

Hongpeng Wu

List of Publications by Year in descending order

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Version: 2024-02-01

70
papers

2,918
citations

101543

36
h-index

168389

53
g-index

70
all docs

70
docs citations

70
times ranked

742
citing authors

#	ARTICLE	IF	CITATIONS
1	Beat frequency quartz-enhanced photoacoustic spectroscopy for fast and calibration-free continuous trace-gas monitoring. <i>Nature Communications</i> , 2017, 8, 15331.	12.8	213
2	Compact TDLAS based sensor design using interband cascade lasers for mid-IR trace gas sensing. <i>Optics Express</i> , 2016, 24, A528.	3.4	150
3	Quartz enhanced photoacoustic H ₂ S gas sensor based on a fiber-amplifier source and a custom tuning fork with large prong spacing. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	128
4	Atmospheric CH ₄ measurement near a landfill using an ICL-based QEPAS sensor with V-T relaxation self-calibration. <i>Sensors and Actuators B: Chemical</i> , 2019, 297, 126753.	7.8	127
5	Enhanced near-infrared QEPAS sensor for sub-ppm level H ₂ S detection by means of a fiber amplified 1582 nm DFB laser. <i>Sensors and Actuators B: Chemical</i> , 2015, 221, 666-672.	7.8	91
6	Sub-ppb nitrogen dioxide detection with a large linear dynamic range by use of a differential photoacoustic cell and a 3.5 W blue multimode diode laser. <i>Sensors and Actuators B: Chemical</i> , 2017, 247, 329-335.	7.8	90
7	Single-tube on-beam quartz-enhanced photoacoustic spectroscopy. <i>Optics Letters</i> , 2016, 41, 978.	3.3	88
8	ppb-Level SO ₂ Photoacoustic Sensors with a Suppressed Absorption Desorption Effect by Using a 7.41 μ m External-Cavity Quantum Cascade Laser. <i>ACS Sensors</i> , 2020, 5, 549-556.	7.8	79
9	Quartz-enhanced photoacoustic spectroscopy for multi-gas detection: A review. <i>Analytica Chimica Acta</i> , 2022, 1202, 338894.	5.4	79
10	High and flat spectral responsivity of quartz tuning fork used as infrared photodetector in tunable diode laser spectroscopy. <i>Applied Physics Reviews</i> , 2021, 8, .	11.3	76
11	Ppb-level QEPAS NO ₂ sensor by use of electrical modulation cancellation method with a high power blue LED. <i>Sensors and Actuators B: Chemical</i> , 2015, 208, 173-179.	7.8	70
12	Ppb-Level Quartz-Enhanced Photoacoustic Detection of Carbon Monoxide Exploiting a Surface Grooved Tuning Fork. <i>Analytical Chemistry</i> , 2019, 91, 5834-5840.	6.5	67
13	Three-Dimensional Printed Miniature Fiber-Coupled Multipass Cells with Dense Spot Patterns for ppb-Level Methane Detection Using a Near-IR Diode Laser. <i>Analytical Chemistry</i> , 2020, 92, 13034-13041.	6.5	67
14	Simultaneous dual-gas QEPAS detection based on a fundamental and overtone combined vibration of quartz tuning fork. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	64
15	Compact photoacoustic module for methane detection incorporating interband cascade light emitting device. <i>Optics Express</i> , 2017, 25, 16761.	3.4	63
16	Ppb-level photoacoustic sensor system for saturation-free CO detection of SF ₆ decomposition by use of a 10 W fiber-amplified near-infrared diode laser. <i>Sensors and Actuators B: Chemical</i> , 2019, 282, 567-573.	7.8	63
17	Double acoustic microresonator quartz-enhanced photoacoustic spectroscopy. <i>Optics Letters</i> , 2014, 39, 2479.	3.3	58
18	Ppb-level gas detection using on-beam quartz-enhanced photoacoustic spectroscopy based on a 28 μ m tuning fork. <i>Photoacoustics</i> , 2022, 25, 100321.	7.8	57

