# Junsuk Rho

## List of Publications by Citations



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|---|---|---|---|
| 223 papers | 7,704 citations | 43 h-index | 80 g-index |
| 270 ext. papers | 10,986 ext. citations | 8.2 avg, IF | 6.96 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 223 | Photonic spin Hall effect at metasurfaces. *Science*, **2013**, 339, 1405-7 | 33.3 | 799 |
| 222 | Amino-acid- and peptide-directed synthesis of chiral plasmonic gold nanoparticles. *Nature*, **2018**, 556, 360-365 | 50.4 | 446 |
| 221 | Photoinduced handedness switching in terahertz chiral metamolecules. *Nature Communications*, **2012**, 3, 942 | 17.4 | 333 |
| 220 | Spherical hyperlens for two-dimensional sub-diffractional imaging at visible frequencies. *Nature Communications*, **2010**, 1, 143 | 17.4 | 300 |
| 219 | Experimental realization of three-dimensional indefinite cavities at the nanoscale with anomalous scaling laws. *Nature Photonics*, **2012**, 6, 450-454 | 33.9 | 261 |
| 218 | Complete amplitude and phase control of light using broadband holographic metasurfaces. *Nanoscale*, **2018**, 10, 4237-4245 | 7.7 | 193 |
| 217 | Predicting nonlinear properties of metamaterials from the linear response. *Nature Materials*, **2015**, 14, 379-83 | 27 | 185 |
| 216 | Complex-amplitude metasurface-based orbital angular momentum holography in momentum space. *Nature Nanotechnology*, **2020**, 15, 948-955 | 28.7 | 160 |
| 215 | Deep learning enabled inverse design in nanophotonics. *Nanophotonics*, **2020**, 9, 1041-1057 | 6.3 | 130 |
| 214 | Maskless plasmonic lithography at 22 nm resolution. *Scientific Reports*, **2011**, 1, 175 | 4.9 | 130 |
| 213 | Dielectric Meta-Holograms Enabled with Dual Magnetic Resonances in Visible Light. *ACS Nano*, **2017**, 11, 9382-9389 | 16.7 | 122 |
| 212 | Plasmonic- and dielectric-based structural coloring: from fundamentals to practical applications. *Nano Convergence*, **2018**, 5, 1 | 9.2 | 114 |
| 211 | Simultaneous Inverse Design of Materials and Structures via Deep Learning: Demonstration of Dipole Resonance Engineering Using Core-Shell Nanoparticles. *ACS Applied Materials & Interfaces*, **2019**, 11, 24264-24268 | 9.5 | 109 |
| 210 | Designing nanophotonic structures using conditional deep convolutional generative adversarial networks. *Nanophotonics*, **2019**, 8, 1255-1261 | 6.3 | 102 |
| 209 | "Crypto-Display" in Dual-Mode Metasurfaces by Simultaneous Control of Phase and Spectral Responses. *ACS Nano*, **2018**, 12, 6421-6428 | 16.7 | 94 |
| 208 | Optical toroidal dipolar response by an asymmetric double-bar metamaterial. *Applied Physics Letters*, **2012**, 101, 144105 | 3.4 | 93 |
| 207 | Electromagnetic chirality: from fundamentals to nontraditional chiroptical phenomena. *Light: Science and Applications*, **2020**, 9, 139 | 16.7 | 85 |

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| 206 | Outfitting Next Generation Displays with Optical Metasurfaces. *ACS Photonics*, **2018**, 5, 3876-3895 | 6.3 | 85 |
| 205 | Metasurfaces Based on Phase-Change Material as a Reconfigurable Platform for Multifunctional Devices. *Materials*, **2017**, 10, | 3.5 | 84 |
| 204 | Recent advances in 2D, 3D and higher-order topological photonics. *Light: Science and Applications*, **2020**, 9, 130 | 16.7 | 82 |
| 203 | Single-step manufacturing of hierarchical dielectric metalens in the visible. *Nature Communications*, **2020**, 11, 2268 | 17.4 | 76 |
| 202 | Full-space Cloud of Random Points with a Scrambling Metasurface. *Light: Science and Applications*, **2018**, 7, 63 | 16.7 | 76 |
