

# Yasser M Sabry

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4974090/publications.pdf>

Version: 2024-02-01

146  
papers

1,070  
citations

516710

16  
h-index

526287

27  
g-index

147  
all docs

147  
docs citations

147  
times ranked

603  
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of metallic slotted micromirrors using modal decomposition and multiple reflections. Journal of the Optical Society of America B: Optical Physics, 2022, 39, 586.	2.1	0
2	Direct Absorption and Photoacoustic Spectroscopy for Gas Sensing and Analysis: A Critical Review. Laser and Photonics Reviews, 2022, 16, .	8.7	25
3	Infrared Absorbance of Distributed-Size HgTe Quantum Dots Under Diffuse Reflectance. , 2022, , .		0
4	Critical analysis of in-plane free-space light beam coupling using photonic curved micromirrors. Journal of Optical Microsystems, 2022, 2, .	1.5	1
5	MEMS FTIR Parallel Spectrometer for Non-Invasive Skin Biochemistry Analysis. , 2021, , .		2
6	MEMS-SOA Spectrum-Sliced Auto-Equalized Source Enabling Uniformly Tunable Microwave Photonic Filter. IEEE Photonics Technology Letters, 2021, 33, 15-18.	2.5	4
7	Physical Parameter Extraction and Modeling of Metallized Deeply-Etched Vertical Mirrors. Journal of Microelectromechanical Systems, 2021, 30, 930-938.	2.5	2
8	Single MEMS Chip Enabling Dual Spectral-Range Infrared Micro-Spectrometer with Optimal Detectors. Advanced Materials Technologies, 2021, 6, 2001013.	5.8	3
9	Differential Optical Spectrometer Based on Critical Angle Dispersion. Journal of Lightwave Technology, 2021, 39, 2911-2916.	4.6	1
10	Modeling of Fabry-Perot Micro Cavities Under Partial Spatial Coherence Illumination Using Multimode Optical Fibers. Journal of Lightwave Technology, 2021, 39, 4424-4430.	4.6	2
11	Optical Fiber Filters Linewidth Enhancement Based on Erbium-doped Photonic Crystal Fiber Cavities. , 2021, , .		0
12	Complex Kernel-based spectrum reconstruction algorithm for cascaded Fabry-Perot interferometric spectrometer. Applied Optics, 2021, 60, 8999.	1.8	2
13	Ultra-Compact Fourier Transform Near-Infrared MEMS Spectral Sensor for Smart Industry and IoT. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-9.	2.9	10
14	Modelling of ATR-FTIR MEMS Spectrometer Under Partially-Coherent Multimode-Fiber Illumination. Journal of Lightwave Technology, 2021, 39, 7092-7098.	4.6	2
15	Spatiotemporal dynamics of nanowire growth in a microfluidic reactor. Microsystems and Nanoengineering, 2021, 7, 77.	7.0	4
16	Subthreshold Spectral Bi-Modality of Double Layer InP/AlGaInP Quantum Dot Laser. , 2021, , .		1
17	Deep Learning on Synthesized Sensor Characteristics and Transmission Spectra Enabling MEMS-Based Spectroscopic Gas Analysis beyond the Fourier Transform Limit. Foundations, 2021, 1, 304-317.	1.3	3
18	Photonic Monte Carlo Analysis and Deep Learning Predicting the Performance of Non-Invasive Glucose Detection Using Compact NIR Spectrometers. , 2021, , .		1