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19	Dual-Gas Quartz-Enhanced Photoacoustic Sensor for Simultaneous Detection of Methane/Nitrous Oxide and Water Vapor. <i>Analytical Chemistry</i> , 2019, 91, 12866-12873.	6.5	53
20	Highly sensitive and selective CO sensor using a 233 μ m diode laser and wavelength modulation spectroscopy. <i>Optics Express</i> , 2018, 26, 24318.	3.4	52
21	Light-induced thermo-elastic effect in quartz tuning forks exploited as a photodetector in gas absorption spectroscopy. <i>Optics Express</i> , 2020, 28, 19074.	3.4	51
22	Impact of Humidity on Quartz-Enhanced Photoacoustic Spectroscopy Based CO Detection Using a Near-IR Telecommunication Diode Laser. <i>Sensors</i> , 2016, 16, 162.	3.8	49
23	Highly sensitive SO ₂ photoacoustic sensor for SF ₆ decomposition detection using a compact mW-level diode-pumped solid-state laser emitting at 303 nm. <i>Optics Express</i> , 2017, 25, 32581.	3.4	49
24	Highly sensitive photoacoustic multicomponent gas sensor for SF ₆ decomposition online monitoring. <i>Optics Express</i> , 2019, 27, A224.	3.4	49
25	Ppb-level H ₂ S detection for SF ₆ decomposition based on a fiber-amplified telecommunication diode laser and a background-gas-induced high-Q photoacoustic cell. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	48
26	Broadband detection of methane and nitrous oxide using a distributed-feedback quantum cascade laser array and quartz-enhanced photoacoustic sensing. <i>Photoacoustics</i> , 2020, 17, 100159.	7.8	47
27	Quartz-enhanced photoacoustic sensor for ethylene detection implementing optimized custom tuning fork-based spectrophone. <i>Optics Express</i> , 2019, 27, 4271.	3.4	46
28	Quartz-enhanced photoacoustic spectroscopy for hydrocarbon trace gas detection and petroleum exploration. <i>Fuel</i> , 2020, 277, 118118.	6.4	43
29	Quartz-enhanced photoacoustic spectroscopy exploiting low-frequency tuning forks as a tool to measure the vibrational relaxation rate in gas species. <i>Photoacoustics</i> , 2021, 21, 100227.	7.8	43
30	Partial Least-Squares Regression as a Tool to Retrieve Gas Concentrations in Mixtures Detected Using Quartz-Enhanced Photoacoustic Spectroscopy. <i>Analytical Chemistry</i> , 2020, 92, 11035-11043.	6.5	42
31	Mid-Infrared Quartz-Enhanced Photoacoustic Sensor for ppb-Level CO Detection in a SF ₆ Gas Matrix Exploiting a T-Grooved Quartz Tuning Fork. <i>Analytical Chemistry</i> , 2020, 92, 13922-13929.	6.5	42
32	Calculation model of dense spot pattern multi-pass cells based on a spherical mirror aberration. <i>Optics Letters</i> , 2019, 44, 1108.	3.3	42
33	High-concentration methane and ethane QEPAS detection employing partial least squares regression to filter out energy relaxation dependence on gas matrix composition. <i>Photoacoustics</i> , 2022, 26, 100349.	7.8	41
34	Fiber-Amplifier-Enhanced QEPAS Sensor for Simultaneous Trace Gas Detection of NH ₃ and H ₂ S. <i>Sensors</i> , 2015, 15, 26743-26755.	3.8	38
35	Calibration-free mid-infrared exhaled breath sensor based on BF-QEPAS for real-time ammonia measurements at ppb level. <i>Sensors and Actuators B: Chemical</i> , 2022, 358, 131510.	7.8	38
36	H ₂ S quartz-enhanced photoacoustic spectroscopy sensor employing a liquid-nitrogen-cooled THz quantum cascade laser operating in pulsed mode. <i>Photoacoustics</i> , 2021, 21, 100219.	7.8	37

