

# Frans J M Harren

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5359394/publications.pdf>

Version: 2024-02-01

250  
papers

9,343  
citations

30047

54  
h-index

56687

83  
g-index

261  
all docs

261  
docs citations

261  
times ranked

8781  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nitric oxide in plants: an assessment of the current state of knowledge. <i>AoB PLANTS</i> , 2013, 5, pls052-pls052.	1.2	392
2	Jasmonates act with salicylic acid to confer basal thermotolerance in <i>Arabidopsis thaliana</i> . <i>New Phytologist</i> , 2009, 182, 175-187.	3.5	311
3	Geometrical optimization of a longitudinal resonant photoacoustic cell for sensitive and fast trace gas detection. <i>Review of Scientific Instruments</i> , 1996, 67, 2914-2923.	0.6	180
4	Ethylene Production by <i>Botrytis cinerea</i> In Vitro and in Tomatoes. <i>Applied and Environmental Microbiology</i> , 2002, 68, 5342-5350.	1.4	173
5	Ethylene and Auxin Control the Arabidopsis Response to Decreased Light Intensity. <i>Plant Physiology</i> , 2003, 133, 517-527.	2.3	166
6	No evidence for substantial aerobic methane emission by terrestrial plants: a $^{13}\text{C}$ labelling approach. <i>New Phytologist</i> , 2007, 175, 29-35.	3.5	158
7	Circadian Rhythms of Ethylene Emission in Arabidopsis. <i>Plant Physiology</i> , 2004, 136, 3751-3761.	2.3	147
8	Submergence-Induced Ethylene Synthesis, Entrapment, and Growth in Two Plant Species with Contrasting Flooding Resistances. <i>Plant Physiology</i> , 1993, 103, 783-791.	2.3	144
9	<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.	1.7	141
10	Sensitive intracavity photoacoustic measurements with a CO <sub>2</sub> waveguide laser. <i>Applied Physics B, Photophysics and Laser Chemistry</i> , 1990, 50, 137-144.	1.5	140
11	Photoacoustic spectroscopy using quantum-cascade lasers. <i>Optics Letters</i> , 1999, 24, 178.	1.7	140
12	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.	3.5	140
13	Laser-based systems for trace gas detection in life sciences. <i>Applied Physics B: Lasers and Optics</i> , 2008, 92, 343.	1.1	133
14	Submergence tolerance in rainfed lowland rice: physiological basis and prospects for cultivar improvement through marker-aided breeding. <i>Field Crops Research</i> , 2002, 76, 131-152.	2.3	132
15	Current methods for detecting ethylene in plants. <i>Annals of Botany</i> , 2013, 111, 347-360.	1.4	125
16	Laser spectroscopy for breath analysis: towards clinical implementation. <i>Applied Physics B: Lasers and Optics</i> , 2018, 124, 161.	1.1	124
17	Methods of nitric oxide detection in plants: A commentary. <i>Plant Science</i> , 2011, 181, 509-519.	1.7	119
18	Haemoglobin modulates salicylate and jasmonate/ethylene-mediated resistance mechanisms against pathogens. <i>Journal of Experimental Botany</i> , 2012, 63, 4375-4387.	2.4	117

#	ARTICLE	IF	CITATIONS
19	Metabolic Dysfunction and Unabated Respiration Precede the Loss of Membrane Integrity during Dehydration of Germinating Radicles. <i>Plant Physiology</i> , 2000, 122, 597-608.	2.3	116
20	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.	2.4	116
21	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.	2.4	108
22	Ethylene and carbon dioxide production by developing strawberries show a correlative pattern that is indicative of ripening climacteric fruit. <i>Physiologia Plantarum</i> , 2006, 127, 247-259.	2.6	105
23	The suitability of Tedlar bags for breath sampling in medical diagnostic research. <i>Physiological Measurement</i> , 2007, 28, 73-84.	1.2	102
24	Nitric Oxide Interacts with Salicylate to Regulate Biphasic Ethylene Production during the Hypersensitive Response. <i>Plant Physiology</i> , 2008, 148, 1537-1546.	2.3	102
25	The <i>Arabidopsis</i> Mutant <i>alh1</i> Illustrates a Cross Talk between Ethylene and Auxin. <i>Plant Physiology</i> , 2003, 131, 1228-1238.	2.3	95
26	Acetaldehyde emission by the leaves of trees - correlation with physiological and environmental parameters. <i>Physiologia Plantarum</i> , 2001, 113, 41-49.	2.6	81
27	Laser Photoacoustic Detection Allows in Planta Detection of Nitric Oxide in Tobacco following Challenge with Avirulent and Virulent <i>Pseudomonas syringae</i> Pathovars. <i>Plant Physiology</i> , 2005, 138, 1247-1258.	2.3	81
28	K <sup>+</sup> starvation inhibits water-stress-induced stomatal closure via ethylene synthesis in sunflower plants. <i>Journal of Experimental Botany</i> , 2010, 61, 1139-1145.	2.4	81
29	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.	1.6	79
30	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.	2.8	77
31	Involvement of Ethylene and Lipid signalling in cadmium-induced programmed cell death in tomato suspension cells. <i>Plant Physiology and Biochemistry</i> , 2006, 44, 581-589.	2.8	76
32	Photoperiodic regulation of the sucrose transporter <i>StSUT4</i> affects the expression of circadian-regulated genes and ethylene production. <i>Frontiers in Plant Science</i> , 2013, 4, 26.	1.7	76
33	Ethylene and flower longevity in <i>Alstroemeria</i> : relationship between tepal senescence, abscission and ethylene biosynthesis. <i>Journal of Experimental Botany</i> , 2005, 56, 1007-1016.	2.4	73
34	Dynamics of Acetaldehyde Production during Anoxia and Post-Anoxia in Red Bell Pepper Studied by Photoacoustic Techniques. <i>Plant Physiology</i> , 1997, 113, 925-932.	2.3	72
35	Nitrogenase activity in cyanobacteria measured by the acetylene reduction assay: a comparison between batch incubation and on-line monitoring. <i>Environmental Microbiology</i> , 2001, 3, 343-351.	1.8	72
36	Intracavity CO laser photoacoustic trace gas detection: cyclic CH <sub>4</sub> , H <sub>2</sub> O and CO <sub>2</sub> emission by cockroaches and scarab beetles. <i>Applied Optics</i> , 1996, 35, 5357.	2.1	70