| 201 | Smart SERS Hot Spots: Single Molecules Can Be Positioned in a Plasmonic Nanojunction Using Host-Guest Chemistry. *Journal of the American Chemical Society*, **2018**, 140, 4705-4711 | 16.4 | 70 |
| 200 | Optimisation of colour generation from dielectric nanostructures using reinforcement learning. *Optics Express*, **2019**, 27, 5874-5883 | 3.3 | 67 |
| 199 | Pragmatic Metasurface Hologram at Visible Wavelength: The Balance between Diffraction Efficiency and Fabrication Compatibility. *ACS Photonics*, **2018**, 5, 1643-1647 | 6.3 | 66 |
| 198 | Tungsten-based Ultrathin Absorber for Visible Regime. *Scientific Reports*, **2018**, 8, 2443 | 4.9 | 65 |
| 197 | Optical and acoustic metamaterials: superlens, negative refractive index and invisibility cloak. *Journal of Optics (United Kingdom)*, **2017**, 19, 084007 | 1.7 | 60 |
| 196 | Finding the optical properties of plasmonic structures by image processing using a combination of convolutional neural networks and recurrent neural networks. *Microsystems and Nanoengineering*, **2019**, 5, 27 | 7.7 | 59 |
| 195 | Ultrafast acousto-plasmonic control and sensing in complex nanostructures. *Nature Communications*, **2014**, 5, 4042 | 17.4 | 59 |
| 194 | Stimuli-Responsive Dynamic Metaholographic Displays with Designer Liquid Crystal Modulators. *Advanced Materials*, **2020**, 32, e2004664 | 24 | 58 |
| 193 | Control of light absorbance using plasmonic grating based perfect absorber at visible and near-infrared wavelengths. *Scientific Reports*, **2017**, 7, 2611 | 4.9 | 58 |
| 192 | Thermally robust ring-shaped chromium perfect absorber of visible light. *Nanophotonics*, **2018**, 7, 1827-1833 | 6.3 | 57 |
| 191 | Polarisation insensitive multifunctional metasurfaces based on all-dielectric nanowaveguides. *Nanoscale*, **2018**, 10, 18323-18330 | 7.7 | 55 |
| 190 | Observation of Enhanced Optical Spin Hall Effect in a Vertical Hyperbolic Metamaterial. *ACS Photonics*, **2019**, 6, 2530-2536 | 6.3 | 54 |
| 189 | A Spin-Encoded All-Dielectric Metahologram for Visible Light. *Laser and Photonics Reviews*, **2019**, 13, 1900065 | 8.3 | 54 |

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| 188 | Cysteine-encoded chirality evolution in plasmonic rhombic dodecahedral gold nanoparticles. *Nature Communications*, **2020**, 11, 263 | 17.4 | 54 |
| 187 | Holographic metasurface gas sensors for instantaneous visual alarms. *Science Advances*, **2021**, 7, | 14.3 | 54 |
| 186 | Self-Powered Humidity Sensor Using Chitosan-Based Plasmonic Metal Hydrogel Metal Filters. *Advanced Optical Materials*, **2020**, 8, 1901932 | 8.1 | 52 |
| 185 | Nanophotonics for light detection and ranging technology. *Nature Nanotechnology*, **2021**, 16, 508-524 | 28.7 | 52 |
| 184 | Pixelated bifunctional metasurface-driven dynamic vectorial holographic color prints for photonic security platform. *Nature Communications*, **2021**, 12, 3614 | 17.4 | 52 |
| 183 | Metamaterial-Based Radiative Cooling: Towards Energy-Free All-Day Cooling. *Energies*, **2019**, 12, 89 | 3.1 | 49 |
| 182 | Hyperbolic metamaterials: fusing artificial structures to natural 2D materials. *ELight*, **2022**, 2, | | 48 |
| 181 | Spectral Modulation through the Hybridization of Mie-Scatterers and Quasi-Guided Mode Resonances: Realizing Full and Gradients of Structural Color. *ACS Nano*, **2020**, 14, 15317-15326 | 16.7 | 44 |
| 180 | Tunable Metasurfaces: Kerker-Conditioned Dynamic Cryptographic Nanoprints (Advanced Optical Materials 4/2019). *Advanced Optical Materials*, **2019**, 7, 1970016 | 8.1 | 42 |
