

# Mohammed A Swillam

## List of Publications by Year in descending order

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263  
papers

2,118  
citations

218662

26  
h-index

377849

34  
g-index

267  
all docs

267  
docs citations

267  
times ranked

1185  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hybrid orthogonal junctions: wideband plasmonic slot-silicon waveguide couplers. Optics Express, 2010, 18, 27048.	3.4	60
2	Mid Infrared Optical Gas Sensor Using Plasmonic Mach-Zehnder Interferometer. Scientific Reports, 2020, 10, 1293.	3.3	59
3	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
4	Semiconductor plasmonic gas sensor using on-chip infrared spectroscopy. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	45
5	Silicon Waveguides at the Mid-Infrared. Journal of Lightwave Technology, 2015, 33, 3207-3214.	4.6	44
6	Hybrid Plasmonic Modulators and Filters Based on Electromagnetically Induced Transparency. IEEE Photonics Technology Letters, 2016, 28, 818-821.	2.5	42
7	Silicon based mid-IR super absorber using hyperbolic metamaterial. Scientific Reports, 2018, 8, 2036.	3.3	42
8	Feedback Effects in Plasmonic Slot Waveguides Examined Using a Closed Form Model. IEEE Photonics Technology Letters, 2012, 24, 497-499.	2.5	41
9	Plasmonic silicon solar cells using titanium nitride: a comparative study. Journal of Nanophotonics, 2014, 8, 084098.	1.0	40
10	Compact Silicon Electro-Optical Modulator Using Hybrid ITO Tri-Coupled Waveguides. Journal of Lightwave Technology, 2018, 36, 4198-4204.	4.6	37
11	Hybrid plasmonic electro-optical modulator. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	34
12	Efficient fabrication methodology of wide angle black silicon for energy harvesting applications. RSC Advances, 2017, 7, 26974-26982.	3.6	33
13	Efficient broadband energy transfer via momentum matching at hybrid junctions of guided-waves. Applied Physics Letters, 2012, 101, .	3.3	32
14	Submicron 1xN Ultra Wideband MIM Plasmonic Power Splitters. Journal of Lightwave Technology, 2014, 32, 1814-1820.	4.6	32
15	Optical biosensor based on a silicon nanowire ridge waveguide for lab on chip applications. Journal of Optics (United Kingdom), 2015, 17, 045802.	2.2	32
16	Integrated optical sensor using hybrid plasmonics for lab on chip applications. Journal of Optics (United Kingdom), 2016, 18, 085803.	2.2	32
17	Resonance-based integrated plasmonic nanosensor for lab-on-chip applications. Journal of Nanophotonics, 2013, 7, 073077.	1.0	31
18	Adjoint Sensitivity Analysis of Dielectric Discontinuities Using FDTD. Electromagnetics, 2007, 27, 123-140.	0.7	30

