

# Hassan Kaatuzian

## List of Publications by Citations

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**Version:** 2024-04-28

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

62

papers

514

citations

12

h-index

20

g-index

83

ext. papers

681

ext. citations

2.1

avg, IF

4.63

L-index

#	Paper	IF	Citations
62	Design and simulation of an all-optical photonic crystal AND gate using nonlinear Kerr effect. <i>Optical and Quantum Electronics</i> , <b>2012</b> , 44, 27-34	2.4	68
61	Design and simulation of a nanoscale electro-plasmonic 1 $\times$ 2 switch based on asymmetric metal-insulator-metal stub filters. <i>Applied Optics</i> , <b>2014</b> , 53, 6546-53	1.7	40
60	Improvement of power coupling in a nonlinear photonic crystal directional coupler switch. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , <b>2011</b> , 9, 70-81	2.6	34
59	Numerical investigation of a nano-scale electro-plasmonic switch based on metal-insulator-metal stub filter. <i>Optical and Quantum Electronics</i> , <b>2015</b> , 47, 159-168	2.4	32
58	Bandwidth enhancement and optical performances of multiple quantum well transistor lasers. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 231114	3.4	25
57	Bandwidth Improvement for a Photonic Crystal Optical Y-splitter. <i>Journal of the Optical Society of Korea</i> , <b>2011</b> , 15, 283-288		24
56	Design of a photonic crystal differential phase comparator for a Mach-Zehnder switch. <i>Journal of Optics (United Kingdom)</i> , <b>2011</b> , 13, 015504	1.7	22
55	Design and analysis of a plasmonic demultiplexer based on band-stop filters using double-nanodisk-shaped resonators. <i>Optical and Quantum Electronics</i> , <b>2019</b> , 51, 1	2.4	21
54	Design and investigation of N-type metal/insulator/semiconductor/metal structure two-port electro-plasmonic addressed routing switch. <i>Applied Optics</i> , <b>2015</b> , 54, 6199-207	0.2	17
53	Design and simulation of an electrically pumped Schottky-junction-based plasmonic amplifier. <i>Applied Optics</i> , <b>2015</b> , 54, 2164-73	1.7	16
52	Performance Optimization of Multiple Quantum Well Transistor Laser. <i>IEEE Journal of Quantum Electronics</i> , <b>2013</b> , 49, 426-435	2	16
51	Method proposing a slow light ring resonator structure coupled with a metal-dielectric-metal waveguide system based on plasmonic induced transparency. <i>Applied Optics</i> , <b>2017</b> , 56, 4496-4504	0.2	12
50	Gain-bandwidth trade-off in a transistor laser: quantum well dislocation effect. <i>Optical and Quantum Electronics</i> , <b>2009</b> , 41, 481-488	2.4	12
49	Analysis, design and simulation of MIM plasmonic filters with different geometries for technical parameters improvement. <i>Communications in Theoretical Physics</i> , <b>2020</b> , 72, 085502	2.4	10
48	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. <i>Optics and Photonics Journal</i> , <b>2016</b> , 06, 177-184	0.3	9
47	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. <i>Plasmonics</i> , <b>2018</b> , 13, 1523-1534	2.4	9
46	Simulation and Design of a Submicron Ultrafast Plasmonic Switch Based on Nonlinear Doped Silicon MIM Waveguide. <i>Journal of Computer and Communications</i> , <b>2013</b> , 01, 23-26	0.8	8

45	Analysis and simulation of nonlinearity and effects of spontaneous emission in Schottky-junction-based plasmonic amplifiers. <i>Applied Optics</i> , <b>2015</b> , 54, 6103-10	0.2	7
44	Design and investigation of a balanced silicon-based plasmonic internal-photoemission detector. <i>Applied Physics B: Lasers and Optics</i> , <b>2019</b> , 125, 1	1.9	7
43	Numerical and Experimental Investigation on a Thermo-Photovoltaic Module for Higher Efficiency Energy Generation. <i>International Journal of Thermophysics</i> , <b>2017</b> , 38, 1	2.1	6
42	Sensitivity enhancement of a surface plasmon resonance sensor using Blue Phosphorene/MoS <sub>2</sub> hetero-structure and barium titanate. <i>Superlattices and Microstructures</i> , <b>2021</b> , 153, 106867	2.8	6
41	A high-sensitivity refractive index biosensor based on Si nanorings coupled to plasmonic nanohole arrays for glucose detection in water solution. <i>Optics Communications</i> , <b>2022</b> , 502, 127421	2	6
40	Modulation Frequency Analysis of an Electrically Pumped Plasmonic Amplifier. <i>Plasmonics</i> , <b>2017</b> , 12, 27-32	2.4	5
39	Hydrodynamic Analysis and Responsivity Improvement of a Metal/Semiconductor/Metal Plasmonic Detector. <i>Plasmonics</i> , <b>2019</b> , 14, 1639-1648	2.4	5
38	Analysis of the effects of applying external fields and device dimensions alterations on GaAs/AlGaAs multiple quantum well slow light devices based on excitonic population oscillation. <i>Applied Optics</i> , <b>2014</b> , 53, 1228-36	1.7	5
37	Analysis of quantum well size alteration effects on slow light device based on excitonic population oscillation. <i>Optical and Quantum Electronics</i> , <b>2013</b> , 45, 947-959	2.4	5
36	Analysis and improvement of optical frequency response in a long wavelength transistor laser. <i>Optical and Quantum Electronics</i> , <b>2012</b> , 44, 45-54	2.4	5
35	A nonlinear gain model for multiple quantum well transistor lasers. <i>Semiconductor Science and Technology</i> , <b>2013</b> , 28, 025022	1.8	5
34	Analysis of quantum light memory in atomic systems. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , <b>2005</b> , 7, 157-167		5
33	Design of a hybrid photonic-plasmonic crystal refractive index sensor for highly sensitive and high-resolution sensing applications. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2021</b> , 420, 127754	2.3	5
32	Acoustic 1-D demultiplexer based on fluid-fluid phononic crystal ring resonators. <i>Journal of Molecular Liquids</i> , <b>2020</b> , 308, 113144	6	5
31	High Purcell Factor Achievement of Notched Cavity Germanium Multiple Quantum Well Plasmon Source. <i>Plasmonics</i> , <b>2020</b> , 15, 155-167	2.4	4
30	A highly sensitive tunable filter using hybrid 1-D photonic crystal and plasmonic MIM waveguide. <i>Optik</i> , <b>2021</b> , 228, 166174	2.5	4
29	Electro-plasmonic Modal Power Shifting in Metal/Insulator/Semiconductor Structure Tailored as a CMOS-compatible Plasmonic Waveguide. <i>Plasmonics</i> , <b>2018</b> , 13, 1373-1385	2.4	3
28	Design and simulation of normally open and normally closed all-optical switches based on photonic crystal triple-waveguide directional coupler. <i>Optical and Quantum Electronics</i> , <b>2016</b> , 48, 1	2.4	3

