Ali Mir

List of Publications by Year
in descending order

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63 papers	1,685 citations	331670 21 h-index	302126 39 g-index
66 all docs	66 docs citations	66 times ranked	919 citing authors

#	Article	IF	Citations
1	High Sensitivity and Tunable Nanoscale Sensor Based on Plasmon-Induced Transparency in Plasmonic Metasurface. IEEE Sensors Journal, 2018, 18, 7047-7054.	4.7	124
2	Broadly tunable and bidirectional terahertz graphene plasmonic switch based on enhanced Goos-HÃnchen effect. Applied Surface Science, 2018, 453, 358-364.	6.1	122
3	Nanoscale, tunable, and highly sensitive biosensor utilizing hyperbolic metamaterials in the near-infrared range. Applied Optics, 2018, 57, 9447.	1.8	111
4	All-optical XOR and OR logic gates based on line and point defects in 2-D photonic crystal. Optics and Laser Technology, 2016, 78, 139-142.	4.6	107
5	Highly sensitive nano-scale plasmonic biosensor utilizing Fano resonance metasurface in THz range: Numerical study. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 104, 233-240.	2.7	97
6	Graphene Sensor Based on Surface Plasmon Resonance for Optical Scanning. IEEE Photonics Technology Letters, 2019, 31, 643-646.	2.5	89
7	Supersensitive and Tunable Nano-Biosensor for Cancer Detection. IEEE Sensors Journal, 2019, 19, 4874-4881.	4.7	88
8	2D-FDTD simulation of ultra-compact multifunctional logic gates with nonlinear photonic crystal. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 811.	2.1	67
9	Realization of Ultra-Accurate and Compact All-Optical Photonic Crystal OR Logic Gate. IEEE Photonics Technology Letters, 2016, 28, 2387-2390.	2.5	61
10	Tunable Plasmon Induced Transparency in Graphene and Hyperbolic Metamaterial-Based Structure. IEEE Photonics Journal, 2019, 11, 1-10.	2.0	61
11	Ultra high-sensitivity and tunable dual-band perfect absorber as a plasmonic sensor. Optics and Laser Technology, 2020, 127, 106201.	4.6	58
12	Design and simulation of an all optical full-adder based on photonic crystals. Optical and Quantum Electronics, 2019, 51, 1.	3.3	50
13	Nanoscale Sensor-Based Tunneling Carbon Nanotube Transistor for Toxic Gases Detection: A First-Principle Study. IEEE Sensors Journal, 2019, 19, 7373-7377.	4.7	42
14	Improving the Performance of 2-To-4 Optical Decoders Based on Photonic Crystal Structures. Crystals, 2019, 9, 635.	2.2	37
15	Ultra-fast all-optical 2-to-4 decoder based on a photonic crystal structure. Applied Optics, 2020, 59, 5422.	1.8	35
16	Design and Simulation of a Novel Tunable Terahertz Biosensor Based on Metamaterials for Simultaneous Monitoring of Blood and Urine Components. Plasmonics, 2021, 16, 1537-1548.	3.4	33
17	A multimode graphene plasmonic perfect absorber at terahertz frequencies. Physica E: Low-Dimensional Systems and Nanostructures, 2020, 122, 114159.	2.7	30
18	Semi-analytical modeling of high performance nano-scale complementary logic gates utilizing ballistic carbon nanotube transistors. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 104, 286-296.	2.7	29

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19	Analytical Modeling and Design of a Graphene Metasurface Sensor for Thermo-Optical Detection of Terahertz Plasmons. IEEE Sensors Journal, 2021, 21, 4525-4532.	4.7	26
20	Reconfigurable and scalable 2,4-and 6-channel plasmonics demultiplexer utilizing symmetrical rectangular resonators containing silver nano-rod defects with FDTD method. Scientific Reports, 2021, 11, 13628.	3.3	26
21	Design and Fabrication of an Ultra-Wide Stopband Compact Bandpass Filter. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 265-269.	3.0	25
22	Enhanced sensing of terahertz surface plasmon polaritons in graphene/J-aggregate coupler using FDTD method. Diamond and Related Materials, 2022, 125, 109005.	3.9	23
23	Design and analysis of an all-optical Demultiplexer based on photonic crystals. Infrared Physics and Technology, 2015, 68, 193-196.	2.9	22
24	Numerical Modeling of an Integrable and Tunable Plasmonic Pressure Sensor with Nanostructure Grating. Plasmonics, 2021, 16, 27-36.	3.4	22
25	Design and Simulation of a High-Selective Plasmon-Induced Reflectance in Coupled Dielectric-Metal-Dielectric Nano-structure for Senor Devices and Slow Light Propagation. Plasmonics, 2019, 14, 511-521.	3.4	20
26	On the performance of blueâ€“green waves propagation through underwater optical wireless communication system. Photonic Network Communications, 2018, 36, 309-315.	2.7	18
27	SiO2â€“Silver Metasurface Architectures for Ultrasensitive and Tunable Plasmonic Biosensing. Plasmonics, 2020, 15, 1935-1942.	3.4	17
28	Design and Analysis of an Ultra-Broadband Polarization-Independent Wide-Angle Plasmonic THz Absorber. IEEE Journal of Quantum Electronics, 2021, 57, 1-8.	1.9	16
29	Design and simulation of a flexible and ultra-sensitive biosensor based on frequency selective surface in the microwave range. Optical and Quantum Electronics, 2017, 49, 1.	3.3	14
30	Method proposing a slow light ring resonator structure coupled with a metalâ€“dielectricâ€“metal waveguide system based on plasmonic induced transparency. Applied Optics, 2017, 56, 4496.	2.1	13
31	A robust and energy-efficient near-threshold SRAM cell utilizing ballistic carbon nanotube wrap-gate transistors. AEU - International Journal of Electronics and Communications, 2019, 110, 152874.	2.9	13
32	Design and performance analysis of wrap-gate CNTFET-based ring oscillators for IoT applications. The Integration VLSI Journal, 2020, 70, 116-125.	2.1	12
33	Carbon nanotube field effect transistorsâ€“based gas sensors. , 2020, , 171-183.		12
34	New structure of tunneling carbon nanotube FET with electrical junction in part of drain region and step impurity distribution pattern. AEU - International Journal of Electronics and Communications, 2020, 117, 153102.	2.9	12
35	Investigating the Characteristics of a Double Circular Ring Resonators Slow Light Device Based on the Plasmonics-Induced Transparency Coupled with Metal-Dielectric-Metal Waveguide System. Plasmonics, 2018, 13, 1523-1534.	3.4	11
36	Nanosensors for street-lighting system. , 2020, , 209-225.		11