| 179 | Metasurfaces-Based Absorption and Reflection Control: Perfect Absorbers and Reflectors. *Journal of Nanomaterials*, **2017**, 2017, 1-18 | 3.2 | 42 |
| 178 | Sub-ambient daytime radiative cooling by silica-coated porous anodic aluminum oxide. *Nano Energy* , **2021**, 79, 105426 | 17.1 | 41 |
| 177 | Realization of Wafer-Scale Hyperlens Device for Sub-diffractional Biomolecular Imaging. *ACS Photonics*, **2018**, 5, 2549-2554 | 6.3 | 41 |
| 176 | Geometric metasurface enabling polarization independent beam splitting. *Scientific Reports*, **2018**, 8, 9468 | 4.9 | 40 |
| 175 | Facile Nanocasting of Dielectric Metasurfaces with Sub-100 nm Resolution. *ACS Applied Materials & Interfaces*, **2019**, 11, 26109-26115 | 9.5 | 40 |
| 174 | Challenges in fabrication towards realization of practical metamaterials. *Microelectronic Engineering*, **2016**, 163, 7-20 | 2.5 | 40 |
| 173 | Demonstration of nanoimprinted hyperlens array for high-throughput sub-diffraction imaging. *Scientific Reports*, **2017**, 7, 46314 | 4.9 | 38 |
| 172 | A Broadband Optical Diode for Linearly Polarized Light Using Symmetry-Breaking Metamaterials. *Advanced Optical Materials*, **2017**, 5, 1700600 | 8.1 | 38 |
| 171 | Engineering spin and antiferromagnetic resonances to realize an efficient direction-multiplexed visible meta-hologram. *Nanoscale Horizons*, **2020**, 5, 57-64 | 10.8 | 38 |

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| 170 | Fabrication of three-dimensional suspended, interlayered and hierarchical nanostructures by accuracy-improved electron beam lithography overlay. *Scientific Reports*, **2017**, 7, 6668 | 4.9 | 37 |
| 169 | Biomimetic ultra-broadband perfect absorbers optimised with reinforcement learning. *Physical Chemistry Chemical Physics*, **2020**, 22, 2337-2342 | 3.6 | 35 |
| 168 | Kerker-Conditioned Dynamic Cryptographic Nanoprints. *Advanced Optical Materials*, **2018**, 7, 1801070 | 8.1 | 35 |
| 167 | Double-deep Q-learning to increase the efficiency of metasurface holograms. *Scientific Reports*, **2019**, 9, 10899 | 4.9 | 34 |
| 166 | Metamaterials and imaging. *Nano Convergence*, **2015**, 2, 22 | 9.2 | 34 |
| 165 | Polarization-sensitive tunable absorber in visible and near-infrared regimes. *Scientific Reports*, **2018**, 8, 12393 | 4.9 | 33 |
| 164 | Wavelength-decoupled geometric metasurfaces by arbitrary dispersion control. *Communications Physics*, **2019**, 2, | 5.4 | 33 |
| 163 | Recent Advances in Tunable and Reconfigurable Metamaterials. *Micromachines*, **2018**, 9, | 3.3 | 33 |
| 162 | Near-zero reflection of all-dielectric structural coloration enabling polarization-sensitive optical encryption with enhanced switchability. *Nanophotonics*, **2020**, 10, 919-926 | 6.3 | 32 |
| 161 | Printable Nanocomposite Metalens for High-Contrast Near-Infrared Imaging. *ACS Nano*, **2021**, 15, 698-706 | 16.7 | 32 |
| 160 | Metasurfaces-based imaging and applications: from miniaturized optical components to functional imaging platforms. *Nanoscale Advances*, **2020**, 2, 605-625 | 5.1 | 31 |
| 159 | Effect of temperature on the oxidation of Cu nanowires and development of an easy to produce, oxidation-resistant transparent conducting electrode using a PEDOT:PSS coating. *Scientific Reports*, **2018**, 8, 10639 | 4.9 | 31 |
| 158 | Revealing Structural Disorder in Hydrogenated Amorphous Silicon for a Low-Loss Photonic Platform at Visible Frequencies. *Advanced Materials*, **2021**, 33, e2005893 | 24 | 31 |