#	ARTICLE	IF	CITATIONS
37	Thermal effects in singly resonant continuous-wave optical parametric oscillators. <i>Applied Physics B: Lasers and Optics</i> , 2009, 94, 411-427.	1.1	70
38	Ethylene Production and Petiole Growth in <i>Rumex</i> Plants Induced by Soil Waterlogging. <i>Plant Physiology</i> , 1990, 94, 1071-1077.	2.3	68
39	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.	1.4	68
40	An amalgamation between hormone physiology and plant ecology: A review on flooding resistance and ethylene. <i>Journal of Plant Growth Regulation</i> , 1992, 11, 171-188.	2.8	67
41	Two-crystal mid-infrared optical parametric oscillator for absorption and dispersion dual-comb spectroscopy. <i>Optics Letters</i> , 2014, 39, 3270.	1.7	67
42	Continuous-wave optical parametric oscillator based infrared spectroscopy for sensitive molecular gas sensing. <i>Laser and Photonics Reviews</i> , 2013, 7, 188-206.	4.4	66
43	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.	1.7	65
44	trans-Resveratrol and Grape Disease Resistance. A Dynamical Study by High-Resolution Laser-Based Techniques. <i>Plant Physiology</i> , 2003, 131, 129-138.	2.3	64
45	Automatically tunable continuous-wave optical parametric oscillator for high-resolution spectroscopy and sensitive trace-gas detection. <i>Applied Physics B: Lasers and Optics</i> , 2006, 85, 173-180.	1.1	64
46	Methods of NO detection in exhaled breath. <i>Journal of Breath Research</i> , 2013, 7, 017104.	1.5	63
47	Organ-specific analysis of the anaerobic primary metabolism in rice and wheat seedlings. I: Dark ethanol production is dominated by the shoots. <i>Planta</i> , 2006, 225, 103-114.	1.6	62
48	Singly resonant cw OPO with simple wavelength tuning. <i>Optics Express</i> , 2008, 16, 11141.	1.7	61
49	On-line laser photoacoustic detection of ethene in exhaled air as biomarker of ultraviolet radiation damage of the human skin. <i>Applied Physics Letters</i> , 1999, 74, 1761-1763.	1.5	60
50	Senescing grass crops as regional sources of reactive volatile organic compounds. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	58
51	Sub-part-per-billion monitoring of nitric oxide by use of wavelength modulation spectroscopy in combination with a thermoelectrically cooled, continuous-wave quantum cascade laser. <i>Optics Letters</i> , 2006, 31, 823.	1.7	58
52	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.	2.0	58
53	Airborne Measurements of Ethene from Industrial Sources Using Laser Photo-Acoustic Spectroscopy. <i>Environmental Science &amp; Technology</i> , 2009, 43, 2437-2442.	4.6	57
54	Patterns of peroxidative ethane emission from submerged rice seedlings indicate that damage from reactive oxygen species takes place during submergence and is not necessarily a post-anoxic phenomenon. <i>Planta</i> , 2007, 226, 193-202.	1.6	56

