell and Environment, 2014, 37, 1854-1865.	2.8	55
28	Ethanol and Methanol as Possible Odor Cues for Egyptian Fruit Bats (Rousettus aegyptiacus). Journal of Chemical Ecology, 2006, 32, 1289-1300.	0.9	54
29	Exhaled nitric oxide monitoring by quantum cascade laser: comparison with chemiluminescent and electrochemical sensors. Journal of Biomedical Optics, 2012, 17, 017003.	1.4	51
30	Rapid Tomato Volatile Profiling by Using Protonâ€Transfer Reaction Mass Spectrometry (PTRâ€MS). Journal of Food Science, 2012, 77, C551-9.	1.5	51
31	Tracing Hidden Herbivores: Time-Resolved Non-Invasive Analysis of Belowground Volatiles by Proton-Transfer-Reaction Mass Spectrometry (PTR-MS). Journal of Chemical Ecology, 2012, 38, 785-794.	0.9	50
32	Herbivoreâ€induced plant volatiles accurately predict history of coexistence, diet breadth, and feeding mode of herbivores. New Phytologist, 2018, 220, 726-738.	3.5	50
33	Real-time, subsecond, multicomponent breath analysis by Optical Parametric Oscillator based Off-Axis Integrated Cavity Output Spectroscopy. Optics Express, 2011, 19, 24078.	1.7	48
34	Femtosecond optical parametric oscillators toward real-time dual-comb spectroscopy. Applied Physics B: Lasers and Optics, 2015, 119, 65-74.	1.1	47
35	On-line monitoring of UV-induced lipid peroxidation products from human skin in vivo using proton-transfer reaction mass spectrometry. International Journal of Mass Spectrometry, 2006, 253, 58-64.	0.7	45
36	Chilling-Induced Changes in Aroma Volatile Profiles in Tomato. Food and Bioprocess Technology, 2015, 8, 1442-1454.	2.6	44

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37	RP-ACS1, a flooding-induced 1-aminocyclopropane-1-carboxylate synthase gene of Rumex palustris, is involved in rhythmic ethylene production. Journal of Experimental Botany, 2005, 56, 841-849.	2.4	42
38	Aboveground and Belowground Herbivores Synergistically Induce Volatile Organic Sulfur Compound Emissions from Shoots but Not from Roots. Journal of Chemical Ecology, 2015, 41, 631-640.	0.9	42
39	Biological relevance of volatile organic compounds emitted during the pathogenic interactions between apple plants and Erwinia amylovora. Molecular Plant Pathology, 2018, 19, 158-168.	2.0	42
40	Human Monocyte-Derived Dendritic Cells Produce Millimolar Concentrations of ROS in Phagosomes Per Second. Frontiers in Immunology, 2019, 10, 1216.	2.2	42
41	Time-resolved mid-infrared dual-comb spectroscopy. Scientific Reports, 2019, 9, 17247.	1.6	42
42	A benchmarking protocol for breath analysis: the peppermint experiment. Journal of Breath Research, 2020, 14, 046008.	1.5	41
43	Real-time analysis of sulfur-containing volatiles in Brassica plants infested with root-feeding Delia radicum larvae using proton-transfer reaction mass spectrometry. AoB PLANTS, 2012, 2012, pls021.	1.2	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. Journal of Breath Research, 2019, 13, 046009.	1.5	34
45	Ethylene, an early marker of systemic inflammation in humans. Scientific Reports, 2017, 7, 6889.	1.6	32
46	Reduction of ethylene emission from Scots pine elicited by insect egg secretion. Journal of Experimental Botany, 2007, 58, 1835-1842.	2.4	31
47	Tobacco LSU-like protein couples sulphur-deficiency response with ethylene signalling pathway. Journal of Experimental Botany, 2013, 64, 5173-5182.	2.4	31
48	An assessment of the biotechnological use of hemoglobin modulation in cereals. Physiologia Plantarum, 2014, 150, 593-603.	2.6	30
49	Optical parametric oscillator based off-axis integrated cavity output spectroscopy for rapid chemical sensing. Optics Letters, 2010, 35, 3300.	1.7	29
