

# 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	Optical Interconnects Finally Seeing the Light in Silicon Photonics: Past the Hype. <i>Nanomaterials</i> , 2022, 12, 485.	4.1	18
2	Optimization of Silicon Nitride Waveguide Platform for On-Chip Virus Detection. <i>Sensors</i> , 2022, 22, 1152.	3.8	6
3	Optical modulator using ultra-thin silicon waveguide in SOI hybrid technology. <i>Optical and Quantum Electronics</i> , 2022, 54, 1.	3.3	1
4	Modelling, characterization, and applications of silicon on insulator loop terminated asymmetric Mach Zehnder interferometer. <i>Scientific Reports</i> , 2022, 12, 3598.	3.3	6
5	Compact Gas Sensor Using Silicon-on-Insulator Loop-Terminated Mach-Zehnder Interferometer. <i>Photonics</i> , 2022, 9, 8.	2.0	9
6	Performance evaluation of wireless compressed-image transmission over discrete Fourier transform-based orthogonal frequency division multiple access system. <i>Journal of Engineering</i> , 2022, 2022, 656-664.	1.1	4
7	On-chip complex refractive index detection at multiple wavelengths for selective sensing. <i>Scientific Reports</i> , 2022, 12, .	3.3	9
8	Free space super focusing using all dielectric hyperbolic metamaterial. <i>Scientific Reports</i> , 2020, 10, 11529.	3.3	9
9	Integrated Lab-on-a-Chip Optical Biosensor Using Ultrathin Silicon Waveguide SOI MMI Device. <i>Sensors</i> , 2020, 20, 4955.	3.8	6
10	Broad-band Organic-Silicon Nanowire Hybrid Composites for Solar Energy Applications. <i>ACS Applied Nano Materials</i> , 2020, 3, 7446-7453.	5.0	4
11	Mid Infrared Optical Gas Sensor Using Plasmonic Mach-Zehnder Interferometer. <i>Scientific Reports</i> , 2020, 10, 1293.	3.3	59
12	Surface roughness effect on characteristics of Si nanowire solar cell. <i>Journal of Photonics for Energy</i> , 2020, 10, .	1.3	5
13	Polarization independent dielectric metasurface for infrared beam steering applications. <i>Scientific Reports</i> , 2019, 9, 10824.	3.3	19
14	Mid Infrared Integrated MZI Gas Sensor Using Suspended Silicon Waveguide. <i>Journal of Lightwave Technology</i> , 2019, 37, 4394-4400.	4.6	21
15	One Step Fabrication of Highly Absorptive and Surface Enhanced Raman Scattering (SERS) Silver Nano-trees on Silicon Substrate. <i>Scientific Reports</i> , 2019, 9, 13588.	3.3	19
16	On Chip Optical Modulator using Epsilon-Near-Zero Hybrid Plasmonic Platform. <i>Scientific Reports</i> , 2019, 9, 6669.	3.3	21
17	Broadband MIR harvester using silicon nanostructures. <i>Scientific Reports</i> , 2019, 9, 5829.	3.3	9
18	Design considerations of highly efficient D-shaped plasmonic biosensor. <i>Optical and Quantum Electronics</i> , 2019, 51, 1.	3.3	12

