

Arseniy I Kuznetsov

List of Publications by Year in descending order

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Version: 2024-02-01

103
papers

11,099
citations

66343

42
h-index

56724

83
g-index

105
all docs

105
docs citations

105
times ranked

7744
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Optically resonant dielectric nanostructures. <i>Science</i> , 2016, 354, . | 12.6 | 2,086 |
| 2 | Magnetic light. <i>Scientific Reports</i> , 2012, 2, 492. | 3.3 | 939 |
| 3 | Directional visible light scattering by silicon nanoparticles. <i>Nature Communications</i> , 2013, 4, 1527. | 12.8 | 908 |
| 4 | Nonradiating anapole modes in dielectric nanoparticles. <i>Nature Communications</i> , 2015, 6, 8069. | 12.8 | 702 |
| 5 | High- ϵ transmission dielectric metasurface with 2π phase control at visible wavelengths. <i>Laser and Photonics Reviews</i> , 2015, 9, 412-418. | 8.7 | 538 |
| 6 | Phase-only transmissive spatial light modulator based on tunable dielectric metasurface. <i>Science</i> , 2019, 364, 1087-1090. | 12.6 | 385 |
| 7 | Directional lasing in resonant semiconductor nanoantenna arrays. <i>Nature Nanotechnology</i> , 2018, 13, 1042-1047. | 31.5 | 367 |
| 8 | Magnetic and Electric Hotspots with Silicon Nanodimers. <i>Nano Letters</i> , 2015, 15, 2137-2142. | 9.1 | 361 |
| 9 | A Metalens with a Near-Unity Numerical Aperture. <i>Nano Letters</i> , 2018, 18, 2124-2132. | 9.1 | 324 |
| 10 | Dynamic Beam Switching by Liquid Crystal Tunable Dielectric Metasurfaces. <i>ACS Photonics</i> , 2018, 5, 1742-1748. | 6.6 | 248 |
| 11 | Printing Beyond sRGB Color Gamut by Mimicking Silicon Nanostructures in Free-Space. <i>Nano Letters</i> , 2017, 17, 7620-7628. | 9.1 | 239 |
| 12 | Laser Fabrication of Large-Scale Nanoparticle Arrays for Sensing Applications. <i>ACS Nano</i> , 2011, 5, 4843-4849. | 14.6 | 224 |
| 13 | Generalized Brewster effect in dielectric metasurfaces. <i>Nature Communications</i> , 2016, 7, 10362. | 12.8 | 218 |
| 14 | Noninterleaved Metasurface for (2^k-1) Spin- and Wavelength-Encoded Holograms. <i>Nano Letters</i> , 2018, 18, 8016-8024. | 9.1 | 187 |
| 15 | Optimum Forward Light Scattering by Spherical and Spheroidal Dielectric Nanoparticles with High Refractive Index. <i>ACS Photonics</i> , 2015, 2, 993-999. | 6.6 | 171 |
| 16 | Femtosecond laser ablation of polymeric substrates for the fabrication of microfluidic channels. <i>Applied Surface Science</i> , 2011, 257, 6243-6250. | 6.1 | 156 |
| 17 | Silicon Nanostructures for Bright Field Full Color Prints. <i>ACS Photonics</i> , 2017, 4, 1913-1919. | 6.6 | 156 |
| 18 | Continuous Wave Second Harmonic Generation Enabled by Quasi-Bound-States in the Continuum on Gallium Phosphide Metasurfaces. <i>Nano Letters</i> , 2020, 20, 8745-8751. | 9.1 | 134 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 19 | Nanostructuring of thin gold films by femtosecond lasers. <i>Applied Physics A: Materials Science and Processing</i> , 2009, 94, 221-230. | 2.3 | 117 |
| 20 | Room-Temperature Lasing in Colloidal Nanoplatelets via Mie-Resonant Bound States in the Continuum. <i>Nano Letters</i> , 2020, 20, 6005-6011. | 9.1 | 115 |
| 21 | Laser-induced jet formation and droplet ejection from thin metal films. <i>Applied Physics A: Materials Science and Processing</i> , 2012, 106, 479-487. | 2.3 | 112 |
| 22 | Hybrid anapole modes of high-index dielectric nanoparticles. <i>Physical Review A</i> , 2017, 95, . | 2.5 | 111 |
| 23 | Laser-induced backward transfer of gold nanodroplets. <i>Optics Express</i> , 2009, 17, 18820. | 3.4 | 106 |
| 24 | Asymmetric Nanoantennas for Ultrahigh Angle Broadband Visible Light Bending. <i>Nano Letters</i> , 2017, 17, 6267-6272. | 9.1 | 106 |
| 25 | Laser fabrication of 2D and 3D metal nanoparticle structures and arrays. <i>Optics Express</i> , 2010, 18, 21198. | 3.4 | 99 |
| 26 | Traditional and emerging materials for optical metasurfaces. <i>Nanophotonics</i> , 2017, 6, 452-471. | 6.0 | 97 |
| 27 | Polarization control over electric and magnetic dipole resonances of dielectric nanoparticles on metallic films. <i>Laser and Photonics Reviews</i> , 2016, 10, 799-806. | 8.7 | 81 |
| 28 | Resonant Light Guiding Along a Chain of Silicon Nanoparticles. <i>Nano Letters</i> , 2017, 17, 3458-3464. | 9.1 | 80 |
