

# Angelo Sampaolo

## List of Publications by Year in descending order

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99  
papers

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87723

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149479

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docs citations

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Application of standard and custom quartz tuning forks for quartz-enhanced photoacoustic spectroscopy gas sensing. <i>Applied Spectroscopy Reviews</i> , 2023, 58, 562-584.	3.4	6
2	Quartz-enhanced photoacoustic spectroscopy for multi-gas detection: A review. <i>Analytica Chimica Acta</i> , 2022, 1202, 338894.	2.6	79
3	Compact and portable quartz-enhanced photoacoustic spectroscopy sensor for carbon monoxide environmental monitoring in urban areas. <i>Photoacoustics</i> , 2022, 25, 100318.	4.4	45
4	Ppb-level gas detection using on-beam quartz-enhanced photoacoustic spectroscopy based on a 28ÅkHz tuning fork. <i>Photoacoustics</i> , 2022, 25, 100321.	4.4	57
5	Compact quartz-enhanced photoacoustic sensor for ppb-level ambient NO <sub>2</sub> detection by use of a high-power laser diode and a grooved tuning fork. <i>Photoacoustics</i> , 2022, 25, 100325.	4.4	20
6	Mid-infrared intracavity quartz-enhanced photoacoustic spectroscopy with pptv " Level sensitivity using a T-shaped custom tuning fork. <i>Photoacoustics</i> , 2022, 25, 100330.	4.4	16
7	Simultaneous Detection of Methane, Ethane, and Propane by QEPAS Sensors for On-Site Hydrocarbon Characterization and Production Monitoring. <i>ACS Omega</i> , 2022, 7, 3395-3406.	1.6	11
8	A novel double-tuning fork acoustic detection module for photoacoustic wide range sensing. , 2022, , .		0
9	Simultaneous measurement of N <sub>2</sub> O, CH <sub>4</sub> , and NH <sub>3</sub> with a compact quartz-enhanced photoacoustic sensor for monitoring agricultural activities. , 2022, , .		1
10	Measurement of the methane isotopologues relaxation rate exploiting quartz-enhanced photoacoustic spectroscopy. , 2022, , .		1
11	Quartz-Enhanced Photoacoustic and Photothermal Spectroscopy. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 2613.	1.3	0
12	Compact sensor for wide concentration range methane and ethane detection employing quartz tuning fork as photodetector in tunable diode laser spectroscopy. , 2022, , .		0
13	Quartz enhanced photoacoustic spectrometer for natural gas composition analysis. , 2022, , .		0
14	Quartz-enhanced photoacoustic spectroscopy employing a Vernier-effect distributed feedback-quantum cascade laser for multiple analytes detection. , 2022, , .		0
15	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.	4.4	41
16	Quartz-enhanced photoacoustic sensors for environmental monitoring applications. , 2022, , .		0
17	Quartz-enhanced photoacoustic NH <sub>3</sub> sensor exploiting a large-prong-spacing quartz tuning fork and an optical fiber amplifier for biomedical applications. <i>Photoacoustics</i> , 2022, 26, 100363.	4.4	25
18	Ultra-highly sensitive HCl-LITES sensor based on a low-frequency quartz tuning fork and a fiber-coupled multi-pass cell. <i>Photoacoustics</i> , 2022, 27, 100381.	4.4	72

