## Mohammad Razaghi

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	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
2	Design and simulation of the all-optical XOR logic gate by XPM mechanism using photonic crystal semiconductor optical amplifier based on Mach–Zehnder interferometer. Journal of Nonlinear Optical Physics and Materials, 2022, 31, .	1.8	8
3	Design and analysis of an all-optical NAND logic gate using a photonic crystal semiconductor optical amplifier based on the Mach–Zehnder interferometer structure. Photonics and Nanostructures - Fundamentals and Applications, 2022, 49, 100992.	2.0	10
4	Investigation of optical and electrical properties of novel 4T all perovskite tandem solar cell. Scientific Reports, 2022, 12, 6733.	3.3	9
5	Hybrid Hadamard and controlled-Hadamard based quantum random number generators in IBM QX. Physica Scripta, 2022, 97, 065101.	2.5	1
6	Modeling optical filters based on serially coupled microring resonators using radial basis function neural network. Soft Computing, 2021, 25, 585-598.	3.6	6
7	Use of four-wave mixing for designing and simulating an all-optical AND logic gate in a photonic crystal semiconductor optical amplifier. Optical Engineering, 2021, 60, .	1.0	11
8	Dynamics of four-wave mixing in flared-waveguide semiconductor optical amplifiers. Optik, 2021, 246, 167805.	2.9	3
9	Sensitivity and intrinsic limit of detection improvement in a photonic refractive-index sensor. Optik, 2021, 247, 167844.	2.9	4
10	Crystalline MgF <sub>2</sub> Whispering Gallery Mode Resonators as Optical Refractometric Sensors With Ultra-High Improved Sensitivity. IEEE Sensors Journal, 2020, 20, 2416-2423.	4.7	3
11	Quantum dot semiconductor optical amplifier: investigation of ultra-fast cross gain modulation in the presence of a second excited state. Journal Physics D: Applied Physics, 2020, 53, 355108.	2.8	4
12	Simulation of CZTSSe Thin-Film Solar Cells in COMSOL: Three-Dimensional Optical, Electrical, and Thermal Models. IEEE Journal of Photovoltaics, 2020, 10, 1503-1507.	2.5	53
13	Dynamics of pulse amplification in tapered-waveguide quantum-dot semiconductor optical amplifiers. Optik, 2020, 207, 164396.	2.9	5
14	Simulation of reconfigurable double-input optical gates based on a microring flower-like structure part I basic gates. Applied Optics, 2020, 59, 4589.	1.8	6
15	Ultrashort optical pulse polarization rotator based on azimuth angle rotation in semiconductor optical amplifier. Optical Engineering, 2020, 59, 1.	1.0	0
16	Parallel-Coupled Dual SiOxNy Racetrack Resonators as Biosensors with High Improved Intrinsic Limit of Detection. Physical Review Applied, 2019, 12, .	3.8	5
17	Characteristics optimization in single and dual coupled silicon-on-insulator ring (disk) photonic biosensors. Sensors and Actuators B: Chemical, 2019, 281, 998-1008.	7.8	15
18	Optimized Bent Part Coupling SiON Racetrack Resonators for Biological Sensing. IEEE Sensors Journal, 2019, 19, 1299-1306.	4.7	10

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19	Finite element simulation of perovskite solar cell: A study on efficiency improvement based on structural and material modification. Solar Energy, 2019, 179, 298-306.	6.1	60
20	Numerical analysis of four wave mixing in photonic crystal semiconductor optical amplifier. Optics Communications, 2019, 433, 104-110.	2.1	9
21	Analysis of nonlinear polarization rotation by an ultrashort optical pump and probe pulse in a strained semiconductor optical amplifier. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 374.	2.1	1
22	Cylindrical optical resonators: fundamental properties and bio-sensing characteristics. Journal of Optics (United Kingdom), 2018, 20, 045301.	2.2	13
23	Quantum dot semiconductor optical amplifier: investigation of amplified spontaneous emission and noise figure in the presence of second excited state. Optical and Quantum Electronics, 2018, 50, 1.	3.3	7
24	Sensitivity optimization in whispering gallery mode optical cylindrical biosensors. Journal of Physics: Conference Series, 2018, 956, 012008.	0.4	7
25	Picosecond and femtosecond asymmetric switching using a semiconductor optical amplifier-based Mach–Zehnder interferometer. Applied Optics, 2018, 57, 1634.	1.8	6
26	Fast analytical modelling of an SOI micro-ring resonator for bio-sensing application. Journal Physics D: Applied Physics, 2018, 51, 285401.	2.8	17
27	Effect of dispersion on sensing parameters of a racetrack resonator-based biosensor at 850  nm. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 2734.	2.1	8
28	Investigation of amplified spontaneous emission in quantum dot semiconductor optical amplifier in presence of second excited state. , 2017, , .		2
29	Analysis of nonlinear pulse propagation and wave-mixing characteristics in SOAs. , 2017, , .		1
30	Quantum dot semiconductor optical amplifier: role of second excited state on ultrahigh bit-rate signal processing. Applied Optics, 2017, 56, 3599.	2.1	11
31	The effects of ring radius on characteristics of ring modulator. , 2016, , .		3
32	Design and modeling of flower like microring resonator. Optics Communications, 2016, 366, 370-381.	2.1	13
33	Comparison of pulse propagation and gain saturation characteristics among different input pulse shapes in semiconductor optical amplifiers. Optics Communications, 2016, 359, 73-78.	2.1	13
34	Analysis of gain saturation characteristics in SOAs for different input pulse shapes. , 2014, , .		0
35	Pattern effect reduction scheme for high-speed all-optical amplification system. Optical Engineering, 2014, 53, 076107.	1.0	3
36	Demonstration and optimisation of an ultrafast all-optical AND logic gate using four-wave mixing in a semiconductor optical amplifier. Quantum Electronics, 2013, 43, 184-187.	1.0	11