#	ARTICLE	IF	CITATIONS
19	Deep Learning Enabling Analysis of Exhaled Breath Using Fourier Transform Spectroscopy in the Mid-Infrared. , 2021, , .		0
20	Micro-Electro-Mechanical System Fourier Transform Infrared (MEMS FT-IR) Spectrometer Under Modulated Pulsed Light Source Excitation. Applied Spectroscopy, 2020, 74, 799-807.	2.2	5
21	Rapid assessment of nanomaterial homogeneity reveals crosswise structural gradients in zinc-oxide nanowire arrays. Nanoscale, 2020, 12, 1397-1405.	5.6	2
22	Tunable Microwave Single-Bandpass Photonic Filter Based on Amplified Mems-Based Gires-Tournois Interferometer. , 2020, , .		1
23	Optical Cavity with Large Operational Bandwidth using Silicon-Based Slotted Micromirrors. , 2020, , .		1
24	Silicon Multi-Pass Gas Cell for Chip-Scale Gas Analysis by Absorption Spectroscopy. Micromachines, 2020, 11, 463.	2.9	3
25	Kinetics Study and Online Monitoring of in-Situ Growth of Zinc-Oxide Nanowire Arrays Within Microfluidic Chambers. , 2020, , .		1
26	Visible Laser on Silicon Optofluidic Microcavity. Advanced Materials Technologies, 2020, 5, 1901132.	5.8	6
27	On-chip parallel Fourier transform spectrometer for broadband selective infrared spectral sensing. Microsystems and Nanoengineering, 2020, 6, 10.	7.0	31
28	Continuous Monitoring of Air Purification: A Study on Volatile Organic Compounds in a Gas Cell. Sensors, 2020, 20, 934.	3.8	12
29	Sensitivity Enhancement Factor for Gain-Assisted Cavity Enhanced Spectroscopy. IEEE Journal of Quantum Electronics, 2020, 56, 1-8.	1.9	1
30	Modeling and characterization of the reflectance of vertical metal-coated micromirrors in deeply-etched optical benches. , 2020, , .		1
31	Optical constants of gamma-irradiated silver-doped PVA in the near-infrared range. Micro and Nano Letters, 2020, 15, 480-485.	1.3	2
32	All-Silicon Double-Cavity Fourier Transform Infrared Spectrometer On-Chip. Advanced Materials Technologies, 2019, 4, 1900441.	5.8	28
33	Spectroscopic Gas Sensing Based on a MEMS-SOA Swept Fiber Laser Source. Journal of Lightwave Technology, 2019, 37, 5354-5360.	4.6	10
34	Corrections to "Toward On-Chip MEMS-Based Optical Autocorrelator" [Oct 18 5003-5009]. Journal of Lightwave Technology, 2019, 37, 3432-3432.	4.6	0
35	On the Detection of Volatile Organic Compounds (VOCs) Using Machine Learning and FTIR Spectroscopy for Air Quality Monitoring. , 2019, , .		3
36	Combining MEMS FTIR Spectrometer and Widened-Spectrum Mode-Locked Fiber Laser for Gas-Sensing. , 2019, , .		2