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19	Modeling and Design of a Semi-Integrated QEPAS Sensor. <i>Journal of Lightwave Technology</i> , 2021, 39, 646-653.	2.7	3
20	Broadband Gas QEPAS Detection Exploiting a Monolithic DFB-QCL Array. <i>NATO Science for Peace and Security Series B: Physics and Biophysics</i> , 2021, , 61-70.	0.2	0
21	Multi-pass quartz-enhanced photoacoustic spectroscopy-based trace gas sensing. <i>Optics Letters</i> , 2021, 46, 977.	1.7	52
22	H <sub>2</sub> 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.	4.4	37
23	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.	4.4	43
24	Ppt level carbon monoxide detection based on light-induced thermoelastic spectroscopy exploring custom quartz tuning forks and a mid-infrared QCL. <i>Optics Express</i> , 2021, 29, 25100.	1.7	76
25	Influence of Air Pressure on the Resonance Properties of a T-Shaped Quartz Tuning Fork Coupled with Resonator Tubes. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 7974.	1.3	6
26	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, .	5.5	76
27	Ultra-high sensitive trace gas detection based on light-induced thermoelastic spectroscopy and a custom quartz tuning fork. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	90
28	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.	4.4	47
29	New Developments in Quartz-Enhanced Photoacoustic Sensing Real-World Applications. , 2020, , .		2
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.	3.2	42
31	Fiber-Coupled Quartz-Enhanced Photoacoustic Spectroscopy System for Methane and Ethane Monitoring in the Near-Infrared Spectral Range. <i>Molecules</i> , 2020, 25, 5607.	1.7	28
32	Quartz-Enhanced Photoacoustic Detection of Ethane in the Near-IR Exploiting a Highly Performant Spectrophone. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2447.	1.3	11
33	Front-End Amplifiers for Tuning Forks in Quartz Enhanced PhotoAcoustic Spectroscopy. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2947.	1.3	16
34	Environmental Monitoring of Methane with Quartz-Enhanced Photoacoustic Spectroscopy Exploiting an Electronic Hygrometer to Compensate the H <sub>2</sub> O Influence on the Sensor Signal. <i>Sensors</i> , 2020, 20, 2935.	2.1	29
35	Quartz-enhanced photoacoustic spectroscopy for hydrocarbon trace gas detection and petroleum exploration. <i>Fuel</i> , 2020, 277, 118118.	3.4	43
36	In-plane quartz-enhanced photoacoustic spectroscopy. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	59

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37	Photoacoustic spectroscopy for gas sensing: A comparison between piezoelectric and interferometric readout in custom quartz tuning forks. <i>Photoacoustics</i> , 2020, 17, 100155.	4.4	19
38	Sub-ppb-level CH <sub>4</sub> detection by exploiting a low-noise differential photoacoustic resonator with a room-temperature interband cascade laser. <i>Optics Express</i> , 2020, 28, 19446.	1.7	27
39	Light-induced thermo-elastic effect in quartz tuning forks exploited as a photodetector in gas absorption spectroscopy. <i>Optics Express</i> , 2020, 28, 19074.	1.7	51
40	Atmospheric CH <sub>4</sub> 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.	4.0	127
41	Dual-Gas Quartz-Enhanced Photoacoustic Sensor for Simultaneous Detection of Methane/Nitrous Oxide and Water Vapor. <i>Analytical Chemistry</i> , 2019, 91, 12866-12873.	3.2	53
42	Acoustic Coupling between Resonator Tubes in Quartz-Enhanced Photoacoustic Spectrophones Employing a Large Prong Spacing Tuning Fork. <i>Sensors</i> , 2019, 19, 4109.	2.1	26
43	Damping Mechanisms of Piezoelectric Quartz Tuning Forks Employed in Photoacoustic Spectroscopy for Trace Gas Sensing. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1800552.	0.8	13
44	Ppb-Level Quartz-Enhanced Photoacoustic Detection of Carbon Monoxide Exploiting a Surface Grooved Tuning Fork. <i>Analytical Chemistry</i> , 2019, 91, 5834-5840.	3.2	67
45	Simultaneous multi-gas detection between 3 and 4 $\mu$ 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.	2.0	9
46	Influence of Tuning Fork Resonance Properties on Quartz-Enhanced Photoacoustic Spectroscopy Performance. <i>Sensors</i> , 2019, 19, 3825.	2.1	3
47	Methane, ethane and propane detection using a compact quartz enhanced photoacoustic sensor and a single interband cascade laser. <i>Sensors and Actuators B: Chemical</i> , 2019, 282, 952-960.	4.0	66
48	Tuning forks with optimized geometries for quartz-enhanced photoacoustic spectroscopy. <i>Optics Express</i> , 2019, 27, 1401.	1.7	77
49	Quartz-enhanced photoacoustic sensor for ethylene detection implementing optimized custom tuning fork-based spectrophone. <i>Optics Express</i> , 2019, 27, 4271.	1.7	46
50	Piezo-enhanced acoustic detection module for mid-infrared trace gas sensing using a grooved quartz tuning fork. <i>Optics Express</i> , 2019, 27, 35267.	1.7	12
51	New generation of tuning forks for quartz-enhanced photoacoustic spectroscopy. , 2019, , .		0
52	Quartz-enhanced photoacoustic sensors for detection of multiple hydrocarbon and methane isotopes. , 2019, , .		0
53	Octupole electrode pattern for tuning forks vibrating at the first overtone mode in quartz-enhanced photoacoustic spectroscopy. , 2019, , .		0
54	Simultaneous dual gas QEPAS sensing of water and methane/nitrous oxide. , 2019, , .		1

