Mohamed A Swillam

List of Publications by Year
in descending order

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56 papers	791 citations	430874 18 h-index	552781 26 g-index
57 all docs	57 docs citations	57 times ranked	641 citing authors

#	Article	IF	Citations
1	Mid Infrared Optical Gas Sensor Using Plasmonic Mach-Zehnder Interferometer. Scientific Reports, 2020, 10, 1293.	3.3	59
2	Vertically aligned crystalline silicon nanowires with controlled diameters for energy conversion applications: Experimental and theoretical insights. Journal of Applied Physics, 2014, 115, .	2.5	48
3	Semiconductor plasmonic gas sensor using on-chip infrared spectroscopy. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	45
4	Silicon based mid-IR super absorber using hyperbolic metamaterial. Scientific Reports, 2018, 8, 2036.	3.3	42
5	Plasmonic silicon solar cells using titanium nitride: a comparative study. Journal of Nanophotonics, 2014, 8, 084098.	1.0	40
6	Hybrid plasmonic electro-optical modulator. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	34
7	Efficient fabrication methodology of wide angle black silicon for energy harvesting applications. RSC Advances, 2017, 7, 26974-26982.	3.6	33
8	Efficient broadband energy transfer via momentum matching at hybrid junctions of guided-waves. Applied Physics Letters, 2012, 101, .	3.3	32
9	Submicron 1xN Ultra Wideband MIM Plasmonic Power Splitters. Journal of Lightwave Technology, 2014, 32, 1814-1820.	4.6	32
10	Tunable Mid IR focusing in InAs based semiconductor Hyperbolic Metamaterial. Scientific Reports, 2017, 7, 15312.	3.3	30
11	Hybrid electro-optic plasmonic modulators based on directional coupler switches. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	29
12	Silicon-Based SERS Substrates Fabricated by Electroless Etching. Journal of Lightwave Technology, 2017, 35, 3075-3081.	4.6	22
13	Mid Infrared Integrated MZI Gas Sensor Using Suspended Silicon Waveguide. Journal of Lightwave Technology, 2019, 37, 4394-4400.	4.6	21
14	On Chip Optical Modulator using Epsilon-Near-Zero Hybrid Plasmonic Platform. Scientific Reports, 2019, 9, 6669.	3.3	21
15	Polarization independent dielectric metasurface for infrared beam steering applications. Scientific Reports, 2019, 9, 10824.	3.3	19
16	One Step Fabrication of Highly Absorptive and Surface Enhanced Raman Scattering (SERS) Silver Nano-trees on Silicon Substrate. Scientific Reports, 2019, 9, 13588.	3.3	19
17	Investigating several ZrN plasmonic nanostructures and their effect on the absorption of organic solar cells. Journal Physics D: Applied Physics, 2017, 50, 385501.	2.8	18
18	Optical Interconnects Finally Seeing the Light in Silicon Photonics: Past the Hype. Nanomaterials, 2022, 12, 485.	4.1	18