50	Real-time monitoring of hydrogen cyanide (HCN) and ammonia (NH ₃) emitted by Pseudomonas aeruginosa. Journal of Breath Research, 2015, 9, 027102.	1.5	29
51	Biphasic ethylene production during the hypersensitive response in Arabidopsis. Plant Signaling and Behavior, 2009, 4, 610-613.	1.2	28
52	Emission of volatile compounds by Erwinia amylovora: biological activity in vitro and possible exploitation for bacterial identification. Trees - Structure and Function, 2012, 26, 141-152.	0.9	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. Journal of Agricultural and Food Chemistry, 2014, 62, 337-347.	2.4	28
54	Quantum cascade laser-based sensors for the detection of exhaled carbon monoxide. Applied Physics B: Lasers and Optics, 2016, 122, 1.	1.1	28

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55	Online, real-time detection of volatile emissions from plant tissue. AoB PLANTS, 2013, 5, plt003.	1.2	27
56	Real-time monitoring of endogenous lipid peroxidation by exhaled ethylene in patients undergoing cardiac surgery. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2014, 307, L509-L515.	1.3	27
57	A Broadband Mid-Infrared Trace Gas Sensor Using Supercontinuum Light Source: Applications for Real-Time Quality Control for Fruit Storage. Sensors, 2019, 19, 2334.	2.1	27
58	Aroma volatile release kinetics of tomato genotypes measured by PTR-MS following artificial chewing. Food Research International, 2013, 54, 1579-1588.	2.9	25
59	Sensitive Spectroscopy of Acetone Using a Widely Tunable External-Cavity Quantum Cascade Laser. Sensors, 2018, 18, 2050.	2.1	25
60	Peptides interfering with protein-protein interactions in the ethylene signaling pathway delay tomato fruit ripening. Scientific Reports, 2016, 6, 30634.	1.6	24
61	Sensitive multi-species trace gas sensor based on a high repetition rate mid-infrared supercontinuum source. Optics Express, 2020, 28, 26091.	1.7	24
62	Breath acetone to monitor life style interventions in field conditions: An exploratory study. Obesity, 2014, 22, 980-983.	1.5	23
63	Optical parametric oscillator-based photoacoustic detection of hydrogen cyanide for biomedical applications. Journal of Biomedical Optics, 2013, 18, 107002.	1.4	22
64	A widely tunable, near-infrared laser-based trace gas sensor for hydrogen cyanide (HCN) detection in exhaled breath. Applied Physics B: Lasers and Optics, 2017, 123, 1.	1.1	21
65	Tomato ACS4 is necessary for timely start of and progression through the climacteric phase of fruit ripening. Frontiers in Plant Science, 2014, 5, 466.	1.7	19
66	Changes in urine headspace composition as an effect of strenuous walking. Metabolomics, 2015, 11, 1656-1666.	1.4	19
67	Influence of Ethanol on Breath Acetone Measurements Using an External Cavity Quantum Cascade Laser. Photonics, 2016, 3, 22.	0.9	17
68	Interactive Responses of Solanum Dulcamara to Drought and Insect Feeding are Herbivore Species-Specific. International Journal of Molecular Sciences, 2018, 19, 3845.	1.8	17
69	Implementation and characterization of an RF ion funnel ion guide as a proton transfer reaction chamber. International Journal of Mass Spectrometry, 2017, 414, 31-38.	0.7	16
70	The peppermint breath test benchmark for PTR-MS and SIFT-MS. Journal of Breath Research, 2021, 15, 046005.	1.5	15
71	Protonâ€transfer reaction mass spectrometry (PTRMS) in combination with thermal desorption (TD) for sensitive offâ€line analysis of volatiles. Rapid Communications in Mass Spectrometry, 2012, 26, 990-996.	0.7	13
72	Intensity enhancement in off-axis integrated cavity output spectroscopy. Applied Optics, 2018, 57, 8536.	0.9	13

