

# Arup Neogi

## List of Publications by Year in descending order

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81  
papers

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citations

430843

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434170

31  
g-index

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all docs

83  
docs citations

83  
times ranked

1576  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Laser Ablated Carbon Nanodots for Light Emission. <i>Nanoscale Research Letters</i> , 2016, 11, 424.   | 5.7  | 103       |
| 2  | Multitask deep-learning-based design of chiral plasmonic metamaterials. <i>Photonics Research</i> , 2020, 8, 1213.   | 7.0  | 61        |
| 3  | 1.45 Åµm Intersubband Absorption in InGaAs/AlAsSb Grown by Molecular Beam Epitaxy. <i>Japanese Journal of Applied Physics</i> , 1999, 38, 1286-1289.   | 1.5  | 50        |
| 4  | Oscillating magnetic field-actuated microvalves for micro- and nanofluidics. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 135501.   | 2.8  | 36        |
| 5  | Optimization of nonlinear optical properties of ZnO micro and nanocrystals for biophotonics. <i>Optical Materials Express</i> , 2011, 1, 658.  | 3.0  | 34        |
| 6  | Tunable ultrasonic phononic crystal controlled by infrared radiation. <i>Applied Physics Letters</i> , 2014, 105, .  | 3.3  | 34        |
| 7  | Hybrid Zinc Oxide Nanoparticles for Biophotonics. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 1707-1712.  | 0.9  | 33        |
| 8  | Nondestructive ultrasonic evaluation of fused deposition modeling based additively manufactured 3D-printed structures. <i>Smart Materials and Structures</i> , 2020, 29, 045020.   | 3.5  | 33        |
| 9  | Electric field enhanced photoluminescence of CdTe quantum dots encapsulated in poly (N-isopropylacrylamide) nano-spheres. <i>Optics Express</i> , 2008, 16, 19410.   | 3.4  | 30        |
| 10 | Bioimaging Using the Optimized Nonlinear Optical Properties of ZnO Nanoparticles. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2012, 18, 1451-1456.   | 2.9  | 28        |
| 11 | Sub-wavelength lateral detection of tissue-approximating masses using an ultrasonic metamaterial lens. <i>Nature Communications</i> , 2020, 11, 5967.  | 12.8 | 26        |
| 12 | Resonant surface plasmon-induced modification of photoluminescence from GaN/AlN quantum dots. <i>Nanotechnology</i> , 2004, 15, 1252-1255.   | 2.6  | 25        |
| 13 | Thermally Tunable Dynamic and Static Elastic Properties of Hydrogel Due to Volumetric Phase Transition. <i>Polymers</i> , 2020, 12, 1462.  | 4.5  | 25        |
| 14 | Coupling of spontaneous emission from GaN/AlN quantum dots into silver surface plasmons. <i>Optics Letters</i> , 2005, 30, 93.   | 3.3  | 22        |
| 15 | A Review of Diagnostics Methodologies for Metal Additive Manufacturing Processes and Products. <i>Materials</i> , 2021, 14, 4929.  | 2.9  | 19        |
| 16 | Tunable Hybrid Phononic Crystal Lens Using Thermo-Acoustic Polymers. <i>ACS Omega</i> , 2019, 4, 16585-16590.  | 3.5  | 18        |
| 17 | Enhanced Instantaneous Elastography in Tissues and Hard Materials Using Bulk Modulus and Density Determined Without Externally Applied Material Deformation. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2020, 67, 624-634. | 3.0  | 18        |
| 18 | Second harmonic imaging of plants tissues and cell implosion using two-photon process in ZnO nanoparticles. <i>Journal of Biophotonics</i> , 2012, 5, 283-291.   | 2.3  | 16        |