| 29 | Lasing Action in Single Subwavelength Particles Supporting Supercavity Modes. <i>ACS Nano</i> , 2020, 14, 7338-7346. | 14.6 | 75 |
| 30 | Short laser pulse nanostructuring of metals: direct comparison of molecular dynamics modeling and experiment. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 111, 675-687. | 2.3 | 71 |
| 31 | Suppression of scattering for small dielectric particles: anapole mode and invisibility. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160069. | 3.4 | 65 |
| 32 | Probing magnetic and electric optical responses of silicon nanoparticles. <i>Applied Physics Letters</i> , 2015, 106, . | 3.3 | 62 |
| 33 | Highly Directive Hybrid Metal-Dielectric Yagi-Uda Nanoantennas. <i>ACS Nano</i> , 2018, 12, 8616-8624. | 14.6 | 61 |
| 34 | Efficient ultrafast all-optical modulation in a nonlinear crystalline gallium phosphide nanodisk at the anapole excitation. <i>Science Advances</i> , 2020, 6, . | 10.3 | 61 |
| 35 | New photoactive hybrid organic-inorganic materials based on titanium-oxo-PHEMA nanocomposites exhibiting mixed valence properties. <i>Journal of Materials Chemistry</i> , 2005, 15, 3380. | 6.7 | 56 |
| 36 | Light-induced charge separation and storage in titanium oxide gels. <i>Physical Review E</i> , 2005, 71, 021403. | 2.1 | 53 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 37 | Plasmon-Enhanced Sub-Wavelength Laser Ablation: Plasmonic Nanojets. <i>Advanced Materials</i> , 2012, 24, OP29-35. | 21.0 | 53 |
| 38 | Nanoscale Generation of White Light for Ultrabroadband Nanospectroscopy. <i>Nano Letters</i> , 2018, 18, 535-539. | 9.1 | 52 |
| 39 | Control of LED Emission with Functional Dielectric Metasurfaces. <i>Laser and Photonics Reviews</i> , 2020, 14, 1900235. | 8.7 | 52 |
| 40 | Split-ball resonator as a three-dimensional analogue of planar split-rings. <i>Nature Communications</i> , 2014, 5, 3104. | 12.8 | 51 |
| 41 | Laser-induced transfer of metallic nanodroplets for plasmonics and metamaterial applications. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2009, 26, B130. | 2.1 | 49 |
| 42 | Laser-induced photopatterning of organic-inorganic TiO ₂ -based hybrid materials with tunable interfacial electron transfer. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 1248. | 2.8 | 47 |
| 43 | Enhanced photonic spin Hall effect with subwavelength topological edge states. <i>Laser and Photonics Reviews</i> , 2016, 10, 656-664. | 8.7 | 44 |
| 44 | Ultrahigh-efficiency aqueous flat nanocrystals of CdSe/CdS@Cd _{1-x} Zn _x S colloidal core/crown@alloyed-shell quantum wells. <i>Nanoscale</i> , 2019, 11, 301-310. | 5.6 | 44 |
| 45 | Chemical Activity of Photoinduced Ti ³⁺ Centers in Titanium Oxide Gels. <i>Journal of Physical Chemistry B</i> , 2006, 110, 435-441. | 2.6 | 42 |
| 46 | High-efficiency and low-loss gallium nitride dielectric metasurfaces for nanophotonics at visible wavelengths. <i>Applied Physics Letters</i> , 2017, 111, . | 3.3 | 42 |
| 47 | Efficient visible light modulation based on electrically tunable all dielectric metasurfaces embedded in thin-layer nematic liquid crystals. <i>Scientific Reports</i> , 2019, 9, 8673. | 3.3 | 41 |
| 48 | Generation of even and odd high harmonics in resonant metasurfaces using single and multiple ultra-intense laser pulses. <i>Nature Communications</i> , 2021, 12, 4185. | 12.8 | 40 |
| 49 | Quantum Spectroscopy of Plasmonic Nanostructures. <i>Physical Review X</i> , 2014, 4, . | 8.9 | 39 |
| 50 | Collective Mie Resonances for Directional On-Chip Nanolasers. <i>Nano Letters</i> , 2020, 20, 5655-5661. | 9.1 | 37 |
| 51 | Active and Tunable Nanophotonics With Dielectric Nanoantennas. <i>Proceedings of the IEEE</i> , 2020, 108, 749-771. | 21.3 | 36 |
| 52 | Extinction of photo-induced Ti ³⁺ centres in titanium oxide gels and gel-based oxo-PHEMA hybrids. <i>Chemical Physics Letters</i> , 2006, 429, 523-527. | 2.6 | 33 |
| 53 | Imaging Properties of Large Field-of-View Quadratic Metalenses and Their Applications to Fingerprint Detection. <i>ACS Photonics</i> , 2021, 8, 1457-1468. | 6.6 | 33 |
| 54 | Kinetics of UV-induced darkening of titanium-oxide gels. <i>Applied Surface Science</i> , 2005, 248, 86-90. | 6.1 | 32 |