27	Theoretical analysis on optoelectronic performances of long wavelength transistor lasers: base width variation effects. <i>Optical and Quantum Electronics</i> , <b>2014</b> , 46, 871-881	2.4	3
26	Design and simulation of infrared a Photonic Crystal Band Pass Filters for fiber optics Communication <b>2017</b> ,		3
25	Applications of Nano-Scale Plasmonic Structures in Design of Stub Filters [A Step Towards Realization of Plasmonic Switches <b>2015</b> ,		3
24	Dependence of Transistor Laser optical frequency response on quantum-well position <b>2008</b> ,		3
23	Simulation and estimation of normal dispersion phenomenon in an acentric organic crystal (NPP) by the quantum photonic approach. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2007</b> , 15, 869-878	2	3
22	Enhancement of slow and fast light devices characteristics, combining ring resonator with fiber bragg gratings. <i>Optik</i> , <b>2021</b> , 228, 166167	2.5	3
21	Hybrid Photonic Crystal Cavity as a Sensitive Label-Free Biosensor <b>2019</b> ,		2
20	Design and analysis of GRIN-SCH-SQW transistor laser <b>2016</b> ,		2
19	Design of a high-transmission waveguide bend for Kagome photonic crystal lattice. <i>Optik</i> , <b>2015</b> , 126, 1914-1917	2.5	2
18	Design considerations to improve high temperature characteristics of 1.3 $\mu\text{m}$ AlGaInAs-InP uncooled multiple quantum well lasers: Strain in barriers. <i>Optik</i> , <b>2011</b> , 122, 514-519	2.5	2
17	Design improvement of a buffered SOA-based ultrafast all-optical half adder with PolSK modulated signals <b>2011</b> ,		2
16	A semiclassical approach for electro-optic effect. <i>Optics Communications</i> , <b>2008</b> , 281, 4033-4037	2	2
15	Design and analysis of an electrically pumped GaAs quantum dot plasmonic nanolaser. <i>Optik</i> , <b>2020</b> , 203, 164027	2.5	2
14	Design and analysis of tunable acoustic channel drop filter based on fluidfluid phononic crystal ring resonators. <i>Wave Motion</i> , <b>2021</b> , 101, 102700	1.8	2
13	Design improvement of photonic crystal directional coupler switch for reducing chip area <b>2015</b> ,		1
12	Analysis and investigation of temperature and hydrostatic pressure effects on optical characteristics of multiple quantum well slow light devices. <i>Applied Optics</i> , <b>2017</b> , 56, 7331-7340	1.7	1
11	Design of high-performance double quantum well vertical cavity transistor lasers with GRIN base region. <i>Applied Physics B: Lasers and Optics</i> , <b>2019</b> , 125, 1	1.9	1
10	Investigation of confining layers effects on optoelectronic performances of transistor laser <b>2017</b> ,		1

9	Well width and alloy concentration dependence of optical properties of slow light devices <b>2015</b> ,		1
8	A Novel All-Optical Flip-Flop Based on Single-Wavelength SOA-MZI <b>2012</b> ,		1
7	Optical modulation bandwidth enhancement of Heterojunction Bipolar Transistor Lasers using base width variation <b>2011</b> ,		1
6	Toward Quantum Photonic Computers; Thinking May Not Be Realized by Digital Computers. <i>Communications in Computer and Information Science</i> , <b>2019</b> , 490-503	0.3	1
5	Design and simulation of a germanium multiple quantum well metal strip nanocavity plasmon laser. <i>Optical and Quantum Electronics</i> , <b>2020</b> , 52, 1	2.4	1
4	Large signal analysis of multiple quantum well transistor laser: Investigation of imbalanced carrier and photon density distribution. <i>Journal of Applied Physics</i> , <b>2020</b> , 127, 133102	2.5	1
3	All-optical plasmonic switches based on Fano resonance in an X-shaped resonator coupled to parallel stubs for telecommunication applications. <i>Optik</i> , <b>2021</b> , 243, 167424	2.5	1
2	Design of a highly sensitive tunable plasmonic refractive index sensor based on a ring-shaped nano-resonator. <i>Optical and Quantum Electronics</i> , <b>2022</b> , 54, 1	2.4	1
1	Design and Analysis of Infrared Tunable All-Optical Filters Based on Plasmonic Hybrid Nanostructure Using Periodic Nanohole Arrays. <i>Plasmonics</i> , 1	2.4	0