#	ARTICLE	IF	CITATIONS
55	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.	1.4	56
56	Use of a Laser-Driven Photoacoustic Detection System for Measurement of Ethylene Production in <i>Cymbidium</i> Flowers. <i>Plant Physiology</i> , 1988, 88, 506-510.	2.3	55
57	Photoacoustic Measurements of Agriculturally Interesting Gases and Detection of $C_2H_4$ below the PPB Level. <i>Applied Spectroscopy</i> , 1990, 44, 1360-1368.	1.2	55
58	On-line detection of root-induced volatiles in <i>Brassica nigra</i> plants infested with <i>Delia radicum</i> L. root fly larvae. <i>Phytochemistry</i> , 2012, 84, 68-77.	1.4	55
59	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.	0.9	54
60	Quantification of methane oxidation in the rice rhizosphere using $^{13}C$ -labelled methane. <i>Biogeochemistry</i> , 2003, 64, 355-372.	1.7	53
61	Continuous-wave operation of a single-frequency optical parametric oscillator at $4\frac{1}{4}\mu m$ based on periodically poled $LiNbO_3$ . <i>Optics Letters</i> , 2003, 28, 2497.	1.7	53
62	Dynamic Aspects of Alcoholic Fermentation of Rice Seedlings in Response to Anaerobiosis and to Complete Submergence: Relationship to Submergence Tolerance. <i>Annals of Botany</i> , 2003, 91, 279-290.	1.4	53
63	Wide single-mode tuning of a $30\frac{1}{38}\mu m$ , 700-mW, continuous-wave Nd:YAG-pumped optical parametric oscillator based on periodically poled lithium niobate. <i>Optics Letters</i> , 2002, 27, 640.	1.7	52
64	Tuning and stability of a continuous-wave mid-infrared high-power single resonant optical parametric oscillator. <i>Applied Physics B: Lasers and Optics</i> , 2002, 75, 329-333.	1.1	52
65	Exhaled nitric oxide monitoring by quantum cascade laser: comparison with chemiluminescent and electrochemical sensors. <i>Journal of Biomedical Optics</i> , 2012, 17, 017003.	1.4	51
66	Rapid Tomato Volatile Profiling by Using Proton-Transfer Reaction Mass Spectrometry (PTR-MS). <i>Journal of Food Science</i> , 2012, 77, C551-9.	1.5	51
67	The calcium-sensing receptor: A promising target for prevention of colorectal cancer. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2015, 1853, 2158-2167.	1.9	50
68	Real-time, subsecond, multicomponent breath analysis by Optical Parametric Oscillator based Off-Axis Integrated Cavity Output Spectroscopy. <i>Optics Express</i> , 2011, 19, 24078.	1.7	48
69	Mid-infrared supercontinuum-based upconversion detection for trace gas sensing. <i>Optics Express</i> , 2019, 27, 24469.	1.7	48
70	Photoacoustic trace gas detection of ethane using a continuously tunable, continuous-wave optical parametric oscillator based on periodically poled lithium niobate. <i>Applied Physics Letters</i> , 2002, 81, 1157-1159.	1.5	47
71	Trace gas detection from fermentation processes in apples; an intercomparison study between proton-transfer-reaction mass spectrometry and laser photoacoustics. <i>International Journal of Mass Spectrometry</i> , 2004, 239, 193-201.	0.7	47
72	Femtosecond optical parametric oscillators toward real-time dual-comb spectroscopy. <i>Applied Physics B: Lasers and Optics</i> , 2015, 119, 65-74.	1.1	47

#	ARTICLE	IF	CITATIONS
73	Continuous wave optical parametric oscillator for quartz-enhanced photoacoustic trace gas sensing. <i>Applied Physics B: Lasers and Optics</i> , 2007, 89, 123.	1.1	46
74	Roadmap on ultrafast optics. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 093006.	1.0	46
75	Identification of <i>Pseudomonas aeruginosa</i> and <i>Aspergillus fumigatus</i> mono- and co-cultures based on volatile biomarker combinations. <i>Journal of Breath Research</i> , 2016, 10, 016002.	1.5	46
76	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.	0.7	45
77	Optical parametric oscillator-based photoacoustic detection of CO <sub>2</sub> at 4.23 μm allows real-time monitoring of the respiration of small insects. <i>Applied Physics B: Lasers and Optics</i> , 2006, 82, 665-669.	1.1	45
78	Quantum cascade laser-based carbon monoxide detection on a second time scale from human breath. <i>Applied Physics B: Lasers and Optics</i> , 2006, 82, 649-654.	1.1	45
79	Chilling-Induced Changes in Aroma Volatile Profiles in Tomato. <i>Food and Bioprocess Technology</i> , 2015, 8, 1442-1454.	2.6	44
80	Ethylene Production is Associated with Germination but not Seed Dormancy in Red Rice. <i>Annals of Botany</i> , 2007, 99, 735-745.	1.4	43
81	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.	2.4	42
82	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.	0.9	42
83	Time-resolved mid-infrared dual-comb spectroscopy. <i>Scientific Reports</i> , 2019, 9, 17247.	1.6	42
84	Detection of <i>Staphylococcus aureus</i> in cystic fibrosis patients using breath VOC profiles. <i>Journal of Breath Research</i> , 2016, 10, 046014.	1.5	42
85	Ethylene and CO <sub>2</sub> emission rates and pathways in harvested fruits investigated, in situ, by laser photothermal deflection and photoacoustic techniques. <i>Postharvest Biology and Technology</i> , 1996, 8, 1-10.	2.9	40
86	Ethylene response to pollen tube growth in <i>Nicotiana tabacum</i> flowers. <i>Planta</i> , 2002, 214, 806-812.	1.6	39
87	An off-line breath sampling and analysis method suitable for large screening studies. <i>Physiological Measurement</i> , 2007, 28, 503-514.	1.2	39
88	Combined wide pump tuning and high power of a continuous-wave, singly resonant optical parametric oscillator. <i>Applied Physics B: Lasers and Optics</i> , 2004, 78, 281-286.	1.1	38
89	The influence of the internal state and translational energy of the molecular reactant upon the chemiluminescent reaction Ba + N <sub>2</sub> O → BaO* + N <sub>2</sub> . <i>Chemical Physics</i> , 1986, 108, 391-402.	0.9	37
90	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.	1.2	37