| 157 | Electrically tunable metasurface perfect absorber for infrared frequencies. *Nano Convergence*, **2017**, 4, 36 | 9.2 | 30 |
| 156 | Three-dimensional nanoprinting via charged aerosol jets. *Nature*, **2021**, 592, 54-59 | 50.4 | 30 |
| 155 | Deep sub-wavelength nanofocusing of UV-visible light by hyperbolic metamaterials. *Scientific Reports*, **2016**, 6, 38645 | 4.9 | 29 |
| 154 | Electrically Tunable Bifocal Metalens with Diffraction-Limited Focusing and Imaging at Visible Wavelengths. *Advanced Science*, **2021**, 8, e2102646 | 13.6 | 28 |
| 153 | Active Color Control in a Metasurface by Polarization Rotation. *Applied Sciences (Switzerland)*, **2018**, 8, 982 | 2.6 | 27 |

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| 152 | Acoustic wave science realized by metamaterials. *Nano Convergence*, **2017**, 4, 3 | 9.2 | 26 |
| 151 | Recent Progress on Ultrathin Metalenses for Flat Optics. *IScience*, **2020**, 23, 101877 | 6.1 | 26 |
| 150 | Metasurface-Driven Optically Variable Devices. *Chemical Reviews*, **2021**, 121, 13013-13050 | 68.1 | 26 |
| 149 | Topological edge and corner states in a two-dimensional photonic Su-Schrieffer-Heeger lattice. *Nanophotonics*, **2020**, 9, 3227-3234 | 6.3 | 25 |
| 148 | Moth-eye shaped on-demand broadband and switchable perfect absorbers based on vanadium dioxide. *Scientific Reports*, **2020**, 10, 4522 | 4.9 | 24 |
| 147 | Structural color switching with a doped indium-gallium-zinc-oxide semiconductor. *Photonics Research*, **2020**, 8, 1409 | 6 | 24 |
| 146 | Optical spin-symmetry breaking for high-efficiency directional helicity-multiplexed metaholograms. *Microsystems and Nanoengineering*, **2021**, 7, 5 | 7.7 | 24 |
| 145 | Full and gradient structural colouration by lattice amplified gallium nitride Mie-resonators. *Nanoscale*, **2020**, 12, 21392-21400 | 7.7 | 23 |
| 144 | Visibly Transparent Radiative Cooler under Direct Sunlight. *Advanced Optical Materials*, **2021**, 9, 2002226 | 8.1 | 23 |
| 143 | Twisted non-diffracting beams through all dielectric meta-axicons. *Nanoscale*, **2019**, 11, 20571-20578 | 7.7 | 23 |
| 142 | Realization of broadband negative refraction in visible range using vertically stacked hyperbolic metamaterials. *Scientific Reports*, **2019**, 9, 14093 | 4.9 | 22 |
| 141 | Overcoming diffraction limit: From microscopy to nanoscopy. *Applied Spectroscopy Reviews*, **2018**, 53, 290-312 | 4.5 | 22 |
| 140 | Describing Meta-Atoms Using the Exact Higher-Order Polarizability Tensors. *ACS Photonics*, **2020**, 7, 1153-1162 | 6.5 | 21 |
| 139 | Metasurface zone plate for light manipulation in vectorial regime. *Communications Physics*, **2019**, 2, | 5.4 | 21 |
| 138 | Spin Hall Effect of Light with Near-Unity Efficiency in the Microwave. *Laser and Photonics Reviews*, **2021**, 15, 2000393 | 8.3 | 20 |
| 137 | Geometric and physical configurations of meta-atoms for advanced metasurface holography. *Information Materials*, **2021**, 3, 739-754 | 23.1 | 19 |
| 136 | Photonic Encryption Platform Dual-Band Vectorial Metaholograms in the Ultraviolet and Visible.. *ACS Nano*, **2022**, | 16.7 | 19 |
| 135 | Photonic spin Hall effect by the spin-orbit interaction in a metasurface with elliptical nano-structures. *Applied Physics Letters*, **2017**, 110, 101908 | 3.4 | 18 |

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| 134 | Geometrically flat hyperlens designed by transformation optics. *Journal Physics D: Applied Physics*, **2019**, 52, 194003 | 3 | 18 |