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37	Optical self-switching based on a semiconductor-optical-amplifier-assisted Sagnac interferometer. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 2576.	2.1	7
38	Analysis of input pump pulse energy optimization for maximum four-wave mixing conversion efficiency in semiconductor optical amplifier. Optical Engineering, 2012, 51, 075004.	1.0	0
39	Self-switching using SOA-assisted Sagnac interferometer. , 2012, , .		0
40	Four-wave mixing in semiconductor optical amplifiers for high-speed communications. , 2012, , .		3
41	Tb/s all-optical nonlinear switching using semiconductor optical amplifier based Mach-Zehnder interferometer. , 2012, , .		3
42	Switching characteristics of SOA-based Sagnac interferometer for subpicosecond pulses. , 2012, , .		1
43	Optical Phase-Conjugation of Picosecond Four-Wave Mixing Signals in SOAs. , 2012, , .		Ο
44	Picosecond wavelength conversion using semiconductor optical amplifier integrated with microring resonator notch filter. Optical and Quantum Electronics, 2012, 44, 255-263.	3.3	1
45	Analysis of non-linear refractive index influences on four-wave mixing conversion efficiency in semiconductor optical amplifiers. Optics and Laser Technology, 2012, 44, 528-533.	4.6	7
46	Numerical analysis of wavelength conversion based on semiconductor optical amplifier integrated with microring resonator notch filter. , 2011, , .		1
47	Analysis of ultrafast nonlinear phenomena's influences on output optical pulses and four-wave mixing characteristics in semiconductor optical amplifiers. Optical and Quantum Electronics, 2011, 42, 729-737.	3.3	6
48	Investigation of input pulsewidth, medium loss and gain effect on the output pulse characteristics of semiconductor optical amplifiers. , 2010, , .		0
49	Ultra-short optical pulse shaping using semiconductor optical amplifier. Optics and Laser Technology, 2009, 41, 654-658.	4.6	11
50	Femtosecond pulse shaping using counter-propagating pulses in a semiconductor optical amplifier. Optical and Quantum Electronics, 2009, 41, 513-523.	3.3	7
51	Comprehensive Finite-Difference Time-Dependent Beam Propagation Model of Counterpropagating Picosecond Pulses in a Semiconductor Optical Amplifier. Journal of Lightwave Technology, 2009, 27, 3162-3174.	4.6	42
52	Numerical modeling of sub-picosecond counter-propagating pulses in semiconductor optical amplifiers. , 2009, , .		0
53	Optical analysis of mushroom-type traveling wave electroabsorption modulatorsusing full-vectorial finite difference method. , 2009, , .		0
54	<title>Calculation of the spontaneous emission spatial dependency in semiconductor lasers using transmission line model</title> ., 2008,		0

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55	A new approach for multi wavelength dynamic analysis of semiconductor laser amplifier using numerical method. , 2004, , .		1
56	Calculation of the spontaneous emission spatial dependency in semiconductor laser using transmission line model. , 0, , .		0
57	A neural network model for determination of the breakdown voltage for separate absorption and multiplication region avalanche photodiode (SAM-APD). , 0, , .		2
58	Numerical analysis of three section distributed bragg reflector tunable laser diode with modified oscillation condition based on the transfer matrix method. , 0, , .		1
59	Investigation of transient amplified spontaneous emission in semiconductor laser amplifier. , 0, , .		Ο