#	ARTICLE	IF	CITATIONS
91	Three mirror off axis integrated cavity output spectroscopy for the detection of ethylene using a quantum cascade laser. <i>Sensors and Actuators B: Chemical</i> , 2014, 203, 311-319.	4.0	35
92	Screening for emphysema via exhaled volatile organic compounds. <i>Journal of Breath Research</i> , 2011, 5, 046009.	1.5	34
93	Kinetics of Ethanol and Acetaldehyde Release Suggest a Role for Acetaldehyde Production in Tolerance of Rice Seedlings to Micro-aerobic Conditions. <i>Annals of Botany</i> , 2005, 96, 727-736.	1.4	33
94	Real-time trace gas sensing of ethylene, propanal and acetaldehyde from human skin in vivo. <i>Physiological Measurement</i> , 2006, 27, 1187-1196.	1.2	33
95	Development of a proton-transfer reaction ion trap mass spectrometer: Online detection and analysis of volatile organic compounds. <i>International Journal of Mass Spectrometry</i> , 2007, 262, 16-24.	0.7	33
96	Stress responses of duckweed ( <i>Lemna minor</i> L.) and water velvet ( <i>Azolla filiculoides</i> Lam.) to anionic surfactant sodium-dodecyl-sulphate (SDS). <i>Aquatic Toxicology</i> , 2012, 110-111, 107-113.	1.9	33
97	Quantum cascade laser-based sensor for detection of exhaled and biogenic nitric oxide. <i>Applied Physics B: Lasers and Optics</i> , 2013, 111, 359-365.	1.1	33
98	Pollination and stigma wounding: same response, different signal?. <i>Journal of Experimental Botany</i> , 1997, 48, 1027-1033.	2.4	32
99	Collision induced dissociation study of 10 monoterpenes for identification in trace gas measurements using the newly developed proton-transfer reaction ion trap mass spectrometer. <i>International Journal of Mass Spectrometry</i> , 2007, 263, 204-212.	0.7	32
100	Ethylene, an early marker of systemic inflammation in humans. <i>Scientific Reports</i> , 2017, 7, 6889.	1.6	32
101	Reduction of ethylene emission from Scots pine elicited by insect egg secretion. <i>Journal of Experimental Botany</i> , 2007, 58, 1835-1842.	2.4	31
102	Tobacco LSU-like protein couples sulphur-deficiency response with ethylene signalling pathway. <i>Journal of Experimental Botany</i> , 2013, 64, 5173-5182.	2.4	31
103	Quantitative gas measurements using a versatile OPO-based cavity ringdown spectrometer and the comparison with spectroscopic databases. <i>Applied Physics B: Lasers and Optics</i> , 2010, 100, 383-390.	1.1	30
104	An assessment of the biotechnological use of hemoglobin modulation in cereals. <i>Physiologia Plantarum</i> , 2014, 150, 593-603.	2.6	30
105	Investigation of Local Ethylene Emission from Intact Cherry Tomatoes by Means of Photothermal Deflection and Photoacoustic Detection. <i>Plant Physiology</i> , 1995, 107, 1371-1377.	2.3	29
106	Organ specific analysis of the anaerobic primary metabolism in rice and wheat seedlings II: Light exposure reduces needs for fermentation and extends survival during anaerobiosis. <i>Planta</i> , 2006, 225, 139-152.	1.6	29
107	Optical parametric oscillator based off-axis integrated cavity output spectroscopy for rapid chemical sensing. <i>Optics Letters</i> , 2010, 35, 3300.	1.7	29
108	Proton Transfer Reaction Mass Spectrometry detects rapid changes in volatile metabolite emission by <i>Mycobacterium smegmatis</i> after the addition of specific antimicrobial agents. <i>Journal of Microbiological Methods</i> , 2011, 86, 8-15.	0.7	29

#	ARTICLE	IF	CITATIONS
109	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.	1.5	29
110	Biphasic ethylene production during the hypersensitive response in <i>Arabidopsis</i> . <i>Plant Signaling and Behavior</i> , 2009, 4, 610-613.	1.2	28
111	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.	0.9	28
112	Quantum cascade laser-based sensors for the detection of exhaled carbon monoxide. <i>Applied Physics B: Lasers and Optics</i> , 2016, 122, 1.	1.1	28
113	Roles of pollination and short-chain saturated fatty acids in flower senescence. <i>Plant Growth Regulation</i> , 1993, 12, 1-10.	1.8	27
114	CO-laser-based photoacoustic trace-gas detection: applications in postharvest physiology. <i>Applied Physics B: Lasers and Optics</i> , 1998, 67, 459-466.	1.1	27
115	Online, real-time detection of volatile emissions from plant tissue. <i>AoB PLANTS</i> , 2013, 5, plt003.	1.2	27
116	Sensitivity enhancement in off-axis integrated cavity output spectroscopy. <i>Optics Express</i> , 2014, 22, 27985.	1.7	27
117	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.	1.3	27
118	Broadly, independent-tunable, dual-wavelength mid-infrared ultrafast optical parametric oscillator. <i>Optics Express</i> , 2015, 23, 20418.	1.7	27
119	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.	2.1	27
120	ETHENE AND OTHER BIOMARKERS OF OXIDATIVE STRESS IN HYPERTENSIVE DISORDERS OF PREGNANCY. <i>Hypertension in Pregnancy</i> , 2002, 21, 39-49.	0.5	26
121	Role of Rostellum Desiccation in Emasculation-Induced Phenomena in Orchid Flowers. <i>Journal of Experimental Botany</i> , 1989, 40, 907-912.	2.4	25
122	Mid-infrared continuous wave cavity ring down spectroscopy of molecular ions using an optical parametric oscillator. <i>Chemical Physics Letters</i> , 2007, 442, 145-149.	1.2	25
123	Aroma volatile release kinetics of tomato genotypes measured by PTR-MS following artificial chewing. <i>Food Research International</i> , 2013, 54, 1579-1588.	2.9	25
124	Sensitive Spectroscopy of Acetone Using a Widely Tunable External-Cavity Quantum Cascade Laser. <i>Sensors</i> , 2018, 18, 2050.	2.1	25
125	On the Role of Ethylene in Seed Germination and Early Root Growth of <i>Pisum sativum</i> . <i>Journal of Plant Physiology</i> , 1995, 145, 83-86.	1.6	24
126	Sensitive multi-species trace gas sensor based on a high repetition rate mid-infrared supercontinuum source. <i>Optics Express</i> , 2020, 28, 26091.	1.7	24