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55	Quartz-enhanced photoacoustic spectroscopy employing a distributed feedback-quantum cascade laser array for nitrous oxide and methane broadband detection. , 2019, , .		0
56	Recent advances in quartz enhanced photoacoustic sensing. Applied Physics Reviews, 2018, 5, .	5.5	174
57	Nitrous oxide quartz-enhanced photoacoustic detection employing a broadband distributed-feedback quantum cascade laser array. Applied Physics Letters, 2018, 113, .	1.5	34
58	Octupole electrode pattern for tuning forks vibrating at the first overtone mode in quartz-enhanced photoacoustic spectroscopy. Optics Letters, 2018, 43, 1854.	1.7	20
59	Loss Mechanisms Determining the Quality Factors in Quartz Tuning Forks Vibrating at the Fundamental and First Overtone Modes. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 1951-1957.	1.7	29
60	Fiber-ring laser intracavity QEPAS gas sensor using a 7.2â€”kHz quartz tuning fork. Sensors and Actuators B: Chemical, 2018, 268, 512-518.	4.0	46
61	Compact and low-noise quartz-enhanced photoacoustic sensor for sub-ppm ethylene detection in atmosphere. , 2018, , .		2
62	Tapered hollow-core fibers providing single-mode output in the 3.5um-7.8um spectral range. , 2018, , .		0
63	Interband cascade laser based quartz-enhanced photoacoustic sensor for multiple hydrocarbons detection. , 2018, , .		1
64	Recent advances in quartz-enhanced photoacoustic sensing. , 2018, , .		2
65	Quartzâ€”enhanced photoacoustic spectrophones exploiting custom tuning forks: a review. Advances in Physics: X, 2017, 2, 169-187.	1.5	44
66	Pure amplitude and wavelength modulation spectroscopy for detection of N2O using a three-section quantum cascade laser. , 2017, , .		0
67	Low power consumption quartz-enhanced photoacoustic gas sensor employing a quantum cascade laser in pulsed operation. Proceedings of SPIE, 2017, , .	0.8	0
68	Double antinode excited quartz-enhanced photoacoustic spectrophone. Applied Physics Letters, 2017, 110, .	1.5	33
69	Single-tube on beam quartz-enhanced photoacoustic spectrophones exploiting a custom quartz tuning fork operating in the overtone mode. Proceedings of SPIE, 2017, , .	0.8	0
70	Simultaneous dual-gas QEPAS detection based on a fundamental and overtone combined vibration of quartz tuning fork. Applied Physics Letters, 2017, 110, .	1.5	64
71	Mode matching of a laser-beam to a compact high finesse bow-tie optical cavity for quartz enhanced photoacoustic gas sensing. Sensors and Actuators A: Physical, 2017, 267, 70-75.	2.0	7
72	Improved Tuning Fork for Terahertz Quartz-Enhanced Photoacoustic Spectroscopy. Sensors, 2016, 16, 439.	2.1	59