| 133 | Photodeposited metal-semiconductor nanocomposites and their applications. *Journal of Materiomics*, **2018**, 4, 83-94 | 6.7 | 18 |
| 132 | Reliable Ge2Sb2Te5-Integrated High-Density Nanoscale Conductive Bridge Random Access Memory using Facile Nitrogen-Doping Strategy. *Advanced Electronic Materials*, **2018**, 4, 1800360 | 6.4 | 18 |
| 131 | Cascade domino lithography for extreme photon squeezing. *Materials Today*, **2020**, 39, 89-97 | 21.8 | 18 |
| 130 | Tunable metasurfaces towards versatile metalenses and metaholograms: a review. *Advanced Photonics*, **2022**, 4, | 8.1 | 18 |
| 129 | Topologically nontrivial photonic nodal surface in a photonic metamaterial. *Physical Review B*, **2019**, 99, | 3.3 | 17 |
| 128 | Importance of higher-order multipole transitions on chiral nearfield interactions. *Nanophotonics*, **2019**, 8, 941-948 | 6.3 | 17 |
| 127 | Dual-Functional Nanoscale Devices Using Phase-Change Materials: A Reconfigurable Perfect Absorber with Nonvolatile Resistance-Change Memory Characteristics. *Applied Sciences (Switzerland)*, **2019**, 9, 564 | 2.6 | 17 |
| 126 | Electrically focus-tuneable ultrathin lens for high-resolution square subpixels. *Light: Science and Applications*, **2020**, 9, 98 | 16.7 | 17 |
| 125 | Visualization and Investigation of Charge Transport in Mixed-Halide Perovskite via Lateral-Structured Photovoltaic Devices. *Advanced Functional Materials*, **2018**, 28, 1804067 | 15.6 | 17 |
| 124 | Laser digital patterning of conductive electrodes using metal oxide nanomaterials. *Nano Convergence*, **2020**, 7, 23 | 9.2 | 17 |
| 123 | Emerging advanced metasurfaces: Alternatives to conventional bulk optical devices. *Microelectronic Engineering*, **2020**, 220, 111146 | 2.5 | 17 |
| 122 | Design of high transmission color filters for solar cells directed by deep Q-learning. *Solar Energy*, **2020**, 195, 670-676 | 6.8 | 17 |
| 121 | Capillary-force-induced collapse lithography for controlled plasmonic nanogap structures. *Microsystems and Nanoengineering*, **2020**, 6, 65 | 7.7 | 17 |
| 120 | Spectrally Selective Nanoparticle Mixture Coating for Passive Daytime Radiative Cooling. *ACS Applied Materials & Interfaces*, **2021**, 13, 21119-21126 | 9.5 | 17 |
| 119 | Reconfigurable all-dielectric Fano metasurfaces for strong full-space intensity modulation of visible light. *Nanoscale Horizons*, **2020**, 5, 1088-1095 | 10.8 | 16 |
| 118 | Extremely Broadband Topological Surface States in a Photonic Topological Metamaterial. *Advanced Optical Materials*, **2019**, 7, 1900900 | 8.1 | 16 |
| 117 | Planar Achiral Metasurfaces-Induced Anomalous Chiroptical Effect of Optical Spin Isolation. *ACS Applied Materials & Interfaces*, **2020**, 12, 48899-48909 | 9.5 | 16 |

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| 116 | Nearly Perfect Transmissive Subtractive Coloration through the Spectral Amplification of Mie Scattering and Lattice Resonance. *ACS Applied Materials & Interfaces*, **2021**, 13, 26299-26307 | 9.5 | 16 |
| 115 | Tunable Metasurfaces: The Path to Fully Active Nanophotonics. *Advanced Photonics Research*, **2021**, 2, 2000205 | 1.9 | 16 |
| 114 | Diffraction-induced enhancement of optical spin Hall effect in a dielectric grating. *APL Photonics*, **2020**, 5, 066106 | 5.2 | 15 |
| 113 | Dual-Band Operating Metaholograms with Heterogeneous Meta-Atoms in the Visible and Near-Infrared. *Advanced Optical Materials*, **2021**, 9, 2100609 | 8.1 | 15 |