#	ARTICLE	IF	CITATIONS
127	Spectroscopic monitoring of NO traces in plants and human breath: applications and perspectives. <i>Applied Physics B: Lasers and Optics</i> , 2013, 110, 203-211.	1.1	23
128	Breath acetone to monitor life style interventions in field conditions: An exploratory study. <i>Obesity</i> , 2014, 22, 980-983.	1.5	23
129	LASER PHOTOACOUSTIC TRACE GAS DETECTION, AN EXTREMELY SENSITIVE TECHNIQUE APPLIED IN BIOLOGICAL RESEARCH. <i>Instrumentation Science and Technology</i> , 1998, 26, 157-175.	0.9	22
130	Gas Transport through the Root-shoot Transition Zone of Rice Tillers. <i>Plant and Soil</i> , 2005, 277, 107-116.	1.8	22
131	Optical parametric oscillator-based photoacoustic detection of hydrogen cyanide for biomedical applications. <i>Journal of Biomedical Optics</i> , 2013, 18, 107002.	1.4	22
132	A compact laser-based spectrometer for detection of C <sub>2</sub> H <sub>2</sub> in exhaled breath and HCN in vitro. <i>Applied Physics B: Lasers and Optics</i> , 2015, 118, 275-280.	1.1	22
133	High power, widely tunable, mode-hop free, continuous wave external cavity quantum cascade laser for multi-species trace gas detection. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	21
134	Doppler-broadened mid-infrared noise-immune cavity-enhanced optical heterodyne molecular spectrometry based on an optical parametric oscillator for trace gas detection. <i>Optics Letters</i> , 2015, 40, 439.	1.7	21
135	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.	1.1	21
136	Ethylene Production of Two Wheat Cultivars Exposed to Desiccation, Heat, and Paraquat-Induced Oxidation. <i>Crop Science</i> , 2004, 44, 812.	0.8	21
137	Laser-driven Photoacoustic Spectroscopy: What We Can Do with it in Flooding Research. <i>Annals of Botany</i> , 1997, 79, 57-65.	1.4	20
138	Volatile organic compound emissions from elephant grass and bamboo cultivars used as potential bioethanol crop. <i>Atmospheric Environment</i> , 2013, 65, 61-68.	1.9	20
139	Changes in urine headspace composition as an effect of strenuous walking. <i>Metabolomics</i> , 2015, 11, 1656-1666.	1.4	19
140	Inhibition of wound-induced ethylene does not prevent red discoloration in fresh-cut endive ( <i>Cichorium intybus</i> L.). <i>European Food Research and Technology</i> , 2009, 228, 651-657.	1.6	18
141	Rapid and sensitive trace gas detection with continuous wave Optical Parametric Oscillator-based Wavelength Modulation Spectroscopy. <i>Applied Physics B: Lasers and Optics</i> , 2011, 103, 223-228.	1.1	18
142	Patterns of C <sub>2</sub> H <sub>4</sub> production during germination and seedling growth of pea and wheat as indicated by a laser-driven photoacoustic system. <i>Environmental and Experimental Botany</i> , 1994, 34, 55-61.	2.0	17
143	LIGHT ACTION SPECTRA OF N <sub>2</sub> FIXATION BY HETEROCYSTOUS CYANOBACTERIA FROM THE BALTIC SEA1. <i>Journal of Phycology</i> , 2003, 39, 668-677.	1.0	17
144	Influence of Ethanol on Breath Acetone Measurements Using an External Cavity Quantum Cascade Laser. <i>Photonics</i> , 2016, 3, 22.	0.9	17