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19	Integrated slotted ring resonator at mid-infrared for on-chip sensing applications. Journal of Nanophotonics, 2019, 13, 1.	1.0	7
20	Hybrid plasmonic electro-optical absorption modulator based on phase change characteristics of vanadium-dioxide. Journal of Nanophotonics, 2019, 13, 1.	1.0	1
21	One step fabrication of Silicon nanocones with wide-angle enhanced light absorption. Scientific Reports, 2018, 8, 4001.	3.3	10
22	Silicon Plasmonics On-Chip Mid-IR Gas Sensor. IEEE Photonics Technology Letters, 2018, 30, 931-934.	2.5	12
23	Silicon based mid-IR super absorber using hyperbolic metamaterial. Scientific Reports, 2018, 8, 2036.	3.3	42
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	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
26	Semiconductor plasmonic gas sensor using on-chip infrared spectroscopy. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	45
27	Low power hybrid plasmonic microring-on-disks electro-optical modulators. Journal of Nanophotonics, 2017, 11, 016014.	1.0	14
28	Broadband absorption enhancement in amorphous Si solar cells using metal gratings and surface texturing. Proceedings of SPIE, 2017, , .	0.8	2
29	Silicon plasmonics at midinfrared using silicon-insulator-silicon platform. Journal of Nanophotonics, 2017, 11, 016006.	1.0	17
30	Optical analysis of Si-tapered nanowires/low band gap polymer hybrid solar cells. Proceedings of SPIE, 2017, , .	0.8	2
31	High performance silicon Mach-Zehnder interferometer based photonic modulator. , 2017, , .		7
32	Effective modelling of silicon nanowire solar cells. , 2017, , .		6
33	Linearized finite-element method solution of the ion-exchange nonlinear diffusion model. Journal of Nanophotonics, 2017, 11, 026013.	1.0	2
34	Silicon-Based SERS Substrates Fabricated by Electroless Etching. Journal of Lightwave Technology, 2017, 35, 3075-3081.	4.6	22
35	Efficient fabrication methodology of wide angle black silicon for energy harvesting applications. RSC Advances, 2017, 7, 26974-26982.	3.6	33
36	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

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37	Tunable Mid IR focusing in InAs based semiconductor Hyperbolic Metamaterial. Scientific Reports, 2017, 7, 15312.	3.3	30
38	Electro-Optic Plasmonic Modulator With Direct Coupling to Silicon Waveguides. IEEE Photonics Journal, 2017, 9, 1-7.	2.0	13
39	Publisher's note: Broadband absorption enhancement in organic solar cells using refractory plasmonic ceramics. Journal of Nanophotonics, 2017, 11, 019901.	1.0	0
40	Silicon-based nanostructures as surface enhanced Raman scattering substrates. , 2016, , .		4
41	High efficiency compact Bragg sensor. , 2016, , .		4
42	Mid infrared applications of silicon thermoplasmonics. , 2016, , .		1
43	Hybrid plasmonic electro-optical modulator. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	34
44	Graphene plasmonic electro-absorption modulator. , 2016, , .		3
45	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
46	Semiconductor plasmonic gas sensor. , 2016, , .		1
47	Analytical parasitic extraction for fast physical verification of silicon photonics. , 2016, , .		0
48	Hybrid electro-optic plasmonic modulators based on directional coupler switches. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	29
49	Plasmonic silicon solar cells using titanium nitride: a comparative study. Journal of Nanophotonics, 2014, 8, 084098.	1.0	40
50	Analysis of plasmonic effects in silicon nanoholes. Optical Engineering, 2014, 53, 107103.	1.0	5
51	Submicron 1xN Ultra Wideband MIM Plasmonic Power Splitters. Journal of Lightwave Technology, 2014, 32, 1814-1820.	4.6	32
52	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
53	Plasmonic tunable nano-filter. , 2014, , .		3
54	Efficient broadband energy transfer via momentum matching at hybrid junctions of guided-waves. Applied Physics Letters, 2012, 101, .	3.3	32

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55	Efficient Design of Coupled Microcavities at Optical Frequencies. <i>Micromachines</i> , 2012, 3, 204-217.	2.9	1
56	Effects of Nanosized PbO and MgO, Rolling, and Sintering Time on Crack and Current Density of Bi <sub>1.6</sub> Pb <sub>0.4</sub> Sr <sub>2</sub> Ca <sub>2</sub> Cu <sub>3</sub> O <sub>10</sub> /Ag Superconductor Tapes. <i>Journal of Superconductivity and Novel Magnetism</i> , 0, , 1.	1.8	0