#	ARTICLE	IF	CITATIONS
37	MEMS-Based Tunable Single-Passband Microwave Photonic Filter. , 2019, , .		1
38	NIR and MIR Absorption of Ultra-Black Silicon (UBS). Application to High Emissivity, All-Silicon, Light Source. , 2019, , .		3
39	Silicon Microcavity in the Visible Range Enabled by Curved Slotted Micromirrors. , 2019, , .		1
40	Gas Detection using a MEMS-Based Swept Laser Source. , 2019, , .		0
41	Capturing the Instantaneous Spectral Response of a MEMS Swept Laser Source Using a Quasi-Static Tunable Filter. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-8.	2.9	3
42	Nanowire Length, Density, and Crystalline Quality Retrieved from a Single Optical Spectrum. Nano Letters, 2019, 19, 2509-2515.	9.1	9
43	On-Channel Integrated Optofluidic Pressure Sensor with Optically Boosted Sensitivity. Sensors, 2019, 19, 944.	3.8	9
44	Micro-Machined Heater Designed for Miniaturized Thermal IR Sources. , 2019, , .		1
45	Silicon photonic coupled-ring resonator in nested configuration comprising different length scales. , 2019, , .		3
46	Effects of Doping on the Morphology and Infrared Radiative Properties of Black Silicon. , 2019, , .		2
47	Incoherent Gain-Assisted Ring Enhanced Gas Absorption Spectroscopy. IEEE Journal of Quantum Electronics, 2019, 55, 1-8.	1.9	8
48	Optimization of silicon on silica waveguides for mid-infrared applications at 4.28 um. , 2019, , .		3
49	MEMS FTIR optical spectrometer enables detection of volatile organic compounds (VOCs) in part-per-billion (ppb) range for air quality monitoring. , 2019, , .		6
50	Ultra wide band MIR MEMS FTIR spectrometer. , 2019, , .		4
51	Silicon photonics dual-coupler nested coupled cavities. , 2019, , .		5
52	Modal analysis of TE and TM excitations in a metallic slotted micromirror. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 610.	2.1	4
53	Monitoring the purification of tobacco smoke in air assisted by ZnO nanowires and using MEMS-FTIR spectrometer for online continuous analysis of volatile organic compounds (VOCs). , 2019, , .		0
54	Zinc-oxide nanowires growth in-situ in microfluidic chamber. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
55	MEMS swept laser source with enhanced performance. , 2019, , .		0
56	Zinc-oxide nanowires characterization using optical reflectance. , 2019, , .		0
57	Active fiber-ring enhanced absorption gas spectroscopy using multi-longitudinal mode tunable laser in the NIR. , 2019, , .		2
58	Autoregressive superresolution microelectromechanical systems Fourier transform spectrometer. Applied Optics, 2019, 58, 6784.	1.8	3
59	Strip Waveguide Enabling Low Loss for Silicon on Silica Technology in the MIR. , 2018, , .		3
60	Transformation algorithm and analysis of the Fourier transform spectrometer based on cascaded Fabry-Pérot interferometers. Applied Optics, 2018, 57, 7225.	1.8	11
61	Toward On-Chip MEMS-Based Optical Autocorrelator. Journal of Lightwave Technology, 2018, 36, 5003-5009.	4.6	2
62	Optical modeling of black silicon using an effective medium/multi-layer approach. Optics Express, 2018, 26, 13443.	3.4	29
63	In-plane coupled Fabry-Pérot micro-cavities based on Si-air Bragg mirrors: a theoretical and practical study. Applied Optics, 2018, 57, 5112.	1.8	13
64	Transmission-enabled fiber Fabry-Pérot cavity based on a deeply etched slotted micromirror. Applied Optics, 2018, 57, 4610.	1.8	6
65	High-Q Fabry-Pérot Micro-Cavities for High-Sensitivity Volume Refractometry. Micromachines, 2018, 9, 54.	2.9	12
66	Near-infrared optical MEMS spectrometer-based quantification of fat concentration in milk. , 2018, , .		2
67	Omnidirectional optical MEMS scanner based on two degrees-of-freedom translation of acylindrical micromirrors. , 2018, , .		0
68	Long travel range thermal actuator for deeply etched MEMS components. , 2018, , .		0
69	Optical MEMS-scale multipass white cell for onchip gas sensing. , 2018, , .		3
70	Optical MEMS notch filter based on the multi-mode interference in a butterfly metallic waveguide. , 2018, , .		0
71	MEMS FTIR spectrometer with enhanced resolution for low cost gas sensing in the NIR. , 2018, , .		4
72	Ring-patterned plasmonic photonic crystal thermal light source for miniaturized near-infrared spectrometers. , 2018, , .		1

#	ARTICLE	IF	CITATIONS
73	Dual coupler coupled cavities optical gyroscope with enhanced performance. , 2018, , .		2
74	Modeling of the emissivity of super-wavelength black silicon in the geometrical optics regime. , 2018, , .		0
75	Vernier effect-based multiplication of the Sagnac beating frequency in ring laser gyroscope sensors. , 2018, , .		0
76	MEMS-based Fourier transform spectrometer using pulsed infrared light source. , 2018, , .		2
77	MEMS tunable-finesse slotted micromirror resonator. , 2018, , .		1
78	Tunable and non-reciprocal dual-wavelength SOA-fiber ring laser. , 2017, , .		1
79	Environmental mid-infrared gas sensing using MEMS FTIR spectrometer. , 2017, , .		5
80	Multi-segment tapered optical mirror for MEMS LiDAR application. , 2017, , .		2
81	Characterization and modelling of multimode optical fiber for MOEMS applications using the elementary source method. Proceedings of SPIE, 2017, , .	0.8	0
82	Ultra-compact MEMS FTIR spectrometer. Proceedings of SPIE, 2017, , .	0.8	14
83	Gain-assisted broadband ring cavity enhanced spectroscopy. Proceedings of SPIE, 2017, , .	0.8	5
84	Silicon photonic mid-infrared grating coupler based on silicon-on-insulator technology. , 2017, , .		8
85	Theoretical and experimental analysis of the fabrication tolerance on deeply etched silicon/air Bragg micromirrors. , 2017, , .		3
86	Multimode spot-size converter for optical MEMS applications. , 2017, , .		1
87	Distortion of Gaussian beams reflected off-axis on curved mirrors in the MEMS scale. , 2017, , .		0
88	Quasi-homogeneous partial coherent source modeling of multimode optical fiber output using the elementary source method. Journal of Optics (United Kingdom), 2017, 19, 105605.	2.2	5
89	Optical characterization of high speed microscanners based on static slit profiling method. Optics and Lasers in Engineering, 2017, 88, 129-138.	3.8	2
90	Overcoming the near-infra-red spectral range limit with Fabry-Perot silicon microcavity enabled by slotted micromirrors. , 2017, , .		3

