

Dmitry Turchinovich

List of Publications by Year in descending order

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Version: 2024-02-01

140
papers

4,389
citations

109321

35
h-index

106344

65
g-index

141
all docs

141
docs citations

141
times ranked

6242
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Efficient metallic spintronic emitters of ultrabroadband terahertz radiation. <i>Nature Photonics</i> , 2016, 10, 483-488. | 31.4 | 605 |
| 2 | Extremely efficient terahertz high-harmonic generation in graphene by hot Dirac fermions. <i>Nature</i> , 2018, 561, 507-511. | 27.8 | 365 |
| 3 | Phononâ€“Electron Scattering Limits Free Charge Mobility in Methylammonium Lead Iodide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 4991-4996. | 4.6 | 186 |
| 4 | Stain-free histopathology by programmable supercontinuum pulses. <i>Nature Photonics</i> , 2016, 10, 534-540. | 31.4 | 177 |
| 5 | Thermodynamic picture of ultrafast charge transport in graphene. <i>Nature Communications</i> , 2015, 6, 7655. | 12.8 | 147 |
| 6 | Out-of-plane heat transfer in van der Waals stacks through electronâ€“hyperbolic phonon coupling. <i>Nature Nanotechnology</i> , 2018, 13, 41-46. | 31.5 | 128 |
| 7 | Ultra-broadband THz time-domain spectroscopy of common polymers using THz air photonics. <i>Optics Express</i> , 2014, 22, 12475. | 3.4 | 121 |
| 8 | Ultrafast Photoconductivity of Graphene Nanoribbons and Carbon Nanotubes. <i>Nano Letters</i> , 2013, 13, 5925-5930. | 9.1 | 117 |
| 9 | Accessing the fundamentals of magnetotransport in metals with terahertz probes. <i>Nature Physics</i> , 2015, 11, 761-766. | 16.7 | 103 |
| 10 | Competing Ultrafast Energy Relaxation Pathways in Photoexcited Graphene. <i>Nano Letters</i> , 2014, 14, 5839-5845. | 9.1 | 97 |
| 11 | Terahertz Nonlinear Optics of Graphene: From Saturable Absorption to Highâ€“Harmonics Generation. <i>Advanced Optical Materials</i> , 2020, 8, 1900771. | 7.3 | 97 |
| 12 | Photoswitchable Micro-Supercapacitor Based on a Diarylethene-Graphene Composite Film. <i>Journal of the American Chemical Society</i> , 2017, 139, 9443-9446. | 13.7 | 96 |
| 13 | The ultrafast dynamics and conductivity of photoexcited graphene at different Fermi energies. <i>Science Advances</i> , 2018, 4, eaar5313. | 10.3 | 95 |
| 14 | Observation of Dicke cooperativity in magnetic interactions. <i>Science</i> , 2018, 361, 794-797. | 12.6 | 91 |
| 15 | Chemical Vapor Deposition Synthesis and Terahertz Photoconductivity of Low-Band-Gap $N = 9$ Armchair Graphene Nanoribbons. <i>Journal of the American Chemical Society</i> , 2017, 139, 3635-3638. | 13.7 | 88 |
| 16 | Self-phase modulation of a single-cycle terahertz pulse by nonlinear free-carrier response in a semiconductor. <i>Physical Review B</i> , 2012, 85, . | 3.2 | 79 |
| 17 | Dynamical Control over Terahertz Electromagnetic Interference Shielding with 2D $Ti_3C_2T_y$ MXene by Ultrafast Optical Pulses. <i>Nano Letters</i> , 2020, 20, 636-643. | 9.1 | 75 |
| 18 | Single-pulse terahertz coherent control of spin resonance in the canted antiferromagnet $YFeO_3$, mediated by dielectric anisotropy. <i>Physical Review B</i> , 2013, 87, . | 3.2 | 74 |

