

# Akhilesh K Mishra

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3704812/publications.pdf>

Version: 2024-02-01

52  
papers

814  
citations

687220

13  
h-index

501076

28  
g-index

52  
all docs

52  
docs citations

52  
times ranked

656  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Graphene and Beyond Graphene MoS <sub>2</sub> : A New Window in Surface-Plasmon-Resonance-Based Fiber Optic Sensing. <i>Journal of Physical Chemistry C</i> , 2016, 120, 2893-2900.                                 | 1.5 | 211       |
| 2  | 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       |
| 3  | Infrared SPR sensitivity enhancement using ITO/TiO <sub>2</sub> /silicon overlays. <i>Europhysics Letters</i> , 2015, 112, 10001.   | 0.7 | 42        |
| 4  | 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        |
| 5  | Gas sensing in Kretschmann configuration utilizing bi-metallic layer of Rhodium-Silver in visible region. <i>Sensors and Actuators B: Chemical</i> , 2016, 237, 969-973.  | 4.0 | 41        |
| 6  | Fuchs Sondheimerâ€œDrude 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        |
| 7  | Doped Single-Wall Carbon Nanotubes in Propagating Surface Plasmon Resonance-Based Fiber Optic Refractive Index Sensing. <i>Plasmonics</i> , 2017, 12, 1657-1663.  | 1.8 | 27        |
| 8  | 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        |
| 9  | 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        |
| 10 | 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        |
| 11 | MgF <sub>2</sub> prism/rhodium/graphene: efficient refractive index sensing structure in optical domain. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 145001.   | 0.7 | 16        |
| 12 | ITO/Polymer matrix assisted surface plasmon resonance based fiber optic sensor. <i>Results in Optics</i> , 2021, 5, 100173.   | 0.9 | 16        |
| 13 | Giant Infrared Sensitivity of Surface Plasmon Resonance-Based Refractive Index Sensor. <i>Plasmonics</i> , 2018, 13, 1183-1190.   | 1.8 | 15        |
| 14 | Metallic Grating-Assisted Fiber Optic SPR Sensor with Extreme Sensitivity in IR Region. <i>Plasmonics</i> , 2022, 17, 575-579.  | 1.8 | 13        |
| 15 | Carrier dynamics in a tunneling injection quantum dot semiconductor optical amplifier. <i>Physical Review B</i> , 2018, 98, .   | 1.1 | 12        |
| 16 | Ultrafast Nonlinear Pulse Propagation Dynamics in Metalâ€œDielectric Periodic Photonic Architectures. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100757.  | 1.9 | 12        |
| 17 | Soliton shedding from Airy pulses in a highly dispersive and nonlinear medium. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2021, 38, 3729.  | 0.9 | 11        |
| 18 | Ultra-fast charge carrier dynamics across the spectrum of an optical gain media based on InAs/AlGaInAs/InP quantum dots. <i>AIP Advances</i> , 2017, 7, 035122.   | 0.6 | 10        |

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|----|---|-----|-----------|
| 19 | 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        |
| 20 | Coherent control in quantum dot gain media using shaped pulses: a numerical study. Optics Express, 2015, 23, 29940.   | 1.7 | 9         |
| 21 | Highly sensitive bimetallic plasmonic sensing probe for aqueous samples. Optical and Quantum Electronics, 2020, 52, 1.  | 1.5 | 9         |
| 22 | Coherent control in room-temperature quantum dot semiconductor optical amplifiers using shaped pulses. Optica, 2016, 3, 570.  | 4.8 | 7         |
| 23 | 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         |
| 24 | 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         |
| 25 | Ramsey fringes in a room-temperature quantum-dot semiconductor optical amplifier. Physical Review B, 2018, 97, .  | 1.1 | 7         |
| 26 | Versatile Sensing Structure: GaP/Au/Graphene/Silicon. Photonics, 2021, 8, 547.  | 0.9 | 7         |
| 27 | Novel high gain regimes of spatio-temporal modulational instability for a single-cycle pulse in metamaterials. Journal of Modern Optics, 2012, 59, 1599-1606.   | 0.6 | 6         |
| 28 | Impact of harmonic potential induced nonlinearity on Airy pulse propagation. Journal of Optics (United Kingdom), 2022, 24, 065504.  | 1.0 | 5         |
| 29 | 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         |
| 30 | Self-phase modulation-induced modulation instability in silicon-on-insulator nano-waveguides. Optics and Laser Technology, 2019, 119, 105578.   | 2.2 | 4         |
| 31 | 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         |
| 32 | Switching dynamics in $\pi$ -symmetric structures with saturable cubic nonlinear response. Journal of Optics (United Kingdom), 2021, 23, 124003.  | 1.0 | 4         |
| 33 | 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         |
| 34 | Controlling Photon Echo in a Quantum-Dot Semiconductor Optical Amplifier Using Shaped Excitation. Physical Review Applied, 2017, 7, .   | 1.5 | 3         |
| 35 | Coherent light matter interactions in nanostructure based active semiconductor waveguides operating at room temperature. Applied Physics Reviews, 2019, 6, 041317.                                    | 5.5 | 3         |
| 36 | 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         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 37 | 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         |
| 38 | Ultrafast Nonlinear Absorption and Pulse Propagation Dynamics in Metal-Dielectric Photonic Structure. , 2021, , .  |     | 2         |
| 39 | Propagation Dynamics of Ultrashort Laguerre-Gauss Vortices in a Nonlinear Medium. , 2022, , .  |     | 2         |
| 40 | Ultrafast pulse propagation and spectral broadening in metal-dielectric 1D photonic crystal. Optical Materials, 2022, 131, 112688.   | 1.7 | 2         |
| 41 | Modeling of Ultrashort Pulse Propagation in Metamaterials with Cubic Nonlinearity. , 2010, , .   |     | 1         |
| 42 | Spatio-temporal Modulation Instability in Negative Refractive Index Materials for a Single Cycle Pulse. , 2012, , .  |     | 1         |
| 43 | Generalized Nonlinear Evolution Equation in Real Electric Field for Sub and Few-cycle Pulses for Cubic Left Handed Materials. , 2011, , .  |     | 0         |
| 44 | Datacom multi-mode optical link using 850 nm VCSELs at 25 Gb/s. , 2014, , .  |     | 0         |
| 45 | Enhanced Detection Accuracy and Figure of Merit of Surface Plasmon Resonance Based Fiber Optic Sensor for Blood-Glucose Sensing. , 2014, , .   |     | 0         |
| 46 | Modulation Instability Induced by Cross Phase Modulation in a Negative Refractive Index Material with Saturable Nonlinear Responses. , 2014, , .   |     | 0         |
| 47 | 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. IEEE Photonics Journal, 2015, 7, 1-7. | 1.0 | 0         |
| 48 | 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         |
| 49 | Impact of exponential saturable nonlinearity on modulation instability in silicon-on-insulator nano-waveguides. Optik, 2019, 185, 215-222.   | 1.4 | 0         |
| 50 | Coherent Control by Shaped Pulses in Room Temperature InAs/InP Quantum Dot Optical Amplifiers. , 2016, , .   |     | 0         |
| 51 | Graphene-based Photonic C-H bond activation. , 2021, , .   |     | 0         |
| 52 | Femtosecond optical nonlinearities and Ultrafast dynamics in Metal-dielectric photonic structure. , 2022, , .  |     | 0         |