| 112 | Manifesting Simultaneous Optical Spin Conservation and Spin Isolation in Diatomic Metasurfaces. *Advanced Optical Materials*, **2021**, 9, 2002002 | 8.1 | 15 |
| 111 | Experimental verification of asymmetric transmission in continuous omega-shaped metamaterials.. *RSC Advances*, **2018**, 8, 38556-38561 | 3.7 | 15 |
| 110 | Spin Hall Effect under Arbitrarily Polarized or Unpolarized Light. *Laser and Photonics Reviews*, **2021**, 15, 2100138 | 8.3 | 14 |
| 109 | Sensitive method for measuring third order nonlinearities in compact dielectric and hybrid plasmonic waveguides. *Optics Express*, **2016**, 24, 545-54 | 3.3 | 14 |
| 108 | Backward Phase-Matched Second-Harmonic Generation from Stacked Metasurfaces. *Physical Review Letters*, **2021**, 126, 033901 | 7.4 | 14 |
| 107 | On-demand design of spectrally sensitive multiband absorbers using an artificial neural network. *Photonics Research*, **2021**, 9, B153 | 6 | 13 |
| 106 | Chiroptical Metasurfaces: Principles, Classification, and Applications. *Sensors*, **2021**, 21, | 3.8 | 13 |
| 105 | Disordered-nanoparticle-based etalon for ultrafast humidity-responsive colorimetric sensors and anti-counterfeiting displays.. *Science Advances*, **2022**, 8, eabm8598 | 14.3 | 13 |
| 104 | Metasurfaces: Subwavelength nanostructure arrays for ultrathin flat optics and photonics. *MRS Bulletin*, **2020**, 45, 180-187 | 3.2 | 12 |
| 103 | Surface-enhanced spectroscopy: Toward practical analysis probe. *Applied Spectroscopy Reviews*, **2019**, 54, 142-175 | 4.5 | 12 |
| 102 | Multiple-patterning colloidal lithography-implemented scalable manufacturing of heat-tolerant titanium nitride broadband absorbers in the visible to near-infrared. *Microsystems and Nanoengineering*, **2021**, 7, 14 | 7.7 | 12 |
| 101 | Solution-Processed Flexible Biomemristor Based on Gold-Decorated Chitosan. *ACS Applied Materials & Interfaces*, **2021**, 13, 5445-5450 | 9.5 | 12 |
| 100 | Recent Advances in Non-Traditional Elastic Wave Manipulation by Macroscopic Artificial Structures. *Applied Sciences (Switzerland)*, **2020**, 10, 547 | 2.6 | 11 |
| 99 | Polarization-controlled coherent phonon generation in acoustoplasmonic metasurfaces. *Physical Review B*, **2018**, 97, | 3.3 | 11 |

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| 98 | Employing vanadium dioxide nanoparticles for flexible metasurfaces with switchable absorption properties at near-infrared frequencies. *Journal of Optics (United Kingdom)*, **2020**, 22, 114002 | 1.7 | 11 |
| 97 | Nanoimprint lithography for high-throughput fabrication of metasurfaces. *Frontiers of Optoelectronics*, **2021**, 14, 229-251 | 2.8 | 11 |
| 96 | Vanadium Dioxide for Dynamically Tunable Photonics. *ChemNanoMat*, **2021**, 7, 713-727 | 3.5 | 11 |
| 95 | Inducing and Probing Localized Excitons in Atomically Thin Semiconductors via Tip-Enhanced Cavity-Spectroscopy. *Advanced Functional Materials*, **2021**, 31, 2102893 | 15.6 | 11 |
| 94 | Nanophotonic modal dichroism: mode-multiplexed modulators. *Optics Letters*, **2016**, 41, 4394-7 | 3 | 11 |
| 93 | Novel Spin-Decoupling Strategy in Liquid Crystal-Integrated Metasurfaces for Interactive Metadisplays. *Advanced Optical Materials*,2200196 | 8.1 | 11 |
| 92 | Resolution enhancement of fluorescence microscopy using encoded patterns from all-dielectric metasurfaces. *Applied Physics Letters*, **2019**, 115, 101102 | 3.4 | 10 |
| 91 | Fabrication and characterization of zeolitic imidazolate framework-embedded cellulose acetate membranes for osmotically driven membrane process. *Scientific Reports*, **2019**, 9, 5779 | 4.9 | 10 |