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37	Position effects of acoustic micro-resonator in quartz enhanced photoacoustic spectroscopy. <i>Sensors and Actuators B: Chemical</i> , 2015, 206, 364-370.	7.8	36
38	Compact and Highly Sensitive NO ₂ Photoacoustic Sensor for Environmental Monitoring. <i>Molecules</i> , 2020, 25, 1201.	3.8	34
39	Double antinode excited quartz-enhanced photoacoustic spectrophone. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	33
40	Palm-sized methane TDLAS sensor based on a mini-multi-pass cell and a quartz tuning fork as a thermal detector. <i>Optics Express</i> , 2021, 29, 12357.	3.4	33
41	Compact QEPAS humidity sensor in SF ₆ buffer gas for high-voltage gas power systems. <i>Photoacoustics</i> , 2022, 25, 100319.	7.8	33
42	Application of acoustic micro-resonators in quartz-enhanced photoacoustic spectroscopy for trace gas analysis. <i>Chemical Physics Letters</i> , 2018, 691, 462-472.	2.6	30
43	Ppb-level nitric oxide photoacoustic sensor based on a mid-IR quantum cascade laser operating at 52°C. <i>Sensors and Actuators B: Chemical</i> , 2019, 290, 426-433.	7.8	30
44	Scattered light modulation cancellation method for sub-ppb-level NO ₂ detection in a LD-excited QEPAS system. <i>Optics Express</i> , 2016, 24, A752.	3.4	28
45	Acoustic Coupling between Resonator Tubes in Quartz-Enhanced Photoacoustic Spectrophones Employing a Large Prong Spacing Tuning Fork. <i>Sensors</i> , 2019, 19, 4109.	3.8	26
46	Quartz-enhanced photoacoustic NH ₃ sensor exploiting a large-prong-spacing quartz tuning fork and an optical fiber amplifier for biomedical applications. <i>Photoacoustics</i> , 2022, 26, 100363.	7.8	25
47	Generalized optical design of two-spherical-mirror multi-pass cells with dense multi-circle spot patterns. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	20
48	Compact quartz-enhanced photoacoustic sensor for ppb-level ambient NO ₂ detection by use of a high-power laser diode and a grooved tuning fork. <i>Photoacoustics</i> , 2022, 25, 100325.	7.8	20
49	Dual quantum cascade laser-based sensor for simultaneous NO and NO ₂ detection using a wavelength modulation-division multiplexing technique. <i>Applied Physics B: Lasers and Optics</i> , 2017, 123, 1.	2.2	19
50	Multiple-sound-source-excitation quartz-enhanced photoacoustic spectroscopy based on a single-line spot pattern multi-pass cell. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	16
51	Cavity-enhanced photoacoustic sensor based on a whispering-gallery-mode diode laser. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 1905-1911.	3.1	15
52	Piezo-enhanced acoustic detection module for mid-infrared trace gas sensing using a grooved quartz tuning fork. <i>Optics Express</i> , 2019, 27, 35267.	3.4	12
53	Multi-Quartz Enhanced Photoacoustic Spectroscopy with Different Acoustic Microresonator Configurations. <i>Journal of Spectroscopy</i> , 2015, 2015, 1-6.	1.3	11
54	Acoustic Detection Module Design of a Quartz-Enhanced Photoacoustic Sensor. <i>Sensors</i> , 2019, 19, 1093.	3.8	10

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55	Simultaneous multi-gas detection between 3 and 4 μ m based on a 2.5-m multipass cell and a tunable Fabry-Pérot filter detector. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2019, 216, 154-160.	3.9	9
56	Elliptical-tube off-beam quartz-enhanced photoacoustic spectroscopy. <i>Applied Physics Letters</i> , 2022, 120, .	3.3	9
57	Quartz-enhanced conductance spectroscopy for nanomechanical analysis of polymer wire. <i>Applied Physics Letters</i> , 2015, 107, 221903.	3.3	8
58	Near-Infrared Quartz-Enhanced Photoacoustic Sensor for H ₂ S Detection in Biogas. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 5347.	2.5	7
59	Optical Detection Technique Using Quartz-Enhanced Photoacoustic Spectrum. <i>International Journal of Thermophysics</i> , 2015, 36, 1297-1304.	2.1	5
60	Quartz Enhanced Conductance Spectroscopy for Polymer Nano-Mechanical Thermal Analysis. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 4954.	2.5	3
61	Quartz Enhanced Photoacoustic Detection Based on an Elliptical Laser Beam. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 1197.	2.5	3
62	New Developments in Quartz-Enhanced Photoacoustic Sensing Real-World Applications. , 2020, , .		2
63	Design and Optimization of QTF Chopper for Quartz-Enhanced Photoacoustic Spectroscopy. <i>International Journal of Thermophysics</i> , 2015, 36, 1289-1296.	2.1	1
64	Single-tube on beam quartz-enhanced photoacoustic spectrophones exploiting a custom quartz tuning fork operating in the overtone mode. <i>Proceedings of SPIE</i> , 2017, , .	0.8	0
65	Near-infrared Quartz Enhanced Photoacoustic Sensor for Sub-ppm Level H ₂ S Detection based on a Fiber-amplifier Source. , 2016, , .		0
66	Micro-resonator Parameter Optimization of a QEPAS Spectrophone using a Custom Quartz Tuning Fork with large Prong Spacing. , 2016, , .		0
67	Nitrogen Dioxide Detection by use of Photoacoustic Spectroscopy with a High Power Violet-Blue Diode Laser. , 2017, , .		0
68	Photoacoustic H ₂ S Gas Sensor for SF ₆ Decomposition Analysis in an Electric Power System. , 2018, , .		0
69	Fast and calibration-free trace-gas monitoring based on beat frequency quartz-enhanced photoacoustic spectroscopy. , 2018, , .		0
70	Quartz-Enhanced Photoacoustic and Photothermal Spectroscopy. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 2613.	2.5	0