#	ARTICLE	IF	CITATIONS
145	Pharmacokinetics of ethylene in man by on-line laser photoacoustic detection. <i>Toxicology and Applied Pharmacology</i> , 2003, 190, 206-213.	1.3	16
146	Potential biomarkers for identification of mycobacterial cultures by proton transfer reaction mass spectrometry analysis. <i>Rapid Communications in Mass Spectrometry</i> , 2012, 26, 679-685.	0.7	16
147	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.	0.7	16
148	Multicomponent trace-gas analysis by three intracavity photoacoustic cells in a CO laser: observation of anaerobic and postanaerobic emission of acetaldehyde and ethanol in cherry tomatoes. <i>Applied Optics</i> , 1998, 37, 3345.	2.1	15
149	CO Laser Absorption Coefficients for Gases of Biological Relevance: H <sub>2</sub> O, CO <sub>2</sub> , Ethanol, Acetaldehyde, and Ethylene. <i>Applied Spectroscopy</i> , 2000, 54, 62-71.	1.2	15
150	Development of a powerful continuously tunable mid-infrared cw PPLN OPO for trace gas detection. , 2002, , .		15
151	The peppermint breath test benchmark for PTR-MS and SIFT-MS. <i>Journal of Breath Research</i> , 2021, 15, 046005.	1.5	15
152	Organizing for Innovation: Loose or Tight Control?. <i>Long Range Planning</i> , 1998, 31, 775-782.	2.9	14
153	Effects of O <sub>2</sub> on N <sub>2</sub> fixation in heterocystous cyanobacteria from the Baltic Sea. <i>Aquatic Microbial Ecology</i> , 2003, 33, 261-270.	0.9	14
154	A real-time, nonintrusive trace gas detector based on laser photothermal deflection. <i>Review of Scientific Instruments</i> , 1995, 66, 4655-4664.	0.6	13
155	Combination of photoacoustic detector with gas diffusion probes for the measurement of methane concentration gradients in submerged paddy soil. <i>Chemosphere</i> , 1996, 33, 2487-2504.	4.2	13
156	Cocaine and Benzoylcegonine in Serum Microsamples of Intact and Gonadectomized Male and Female Wistar Rats. <i>Pharmacology Biochemistry and Behavior</i> , 1997, 58, 421-424.	1.3	13
157	A versatile photoacoustic spectrometer for sensitive trace-gas analysis in the mid-infrared wavelength region (5.1-8.0 and 2.8-4.1 $\mu$ m). <i>Applied Physics B: Lasers and Optics</i> , 2002, 75, 335-342.	1.1	13
158	Proton-transfer reaction mass spectrometry (PTRMS) in combination with thermal desorption (TD) for sensitive offline analysis of volatiles. <i>Rapid Communications in Mass Spectrometry</i> , 2012, 26, 990-996.	0.7	13
159	Fourier transform and grating-based spectroscopy with a mid-infrared supercontinuum source for trace gas detection in fruit quality monitoring. <i>Optics Express</i> , 2021, 29, 12381.	1.7	13
160	Intensity enhancement in off-axis integrated cavity output spectroscopy. <i>Applied Optics</i> , 2018, 57, 8536.	0.9	13
161	Dynamic changes of the ethylene biosynthesis in 'Jonagold'™ apple. <i>Physiologia Plantarum</i> , 2014, 150, 161-173.	2.6	12
162	Extended nitric oxide analysis may improve personalized anti-inflammatory treatment in asthmatic children with intermediate F <sub>EV</sub> <sub>50</sub> . <i>Journal of Breath Research</i> , 2015, 9, 047114.	1.5	12

#	ARTICLE	IF	CITATIONS
163	Broadband Time-Resolved Absorption and Dispersion Spectroscopy of Methane and Ethane in a Plasma Using a Mid-Infrared Dual-Comb Spectrometer. <i>Sensors</i> , 2020, 20, 6831.	2.1	12
164	The Use of Reverse Mirage Spectroscopy to Determine the Absorption Coefficient of Liquid Methanol at CO <sub>2</sub> Laser Wavelengths. <i>Applied Spectroscopy</i> , 1989, 43, 148-153.	1.2	11
165	Non-intrusive, fast and sensitive ammonia detection by laser photothermal deflection. <i>Atmospheric Environment</i> , 1995, 29, 1069-1074.	1.9	11
166	Selective trace gas detection of complex molecules with a continuous wave optical parametric oscillator using a planar jet expansion. <i>Applied Physics Letters</i> , 2007, 90, 081109.	1.5	11
167	Comprehensive three-dimensional ray tracing model for three-mirror cavity-enhanced spectroscopy. <i>Applied Optics</i> , 2018, 57, 154.	0.9	11
168	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.	0.7	10
169	Hydrogen cyanide emission in the lung by <i>Staphylococcus aureus</i> . <i>European Respiratory Journal</i> , 2016, 48, 577-579.	3.1	10
170	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.	2.4	10
171	Comprehensive Data Scientific Procedure for Enhanced Analysis and Interpretation of Real-Time Breath Measurements in In Vivo Aroma-Release Studies. <i>Analytical Chemistry</i> , 2015, 87, 10338-10345.	3.2	9
172	Femtosecond interferometric photoacoustic spectroscopy using incoherent light. <i>Chemical Physics Letters</i> , 1996, 258, 460-464.	1.2	8
173	Thermoacoustic amplification of photoacoustic signal. <i>Review of Scientific Instruments</i> , 1996, 67, 2317-2324.	0.6	8
174	Laser-based trace gas detection of ethane as a result of photo-oxidative damage in chilled cucumber leaves (invited). <i>Review of Scientific Instruments</i> , 2003, 74, 680-683.	0.6	8
175	Inter-comparison of Laser Photoacoustic Spectroscopy and Gas Chromatography Techniques for Measurements of Ethene in the Atmosphere. <i>Environmental Science &amp; Technology</i> , 2005, 39, 4581-4585.	4.6	8
176	External cavity diode laser-based detection of trace gases with NICE-OHMS using current modulation. <i>Optics Express</i> , 2015, 23, 6277.	1.7	8
177	Exhaled Breath Reflects Prolonged Exercise and Statin Use during a Field Campaign. <i>Metabolites</i> , 2021, 11, 192.	1.3	8
178	Ultra-broadband infrared gas sensor for pollution detection: the TRIAGE project. <i>JPhys Photonics</i> , 2021, 3, 031003.	2.2	8
179	Photoacoustic Spectroscopy Using Continuous Wave Optical Parametric Oscillators. <i>NATO Science for Peace and Security Series B: Physics and Biophysics</i> , 2008, , 511-533.	0.2	8
180	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.	1.3	8

