

Mohammad Razaghi

List of Publications by Year in descending order

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59
papers

431
citations

933447

10
h-index

839539

18
g-index

59
all docs

59
docs citations

59
times ranked

231
citing authors

#	ARTICLE	IF	CITATIONS
1	Finite element simulation of perovskite solar cell: A study on efficiency improvement based on structural and material modification. <i>Solar Energy</i> , 2019, 179, 298-306.	6.1	60
2	Simulation of CZTSSe Thin-Film Solar Cells in COMSOL: Three-Dimensional Optical, Electrical, and Thermal Models. <i>IEEE Journal of Photovoltaics</i> , 2020, 10, 1503-1507.	2.5	53
3	Comprehensive Finite-Difference Time-Dependent Beam Propagation Model of Counterpropagating Picosecond Pulses in a Semiconductor Optical Amplifier. <i>Journal of Lightwave Technology</i> , 2009, 27, 3162-3174.	4.6	42
4	Fast analytical modelling of an SOI micro-ring resonator for bio-sensing application. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 285401.	2.8	17
5	Characteristics optimization in single and dual coupled silicon-on-insulator ring (disk) photonic biosensors. <i>Sensors and Actuators B: Chemical</i> , 2019, 281, 998-1008.	7.8	15
6	Design and modeling of flower like microring resonator. <i>Optics Communications</i> , 2016, 366, 370-381.	2.1	13
7	Comparison of pulse propagation and gain saturation characteristics among different input pulse shapes in semiconductor optical amplifiers. <i>Optics Communications</i> , 2016, 359, 73-78.	2.1	13
8	Cylindrical optical resonators: fundamental properties and bio-sensing characteristics. <i>Journal of Optics (United Kingdom)</i> , 2018, 20, 045301.	2.2	13
9	Ultra-short optical pulse shaping using semiconductor optical amplifier. <i>Optics and Laser Technology</i> , 2009, 41, 654-658.	4.6	11
10	Demonstration and optimisation of an ultrafast all-optical AND logic gate using four-wave mixing in a semiconductor optical amplifier. <i>Quantum Electronics</i> , 2013, 43, 184-187.	1.0	11
11	Quantum dot semiconductor optical amplifier: role of second excited state on ultrahigh bit-rate signal processing. <i>Applied Optics</i> , 2017, 56, 3599.	2.1	11
12	Use of four-wave mixing for designing and simulating an all-optical AND logic gate in a photonic crystal semiconductor optical amplifier. <i>Optical Engineering</i> , 2021, 60, .	1.0	11
13	Optimized Bent Part Coupling SiON Racetrack Resonators for Biological Sensing. <i>IEEE Sensors Journal</i> , 2019, 19, 1299-1306.	4.7	10
14	Design and analysis of an all-optical NAND logic gate using a photonic crystal semiconductor optical amplifier based on the Mach-Zehnder interferometer structure. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2022, 49, 100992.	2.0	10
15	Numerical analysis of four wave mixing in photonic crystal semiconductor optical amplifier. <i>Optics Communications</i> , 2019, 433, 104-110.	2.1	9
16	Investigation of optical and electrical properties of novel 4T all perovskite tandem solar cell. <i>Scientific Reports</i> , 2022, 12, 6733.	3.3	9
17	Effect of dispersion on sensing parameters of a racetrack resonator-based biosensor at 850nm. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2018, 35, 2734.	2.1	8
18	Design and simulation of the all-optical XOR logic gate by XPM mechanism using photonic crystal semiconductor optical amplifier based on Mach-Zehnder interferometer. <i>Journal of Nonlinear Optical Physics and Materials</i> , 2022, 31, .	1.8	8