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|----|---|------|-----------|
| 19 | Grating-Graphene Metamaterial as a Platform for Terahertz Nonlinear Photonics. ACS Nano, 2021, 15, 1145-1154. | 14.6 | 69 |
| 20 | Coupling between intra- and intermolecular motions in liquid water revealed by two-dimensional terahertz-infrared-visible spectroscopy. Nature Communications, 2018, 9, 885. | 12.8 | 67 |
| 21 | Flexible all-plastic mirrors for the THz range. Applied Physics A: Materials Science and Processing, 2002, 74, 291-293. | 2.3 | 65 |
| 22 | Role of Edge Engineering in Photoconductivity of Graphene Nanoribbons. Journal of the American Chemical Society, 2017, 139, 7982-7988. | 13.7 | 64 |
| 23 | Direct observation of mode-specific phonon-band gap coupling in methylammonium lead halide perovskites. Nature Communications, 2017, 8, 687. | 12.8 | 63 |
| 24 | Ultrafast terahertz magnetometry. Nature Communications, 2020, 11, 4247. | 12.8 | 61 |
| 25 | Semiconductor saturable absorbers for ultrafast terahertz signals. Applied Physics Letters, 2010, 96, . | 3.3 | 59 |
| 26 | Ultrafast polarization dynamics in biased quantum wells under strong femtosecond optical excitation. Physical Review B, 2003, 68, . | 3.2 | 56 |
| 27 | Probing the charge separation process on In ₂ S ₃ /Pt-TiO ₂ nanocomposites for boosted visible-light photocatalytic hydrogen production. Applied Catalysis B: Environmental, 2016, 198, 25-31. | 20.2 | 56 |
| 28 | Ultrafast Terahertz Photoconductivity of Photovoltaic Polymer-“Fullerene Blends: A Comparative Study Correlated with Photovoltaic Device Performance. Journal of Physical Chemistry Letters, 2014, 5, 3662-3668. | 4.6 | 52 |
| 29 | Electrical tunability of terahertz nonlinearity in graphene. Science Advances, 2021, 7, . | 10.3 | 52 |
| 30 | Low-loss polarization-maintaining fusion splicing of single-mode fibers and hollow-core photonic crystal fibers, relevant for monolithic fiber laser pulse compression. Optics Express, 2008, 16, 9986. | 3.4 | 50 |
| 31 | Nonlinear polarization dynamics in a weakly birefringent all-normal dispersion photonic crystal fiber: toward a practical coherent fiber supercontinuum laser. Optics Express, 2012, 20, 1113. | 3.4 | 49 |
| 32 | Density-dependent electron scattering in photoexcited GaAs in strongly diffusive regime. Applied Physics Letters, 2013, 102, 231120. | 3.3 | 48 |
| 33 | Terahertz electro-absorption effect enabling femtosecond all-optical switching in semiconductor quantum dots. Applied Physics Letters, 2010, 97, . | 3.3 | 47 |
| 34 | Ultrafast release and capture of carriers in InGaAs/GaAs quantum dots observed by time-resolved terahertz spectroscopy. Applied Physics Letters, 2009, 94, . | 3.3 | 46 |
| 35 | Monolithic all-PM femtosecond Yb-fiber laser stabilized with a narrow-band fiber Bragg grating and pulse-compressed in a hollow-core photonic crystal fiber. Optics Express, 2008, 16, 14004. | 3.4 | 44 |
| 36 | Ultrastrong magnon-“magnon coupling dominated by antiresonant interactions. Nature Communications, 2021, 12, 3115. | 12.8 | 39 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | All-fiber femtosecond Cherenkov radiation source. <i>Optics Letters</i> , 2012, 37, 2769. | 3.3 | 36 |
| 38 | Highly-stable monolithic femtosecond Yb-fiber laser system based on photonic crystal fibers. <i>Optics Express</i> , 2010, 18, 15475. | 3.4 | 34 |
| 39 | Role of dynamical screening in excitation kinetics of biased quantum wells: Nonlinear absorption and ultrabroadband terahertz emission. <i>Journal of Applied Physics</i> , 2006, 99, 013510. | 2.5 | 33 |
| 40 | Performance of combined $\sim 100\%$ and $\sim 110\%$ ZnTe crystals in an amplified THz time-domain spectrometer. <i>Optics Communications</i> , 2007, 270, 96-99. | 2.1 | 32 |
| 41 | Efficient formation of excitons in a dense electron-hole plasma at room temperature. <i>Physical Review B</i> , 2015, 92, . | 3.2 | 31 |
| 42 | Perspective on terahertz spectroscopy of graphene. <i>Europhysics Letters</i> , 2015, 111, 67001. | 2.0 | 31 |
| 43 | Selective THz control of magnetic order: new opportunities from superradiant undulator sources. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 114007. | 2.8 | 30 |
| 44 | Correlated terahertz acoustic and electromagnetic emission in dynamically screened InGaN/GaN quantum wells. <i>Physical Review B</i> , 2011, 84, . | 3.2 | 29 |
| 45 | Reversible Photochemical Control of Doping Levels in Supported Graphene. <i>Journal of Physical Chemistry C</i> , 2017, 121, 4083-4091. | 3.1 | 28 |
| 46 | Controlled Folding of Graphene: GraFold Printing. <i>Nano Letters</i> , 2015, 15, 857-863. | 9.1 | 27 |
| 47 | Progress in Cherenkov femtosecond fiber lasers. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 023001. | 2.8 | 27 |
| 48 | Self-stabilization of a mode-locked femtosecond fiber laser using a photonic bandgap fiber. <i>Optics Letters</i> , 2010, 35, 913. | 3.3 | 24 |
| 49 | Terahertz signatures of ultrafast Dirac fermion relaxation at the surface of topological insulators. <i>Npj Quantum Materials</i> , 2021, 6, . | 5.2 | 23 |
| 50 | THz time-domain spectroscopy on 4-(trans-4'-pentylcyclohexyl)-benzotrifluoride. , 2001, , . | | 22 |
| 51 | InAs/GaAs quantum dots as efficient free carrier deep traps. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2003, 0, 1556-1559. | 0.8 | 22 |
| 52 | Accurate terahertz spectroscopy of supported thin films by precise substrate thickness correction. <i>Optics Letters</i> , 2018, 43, 447. | 3.3 | 22 |
| 53 | Compression of fiber supercontinuum pulses to the Fourier-limit in a high-numerical-aperture focus. <i>Optics Letters</i> , 2011, 36, 2315. | 3.3 | 20 |
| 54 | Optimized Optical Rectification and Electro-optic Sampling in ZnTe Crystals with Chirped Femtosecond Laser Pulses. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2011, 32, 1371-1381. | 2.2 | 19 |