#	ARTICLE	IF	CITATIONS
181	In situ, real-time monitoring of wound-induced ethylene in cherry tomatoes by two infrared laser-driven systems. <i>Postharvest Biology and Technology</i> , 1995, 6, 275-285.	2.9	7
182	EMISSION OF VOLATILES DURING THE PATHOGENIC INTERACTION BETWEEN ERWINIA AMYLOVORA AND MALUS DOMESTICA. <i>Acta Horticulturae</i> , 2011, , 55-63.	0.1	7
183	Pulmonary infection, and not systemic inflammation, accounts for increased concentrations of exhaled nitric oxide in patients with septic shock. <i>Journal of Breath Research</i> , 2013, 7, 036003.	1.5	7
184	Line strength measurements and relative isotopic ratio $^{13}\text{C}/^{12}\text{C}$ measurements in carbon dioxide using cavity ring down spectroscopy. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018, 204, 152-158.	1.1	7
185	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.	1.6	7
186	Inhibition by Ethylene of Auxin-Promotion of Flower Bud Formation in Tobacco Explants Is Absent in Plants Transformed by <i>Agrobacterium rhizogenes</i> . <i>Plant Physiology</i> , 1991, 96, 1131-1135.	2.3	6
187	Accurate measurements of line strengths and air-broadening coefficients in methane around $1.66\ \mu\text{m}$ using cavity ring down spectroscopy. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2019, 224, 9-17.	1.1	6
188	Evidence of a Cage Effect in Superfluid Helium Droplets. <i>Zeitschrift Fur Physikalische Chemie</i> , 2000, 214, .	1.4	5
189	Inhibition of Lipid Peroxidation Induced by Ultraviolet Radiation by Crude Phlorotannis Isolated from Brown Algae <i>Sargassum hystrix</i> v. <i>buxifolium</i> ; C. Agardh. <i>Indonesian Journal of Chemistry</i> , 2013, 13, 14-20.	0.3	5
190	Mastoparan-Induced Cell Death Signalling in <i>Chlamydomonas Reinhardtii</i> . <i>Biotechnology and Biotechnological Equipment</i> , 2009, 23, 730-734.	0.5	4
191	Unravelling the responses of metabolism to dehydration points to a role for cytoplasmic viscosity in desiccation tolerance.. , 0, , 57-66.		4
192	IR laser photothermal trace gas detection applied to environmental and biological problems. <i>Infrared Physics and Technology</i> , 1995, 36, 483-488.	1.3	3
193	Micro-aerobics: when rice plants lose their resistance against oxygen. <i>Physica Scripta</i> , 2008, 78, 058125.	1.2	3
194	HIGHLY SENSITIVE ETHYLENE DETECTOR FOR ON-LINE MEASUREMENTS ON KIWI FRUITS. <i>Acta Horticulturae</i> , 2011, , 651-656.	0.1	3
195	Collision-induced absorption between $\text{O}_2$ and $\text{CO}_2$ for the $a_{1g} \leftarrow a_{1g}$ ( $v=1$ ) $\rightarrow X_{3g}$ ( $v=0$ ) transition of molecular oxygen at 1060 nm. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 1805-1811.	1.3	3
196	Cockroaches and tomatoes investigated by laser photoacoustics. <i>European Physical Journal Special Topics</i> , 1994, 04, C7-435-C7-443.	0.2	3
197	Experimental-based comparison between off-axis integrated cavity output spectroscopy and multipass-assisted wavelength modulation spectroscopy at $77\ \mu\text{m}$ . <i>OSA Continuum</i> , 2019, 2, 2667.	1.8	3
198	Functionalizing a Tapered Microcavity as a Gas Cell for On-Chip Mid-Infrared Absorption Spectroscopy. <i>Sensors</i> , 2017, 17, 2041.	2.1	2

#	ARTICLE	IF	CITATIONS
199	Quantum Cascade Lasers-Based Detection of Nitric Oxide. <i>Methods in Molecular Biology</i> , 2018, 1747, 49-57.	0.4	2
200	Early Changes in Ethylene Production during Senescence of Carnation and Phalaenopsis Flowers Measured by Laser Photoacoustic Detection. , 1989, , 263-270.		2
201	ON-LINE LASER-BASED DETECTION OF TRACE GAS EMISSION BY AVOCADO UNDER CHANGING ATMOSPHERIC CONDITIONS. <i>Acta Horticulturae</i> , 2001, , 499-504.	0.1	2
202	THE ONSET OF FERMENTATION: REAL-TIME MEASUREMENTS AND MODEL CALCULATION OF ETHANOL AND ACETALDEHYDE EMISSION. <i>Acta Horticulturae</i> , 2001, , 505-506.	0.1	2
203	Laser photoacoustical detection of trace gases applied to respiration of arthropods. , 1995, 2461, 141.		1
204	<title>Laser-based detection of trace gases released by crops under long-term storage</title>. , 1997, , .		1
205	Multicomponent trace gas analysis with a CO-laser-based photoacoustic detector: emission of ethanol, acetaldehyde, ethane, and ethylene from fruit. , 1998, , .		1
206	<title>Photoacoustic trace gas detection of ethene released by UV-induced lipid peroxidation in humans</title>. , 2000, , .		1
207	<title>New laser sources for photoacoustic trace gas detection with applications in biomedical science</title>. , 2000, 3916, 295.		1
208	Study of Gas Exchange in Insects by Sensitive Laser Photoacoustic Spectroscopy. <i>Instrumentation Science and Technology</i> , 2006, 34, 85-96.	0.9	1
209	[Letter to the editor] Ethylene emitted by nylon membrane filters questions their usefulness to transfer plant seedlings between media. <i>BioTechniques</i> , 2011, 51, 329-30, 333.	0.8	1
210	Laser-Based Methods for Detection of Nitric Oxide in Plants. <i>Methods in Molecular Biology</i> , 2016, 1424, 113-126.	0.4	1
211	Phasor representation for the nonlinear photoacoustic signal. <i>European Journal of Physics</i> , 2017, 38, 065803.	0.3	1
212	Ethylene production of <i>Botrytis cinerea</i> in vitro and during in planta infection of tomato fruits. , 2007, , 395-397.		1
213	Alleviation of Chilling Injury by Ethephon in Pea Seeds. <i>Current Plant Science and Biotechnology in Agriculture</i> , 1997, , 569-576.	0.0	1
214	Photoacoustic detection of C <sub>2</sub> H <sub>4</sub> emission from germinating striga seeds. <i>European Physical Journal Special Topics</i> , 1994, 04, C7-539-C7-542.	0.2	1
215	Towards Broadband Multi-species Trace Gas Detection Using a Mid-infrared Supercontinuum Source. , 2018, , .		1
216	ETHYLENE AND PEA GERMINATION. <i>Acta Horticulturae</i> , 1994, , 159-166.	0.1	1