| 90 | All-dielectric metasurface imaging platform applicable to laser scanning microscopy with enhanced axial resolution and wavelength selection. *Optical Materials Express*, **2019**, 9, 3248 | 2.6 | 10 |
| 89 | Inverse design of ultra-narrowband selective thermal emitters designed by artificial neural networks. *Optical Materials Express*, **2021**, 11, 1863 | 2.6 | 10 |
| 88 | Switchable diurnal radiative cooling by doped VO2. *Opto-Electronic Advances*, **2021**, 4, 200006-200006 | 6.5 | 10 |
| 87 | Experimental demonstration of broadband negative refraction at visible frequencies by critical layer thickness analysis in a vertical hyperbolic metamaterial. *Nanophotonics*, **2021**, | 6.3 | 10 |
| 86 | Accurate and instant frequency estimation from noisy sinusoidal waves by deep learning. *Nano Convergence*, **2019**, 6, 27 | 9.2 | 9 |
| 85 | Self-Powered Gas Sensor Based on a Photovoltaic Cell and a Colorimetric Film with Hierarchical Micro/Nanostructures. *ACS Applied Materials & Interfaces*, **2020**, 12, 39024-39032 | 9.5 | 9 |
| 84 | Accordion-like plasmonic silver nanorod array exhibiting multiple electromagnetic responses. *NPG Asia Materials*, **2018**, 10, 190-196 | 10.3 | 9 |
| 83 | Tuning the optical and electrical properties of MoS2 by selective Ag photo-reduction. *Applied Physics Letters*, **2018**, 113, 013105 | 3.4 | 9 |
| 82 | Chemo-Mechanically Operating Palladium-Polymer Nanograting Film for a Self-Powered H Gas Sensor. *ACS Nano*, **2020**, | 16.7 | 9 |
| 81 | Top-down nanofabrication approaches toward single-digit-nanometer scale structures. *Journal of Mechanical Science and Technology*, **2021**, 35, 837-859 | 1.6 | 9 |

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| 80 | Demonstration of steering acoustic waves by generalized Eaton lens. *Applied Physics Letters*, **2018**, 113, 161904 | 3.4 | 9 |
| 79 | Total Reflection-Induced Efficiency Enhancement of the Spin Hall Effect of Light. *ACS Photonics*, **2021**, 8, 2705-2712 | 6.3 | 9 |
| 78 | Reaching the highest efficiency of spin Hall effect of light in the near-infrared using all-dielectric metasurfaces.. *Nature Communications*, **2022**, 13, 2036 | 17.4 | 9 |
| 77 | Liquid crystal-powered Mie resonators for electrically tunable photorealistic color gradients and dark blacks.. *Light: Science and Applications*, **2022**, 11, 118 | 16.7 | 9 |
| 76 | Surface-enhanced circular dichroism by multipolar radiative coupling. *Optics Letters*, **2018**, 43, 2856-2859 | 3 | 8 |
| 75 | Scalable and High-Throughput Top-Down Manufacturing of Optical Metasurfaces. *Sensors*, **2020**, 20, | 3.8 | 8 |
| 74 | Design of transmissive metasurface antenna using deep neural networks. *Optical Materials Express*, | 2.6 | 8 |
| 73 | Recent progress on metasurfaces: applications and fabrication. *Journal Physics D: Applied Physics*, **2021**, 54, 383002 | 3 | 8 |
| 72 | Giant chiro-optical responses in multipolar-resonances-based single-layer dielectric metasurfaces. *Photonics Research*, **2021**, 9, 1667 | 6 | 8 |
| 71 | High Refractive Index Ti 3 O 5 Films for Dielectric Metasurfaces. *Chinese Physics Letters*, **2017**, 34, 088102 | 1.8 | 7 |
| 70 | Singlet Exciton Delocalization in Gold Nanoparticle-Tethered Poly(3-hexylthiophene) Nanofibers with Enhanced Intrachain Ordering. *Macromolecules*, **2017**, 50, 8487-8496 | 5.5 | 7 |
| 69 | Optical metasurfaces for generating and manipulating optical vortex beams. *Nanophotonics*, **2022**, | 6.3 | 7 |