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|----|---|-----|-----------|
| 55 | Monolithic Highly Stable Yb-Doped Femtosecond Fiber Lasers for Applications in Practical Biophotonics. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 1439-1450. | 2.9 | 19 |
| 56 | Nonlinearity-tailored fiber laser technology for low-noise, ultra-wideband tunable femtosecond light generation. Photonics Research, 2017, 5, 750. | 7.0 | 18 |
| 57 | Low-Noise Operation of All-Fiber Femtosecond Cherenkov Laser. IEEE Photonics Technology Letters, 2013, 25, 892-895. | 2.5 | 14 |
| 58 | Quantum well saturable absorber mirror with electrical control of modulation depth. Applied Physics Letters, 2010, 97, 051103. | 3.3 | 11 |
| 59 | Cross-validation of theoretically quantified fiber continuum generation and absolute pulse measurement by MIIPS for a broadband coherently controlled optical source. Applied Physics B: Lasers and Optics, 2012, 106, 379-384. | 2.2 | 10 |
| 60 | On Ultrafast Photoconductivity Dynamics and Crystallinity of Black Silicon. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 331-341. | 3.1 | 9 |
| 61 | Multiscale Self-Assembly of Silicon Quantum Dots into an Anisotropic Three-Dimensional Random Network. Nano Letters, 2016, 16, 1942-1948. | 9.1 | 9 |
| 62 | Self-referenced ultra-broadband transient terahertz spectroscopy using air-photonics. Optics Express, 2016, 24, 10157. | 3.4 | 8 |
| 63 | Femtosecond-timescale buildup of electron mobility in GaAs observed via ultrabroadband transient terahertz spectroscopy. Applied Physics Letters, 2017, 110, . | 3.3 | 8 |
| 64 | Ultrafast Terahertz Nanoseismology of GaInN/GaN Multiple Quantum Wells. Advanced Optical Materials, 2021, 9, 2100258. | 7.3 | 8 |
| 65 | Terahertz study of ultrafast carrier dynamics in InGaN/GaN multiple quantum wells. Journal of Physics: Conference Series, 2009, 193, 012084. | 0.4 | 7 |
| 66 | Thickness-dependent electron momentum relaxation times in iron films. Applied Physics Letters, 2020, 116, . | 3.3 | 5 |
| 67 | Rigorous signal reconstruction in terahertz emission spectroscopy. Optics Express, 2021, 29, 24411. | 3.4 | 5 |
| 68 | Tunable polarisation-maintaining filter based on liquid crystal photonic bandgap fibre. Electronics Letters, 2008, 44, 1189. | 1.0 | 4 |
| 69 | Coherent fiber supercontinuum laser for nonlinear biomedical imaging. , 2012, , . | | 4 |
| 70 | Mid-infrared, long-wave infrared, and terahertz photonics: introduction. Optics Express, 2020, 28, 14169. | 3.4 | 4 |
| 71 | Large area conductive nanoaperture arrays with strong optical resonances and spectrally flat terahertz transmission. Applied Physics Letters, 2017, 111, . | 3.3 | 3 |
| 72 | Plasmonic Terahertz Nonlinearity in Graphene Disks. Advanced Photonics Research, 2022, 3, 2100218. | 3.6 | 3 |

