

Akhilesh K Mishra

List of Publications by Year in descending order

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52
papers

814
citations

687220

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all docs

52
docs citations

52
times ranked

656
citing authors

#	ARTICLE	IF	CITATIONS
1	Surface plasmon resonance assisted simultaneous bio and gas sensing in visible range. IEEE Journal of Selected Topics in Quantum Electronics, 2024, , 1-1.	1.9	2
2	Metallic Grating-Assisted Fiber Optic SPR Sensor with Extreme Sensitivity in IR Region. Plasmonics, 2022, 17, 575-579.	1.8	13
3	Femtosecond optical nonlinearities and Ultrafast dynamics in Metal-dielectric photonic structure. , 2022, , .		0
4	Propagation Dynamics of Ultrashort Laguerre-Gauss Vortices in a Nonlinear Medium. , 2022, , .		2
5	Spatio-temporal evolution dynamics of ultrashort Laguerre-Gauss vortices in a dispersive and nonlinear medium. Journal of Optics (United Kingdom), 2022, 24, 075501.	1.0	4
6	Impact of harmonic potential induced nonlinearity on Airy pulse propagation. Journal of Optics (United Kingdom), 2022, 24, 065504.	1.0	5
7	Ultrafast pulse propagation and spectral broadening in metal-dielectric 1D photonic crystal. Optical Materials, 2022, 131, 112688.	1.7	2
8	Graphene Nanocomposite as Optical-Fiber Interface for the Spectroscopy of Aqueous Media: Study of the C-H Stretch. Journal of Physical Chemistry C, 2021, 125, 3811-3817.	1.5	2
9	Ultrafast Nonlinear Pulse Propagation Dynamics in Metal-Dielectric Periodic Photonic Architectures. Advanced Materials Interfaces, 2021, 8, 2100757.	1.9	12
10	Dynamics of a chirped Airy pulse in a dispersive medium with higher-order nonlinearity. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 3608.	0.9	10
11	Soliton shedding from Airy pulses in a highly dispersive and nonlinear medium. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 3729.	0.9	11
12	ITO/Polymer matrix assisted surface plasmon resonance based fiber optic sensor. Results in Optics, 2021, 5, 100173.	0.9	16
13	Switching dynamics in χ -symmetric structures with saturable cubic nonlinear response. Journal of Optics (United Kingdom), 2021, 23, 124003.	1.0	4
14	Versatile Sensing Structure: GaP/Au/Graphene/Silicon. Photonics, 2021, 8, 547.	0.9	7
15	Ultrafast Nonlinear Absorption and Pulse Propagation Dynamics in Metal-Dielectric Photonic Structure. , 2021, , .		2
16	Graphene-based Photonic C-H bond activation. , 2021, , .		0
17	Generation of femtosecond pulse train by pulse splitting in a large mode area fiber at $2\frac{1}{4}\mu\text{m}$ wavelength. Optical Fiber Technology, 2020, 60, 102362.	1.4	4
18	Highly sensitive bimetallic plasmonic sensing probe for aqueous samples. Optical and Quantum Electronics, 2020, 52, 1.	1.5	9