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|----|--|------|-----------|
| 55 | Beyond the Hybridization Effects in Plasmonic Nanoclusters: Diffraction-Induced Enhanced Absorption and Scattering. <i>Small</i> , 2014, 10, 576-583. | 10.0 | 30 |
| 56 | Bound State in the Continuum in Nanoantenna-Coupled Slab Waveguide Enables Low-Threshold Quantum-Dot Lasing. <i>Nano Letters</i> , 2021, 21, 9754-9760. | 9.1 | 30 |
| 57 | Optical properties of spherical gold mesoparticles. <i>Applied Physics B: Lasers and Optics</i> , 2012, 106, 841-848. | 2.2 | 28 |
| 58 | Nanoscale mapping of optically inaccessible bound-states-in-the-continuum. <i>Light: Science and Applications</i> , 2022, 11, 20. | 16.6 | 28 |
| 59 | Use of harmonics for femtosecond micromachining in pure dielectrics. <i>Journal of Applied Physics</i> , 2003, 93, 1567-1576. | 2.5 | 26 |
| 60 | High resolution multispectral spatial light modulators based on tunable Fabry-Perot nanocavities. <i>Light: Science and Applications</i> , 2022, 11, 141. | 16.6 | 26 |
| 61 | Quantum interference in the presence of a resonant medium. <i>Scientific Reports</i> , 2017, 7, 11444. | 3.3 | 23 |
| 62 | Large-Scale Huygens TM Metasurfaces for Holographic 3D Near-Eye Displays. <i>Laser and Photonics Reviews</i> , 2021, 15, 2000538. | 8.7 | 23 |
| 63 | Second harmonic generation in gallium phosphide nano-waveguides. <i>Optics Express</i> , 2021, 29, 10307. | 3.4 | 22 |
| 64 | All-Optical Modulation in Chains of Silicon Nanoantennas. <i>ACS Photonics</i> , 2020, 7, 1001-1008. | 6.6 | 21 |
| 65 | Silicon Nanoantenna Mix Arrays for a Trifecta of Quantum Emitter Enhancements. <i>Nano Letters</i> , 2021, 21, 4853-4860. | 9.1 | 21 |
| 66 | Channeling of microwave radiation in a double line containing a plasma filament produced by intense femtosecond laser pulses in air. <i>Quantum Electronics</i> , 2009, 39, 985-988. | 1.0 | 19 |
| 67 | Direct observation of resonance scattering patterns in single silicon nanoparticles. <i>Applied Physics Letters</i> , 2017, 110, . | 3.3 | 19 |
| 68 | Laser imprinting of 3D structures in gel-based titanium oxide organic-inorganic hybrids. <i>Applied Physics A: Materials Science and Processing</i> , 2006, 84, 27-30. | 2.3 | 16 |
| 69 | Magnetic Light: Optical Magnetism of Dielectric Nanoparticles. <i>Optics and Photonics News</i> , 2012, 23, 35. | 0.5 | 15 |
| 70 | Fabrication of large-area 3D optical fishnet metamaterial by laser interference lithography. <i>Applied Physics Letters</i> , 2013, 103, . | 3.3 | 15 |
| 71 | Local Crystallization of a Resonant Amorphous Silicon Nanoparticle for the Implementation of Optical Nanothermometry. <i>JETP Letters</i> , 2018, 107, 699-704. | 1.4 | 14 |
| 72 | Fabrication of Monodisperse Colloids of Resonant Spherical Silicon Nanoparticles: Applications in Optical Trapping and Printing. <i>ACS Photonics</i> , 2019, 6, 2141-2148. | 6.6 | 13 |