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|----|---|-----|-----------|
| 73 | Effect of Copper on the Carrier Lifetime in Black Silicon. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 883-886. | 2.2 | 2 |
| 74 | Observation of strong magneto plasmonic nonlinearity in bilayer graphene discs. JPhys Photonics, 2021, 3, 01LT01. | 4.6 | 2 |
| 75 | Trions in quantum-well structures with two-dimensional electron gas. Physics of the Solid State, 1998, 40, 747-749. | 0.6 | 1 |
| 76 | Terahertz pulse emission from strained GaN/GaInN quantum well structures. , 0, , . | | 1 |
| 77 | Nonlinear excitation kinetics of biased quantum wells: Coherent dynamical screening effect. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 2494-2497. | 0.8 | 1 |
| 78 | Femtosecond all-polarization-maintaining fiber laser operating at 1028 nm. Proceedings of SPIE, 2007, , . | 0.8 | 1 |
| 79 | A polarization maintaining filter based on a liquid-crystal-photonic-bandgap-fiber. , 2008, , . | | 1 |
| 80 | Capture and release of carriers in InGaAs/GaAs quantum dots. Journal of Physics: Conference Series, 2009, 193, 012085. | 0.4 | 1 |
| 81 | Time-resolved terahertz spectroscopy of black silicon. , 2010, , . | | 1 |
| 82 | THz quantum-confined Stark effect in semiconductor quantum dots. , 2012, , . | | 1 |
| 83 | Nonlinear propagation of strong-field THz pulses in doped semiconductors. Proceedings of SPIE, 2012, , . | 0.8 | 1 |
| 84 | Tunable femtosecond Cherenkov fiber laser. , 2014, , . | | 1 |
| 85 | Ultrafast Terahertz Dynamics and Switching in Quantum Dots. , 2012, , 223-249. | | 1 |
| 86 | Observation of Ultrastrong Magnon-Magnon Coupling in YFeO3 Using Terahertz Magnetospectroscopy. , 2020, , . | | 1 |
| 87 | Self-referenced Transient THz Spectroscopy with ABCD Detection. , 2015, , . | | 1 |
| 88 | Terahertz Nonlinear Optics of Graphene, Probably the Most Nonlinear Material We Know. , 2020, , . | | 1 |
| 89 | Graphene: The Ultimate Nonlinear Material at Terahertz Frequencies. , 2019, , . | | 1 |
| 90 | 2D MXenes: Terahertz Properties and Applications. , 2020, , . | | 1 |

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|-----|--|-----|-----------|
| 91 | A Novel THz Electromagnetic Interference Shielding Material: 2D Ti3C2Ty MXene. , 2020, , . | | 1 |
| 92 | Ultrafast carrier dynamics in graphene and graphene nanostructures. Terahertz Science & Technology, 2020, 13, 135-148. | 0.5 | 1 |
| 93 | Ultrafast polarization dynamics in optically excited biased quantum wells. , 2004, 5354, 151. | | 0 |
| 94 | Monolithic stabilized Yb-fiber All-PM laser directly delivering nj-level femtosecond pulses. , 2008, , . | | 0 |
| 95 | Monolithic all-PM femtosecond Yb-doped fiber laser using photonic bandgap fibers. , 2009, , . | | 0 |
| 96 | Transient photoconductivity in InGaN/GaN multiple quantum wells, measured by time-resolved terahertz spectroscopy. , 2009, , . | | 0 |
| 97 | Observation of trapping and release of carriers in InGaAs/GaAs quantum dots by ultrafast THz spectroscopy. , 2009, , . | | 0 |
| 98 | Monolithic Yb-fiber femtosecond laser with intracavity all-solid PBG fiber and ex-cavity HC-PCF. , 2010, , . | | 0 |
| 99 | Ultrafast conductivity dynamics in optically excited InGaN/GaN multiple quantum wells observed by transient THz spectroscopy. Proceedings of SPIE, 2010, , . | 0.8 | 0 |
| 100 | Nonlinear generation and detection of THz pulses in ZnTe with chirped femtosecond laser pulses. , 2010, , . | | 0 |
| 101 | Ultrafast THz Saturable Absorption in Doped Semiconductors. , 2011, , . | | 0 |
| 102 | Nonlinear terahertz conductivity in graphene. , 2013, , . | | 0 |
| 103 | Ultra-broadband dielectric THz spectroscopy with air-biased-coherent-detection. , 2013, , . | | 0 |
| 104 | Terahertz semiconductor nonlinear optics. , 2013, , . | | 0 |
| 105 | All-fiber femtosecond Cherenkov laser at visible wavelengths. , 2013, , . | | 0 |
| 106 | Transient THz photoconductivity in dynamically screened InGaN/GaN quantum wells. , 2013, , . | | 0 |
| 107 | Terahertz nonlinear optics in semiconductors. , 2013, , . | | 0 |
| 108 | Single-pulse terahertz coherent control of spin resonance in a canted antiferromagnet. , 2013, , . | | 0 |