#	Article	IF	Citations
19	Silicon plasmonics at midinfrared using silicon-insulator-silicon platform. Journal of Nanophotonics, 2017, 11, 016006.	1.0	17
20	Electro-optic modulators based on hybrid plasmonic micro-ring-disk resonators with femtojoule switching energy. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	15
21	Low power hybrid plasmonic microring-on-disks electro-optical modulators. Journal of Nanophotonics, 2017, 11, 016014.	1.0	14
22	Electro-Optic Plasmonic Modulator With Direct Coupling to Silicon Waveguides. IEEE Photonics Journal, 2017, 9, 1-7.	2.0	13
23	Silicon Plasmonics On-Chip Mid-IR Gas Sensor. IEEE Photonics Technology Letters, 2018, 30, 931-934.	2.5	12
24	Near-Field Mapping of Localized Plasmon Resonances in Metal-Free, Nanomembrane Graphene for Mid-Infrared Sensing Applications. ACS Applied Nano Materials, 2018, 1, 6454-6462.	5.0	12
25	Design considerations of highly efficient D-shaped plasmonic biosensor. Optical and Quantum Electronics, 2019, 51, 1.	3.3	12
26	One step fabrication of Silicon nanocones with wide-angle enhanced light absorption. Scientific Reports, 2018, 8, 4001.	3.3	10
27	Broadband MIR harvester using silicon nanostructures. Scientific Reports, 2019, 9, 5829.	3.3	9
28	Free space super focusing using all dielectric hyperbolic metamaterial. Scientific Reports, 2020, 10, 11529.	3.3	9
29	Compact Gas Sensor Using Silicon-on-Insulator Loop-Terminated Machâ€“Zehnder Interferometer. Photonics, 2022, 9, 8.	2.0	9
30	On-chip complex refractive index detection at multiple wavelengths for selective sensing. Scientific Reports, 2022, 12, .	3.3	9
31	High performance silicon Mach-Zehnder interferometer based photonic modulator. , 2017, , .		7
32	Lithography-Free Fabrication of Crystalline Silicon Nanowires Using Amorphous Silicon Substrate for Wide-Angle Energy Absorption Applications. ACS Applied Nano Materials, 2018, 1, 2990-2996.	5.0	7
33	Integrated slotted ring resonator at mid-infrared for on-chip sensing applications. Journal of Nanophotonics, 2019, 13, 1.	1.0	7
34	Effective modelling of silicon nanowire solar cells. , 2017, , .		6
35	Integrated Lab-on-a-Chip Optical Biosensor Using Ultrathin Silicon Waveguide SOI MMI Device. Sensors, 2020, 20, 4955.	3.8	6
36	Optimization of Silicon Nitride Waveguide Platform for On-Chip Virus Detection. Sensors, 2022, 22, 1152.	3.8	6

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37	Modelling, characterization, and applications of silicon on insulator loop terminated asymmetric Mach Zehnder interferometer. Scientific Reports, 2022, 12, 3598.	3.3	6
38	Analysis of plasmonic effects in silicon nanoholes. Optical Engineering, 2014, 53, 107103.	1.0	5
39	Surface roughness effect on characteristics of Si nanowire solar cell. Journal of Photonics for Energy, 2020, 10, .	1.3	5
40	Silicon-based nanostructures as surface enhanced Raman scattering substrates. , 2016, , .		4
41	High efficiency compact Bragg sensor. , 2016, , .		4
42	Broad-band Organicâ€“Silicon Nanowire Hybrid Composites for Solar Energy Applications. ACS Applied Nano Materials, 2020, 3, 7446-7453.	5.0	4
43	Performance evaluation of wireless compressedâ€image transmission over discrete Fourier transformâ€based orthogonal frequency division multiple access system. Journal of Engineering, 2022, 2022, 656-664.	1.1	4
44	Plasmonic tunable nano-filter. , 2014, , .		3
45	Graphene plasmonic electro-absorption modulator. , 2016, , .		3
46	Broadband absorption enhancement in amorphous Si solar cells using metal gratings and surface texturing. Proceedings of SPIE, 2017, , .	0.8	2
47	Optical analysis of Si-tapered nanowires/low band gap polymer hybrid solar cells. Proceedings of SPIE, 2017, , .	0.8	2
48	Linearized finite-element method solution of the ion-exchange nonlinear diffusion model. Journal of Nanophotonics, 2017, 11, 026013.	1.0	2
49	Efficient Design of Coupled Microcavities at Optical Frequencies. Micromachines, 2012, 3, 204-217.	2.9	1
50	Mid infrared applications of silicon thermoplasmonics. , 2016, , .		1
51	Semiconductor plasmonic gas sensor. , 2016, , .		1
52	Hybrid plasmonic electro-optical absorption modulator based on phase change characteristics of vanadium-dioxide. Journal of Nanophotonics, 2019, 13, 1.	1.0	1
53	Optical modulator using ultra-thin silicon waveguide in SOI hybrid technology. Optical and Quantum Electronics, 2022, 54, 1.	3.3	1
54	Analytical parasitic extraction for fast physical verification of silicon photonics. , 2016, , .		0

#	Article	IF	Citations
55	Publisherâ€™s note: Broadband absorption enhancement in organic solar cells using refractory plasmonic ceramics. Journal of Nanophotonics, 2017, 11, 019901.	1.0	0
56	Effects of Nanosized PbO and MgO, Rolling, and Sintering Time on Crack and Current Density of Bi1.6Pb0.4Sr2Ca2Cu3O10/Ag Superconductor Tapes. Journal of Superconductivity and Novel Magnetism, 0, , 1.	1.8	0