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73	Low-Loss Coupling of Quantum Cascade Lasers into Hollow-Core Waveguides with Single-Mode Output in the 3.7–7.6 $\mu\text{m}$ Spectral Range. <i>Sensors</i> , 2016, 16, 533.	2.1	21
74	Highly sensitive gas leak detector based on a quartz-enhanced photoacoustic SF6 sensor. <i>Optics Express</i> , 2016, 24, 15872.	1.7	57
75	Purely wavelength- and amplitude-modulated quartz-enhanced photoacoustic spectroscopy. <i>Optics Express</i> , 2016, 24, 25943.	1.7	44
76	Mid infrared quantum cascade laser operating in pure amplitude modulation for background-free trace gas spectroscopy. <i>Optics Express</i> , 2016, 24, 26464.	1.7	11
77	Overtone resonance enhanced single-tube on-beam quartz enhanced photoacoustic spectrophone. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	46
78	Innovative quartz enhanced photoacoustic sensors for trace gas detection. , 2016, , .		2
79	Analysis of overtone flexural modes operation in quartz-enhanced photoacoustic spectroscopy. <i>Optics Express</i> , 2016, 24, A682.	1.7	57
80	New developments in THz quartz enhanced photoacoustic spectroscopy. , 2016, , .		1
81	Allan Deviation Plot as a Tool for Quartz-Enhanced Photoacoustic Sensors Noise Analysis. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2016, 63, 555-560.	1.7	72
82	Compact TDLAS based sensor design using interband cascade lasers for mid-IR trace gas sensing. <i>Optics Express</i> , 2016, 24, A528.	1.7	150
83	Single-tube on-beam quartz-enhanced photoacoustic spectroscopy. <i>Optics Letters</i> , 2016, 41, 978.	1.7	88
84	Analysis of the electro-elastic properties of custom quartz tuning forks for photoacoustic gas sensing. <i>Sensors and Actuators B: Chemical</i> , 2016, 227, 539-546.	4.0	110
85	Micro-resonator Parameter Optimization of a QEPAS Spectrophone using a Custom Quartz Tuning Fork with large Prong Spacing. , 2016, , .		0
86	Hollow core waveguide as mid-infrared laser modal beam filter. <i>Journal of Applied Physics</i> , 2015, 118, 113102.	1.1	20
87	Quartz-enhanced photoacoustic spectroscopy exploiting tuning fork overtone modes. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	61
88	A quartz-enhanced photoacoustic sensor for H2S trace-gas detection at 2.6 $\mu\text{m}$ . <i>Applied Physics B: Lasers and Optics</i> , 2015, 119, 21-27.	1.1	37
89	Quartz-enhanced photoacoustic sensors for H2S trace gas detection. , 2015, , .		1
90	New approaches in quartz-enhanced photoacoustic sensing. <i>Proceedings of SPIE</i> , 2015, , .	0.8	2

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91	THz Quartz-enhanced photoacoustic sensor for H <sub>2</sub> S trace gas detection. Optics Express, 2015, 23, 7574.	1.7	76
92	Single mode operation with mid-IR hollow fibers in the range 51-105 Åµm. Optics Express, 2015, 23, 195.	1.7	32
93	Quartz enhanced photoacoustic H <sub>2</sub> S gas sensor based on a fiber-amplifier source and a custom tuning fork with large prong spacing. Applied Physics Letters, 2015, 107, .	1.5	128
94	Modeling the dependence of fork geometry on the performance of quartz enhanced photoacoustic spectroscopic sensors. , 2015, , .		1
95	Widely-tunable mid-infrared fiber-coupled quartz-enhanced photoacoustic sensor for environmental monitoring. Optics Express, 2014, 22, 28222.	1.7	93
96	A quartz enhanced photo-acoustic gas sensor based on a custom tuning fork and a terahertz quantum cascade laser. Analyst, The, 2014, 139, 2079-2087.	1.7	77
97	Quartz Enhanced Photoacoustic Sensors for Trace Gas Detection in the IR and THz Spectral Range. NATO Science for Peace and Security Series B: Physics and Biophysics, 2014, , 139-151.	0.2	0
98	THz quantum cascade laser-based quartz enhanced photo-acoustic sensor. , 2013, , .		1
99	Compact and Versatile QEPAS-Based Sensor Box for Simultaneous Detection of Methane and Infrared Absorber Gas Molecules in Ambient Air. Frontiers in Environmental Chemistry, 0, 3, .	0.7	7