#	ARTICLE	IF	CITATIONS
19	Self-phase modulation-induced modulation instability in silicon-on-insulator nano-waveguides. Optics and Laser Technology, 2019, 119, 105578.	2.2	4
20	Impact of exponential saturable nonlinearity on modulation instability in silicon-on-Insulator nano-waveguides. Optik, 2019, 185, 215-222.	1.4	0
21	Coherent light matter interactions in nanostructure based active semiconductor waveguides operating at room temperature. Applied Physics Reviews, 2019, 6, 041317.	5.5	3
22	Giant Infrared Sensitivity of Surface Plasmon Resonance-Based Refractive Index Sensor. Plasmonics, 2018, 13, 1183-1190.	1.8	15
23	Carrier dynamics in a tunneling injection quantum dot semiconductor optical amplifier. Physical Review B, 2018, 98, .	1.1	12
24	XPM-induced modulation instability in silicon-on-insulator nano-waveguides and the impact of nonlinear losses. Journal of Optics (United Kingdom), 2018, 20, 075502.	1.0	4
25	Ramsey fringes in a room-temperature quantum-dot semiconductor optical amplifier. Physical Review B, 2018, 97, .	1.1	7
26	MgF ₂ /prism/rhodium/graphene: efficient refractive index sensing structure in optical domain. Journal of Physics Condensed Matter, 2017, 29, 145001.	0.7	16
27	Ultra-fast charge carrier dynamics across the spectrum of an optical gain media based on InAs/AlGaInAs/InP quantum dots. AIP Advances, 2017, 7, 035122.	0.6	10
28	Doped Single-Wall Carbon Nanotubes in Propagating Surface Plasmon Resonance-Based Fiber Optic Refractive Index Sensing. Plasmonics, 2017, 12, 1657-1663.	1.8	27
29	Controlling Photon Echo in a Quantum-Dot Semiconductor Optical Amplifier Using Shaped Excitation. Physical Review Applied, 2017, 7, .	1.5	3
30	Analysis of free carrier effects on modulational instability in silicon-on-insulator nano-waveguides. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 1060.	0.9	7
31	Cross-phase modulation induced modulation instability in negative index metamaterial with saturable nonlinear response. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 2203.	0.9	7
32	Coherent control in room-temperature quantum dot semiconductor optical amplifiers using shaped pulses. Optica, 2016, 3, 570.	4.8	7
33	Gas sensing in Kretschmann configuration utilizing bi-metallic layer of Rhodium-Silver in visible region. Sensors and Actuators B: Chemical, 2016, 237, 969-973.	4.0	41
34	Graphene and Beyond Graphene MoS ₂ : A New Window in Surface-Plasmon-Resonance-Based Fiber Optic Sensing. Journal of Physical Chemistry C, 2016, 120, 2893-2900.	1.5	211
35	Highest achievable detection range for SPR based sensors using gallium phosphide (GaP) as a substrate: a theoretical study. Photonic Sensors, 2016, 6, 181-186.	2.5	0
36	Coherent Control by Shaped Pulses in Room Temperature InAs/InP Quantum Dot Optical Amplifiers. , 2016, , .		0

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37	Nonlinear pulse propagation in InAs/InP quantum dot optical amplifiers: Rabi oscillations in the presence of nonresonant nonlinearities. <i>Physical Review B</i> , 2015, 91, .	1.1	16
38	Breakthroughs in Photonics 2014: Time-Scale-Dependent Nonlinear Dynamics in InAs/InP Quantum Dot Gain Media: From High-Speed Modulation to Coherent Light-Matter Interactions. <i>IEEE Photonics Journal</i> , 2015, 7, 1-7.	1.0	0
39	Coherent control in quantum dot gain media using shaped pulses: a numerical study. <i>Optics Express</i> , 2015, 23, 29940.	1.7	9
40	An SPR-based sensor with an extremely large dynamic range of refractive index measurements in the visible region. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 435502.	1.3	41
41	Infrared SPR sensitivity enhancement using ITO/TiO ₂ /silicon overlays. <i>Europhysics Letters</i> , 2015, 112, 10001.	0.7	42
42	SPR based fiber optic sensor for refractive index sensing with enhanced detection accuracy and figure of merit in visible region. <i>Optics Communications</i> , 2015, 344, 86-91.	1.0	142
43	Gas-Clad Two-Way Fiber Optic SPR Sensor: a Novel Approach for Refractive Index Sensing. <i>Plasmonics</i> , 2015, 10, 1071-1076.	1.8	26
44	Fuchs Sondheimer's Drude Lorentz model and Drude model in the study of SPR based optical sensors: A theoretical study. <i>Optics Communications</i> , 2015, 357, 120-126.	1.0	34
45	Datacom multi-mode optical link using 850 nm VCSELs at 25 Gb/s. , 2014, , .		0
46	Enhanced Detection Accuracy and Figure of Merit of Surface Plasmon Resonance Based Fiber Optic Sensor for Blood-Glucose Sensing. , 2014, , .		0
47	Modulation Instability Induced by Cross Phase Modulation in a Negative Refractive Index Material with Saturable Nonlinear Responses. , 2014, , .		0
48	Anomalous self-steepening, temporal pulse splitting and ring formation in a left-handed metamaterial with cubic nonlinearity. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2012, 29, 1330.	0.9	17
49	Novel high gain regimes of spatio-temporal modulational instability for a single-cycle pulse in metamaterials. <i>Journal of Modern Optics</i> , 2012, 59, 1599-1606.	0.6	6
50	Spatio-temporal Modulation Instability in Negative Refractive Index Materials for a Single Cycle Pulse. , 2012, , .		1
51	Generalized Nonlinear Evolution Equation in Real Electric Field for Sub and Few-cycle Pulses for Cubic Left Handed Materials. , 2011, , .		0
52	Modeling of Ultrashort Pulse Propagation in Metamaterials with Cubic Nonlinearity. , 2010, , .		1