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19	Analytical model for metal-insulator-metal mesh waveguide architectures. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 3157.	2.1	30
20	Tunable Mid IR focusing in InAs based semiconductor Hyperbolic Metamaterial. Scientific Reports, 2017, 7, 15312.	3.3	30
21	Nonlinear tuning techniques of plasmonic nano-filters. Optics Communications, 2015, 336, 306-314.	2.1	29
22	Metal-less silicon plasmonic mid-infrared gas sensor. Journal of Nanophotonics, 2016, 10, 026025.	1.0	29
23	Hybrid electro-optic plasmonic modulators based on directional coupler switches. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	29
24	INTEGRATED METAL-INSULATOR-METAL PLASMONIC NANO RESONATOR: AN ANALYTICAL APPROACH. Progress in Electromagnetics Research Letters, 2013, 43, 83-94.	0.7	29
25	Nanoscale highly selective plasmonic quad wavelength demultiplexer based on a metal-insulator-metal. Optics Communications, 2015, 344, 106-112.	2.1	28
26	Analysis and applications of 3D rectangular metallic waveguides. Optics Express, 2010, 18, 19831.	3.4	27
27	Efficient Design Optimization of Ring Resonator-Based Optical Filters. Journal of Lightwave Technology, 2011, 29, 2812-2817.	4.6	26
28	Silicon nanowire arrays with enhanced optical properties. Optics Letters, 2012, 37, 4194.	3.3	26
29	Efficient Optimization Approach for Accurate Parameter Extraction With Terahertz Time-Domain Spectroscopy. Journal of Lightwave Technology, 2010, 28, 1685-1692.	4.6	25
30	Polarization-controlled excitation of multilevel plasmonic nano-circuits using single silicon nanowire. Optics Express, 2012, 20, 12473.	3.4	22
31	Silicon-Based SERS Substrates Fabricated by Electroless Etching. Journal of Lightwave Technology, 2017, 35, 3075-3081.	4.6	22
32	Mid Infrared Integrated MZI Gas Sensor Using Suspended Silicon Waveguide. Journal of Lightwave Technology, 2019, 37, 4394-4400.	4.6	21
33	On Chip Optical Modulator using Epsilon-Near-Zero Hybrid Plasmonic Platform. Scientific Reports, 2019, 9, 6669.	3.3	21
34	Plasmonic Biosensors: Review. Biology, 2022, 11, 621.	2.8	21
35	EFFICIENT APPROACH FOR SENSITIVITY ANALYSIS OF LOSSY AND LEAKY STRUCTURES USING FDTD. Progress in Electromagnetics Research, 2009, 94, 197-212.	4.4	20
36	Efficient Design of Integrated Wideband Polarization Splitter/Combiner. Journal of Lightwave Technology, 2010, 28, 1176-1183.	4.6	20

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37	Accurate sensitivity analysis of photonic devices that exploit the finite-difference time-domain central adjoint variable method. <i>Applied Optics</i> , 2007, 46, 1492.	2.1	19
38	Efficient Adjoint Sensitivity Analysis Exploiting the FD-BPM. <i>Journal of Lightwave Technology</i> , 2007, 25, 1861-1869.	4.6	19
39	Modeling and design of nano-plasmonic structures using transmission line modeling. <i>Optics Express</i> , 2010, 18, 21784.	3.4	19
40	Polarization independent dielectric metasurface for infrared beam steering applications. <i>Scientific Reports</i> , 2019, 9, 10824.	3.3	19
41	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
42	Full Wave Sensitivity Analysis of Guided Wave Structures Using FDTD. <i>Journal of Electromagnetic Waves and Applications</i> , 2008, 22, 2135-2145.	1.6	18
43	Lithography-free wide-angle antireflective self-cleaning silicon nanocones. <i>Optics Letters</i> , 2016, 41, 3575.	3.3	18
44	Investigating several ZrN plasmonic nanostructures and their effect on the absorption of organic solar cells. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 385501.	2.8	18
45	Optical Interconnects Finally Seeing the Light in Silicon Photonics: Past the Hype. <i>Nanomaterials</i> , 2022, 12, 485.	4.1	18
46	Nanoelectromechanical systems-based metal-insulator-metal plasmonics tunable filter. <i>Journal of Micro/ Nanolithography, MEMS, and MOEMS</i> , 2015, 14, 025501.	0.9	17
47	Silicon plasmonics at midinfrared using silicon-insulator-silicon platform. <i>Journal of Nanophotonics</i> , 2017, 11, 016006.	1.0	17
48	Full Vectorial 3-D Sensitivity Analysis and Design Optimization Using BPM. <i>Journal of Lightwave Technology</i> , 2008, 26, 528-536.	4.6	16
49	Super-focusing of visible and UV light using a meta surface. <i>Journal of Optics (United Kingdom)</i> , 2014, 16, 105007.	2.2	16
50	Artificial neural network modeling of plasmonic transmission lines. <i>Applied Optics</i> , 2016, 55, 2780.	2.1	16
51	Amplitude modulation in infrared metamaterial absorbers based on electro-optically tunable conducting oxides. <i>Applied Physics A: Materials Science and Processing</i> , 2018, 124, 1.	2.3	16
52	Electro-optic modulators based on hybrid plasmonic micro-ring-disk resonators with femtojoule switching energy. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	2.3	15
53	Submicron omega-shaped plasmonic polarization rotator. <i>Journal of Optics (United Kingdom)</i> , 2014, 16, 105001.	2.2	14
54	Low power hybrid plasmonic microring-on-disks electro-optical modulators. <i>Journal of Nanophotonics</i> , 2017, 11, 016014.	1.0	14