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37	Non-Destructive Label-Free Biomaterials Detection Using Tunneling Carbon Nanotube-Based Biosensor. IEEE Sensors Journal, 2021, 21, 8847-8854.	4.7	11
38	Sensitivity-Enhanced Surface Plasmon Resonance Sensor with Bimetal/ Tungsten Disulfide (WS2)/MXene (Ti3C2Tx) Hybrid Structure. Plasmonics, 2022, 17, 1973-1984.	3.4	11
39	Analysis and Investigation of Slow Light Based on Plasmonic Induced Transparency in Metal-Dielectric-Metal Ring Resonator in a Waveguide System with Different Geometrical Designs. Optics and Photonics Journal, 2016, 06, 177-184.	0.4	10
40	Design Optimization and Fabrication of Graphene/J-Aggregate Kretschmann-Raether Devices for Refractive Index Sensing Using Plasmon-Induced Transparency Phenomena. Plasmonics, 2022, 17, 811-821.	3.4	10
41	A tunable nonlinear plasmonic multiplexer/demultiplexer device based on nanoscale ring resonators. Photonic Network Communications, 2021, 42, 209-218.	2.7	8
42	High performance avalanche quantum dot photodetector for mid-infrared detection. Optical and Quantum Electronics, 2015, 47, 1207-1217.	3.3	7
43	Numerical analysis of tunable nonlinear plasmonic router based on nanoscale ring resonators. Optical and Quantum Electronics, 2020, 52, 1.	3.3	7
44	Very simple all-optical half-subtractor based on two-dimensional photonic crystals. Optical and Quantum Electronics, 2020, 52, 1.	3.3	7
45	Analytical and Numerical Models of a Highly Sensitive MDM Plasmonic Nano-structure in Near-infrared Range. Plasmonics, 2021, 16, 413-418.	3.4	7
46	Black Phosphorous-Based Nanostructures for Refractive Index Sensing with High Figure of Merit in the Mid-infrared. Plasmonics, 2022, 17, 639-646.	3.4	7
47	Proposal of a doping-less tunneling carbon nanotube field-effect transistor. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 265, 115016.	3.5	6
48	Analysis of optical power budget in DWDM-FSO link under outdoor atmospheric channel model. Optical and Quantum Electronics, 2021, 53, 1.	3.3	6
49	Performance analysis of singleâ€electron transistor at roomâ€temperature for periodic symmetric functions operation. Journal of Engineering, 2016, 2016, 352-356.	1.1	5
50	Evaluation of Room-Temperature Performance of Ultra-Small Single-Electron Transistor-Based Analog-to-Digital Convertors. Journal of Circuits, Systems and Computers, 2018, 27, 1850217.	1.5	5
51	Design and Analytical Evaluation of a High Resistance Sensitivity Bolometer Sensor Based on Plasmonic Metasurface Structure. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-7.	2.9	5
52	Design and simulation of a very fast and compact all-optical Full-Subtractor based on nonlinear effect in 2D photonic crystals. Optical and Quantum Electronics, 2021, 53, 1.	3.3	3
53	Improving the Performance of a Doping-Less Carbon Nanotube FET with Dual Junction Source and Drain Regions: Numerical Studies. Journal of Circuits, Systems and Computers, 0, , .	1.5	3
54	Ultra optimized Y-defect waveguide for realizing reliable and robust all-optical logical AND gate. , 2015, , .		2

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55	Design and analysis of a tunable liquid crystal switch/filter with metallic nano-slits. Liquid Crystals, 0, , 1-5.	2.2	2
56	Study of DWDM-ROF link nonlinear effects using direct and external ODSB modulation formats. Journal of Optics (India), 2018, 47, 263-271.	1.7	2
57	Design and Simulation of Room-Temperature Logic Functions Using a Three-Gate Single Electron Transistor in Silicon Quantum Dot. Journal of Computational and Theoretical Nanoscience, 2017, 14, 991-998.	0.4	2
58	Outstanding tunable electrical and optical characteristics in monolayer silicene at high terahertz frequencies. Journal of Computational Electronics, 0, , .	2.5	2
59	Design and analysis of a terahertz resonant tunneling quantum ring in a well photodetector. , 2012, , .		1
60	Modeling of Relative Intensity Noise in QD-VCSEL. Journal of Lightwave Technology, 2022, 40, 3891-3899.	4.6	1
61	Resonant cavity enhanced quantum ring terahertz photodetector. , 2012, , .		0
62	Design and analysis of quantum ring photodetector enhanced by metallic slits. , 2013, , .		0
63	An Algorithm for Designing of Cascaded Helical Flux Compression Generator. Instruments and Experimental Techniques, 2019, 62, 838-849.	0.5	0