#	ARTICLE	IF	CITATIONS
19	Femtosecond pulse shaping using counter-propagating pulses in a semiconductor optical amplifier. <i>Optical and Quantum Electronics</i> , 2009, 41, 513-523.	3.3	7
20	Analysis of non-linear refractive index influences on four-wave mixing conversion efficiency in semiconductor optical amplifiers. <i>Optics and Laser Technology</i> , 2012, 44, 528-533.	4.6	7
21	Optical self-switching based on a semiconductor-optical-amplifier-assisted Sagnac interferometer. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2013, 30, 2576.	2.1	7
22	Quantum dot semiconductor optical amplifier: investigation of amplified spontaneous emission and noise figure in the presence of second excited state. <i>Optical and Quantum Electronics</i> , 2018, 50, 1.	3.3	7
23	Sensitivity optimization in whispering gallery mode optical cylindrical biosensors. <i>Journal of Physics: Conference Series</i> , 2018, 956, 012008.	0.4	7
24	Analysis of ultrafast nonlinear phenomena's influences on output optical pulses and four-wave mixing characteristics in semiconductor optical amplifiers. <i>Optical and Quantum Electronics</i> , 2011, 42, 729-737.	3.3	6
25	Picosecond and femtosecond asymmetric switching using a semiconductor optical amplifier-based Mach-Zehnder interferometer. <i>Applied Optics</i> , 2018, 57, 1634.	1.8	6
26	Modeling optical filters based on serially coupled microring resonators using radial basis function neural network. <i>Soft Computing</i> , 2021, 25, 585-598.	3.6	6
27	Simulation of reconfigurable double-input optical gates based on a microring flower-like structure part I basic gates. <i>Applied Optics</i> , 2020, 59, 4589.	1.8	6
28	Parallel-Coupled Dual SiOxNy Racetrack Resonators as Biosensors with High Improved Intrinsic Limit of Detection. <i>Physical Review Applied</i> , 2019, 12, .	3.8	5
29	Dynamics of pulse amplification in tapered-waveguide quantum-dot semiconductor optical amplifiers. <i>Optik</i> , 2020, 207, 164396.	2.9	5
30	Quantum dot semiconductor optical amplifier: investigation of ultra-fast cross gain modulation in the presence of a second excited state. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 355108.	2.8	4
31	Sensitivity and intrinsic limit of detection improvement in a photonic refractive-index sensor. <i>Optik</i> , 2021, 247, 167844.	2.9	4
32	Four-wave mixing in semiconductor optical amplifiers for high-speed communications. , 2012, , .		3
33	Tb/s all-optical nonlinear switching using semiconductor optical amplifier based Mach-Zehnder interferometer. , 2012, , .		3
34	Pattern effect reduction scheme for high-speed all-optical amplification system. <i>Optical Engineering</i> , 2014, 53, 076107.	1.0	3
35	The effects of ring radius on characteristics of ring modulator. , 2016, , .		3
36	Crystalline MgF ₂ Whispering Gallery Mode Resonators as Optical Refractometric Sensors With Ultra-High Improved Sensitivity. <i>IEEE Sensors Journal</i> , 2020, 20, 2416-2423.	4.7	3

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37	Dynamics of four-wave mixing in flared-waveguide semiconductor optical amplifiers. <i>Optik</i> , 2021, 246, 167805.	2.9	3
38	A neural network model for determination of the breakdown voltage for separate absorption and multiplication region avalanche photodiode (SAM-APD). , 0, , .		2
39	Investigation of amplified spontaneous emission in quantum dot semiconductor optical amplifier in presence of second excited state. , 2017, , .		2
40	A new approach for multi wavelength dynamic analysis of semiconductor laser amplifier using numerical method. , 2004, , .		1
41	Numerical analysis of three section distributed bragg reflector tunable laser diode with modified oscillation condition based on the transfer matrix method. , 0, , .		1
42	Numerical analysis of wavelength conversion based on semiconductor optical amplifier integrated with microring resonator notch filter. , 2011, , .		1
43	Switching characteristics of SOA-based Sagnac interferometer for subpicosecond pulses. , 2012, , .		1
44	Picosecond wavelength conversion using semiconductor optical amplifier integrated with microring resonator notch filter. <i>Optical and Quantum Electronics</i> , 2012, 44, 255-263.	3.3	1
45	Analysis of nonlinear pulse propagation and wave-mixing characteristics in SOAs. , 2017, , .		1
46	Analysis of nonlinear polarization rotation by an ultrashort optical pump and probe pulse in a strained semiconductor optical amplifier. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2019, 36, 374.	2.1	1
47	Hybrid Hadamard and controlled-Hadamard based quantum random number generators in IBM QX. <i>Physica Scripta</i> , 2022, 97, 065101.	2.5	1
48	Calculation of the spontaneous emission spatial dependency in semiconductor laser using transmission line model. , 0, , .		0
49	Investigation of transient amplified spontaneous emission in semiconductor laser amplifier. , 0, , .		0
50	<title>Calculation of the spontaneous emission spatial dependency in semiconductor lasers using transmission line model</title>. , 2008, , .		0
51	Numerical modeling of sub-picosecond counter-propagating pulses in semiconductor optical amplifiers. , 2009, , .		0
52	Optical analysis of mushroom-type traveling wave electroabsorption modulators using full-vectorial finite difference method. , 2009, , .		0
53	Investigation of input pulsewidth, medium loss and gain effect on the output pulse characteristics of semiconductor optical amplifiers. , 2010, , .		0
54	Analysis of input pump pulse energy optimization for maximum four-wave mixing conversion efficiency in semiconductor optical amplifier. <i>Optical Engineering</i> , 2012, 51, 075004.	1.0	0

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55	Self-switching using SOA-assisted Sagnac interferometer. , 2012, , .		0
56	Optical Phase-Conjugation of Picosecond Four-Wave Mixing Signals in SOAs. , 2012, , .		0
57	Analysis of gain saturation characteristics in SOAs for different input pulse shapes. , 2014, , .		0
58	Ultrashort optical pulse polarization rotator based on azimuth angle rotation in semiconductor optical amplifier. Optical Engineering, 2020, 59, 1.	1.0	0
59	Simulation of reconfigurable double-input optical gates based on a microring flower-like structure, part II. Combinational logic gates. Applied Optics, 2022, 61, 783.	1.8	0