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55	The Design of Multilayer Optical Coatings Using Convex Optimization. Journal of Lightwave Technology, 2007, 25, 1078-1085.	4.6	13
56	Efficient 3D sensitivity analysis of surface plasmon waveguide structures. Optics Express, 2008, 16, 16371.	3.4	13
57	Design Optimization of Compact Wideband Optical Switch Exploiting Staircase Index MMI. Journal of Lightwave Technology, 2009, 27, 80-87.	4.6	13
58	Realizing vertical light coupling and splitting in nano-plasmonic multilevel circuits. Optics Express, 2013, 21, 26311.	3.4	13
59	Dispersion analysis and engineering of 2D plasmonic waveguides. Journal of Optics (United Kingdom), 2015, 17, 015003.	2.2	13
60	Mid-Infrared Plasmonic Power Splitters. IEEE Photonics Technology Letters, 2016, 28, 2431-2434.	2.5	13
61	Electro-Optic Plasmonic Modulator With Direct Coupling to Silicon Waveguides. IEEE Photonics Journal, 2017, 9, 1-7.	2.0	13
62	Semi-analytical design methodology for large scale metal-insulator-metal waveguide networks. Journal of Optics (United Kingdom), 2014, 16, 065007.	2.2	12
63	Long-range all-dielectric plasmonic waveguide in mid-infrared. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	12
64	Silicon Plasmonics On-Chip Mid-IR Gas Sensor. IEEE Photonics Technology Letters, 2018, 30, 931-934.	2.5	12
65	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
66	Design considerations of highly efficient D-shaped plasmonic biosensor. Optical and Quantum Electronics, 2019, 51, 1.	3.3	12
67	Efficient sensitivity analysis of the time independent Schrödinger equation with application to quantum lasers. Optics Communications, 2008, 281, 4459-4463.	2.1	11
68	All-optical ultrafast control of beaming through a single sub-wavelength aperture in a metal film. Optics Express, 2011, 19, 7856.	3.4	11
69	Vertical Silicon Nanowires Based Directional Coupler Optical Router. IEEE Photonics Technology Letters, 2018, 30, 789-792.	2.5	11
70	Silicon plasmonic integrated interferometer sensor for lab on chip applications. Optics Communications, 2018, 427, 319-325.	2.1	11
71	Optical trapping and manipulation of nanoparticles using a meta plasmonic structure. Journal of Optics (United Kingdom), 2016, 18, 015002.	2.2	10
72	One step fabrication of Silicon nanocones with wide-angle enhanced light absorption. Scientific Reports, 2018, 8, 4001.	3.3	10

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73	Concentric Tubes Silicon-based Metamaterial Structure for Mid-IR Broadband Absorption. Optics Express, 0, , .	3.4	10
74	Effect of the fabrication and design parameters on the performance of multimode interference devices made by ion exchange: a detailed study. Journal of Optics, 2008, 10, 125301.	1.5	9
75	Silicon-on-sapphire (SOS) waveguide modal analysis for mid-infrared applications. Journal of Physics Communications, 2017, 1, 035011.	1.2	9
76	Broadband MIR harvester using silicon nanostructures. Scientific Reports, 2019, 9, 5829.	3.3	9
77	Free space super focusing using all dielectric hyperbolic metamaterial. Scientific Reports, 2020, 10, 11529.	3.3	9
78	High Sensitivity Hybrid Plasmonic Rectangular Resonator for Gas Sensing Applications. , 2015, , .		9
79	Compact Gas Sensor Using Silicon-on-Insulator Loop-Terminated Mach-Zehnder Interferometer. Photonics, 2022, 9, 8.	2.0	9
80	On-chip complex refractive index detection at multiple wavelengths for selective sensing. Scientific Reports, 2022, 12, .	3.3	9
81	Efficient sensitivity analysis approach based on finite element solutions of photonic structures. Optics Communications, 2014, 313, 430-435.	2.1	8
82	Ultra-fast silicon electro-optic modulator based on ITO-integrated directional coupler. Physica Scripta, 2019, 94, 065502.	2.5	8
83	Cheap and efficient plasmonic solar cell. Proceedings of SPIE, 2014, , .	0.8	7
84	Plasmonic Slot Waveguides with Core Nonlinearity. Plasmonics, 2014, 9, 409-413.	3.4	7
85	Broadband absorption enhancement in organic solar cells using refractory plasmonic ceramics. Journal of Nanophotonics, 2017, 11, 016001.	1.0	7
86	High performance silicon Mach-Zehnder interferometer based photonic modulator. , 2017, , .		7
87	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
88	Integrated slotted ring resonator at mid-infrared for on-chip sensing applications. Journal of Nanophotonics, 2019, 13, 1.	1.0	7
89	Extraordinary optical transmission in silicon nanoholes. Scientific Reports, 2021, 11, 21546.	3.3	7
90	Filter Design Using Multiple Coupled Microcavities. IEEE Photonics Technology Letters, 2011, 23, 1160-1162.	2.5	6