#	ARTICLE	IF	CITATIONS
91	Deeply-Etched MEMS Slotted Micromirrors With Controlled Transmittance. IEEE Journal of Quantum Electronics, 2017, 53, 1-8.	1.9	8
92	In-Plane Optical Beam Collimation Using a Three-Dimensional Curved MEMS Mirror. Micromachines, 2017, 8, 134.	2.9	8
93	Analysis of dual coupler nested coupled cavities. Applied Optics, 2017, 56, 9457.	1.8	10
94	Optical Gas Sensing Based on MEMS FTIR Spectrometers. , 2017, , .		5
95	Electrostatic Comb-Drive Actuator with High In-Plane Translational Velocity. Micromachines, 2016, 7, 188.	2.9	9
96	Optofluidic Fabry-Pérot Micro-Cavities Comprising Curved Surfaces for Homogeneous Liquid Refractometry Design, Simulation, and Experimental Performance Assessment. Micromachines, 2016, 7, 62.	2.9	15
97	Optical filter finesses enhancement based on nested coupled cavities and active medium. , 2016, , .		5
98	Ring laser gyroscope based on standard single-mode fiber and semiconductor optical amplifier. , 2016, , .		5
99	On-Chip Micro-Electro-Mechanical System Fourier Transform Infrared (MEMS FT-IR) Spectrometer-Based Gas Sensing. Applied Spectroscopy, 2016, 70, 897-904.	2.2	105
100	On the environmental gas sensing using MEMS FTIR spectrometer in the near-infrared region. , 2016, , .		7
101	Mid infrared MEMS FTIR spectrometer. Proceedings of SPIE, 2016, , .	0.8	8
102	Beating signal power level improvement in ring lasers based on coupled ring resonators. , 2016, , .		2
103	Staggered mode MEMS gyroscope. , 2016, , .		3
104	Optical diffuse reflectance of Black Silicon and its isotropicity. , 2016, , .		2
105	In-Line Optical MEMS Phase Modulator and Application in Ring Laser Frequency Modulation. IEEE Journal of Quantum Electronics, 2016, 52, 1-8.	1.9	12
106	Characterization technique for long optical fiber cavities based on beating spectrum of multi-longitudinal mode fiber laser and beating spectrum in the RF domain. , 2016, , .		1
107	Deeply-etched micromirror with vertical slit and metallic coating enabling transmission-type optical MEMS filters. Proceedings of SPIE, 2016, , .	0.8	4
108	Novel Fourier transform infrared spectrometer architecture based on cascaded Fabry-Perot interferometers. Proceedings of SPIE, 2016, , .	0.8	16