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|----|--|-----|-----------|
| 19 | Radio-frequency actuated polymer-based phononic meta-materials for control of ultrasonic waves. NPG Asia Materials, 2017, 9, e350-e350.  | 7.9 | 16        |
| 20 | The effects of temperature and frequency dispersion on sound speed in bulk poly (vinyl alcohol) poly (N-isopropylacrylamide) hydrogels caused by the phase transition. Ultrasonics, 2020, 104, 105931.                                     | 3.9 | 16        |
| 21 | Crystallographic texture dependent bulk anisotropic elastic response of additively manufactured Ti6Al4V. Scientific Reports, 2021, 11, 633.  | 3.3 | 16        |
| 22 | Thermomechanically influenced dynamic elastic constants of laser powder bed fusion additively manufactured Ti6Al4V. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 811, 140990. | 5.6 | 16        |
| 23 | Manufacturing and Characterization of Hybrid Bulk Voxelated Biomaterials Printed by Digital Anatomy 3D Printing. Polymers, 2021, 13, 123.  | 4.5 | 16        |
| 24 | Novel 2D Dynamic Elasticity Maps for Inspection of Anisotropic Properties in Fused Deposition Modeling Objects. Polymers, 2020, 12, 1966.  | 4.5 | 14        |
| 25 | Energy transfer in ZnO-anthracene hybrid structure. Optical Materials Express, 2012, 2, 526.   | 3.0 | 13        |
| 26 | Long-range nonspreading propagation of sound beam through periodic layered structure. Communications Physics, 2020, 3, .   | 5.3 | 13        |
| 27 | Competition Between Resonant Plasmonic Coupling and Electrostatic Interaction in Reduced Graphene Oxide Quantum Dots. Scientific Reports, 2016, 6, 36898.  | 3.3 | 12        |
| 28 | Absorption Saturation of Intersubband Transition in InGaAs/AlAsSb Quantum Well Characterized by Absorption Spectral Analysis. Japanese Journal of Applied Physics, 2001, 40, L1015-L1018.  | 1.5 | 10        |
| 29 | Localized Surface Plasmon Polariton Enhanced Radiative Recombination in Ion-Implanted Silicon Emitters. Applied Physics Express, 2010, 3, 102201.  | 2.4 | 10        |
| 30 | Localization of ultrasound in 2D phononic crystal with randomly oriented asymmetric scatterers. Journal of Applied Physics, 2021, 129, .   | 2.5 | 10        |
| 31 | Absorption and emission modulation in a MoS <sub>2</sub> /GaN (0001) heterostructure by interface phonon-exciton coupling. Photonics Research, 2019, 7, 1511.  | 7.0 | 10        |
| 32 | Anomalous temperature dependence of speed of sound of bulk poly(N-isopropylacrylamide) hydrogels near the phase transition. Ultrasonics, 2014, 54, 1337-1340.  | 3.9 | 9         |
| 33 | Broad band light emission from Ag-ion implanted silicon nanocrystals. Solid State Communications, 2011, 151, 1405-1409.  | 1.9 | 8         |
| 34 | Influence of localized electric field on the bandedge emission of hybrid Au-GaN/InGaN quantum wells. Applied Physics Letters, 2011, 99, 121905.  | 3.3 | 8         |
| 35 | Hyperspectral Nonlinear Optical Light Generation from a Monolithic GaN Microcavity. Advanced Optical Materials, 2017, 5, 1600804.  | 7.3 | 8         |
| 36 | All-acoustic signal modulation and logic operation via defect induced cavity effects in phononic crystal coupled-resonator acoustic waveguides. New Journal of Physics, 2019, 21, 113012.  | 2.9 | 8         |