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91	Characteristics and applications of rectangular waveguide in sensing, slow light, and negative refraction. , 2011, , .		6
92	Spatial beam splitting for fully integrated MEMSinterferometer. Optics Communications, 2013, 295, 249-256.	2.1	6
93	Broadband Compact Silicon Wire to Silicon Slot Waveguide Orthogonal Bend. Journal of Lightwave Technology, 2014, 32, 1399-1405.	4.6	6
94	Optimal design of intermediate reflector layer in micromorph silicon thin-film solar cells. Journal of Nanophotonics, 2016, 10, 046006.	1.0	6
95	Low power compact hybrid plasmonic double microring electro-optical modulator. Proceedings of SPIE, 2016, , .	0.8	6
96	Modelling of quantum confinement in optical nanostructures. Journal of Optics (United Kingdom), 2016, 18, 015201.	2.2	6
97	Effective modelling of silicon nanowire solar cells. , 2017, , .		6
98	High performance optical systems using MIM based plasmonic structures. Journal of Physics Communications, 2017, 1, 035007.	1.2	6
99	Sub-Femtojoule Hybrid Plasmonic Optical Modulator. IEEE Photonics Journal, 2019, 11, 1-12.	2.0	6
100	Subwavelength focusing in the infrared range using different metasurfaces. Physica Scripta, 2019, 94, 115511.	2.5	6
101	Integrated Lab-on-a-Chip Optical Biosensor Using Ultrathin Silicon Waveguide SOI MMI Device. Sensors, 2020, 20, 4955.	3.8	6
102	Optimization of Silicon Nitride Waveguide Platform for On-Chip Virus Detection. Sensors, 2022, 22, 1152.	3.8	6
103	Modelling, characterization, and applications of silicon on insulator loop terminated asymmetric Mach Zehnder interferometer. Scientific Reports, 2022, 12, 3598.	3.3	6
104	Plasmonic slot waveguides with core nonlinearity. Proceedings of SPIE, 2013, , .	0.8	5
105	Design optimization and fabrication of plasmonic nano sensor. Proceedings of SPIE, 2014, , .	0.8	5
106	Analysis of plasmonic effects in silicon nanoholes. Optical Engineering, 2014, 53, 107103.	1.0	5
107	Toward automated parasitic extraction of silicon photonics using layout physical verifications. Journal of Optics (United Kingdom), 2016, 18, 085801.	2.2	5
108	Filter Response of Feedback Plasmonic Junctions. , 2011, , .		5