| 68 | Critical Layer Thickness Analysis of Vertically Stacked Hyperbolic Metamaterials for Effective Negative Refraction Generation. *Advanced Theory and Simulations*, **2020**, 3, 2000138 | 3.5 | 7 |
| 67 | Development of Artificial Neural Network System to Recommend Process Conditions of Injection Molding for Various Geometries. *Advanced Intelligent Systems*, **2020**, 2, 2000037 | 6 | 7 |
| 66 | MAXIM: Metasurfaces-oriented electromagnetic wave simulation software with intuitive graphical user interfaces. *Computer Physics Communications*, **2021**, 264, 107846 | 4.2 | 7 |
| 65 | Ultra-Sharp Circular Dichroism Induced by Twisted Layered C4 Oligomers. *Advanced Theory and Simulations*, **2020**, 3, 1900229 | 3.5 | 7 |
| 64 | Nanocatalosomes as Plasmonic Bilayer Shells with Interlayer Catalytic Nanospaces for Solar-Light-Induced Reactions. *Angewandte Chemie - International Edition*, **2020**, 59, 9460-9469 | 16.4 | 6 |
| 63 | A finite element method towards acoustic phononic crystals by weak formulation. *Journal of Physics Condensed Matter*, **2019**, 31, 375901 | 1.8 | 6 |

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| 62 | Demonstration of a Hyperlens-integrated Microscope and Super-resolution Imaging. *Journal of Visualized Experiments*, **2017**, | 1.6 | 6 |
| 61 | Deep Q-network to produce polarization-independent perfect solar absorbers: a statistical report. *Nano Convergence*, **2020**, 7, 26 | 9.2 | 6 |
| 60 | Multipole decomposition for interactions between structured optical fields and meta-atoms. *Optics Express*, **2020**, 28, 36756-36770 | 3.3 | 6 |
| 59 | Spin-valley locked topological edge states in a staggered chiral photonic crystal. *New Journal of Physics*, **2020**, 22, 113022 | 2.9 | 6 |
| 58 | Open-circuit voltage of organic solar cells: Effect of energetically and spatially nonuniform distribution of molecular energy levels in the photoactive layer. *Nano Energy*, **2020**, 78, 105336 | 17.1 | 6 |
| 57 | High efficiency second and third harmonic generation from magnetic metamaterials by using a grating. *Optics Communications*, **2017**, 397, 17-21 | 2 | 5 |
| 56 | Plasmonic-enhanced chirality examined by generalized wavenumber eigenvalue simulation. *Optics Express*, **2018**, 26, 14051-14057 | 3.3 | 5 |
| 55 | Generalized analytic formula for spin Hall effect of light: shift enhancement and interface independence. *Nanophotonics*, **2022**, | 6.3 | 5 |
| 54 | New trends in nanophotonics. *Nanophotonics*, **2020**, 9, 983-985 | 6.3 | 5 |
| 53 | Flexible high-performance graphene hybrid photodetectors functionalized with gold nanostars and perovskites. *NPG Asia Materials*, **2020**, 12, | 10.3 | 5 |
| 52 | Charge Recycling Mechanism Through a Triplet Charge-Transfer State in Ternary-Blend Organic Solar Cells Containing a Nonfullerene Acceptor. *ACS Energy Letters*, **2021**, 6, 2610-2618 | 20.1 | 5 |
| 51 | Demonstration of Equal-Intensity Beam Generation by Dielectric Metasurfaces. *Journal of Visualized Experiments*, **2019**, | 1.6 | 5 |
| 50 | Seismic phononic crystals by elastodynamic Navier equation. *Physical Review E*, **2019**, 100, 063002 | 2.4 | 5 |
| 49 | Dynamic Optical Spin Hall Effect in Chitosan-Coated All-Dielectric Metamaterials for a Biosensing Platform. *IEEE Journal of Selected Topics in Quantum Electronics*, **2021**, 27, 1-8 | 3.8 | 5 |
| 48 | Piezoelectric energy harvesting using mechanical metamaterials and phononic crystals. *Communications Physics*, **2022**, 5, | 5.4 | 5 |
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