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|----|--|-----|-----------|
| 37 | Non-reciprocal acoustics in a viscous environment. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200657.   | 2.1 | 8         |
| 38 | Ultrasonic elastography for nondestructive evaluation of dissimilar material joints. Journal of Materials Processing Technology, 2022, 299, 117301.  | 6.3 | 8         |
| 39 | Mechanically tunable ultrasonic metamaterial lens with a subwavelength resolution at long working distances for bioimaging. Smart Materials and Structures, 2021, 30, 015022.                                | 3.5 | 8         |
| 40 | CONTROL OF LIGHT SCATTERING INDUCED SHIFT IN PHOTOLUMINESCENCE FROM CDTE QUANTUM DOTS ENCAPSULATED IN POLYACRYLAMIDE GEL NANOSPHERES. Soft Materials, 2009, 7, 232-241.                                      | 1.7 | 7         |
| 41 | Origin of room temperature broadband light emission and carrier dynamics in Ag ion-implanted Silicon nanocrystals. Optical Materials Express, 2012, 2, 501.  | 3.0 | 7         |
| 42 | Low-Temperature Synthesis of Fe-Doped ZnO Nanotubes. Journal of Electronic Materials, 2012, 41, 2155-2161.   | 2.2 | 7         |
| 43 | Comparison of electrostatic and localized plasmon induced light enhancement in hybrid InGaN/GaN quantum wells. Applied Physics Letters, 2014, 104, 242106.   | 3.3 | 7         |
| 44 | Plasmonically Induced Transparency in Graphene Oxide Quantum Dots with Dressed Phonon States. ACS Photonics, 2018, 5, 614-620.   | 6.6 | 7         |
| 45 | Active Control of Coherent Dynamics in Hybrid Plasmonic MoS <sub>2</sub> Monolayers with Dressed Phonons. ACS Photonics, 2019, 6, 1645-1655.   | 6.6 | 7         |
| 46 | In-situ monitoring and ex-situ elasticity mapping of laser induced metal melting pool using ultrasound: Numerical and experimental approaches. Journal of Manufacturing Processes, 2021, 71, 178-186.        | 5.9 | 7         |
| 47 | Simultaneous negative reflection and refraction and reverse-incident right-angle collimation of sound in a solid-fluid phononic crystal. Journal of the Acoustical Society of America, 2022, 151, 2723-2731. | 1.1 | 7         |
| 48 | Photoluminescence characterization of type II InGaAs/AlAsSb heterostructures lattice matched to InP grown by molecular beam epitaxy. Journal of Crystal Growth, 2000, 209, 445-449.                          | 1.5 | 6         |
| 49 | Plasmonically-powered hot carrier induced modulation of light emission in a two-dimensional GaAs semiconductor quantum well. Nanoscale, 2019, 11, 3827-3836.   | 5.6 | 6         |
| 50 | Optimization of the Spatial Configuration of Local Defects in Phononic Crystals for High Q Cavity. Frontiers in Mechanical Engineering, 2020, 6, .   | 1.8 | 6         |
| 51 | Carrier Dynamics in UV InGaN Multiple Quantum Well Inverted Hexagonal Pits. IEEE Journal of Selected Topics in Quantum Electronics, 2009, 15, 1400-1405.   | 2.9 | 5         |
| 52 | Acoustic Metasurface-Aided Broadband Noise Reduction in Automobile Induced by Tire-Pavement Interaction. Materials, 2021, 14, 4262.  | 2.9 | 5         |
| 53 | Structural Stability of Bilayer MoS <sub>2</sub> in Ambient Air. Advanced Materials Interfaces, 2021, 8, 2101188.  | 3.7 | 5         |
| 54 | Spatial Decomposition of a Broadband Pulse Caused by Strong Frequency Dispersion of Sound in Acoustic Metamaterial Superlattice. Materials, 2021, 14, 125.   | 2.9 | 5         |