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109	Surface roughness effect on characteristics of Si nanowire solar cell. Journal of Photonics for Energy, 2020, 10, .	1.3	5
110	Broadband efficient hybrid plasmonic nano-junctions. , 2012, , .		4
111	Closed-form modelling of plasmonic mesh structures. , 2012, , .		4
112	Equivalent circuit model for plasmonic slot waveguides networks. Proceedings of SPIE, 2013, , .	0.8	4
113	Integrated coupled multi-stage plasmonic resonator for on-chip sensing. Proceedings of SPIE, 2014, , .	0.8	4
114	Silicon-based nanostructures as surface enhanced Raman scattering substrates. , 2016, , .		4
115	High efficiency compact Bragg sensor. , 2016, , .		4
116	Subwavelength focusing in the infrared range using a meta surface. , 2017, , .		4
117	Silicon ring resonator electro-optical modulator utilizing epsilon-near-zero characteristics of indium tin oxide. Physica Scripta, 2019, 94, 125507.	2.5	4
118	Broad-band Organicâ€“Silicon Nanowire Hybrid Composites for Solar Energy Applications. ACS Applied Nano Materials, 2020, 3, 7446-7453.	5.0	4
119	Electronic structure and energy gaps evaluation of perovskite manganite single crystals using XES and XAS spectroscopy. Journal of Electron Spectroscopy and Related Phenomena, 2021, 250, 147084.	1.7	4
120	Hybrid plasmonic electro-optical absorption modulator based on epsilon-near-zero characteristics of ITO. , 2018, , .		4
121	Towards 3D plasmonic circuits: controlled coupling to multilevel plasmonic circuits. , 2013, , .		3
122	Plasmonic tunable nano-filter. , 2014, , .		3
123	Introduction to the special issue on numerical simulation of optoelectronic devices NUSODâ€™14. Optical and Quantum Electronics, 2015, 47, 1291-1292.	3.3	3
124	Plasmonic waveguides in mid-infrared using silicon-insulator-silicon. Proceedings of SPIE, 2015, , .	0.8	3
125	Dispersion analysis and engineering in TiN 2D plasmonic waveguides. , 2015, , .		3
126	Black silicon based on simple fabrication of mesoporous silicon nanowires for solar energy harvesting. , 2016, , .		3

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127	Graphene plasmonic electro-absorption modulator. , 2016, , .		3
128	Facile omnidirectional black silicon based on porous and nonporous silicon nanowires for energy applications. , 2016, , .		3
129	Electronic structure and spontaneous magnetization in Mn-doped SnO <sub>2</sub> . Journal of Applied Physics, 2020, 128, 045705.	2.5	3
130	A compact silicon-on-insulator gas sensor. , 2019, , .		3
131	Gas sensing devices using doped silicon material at mid-infrared region. , 2019, , .		3
132	Potential of slot waveguides for silicon-based optical interconnects. SPIE Newsroom, 0, , .	0.1	3
133	VO <sub>2</sub> / ITO Hybrid Plasmonic High Performance Electro-Optical Modulator. , 2018, , .		3
134	silicon-based plasmonic nanoantennas. , 2019, , .		3
135	Optical Biosensor Based on Ultrathin SOI Waveguides. , 2020, , .		3
136	Optimized 3D design of an MMI splitter with ion exchange technology. , 2005, 5970, 397.		2
137	Design, fabrication, and characterization of nanoscale plasmonic networks. Proceedings of SPIE, 2011, , .	0.8	2
138	Submicron-integrated plasmonic power splitter. , 2014, , .		2
139	Tunable nanoscale-efficient plasmonic demultiplexers. , 2014, , .		2
140	Dispersion engineering of silicon-on-sapphire (SOS) waveguides for mid-infrared applications. , 2016, , .		2
141	Organic photovoltaic with various plasmonic nanostructures using titanium nitride. Proceedings of SPIE, 2016, , .	0.8	2
142	Silicon plasmonic-integrated sensor. , 2016, , .		2
143	Broadband absorption enhancement in amorphous Si solar cells using metal gratings and surface texturing. Proceedings of SPIE, 2017, , .	0.8	2
144	Optical analysis of Si-tapered nanowires/low band gap polymer hybrid solar cells. Proceedings of SPIE, 2017, , .	0.8	2