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73	Dynamic changes of the ethylene biosynthesis in â€˜Jonagoldâ€™ apple. Physiologia Plantarum, 2014, 150, 161-173.	2.6	12
74	Lipid peroxidation in cardiac surgery: towards consensus on biomonitoring, diagnostic tools and therapeutic implementation. Journal of Breath Research, 2018, 12, 027109.	1.5	12
75	A Breach in Plant Defences: Pseudomonas syringae pv. actinidiae Targets Ethylene Signalling to Overcome Actinidia chinensis Pathogen Responses. International Journal of Molecular Sciences, 2021, 22, 4375.	1.8	12
76	Comprehensive three-dimensional ray tracing model for three-mirror cavity-enhanced spectroscopy. Applied Optics, 2018, 57, 154.	0.9	11
77	Characterization of particulate and gaseous pollutants from a French dairy and sheep farm. Science of the Total Environment, 2020, 712, 135598.	3.9	11
78	Optimization and sensitive detection of sulfur compounds emitted from plants using proton transfer reaction mass spectrometry. International Journal of Mass Spectrometry, 2015, 386, 6-14.	0.7	10
79	Hydrogen cyanide emission in the lung by Staphylococcus aureus. European Respiratory Journal, 2016, 48, 577-579.	3.1	10
80	Nitrite and nitric oxide are important in the adjustment of primary metabolism during the hypersensitive response in tobacco. Journal of Experimental Botany, 2019, 70, 4571-4582.	2.4	10
81	Reactive oxygen production induced by near-infrared radiation in three strains of the Chl d-containing cyanobacterium Acaryochloris marina. F1000Research, 2013, 2, 44.	0.8	10
82	A Comparative Study of Ethylene Emanation upon Nitrogen Deficiency in Natural Accessions of Arabidopsis thaliana. Frontiers in Plant Science, 2016, 7, 70.	1.7	9
83	Combining ANOVA-PCA with POCHEMON to analyse micro-organism development in a polymicrobial environment. Analytica Chimica Acta, 2017, 963, 1-16.	2.6	8
84	Exhaled Breath Reflects Prolonged Exercise and Statin Use during a Field Campaign. Metabolites, 2021, 11, 192.	1.3	8
85	Non-Invasive Monitoring of Inflammation in Inflammatory Bowel Disease Patients during Prolonged Exercise via Exhaled Breath Volatile Organic Compounds. Metabolites, 2022, 12, 224.	1.3	8
86	Cell death associated release of volatile organic sulphur compounds with antioxidant properties in chemical-challenged tobacco BY-2 suspension cultured cells. Journal of Plant Physiology, 2020, 251, 153223.	1.6	7
87	Mid-infrared dual-comb spectroscopy with absolute frequency calibration using a passive optical reference. Optics Express, 2019, 27, 19282.	1.7	7
88	Cell death signaling and morphology in chemical-treated tobacco BY-2 suspension cultured cells. Environmental and Experimental Botany, 2019, 164, 157-169.	2.0	6
89	Volatile Organic Compounds in the Azteca/Cecropia Ant-Plant Symbiosis and the Role of Black Fungi. Journal of Fungi (Basel, Switzerland), 2021, 7, 836.	1.5	5
90	Real-Time Non-Invasive Monitoring of Short-Chain Fatty Acids in Exhaled Breath. Frontiers in Chemistry, 0, 10, .	1.8	4

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91	Experimental-based comparison between off-axis integrated cavity output spectroscopy and multipass-assisted wavelength modulation spectroscopy at 77â€…Âµm. 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.	0.4	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.	0.8	1
96	How to Assess Alveolar Nitric Oxide. Chest, 2014, 146, e234-e235.	0.4	1
97	Laser-Based Methods for Detection of Nitric Oxide in Plants. Methods in Molecular Biology, 2016, 1424, 113-126.	0.4	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 Pseudomonas syringae pv. actinidiae infection of kiwifruit plant. Acta Horticulturae, 2019, , 7-14.	0.1	0