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|----|---|-----|-----------|
| 55 | Efficient All-Optical Interband Light Modulation by Ultrafast Manipulation of Intersubband Transitions in an Asymmetric Quantum Well*. Japanese Journal of Applied Physics, 1999, 38, 1290-1293.  | 1.5 | 4         |
| 56 | Optical Devices: Enhancement of Spontaneous Emission Rate by Resonant Surface Plasmon Coupling. Optics and Photonics News, 2002, 13, 38.  | 0.5 | 4         |
| 57 | QUANTUM DOT COMPUTING GATES. International Journal of Quantum Information, 2006, 04, 233-296.   | 1.1 | 4         |
| 58 | Enhanced photoluminescence emission from anthracene-doped polyphenylsiloxane glass. Optics Letters, 2013, 38, 5224.   | 3.3 | 4         |
| 59 | Numerically Trained Ultrasound AI for Monitoring Tool Degradation. Advanced Intelligent Systems, 2022, 4, .   | 6.1 | 4         |
| 60 | Refractive Index Change in Nanoscale Thermosensitive Hydrogel for Optoelectronic and Biophotonic Applications. Materials Research Society Symposia Proceedings, 2007, 1060, 60801.                | 0.1 | 3         |
| 61 | Metallic Nanodroplet Induced Coulomb Catalysis for Off-Resonant Plasmonic Enhancement of Photoemission in Semiconductors. ACS Omega, 2016, 1, 19-28.  | 3.5 | 3         |
| 62 | Analyzing growth kinematics and fractal dimensions of molybdenum disulfide films. Nanotechnology, 2021, 32, 245602.   | 2.6 | 3         |
| 63 | Ultrasound Imaging by Thermally Tunable Phononic Crystal Lens. International Journal of Molecular Sciences, 2021, 22, 7966.   | 4.1 | 3         |
| 64 | ULTRAFAST PHOTO-INDUCED ABSORPTION CHANGE IN INORGANIC-ORGANIC MULTIPLE QUANTUM WELL COMPOUND. International Journal of Modern Physics B, 2001, 15, 3741-3744.                                    | 2.0 | 2         |
| 65 | Temperature-Insensitive Intersubband-Transitions in InGaAs/AlAsSb Multiple Quantum Well Designed for Optical Communication Wavelength*. Japanese Journal of Applied Physics, 2001, 40, L558-L560. | 1.5 | 2         |
| 66 | CdTe quantum dot in tunable hydrogel nanocrystals. , 2007, , .  |     | 2         |
| 67 | Intrinsic Polarization of Self-Assembled Guanosine Supramolecules in GaN-Based Metalâ€“Semiconductorâ€“Metal Nano-Structures. Journal of Display Technology, 2009, 5, 446-451.                    | 1.2 | 2         |
| 68 | Energy transfer induced enhancement of localized exciton emission in ZnO nanoparticleâ€“anthracene hybrid films. Physica Status Solidi - Rapid Research Letters, 2013, 7, 1089-1092.              | 2.4 | 2         |
| 69 | Longitudinal Monostatic Acoustic Effective Bulk Modulus and Effective Density Evaluation of Underground Soil Quality: A Numerical Approach. Applied Sciences (Switzerland), 2021, 11, 146.        | 2.5 | 2         |
| 70 | Growth of Monolayer MoS2 on Hydrophobic Substrates as a Novel and Feasible Method to Prevent the Ambient Degradation of Monolayer MoS2. MRS Advances, 2020, 5, 2707-2715.                         | 0.9 | 1         |
| 71 | Thermally Tunable Acoustic Beam Splitter Based on Poly(vinyl alcohol) Poly(N-isopropylacrylamide) Hydrogel. Gels, 2021, 7, 140.   | 4.5 | 1         |
| 72 | Ultrafast All-Optical Switching Based on Inter-Subband Transition in GaN/AlGaIn and InGaAs/AlAsSb Multiple Quantum Wells. Optics and Photonics News, 2000, 11, 45.                                | 0.5 | 0         |

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|----|--|-----|-----------|
| 73 | Resonant Energy Transfer due to Exciton Coupling in Hybrid Persovskites Conjugated to GaN Semiconductors. Materials Research Society Symposia Proceedings, 2006, 955, 1.                                     | 0.1 | 0         |
| 74 | Enhanced Luminescence Efficiency from Hydrogel Microbead Encapsulated Quantum Dots. Materials Research Society Symposia Proceedings, 2006, 959, 1.   | 0.1 | 0         |
| 75 | Resonant energy transfer due to exciton-exciton interaction in the strong coupling regime in Hybrid InGaN Quantum Wells. , 2007, , .   |     | 0         |
| 76 | Tunable Photonic Crystals Incorporating Variable Refractive Index Organic Polymers. , 2008, , .  |     | 0         |
| 77 | Near-field optical spectroscopy of Ga nanoparticles for plasmonics. , 2008, , .  |     | 0         |
| 78 | Carrier-induced nonlinearities in InGaN/GaN quantum wells with V-pits. MRS Communications, 2012, 2, 55-60.   | 1.8 | 0         |
| 79 | Second harmonic quasi whispering gallery modes in a GaN micro-cavity. , 2017, , .  |     | 0         |
| 80 | Observation of plasmonically induced transparency by the pump-probe technique. European Physical Journal: Special Topics, 2021, 230, 951-962.  | 2.6 | 0         |
| 81 | Maxwell-Wagner-Sillars Dynamics and Enhanced Radio-Frequency Elastomechanical Susceptibility in PNIPAm Hydrogel-KF-doped Barium Titanate Nanoparticle Composites. Nanoscale Research Letters, 2019, 14, 385. | 5.7 | 0         |