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145	Full 3D electromagnetic wave analysis using 2D simulation. , 2017, , .		2
146	Linearized finite-element method solution of the ion-exchange nonlinear diffusion model. Journal of Nanophotonics, 2017, 11, 026013.	1.0	2
147	Mid IR focusing in Doped-Semiconductor Hyperbolic Metamaterial. , 2017, , .		2
148	Shallow silicon sub-wavelength grating waveguide for electro-optical modulation. Optics Communications, 2020, 474, 126098.	2.1	2
149	Experimental and DFT investigation of electronic structure and ferromagnetic stable state in pristine and Mn: SnO <sub>2</sub> NPs. Vacuum, 2020, 179, 109536.	3.5	2
150	Infrared subwavelength focusing metasurfaces for harvesting heat from the Earth's back radiation. Physica Scripta, 2020, 95, 035505.	2.5	2
151	Electrical characteristics of silicon nanowires solar cells with surface roughness. , 2018, , .		2
152	Analysis of various ZrN plasmonic nanostructures and their effect on the absorption of organic solar cells. , 2016, , .		2
153	All-Silicon Directional Coupler Electro-Optic Modulator Utilizing Transparent Conducting Oxides. , 2017, , .		2
154	High-performance optical modulator using ultra-thin silicon waveguide in SOI technology. , 2018, , .		2
155	Novel silicon-on-insulator Michelson interferometer for optical filtering and wavelength demultiplexing applications. , 2019, , .		2
156	Hypergrating for sub-diffractive focusing enhancement in air in the Mid-IR wavelength range. , 2019, , .		2
157	Performance enhancement of a thermo-photovoltaic (TH-PV) hybrid system using a plasmonic IR absorber. , 2020, , .		2
158	High sensitivity refractive index sensing using zone plate metasurfaces with a conical phase profile. Scientific Reports, 2022, 12, .	3.3	2
159	Efficient modelling and sensitivity analysis of lossy structures using FDTD. , 2010, , .		1
160	Efficient approaches for dispersion engineering of guided wave components. , 2010, , .		1
161	Ultra wideband integrated polarization splitter/combiner using electro-optic effect in GaAs. Proceedings of SPIE, 2011, , .	0.8	1
162	Efficient material parameters estimation with terahertz time-domain spectroscopy. , 2011, , .		1

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163	Efficient sensitivity analysis of optical structures using Finite Element Method. , 2012, , .		1
164	A perturbation approach for the design of coupled resonator optical waveguides (CROWs). Proceedings of SPIE, 2012, , .	0.8	1
165	Efficient Design of Coupled Microcavities at Optical Frequencies. Micromachines, 2012, 3, 204-217.	2.9	1
166	Spatial beam splitting for fully integrated MEMS interferometer. Proceedings of SPIE, 2013, , .	0.8	1
167	Smart Techniques for Modelling Nanophotonic Circuits. , 2014, , .		1
168	Optical biosensor based on silicon nanowire ridge waveguide. , 2015, , .		1
169	Super-focusing using plasmonic lens based on super oscillation effect. Proceedings of SPIE, 2015, , .	0.8	1
170	Toward new design-rule-check of silicon photonics for automated layout physical verifications. , 2015, , .		1
171	Mid infrared applications of silicon thermoplasmonics. , 2016, , .		1
172	Semiconductor plasmonic gas sensor. , 2016, , .		1
173	NEMS-based MIM plasmonics tunable filter. Proceedings of SPIE, 2016, , .	0.8	1
174	Silicon solar cell using optimized intermediate reflector layer. Proceedings of SPIE, 2016, , .	0.8	1
175	Plasmonic optical nanotweezers. Proceedings of SPIE, 2017, , .	0.8	1
176	Fiber-optic-based interferometric sensor. Proceedings of SPIE, 2017, , .	0.8	1
177	Silver-decorated silicon nanowires array as surface-enhanced Raman scattering (SERS) substrate. Proceedings of SPIE, 2017, , .	0.8	1
178	Multifunctional TiN nanowires for wide band absorption in organic solar cells. Proceedings of SPIE, 2017, , .	0.8	1
179	Modeling and analysis of scattering from silicon nanoparticles with high excess carriers for MIR spectroscopy. Proceedings of SPIE, 2017, , .	0.8	1
180	Ultra-sensitive silicon-photonics on-chip sensor using microfabrication technology. Proceedings of SPIE, 2017, , .	0.8	1