#	ARTICLE	IF	CITATIONS
109	Black silicon-based infrared radiation source. Proceedings of SPIE, 2016, , .	0.8	4
110	Wideband Optical MEMS Interferometer Enabled by Multimode Interference Waveguides. Journal of Lightwave Technology, 2016, 34, 2145-2151.	4.6	25
111	In-plane deeply-etched optical MEMS notch filter with high-speed tunability. Journal of Optics (United Tj ETQq1 1 0,784314 rgBT /Over	2.2	25
112	Thermal stability of multi-longitudinal mode laser beating frequencies in hybrid semiconductor-fiber ring lasers. Proceedings of SPIE, 2015, , .	0.8	3
113	Curved Silicon Micromirror for Linear Displacement-to-Angle Conversion With Uniform Spot Size. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 165-173.	2.9	23
114	Wideband Subwavelength Deeply Etched Multilayer Silicon Mirrors for Tunable Optical Filters and SS-OCT Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 157-164.	2.9	35
115	Monolithic silicon micromachined free-space optical interferometers onchip. Laser and Photonics Reviews, 2015, 9, 1-24.	8.7	81
116	MEMS-based frequency modulation of fiber ring laser. , 2015, , .		0
117	Fiber-coupled Fabry-Pérot notch filter combining in-plane axis, high speed MEMS tunability and large etching depth. Proceedings of SPIE, 2015, , .	0.8	1
118	Bidirectional single-longitudinal mode SOA-fiber ring laser based on optical filter assisted gain starvation. Proceedings of SPIE, 2015, , .	0.8	1
119	D1. High frequency in-plane MEMS actuator. , 2015, , .		0
120	D3. Optical coupling of cylindrical micromirrors in micro-optical benches. , 2015, , .		2
121	MEMS corner-cube transmission-type optical phase modulator in DRIE technology. , 2014, , .		2
122	Dual-fiber OCT measurements. Proceedings of SPIE, 2014, , .	0.8	3
123	MEMS optical tunable filter based on free-standing subwavelength silicon layers. Proceedings of SPIE, 2014, , .	0.8	3
124	Inclination-independent transformation of light beams using high-throughput uniquely-curved micromirrors. , 2014, , .		4
125	In-plane comb-drive actuator with high frequency-displacement product for micro-optical bench applications. , 2014, , .		4
126	MMI-based MOEMS FT spectrometer for visible and IR spectral ranges. , 2014, , .		4



#	ARTICLE	IF	CITATIONS
127	High-throughput deeply-etched scanning Michelson interferometer on-chip. , 2014, , .		13
128	Multi-step etching of three-dimensional sub-millimeter curved silicon microstructures with in-plane principal axis. Microelectronic Engineering, 2014, 114, 78-84.	2.4	13
129	Deeply-etched 1 micron-thick silicon layers enabling 170-NM bandwidth highly-reflective Bragg mirrors. , 2014, , .		5
130	Intrinsic improvement of diffraction-limited resolution in optical MEMS fourier-transform spectrometers. , 2014, , .		10
131	Deeply-Etched Optical MEMS Tunable Filter for Swept Laser Source Applications. IEEE Photonics Technology Letters, 2014, 26, 37-39.	2.5	37
132	Three-dimensional collimation of in-plane-propagating light using silicon micromachined mirror. , 2014, , .		1
133	In-plane diffraction loss free optical cavity using coated optical fiber and silicon micromachined spherical mirror. , 2013, , .		3
134	Wide steering angle microscanner based on curved surface. Proceedings of SPIE, 2013, , .	0.8	2
135	Integrated wide-angle scanner based on translating a curved mirror of acylindrical shape. Optics Express, 2013, 21, 13906.	3.4	39
136	In-plane external fiber Fabry-Perot cavity comprising silicon micromachined concave mirror. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2013, 13, 011110.	0.9	22
137	Silicon micromirrors with three-dimensional curvature enabling lensless efficient coupling of free-space light. Light: Science and Applications, 2013, 2, e94-e94.	16.6	46
138	Simulation of Quantum Ballistic Transport in FinFETs. Lecture Notes in Nanoscale Science and Technology, 2013, , 1-24.	0.8	1
139	Parameter extraction of MEMS comb-drive near-resonance equivalent circuit: physically-based technique for a unique solution. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2012, 11, 021205-1.	0.9	7
140	Simulation of quantum transport in double gate MOSFETs: Coupled-mode space versus real space. , 2012, , .		1
141	Simulation of quantum transport in double-gate MOSFETs using the non-equilibrium Green's function formalism in real-space: A comparison of four methods. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2011, 24, 322-334.	1.9	13
142	Characterization of MEMS FTIR spectrometer. Proceedings of SPIE, 2011, , .	0.8	24
143	Partial-Coupled Mode Space for quantum transport simulation in nanoscale double-gate MOSFETs. , 2010, , .		2
144	Quantum transport based simulation and design optimization of a 10 nm FinFET. , 2009, , .		2

#	ARTICLE	IF	CITATIONS
145	Novel Method for Modeling IBIS4.2 Four-Level Hysteresis Behavior in an Analog Simulator. , 2008, , .		0
146	Uncoupled mode-space simulation validity for double gate MOSFETs. , 2007, , .		5