#	ARTICLE	IF	CITATIONS
217	Dual-Frequency Comb Spectroscopy: A Digital Solution for Coherent Averaging. , 2016, , .		1
218	<title>Laser photoacoustic trace detection of $C_2H_4$ revealing adverse environmental effects of atmospheric pollution on plant material</title>. , 1993, , .		0
219	<title> $CO_2$ laser-based trace gas detection: a nonintrusive ammonia monitor with subsecond response time</title>. , 1995, , .		0
220	CO <sub>2</sub> laser photoacoustic monitoring of gas transport in rice using SF <sub>6</sub> as a tracer gas. , 1999, , .		0
221	The. , 1999, , .		0
222	A CO laser based photoacoustic system applied to the detection of trace gases emitted by conference pears stored at high. , 1999, , .		0
223	Laser photoacoustic ethene detection from human air as on-line biomarker for lipid peroxidation. , 1999, , .		0
224	TRACE GAS PRODUCTION FOR RAPID NON-DESTRUCTIVE DETERMINATION OF SEED VIABILITY. Acta Horticulturae, 2004, , 39-42.	0.1	0
225	Sensitive Trace Gas Detection in a Jet Expansion Using cw OPO-based Cavity Ringdown Spectroscopy. , 2007, , .		0
226	OPO Based Off-Axis Integrated Cavity Output Spectroscopy for Rapid Chemical Sensing. , 2010, , .		0
227	Optical Parametric Oscillator based detection of HCN for bio-medical applications. , 2013, , .		0
228	Dual frequency combs fourier transform spectrometer in mid-infrared region based on femtosecond optical parametric oscillators. , 2013, , .		0
229	Optical parametric oscillator based detection of hydrogen cyanide for bio-medical applications. , 2013, , .		0
230	Mid-infrared frequency comb based-on low threshold optical parametric oscillator. , 2013, , .		0
231	Multi-nonlinear Effects in a Two-crystal Optical Parametric Oscillator. , 2015, , .		0
232	Mid-infrared Two-color Optical Parametric Oscillator across a 30 THz Spectral Range. , 2015, , .		0
233	A photonic microsystem for hydrocarbon gas analysis by mid-infrared absorption spectroscopy. , 2017, , .		0
234	Enhancing sensitivity beyond the optical effective pathlength in cavity-enhanced spectroscopy. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
235	Mid-infrared dual-comb spectroscopy for real-time gas analysis with an optical parametric oscillator. , 2017, , .		0
236	Broadband Multi-Species Trace Gas Detection by Up-Converting Mid-Infrared Supercontinuum Light into the Near-Infrared. , 2019, , .		0
237	Mid-Infrared Multi-Species Trace Gas Sensing using a Supercontinuum Light Source. , 2019, , .		0
238	Life science trace gas facility: a way towards top-research on biological systems. , 2007, , 441-442.		0
239	Quartz-enhanced photoacoustic spectroscopy of HCN from 6433 to 6613 cm <sup>&amp;#x2212;1</sup> . , 2008, , .		0
240	Mid-Infrared Frequency Combs based on Optical Parametric Oscillators for Spectroscopy. , 2013, , .		0
241	Development of the External Cavity Quantum Cascade Laser for spectroscopic applications. , 2013, , .		0
242	Broadband Mid-infrared Dual-comb Spectroscopy with a Two-crystal Optical Parametric Oscillator. , 2014, , .		0
243	Two-crystal Optical Parametric Oscillator for Broadband Dual-comb Spectroscopy. , 2015, , .		0
244	LATE-BREAKING ABSTRACT: Extended NO analysis is useful to modify anti-inflammatory treatment in asthmatic children with intermediate F <sub>E</sub> NO <sub>50</sub> . , 2015, , .		0
245	Volatile organic compounds emitted by pseudomonas aeruginosa and aspergillus fumigatus mono-cultures and in co-culture. , 2015, , .		0
246	Laser based Spectroscopic Sensing for Biological and Medical Applications. , 2016, , .		0
247	Online Gas Monitoring with Mid-Infrared Optical Parametric Oscillator Based Dual-Comb Spectrometer. , 2017, , .		0
248	Mid-infrared Dual-comb Spectroscopy in An Electrical Discharge. , 2018, , .		0
249	Detection of N <sub>2</sub> O Using An External-Cavity Quantum Cascade Laser. , 2018, , .		0
250	Time-Resolved Mid-Infrared Dual-Comb Spectroscopy of Methane in an Electrical Discharge. , 2020, , .		0