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181	A compact 100 GHz femtojoule silicon-organic hybrid modulator based on a novel Mach-Zehnder interferometer design. Journal of Optics (United Kingdom), 2021, 23, 095801.	2.2	1
182	Hybrid plasmonic electro-optical absorption modulator based on phase change characteristics of vanadium-dioxide. Journal of Nanophotonics, 2019, 13, 1.	1.0	1
183	Solving the nonlinear diffusion model of the ion exchange process using finite element method. Proceedings of SPIE, 2017, , .	0.8	1
184	An all silicon-based metamaterial for mid-IR energy harvesting. , 2018, , .		1
185	Broadband Compact Si Wire to Slot Waveguide Couplers. , 2013, , .		1
186	BPM Based Efficient Sensitivity Analysis Exploiting the Adjoint Variable Method. , 2007, , .		1
187	Silicon Nanowires with controlled diameter for energy conversion applications. , 2013, , .		1
188	Analysis of highly sensitive surface plasmon photonic crystal fiber biosensor. , 2018, , .		1
189	Leap-frog-based BPM (LF-BPM) method for solving nanophotonic structures. , 2018, , .		1
190	Simple scalable fabrication method of wide-angle black silicon surface for energy-harvesting applications. , 2018, , .		1
191	Mid-infrared plasmonic gas sensor. , 2018, , .		1
192	All-silicon transparent conducting oxide-integrated electro-optical modulator. , 2018, , .		1
193	Enhancement of silicon nanowire micro-TEG using a plasmonic mid-IR absorber. , 2020, , .		1
194	A Compact SOI Multimode Optical Router. , 2021, , .		1
195	Optical modulator using ultra-thin silicon waveguide in SOI hybrid technology. Optical and Quantum Electronics, 2022, 54, 1.	3.3	1
196	Photon harvesting and light trapping in pentacene and PTCDI-C13H27 for organic solar cell application. Optik, 2022, 258, 168931.	2.9	1
197	Accurate and efficient sensitivity extraction of complex structures using FDTD. , 2007, , .		0
198	A novel design approach for multilayer dielectric filters exploiting linear programming. , 2007, , .		0

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199	Wide band optical switch using stair case MMI. , 2008, , .		0
200	Accurate and efficient sensitivity analysis using the beam propagation method. , 2008, , .		0
201	Ultra-wideband integrated 2 $\mu$ m–2 optical router using novel MMI design. , 2010, , .		0
202	Efficient sensitivity analysis of surface plasmon waveguide structures. Proceedings of SPIE, 2010, , .	0.8	0
203	Optically Controlled Ultrafast Enhanced Transmission from a Sub-wavelength Aperture in a Planar Metal Film. , 2011, , .		0
204	Accurate characterization of doped semiconductors with terahertz spectroscopy. Proceedings of SPIE, 2011, , .	0.8	0
205	Design, Fabrication and Characterization of Wideband Ultra Compact Coupler between Plasmonic Slot and Silicon Waveguides. , 2011, , .		0
206	Microcavity Filter Design Using Convex Optimization Methodology. , 2011, , .		0
207	Graded index MMI and its application in optical communications. Proceedings of SPIE, 2011, , .	0.8	0
208	Efficient sensitivity analysis of photonic structures with transmission line modeling. Proceedings of SPIE, 2012, , .	0.8	0
209	Highly efficient design methodology for very large scale coupled microcavities. Proceedings of SPIE, 2012, , .	0.8	0
210	Deep subwavelength optical nanoantenna with enhanced characteristics for near and far field applications. , 2013, , .		0
211	Efficient sensitivity analysis of waveguide structures using finite element method (FEM). Proceedings of SPIE, 2013, , .	0.8	0
212	Efficient modelling of quantum nanostructures. , 2014, , .		0
213	Multilevel light bending in nanoplasmonics. Proceedings of SPIE, 2014, , .	0.8	0
214	Theoretical analysis of metallic nanohole filled with dispersive material. Proceedings of SPIE, 2014, , .	0.8	0
215	D7. Fabrication of crystalline silicon nanowires with different dimensions for solar cell applications. , 2015, , .		0
216	Nonlinear electro-optic tuning of plasmonic nano-filter. Proceedings of SPIE, 2015, , .	0.8	0

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