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|----|---|-----|-----------|
| 73 | Low loss waveguiding and slow light modes in coupled subwavelength silicon Mie resonators. <i>Nanoscale</i> , 2020, 12, 21713-21718. | 5.6 | 13 |
| 74 | All-Dielectric Optical Nanoantennas. , 2014, , . | | 8 |
| 75 | Non-linear interferometry with infrared metasurfaces. <i>Nanophotonics</i> , 2021, 10, 1775-1784. | 6.0 | 7 |
| 76 | Plasmonic nanoparticle lithography: Fast resist-free laser technique for large-scale sub-50nm hole array fabrication. <i>Applied Physics Letters</i> , 2018, 112, . | 3.3 | 6 |
| 77 | Control of scattering by isolated dielectric nanoantennas. , 2020, , 73-108. | | 6 |
| 78 | Alkoxysilane effect in hybrid material: A comparison of pHEMA-TiO ₂ and pMAPTMS-TiO ₂ nanoparticulate hybrids. <i>Materials Research Bulletin</i> , 2019, 114, 130-137. | 5.2 | 5 |
| 79 | New hybrid organic-inorganic materials based on a poly(titanium oxide) gel with efficient UV-induced separation of charges. <i>Doklady Physics</i> , 2006, 51, 103-105. | 0.7 | 4 |
| 80 | Near unity transmission and full phase control with asymmetric Huygens™ dielectric metasurfaces for holographic projections. <i>Applied Optics</i> , 2022, 61, B164. | 1.8 | 4 |
| 81 | One-Dimensional High-Q Silicon Nanoparticle Chain Resonators for Refractive Index Sensing. <i>ACS Applied Nano Materials</i> , 2022, 5, 3170-3176. | 5.0 | 4 |
| 82 | Room-Temperature Multi-Beam, Multi-Wavelength Bound States in the Continuum Laser. <i>Advanced Optical Materials</i> , 2022, 10, . | 7.3 | 4 |
| 83 | Laser treatment of the heterolayers GeO ₂ :Ge-QDs. , 2010, , . | | 2 |
| 84 | Characterization of localized field enhancements in laser fabricated gold needle nanostructures. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2012, 29, 185. | 2.1 | 2 |
| 85 | Supercontinuum assisted trapped electron accumulation in titanium oxide gel by femtosecond laser pulses. <i>Optics Express</i> , 2007, 15, 5782. | 3.4 | 1 |
| 86 | Theoretical modelling and leakage radiation microscopy of surface plasmon polariton excitation and scattering on laser fabricated surface structures. , 2010, , . | | 1 |
| 87 | Light manipulation by resonant dielectric nanostructures and metasurfaces (Presentation) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 | | 1 |
| 88 | Silicon Nanoparticles for Waveguiding. , 2015, , . | | 1 |
| 89 | Using Metasurfaces to Control Random Light Emission. , 2018, , . | | 1 |
| 90 | Femtosecond laser-induced nanostructuring of gold films. , 2009, , . | | 0 |

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|-----|--|----|-----------|
| 91 | Laser-Induced Transfer of Metal Nanoparticles. , 2010, , . | | 0 |
| 92 | Femtosecond laser fabrication of functional nanoparticle structures and their applications. , 2011, , . | | 0 |
| 93 | Optical sensing elements based on ordered semiconductor and metal nanoparticle arrays and surface plasmons. , 2012, , . | | 0 |
| 94 | Plasmonics: Plasmon-Enhanced Sub-Wavelength Laser Ablation: Plasmonic Nanojets (Adv. Mater.) Tj ETQq0 0 0 rgBJ/Overlock 10 Tf 50 21.0 | | 0 |
| 95 | Direct measurements of magnetic and electric optical responses from silicon nanoparticles. , 2015, , . | | 0 |
| 96 | Metasurfaces and nanoantenna devices based on resonant dielectric nanostructures. , 2016, , . | | 0 |
| 97 | Dielectric metasurfaces for beam bending and near-unity numerical aperture lenses. , 2017, , . | | 0 |
| 98 | Ultrafast quantum time-resolved spectroscopy. , 2017, , . | | 0 |
| 99 | Gallium Phosphide Nanostructures on Transparent Substrates for Nonlinear and Ultrafast Nanophotonics. , 2021, , . | | 0 |
| 100 | Silicon NanoDimers for Magnetic and Electric Field Hotspots. , 2015, , . | | 0 |
| 101 | High Harmonic Generation from a Large-gap Semiconductor Metasurface. , 2020, , . | | 0 |
| 102 | Dielectric Huygensâ€™ metasurfaces for holographic projection and 3D near-eye displays applications. , 2021, , . | | 0 |
| 103 | Assembly of Miniature Nanoantenna Spatial Light Modulator. , 2021, , . | | 0 |