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|-----|---|-----|-----------|
| 109 | Terahertz photoconductivity of graphene nanostructures. , 2013, , . | | 0 |
| 110 | Density-dependent electron scattering in photoexcited GaAs. , 2013, , . | | 0 |
| 111 | Self-phase modulation of a single-cycle THz pulse. EPJ Web of Conferences, 2013, 41, 09003. | 0.3 | 0 |
| 112 | All-fiber femtosecond Cherenkov source. EPJ Web of Conferences, 2013, 41, 10017. | 0.3 | 0 |
| 113 | Terahertz Carrier Dynamics in Graphene and Graphene Nanostructures. , 2014, , . | | 0 |
| 114 | Ultra-broadband THz time-domain spectroscopy of common polymers with THz air-photonics. , 2014, , . | | 0 |
| 115 | Inherent Resistivity of Graphene to Strong THz Fields. , 2014, , . | | 0 |
| 116 | Ultrafast carrier dynamics in graphene and graphene nanostructures. , 2014, , . | | 0 |
| 117 | Photovoltaic Polymer-Fullerene Blends: Terahertz Carrier Dynamics and Device Performance. , 2015, , . | | 0 |
| 118 | Experimental Distinction between Femtosecond Transient Demagnetization and Spin Current Dynamics in Metals. , 2015, , . | | 0 |
| 119 | Thermodynamic picture of terahertz conduction in graphene. , 2016, , . | | 0 |
| 120 | Spin-resolved terahertz spectroscopy. , 2016, , . | | 0 |
| 121 | Ultrafast electron transport in graphene and magnetic nanostructures. , 2016, , . | | 0 |
| 122 | Intense THz-assisted modulation of semiconductor optical properties. , 2018, , . | | 0 |
| 123 | Giant Terahertz Nonlinearity of Graphene. , 2018, , . | | 0 |
| 124 | Terahertz Physics of Graphene, Possibly The Most Nonlinear Material We Know. , 2019, , . | | 0 |
| 125 | Study of Ultrafast Magnetism by THz Emission Spectroscopy. , 2019, , . | | 0 |
| 126 | Control of Terahertz Nonlinearity in Graphene by Gating. , 2019, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 127 | Low-noise femtosecond Cherenkov fiber laser, continuously tunable across the entire red-green-blue spectral range. EPJ Web of Conferences, 2019, 205, 01002. | 0.3 | 0 |
| 128 | Monolithic ytterbium all-single-mode fiber laser with direct fiber-end delivery of nJ-level femtosecond pulses. , 2008, , . | | 0 |
| 129 | All-PM Monolithic fs Yb-Fiber Laser, Dispersion-Managed with All-Solid Photonic Bandgap Fiber. , 2009, , . | | 0 |
| 130 | Semiconductor saturable absorbers for ultrafast THz signals. , 2010, , . | | 0 |
| 131 | Quantum Well Saturable Absorber Mirror with Electrical Control of Modulation Depth. , 2010, , . | | 0 |
| 132 | Electrically-Tunable Multi-Color Ultrafast Cherenkov Fiber Laser. , 2014, , . | | 0 |
| 133 | Control of Energy Relaxation Pathways in Graphene: Carrier-Carrier Scattering vs Phonon Emission. , 2015, , . | | 0 |
| 134 | Nano-holes vs Nano-cracks in Thin Gold Films: What Causes Anomalous THz Transmission?. , 2015, , . | | 0 |
| 135 | Terahertz Carrier Dynamics in Graphene Nanoribbons with Different Peripheral Functional Groups. , 2016, , . | | 0 |
| 136 | Ultrastrong Coupling of Two Terahertz Magnon Modes in YFeO3 in Pulsed High Magnetic Fields. , 2019, , . | | 0 |
| 137 | Ultrafast Magnetization Dynamics Revealed by Terahertz Magnetometry. , 2020, , . | | 0 |
| 138 | Volt-per-Å...ngstrom terahertz fields from X-ray free-electron lasers. Journal of Synchrotron Radiation, 2020, 27, 796-798. | 2.4 | 0 |
| 139 | Terahertz physics of graphene: from linear conductivity to high-harmonics generation. , 2020, , . | | 0 |
| 140 | Bismuth Nanofilms as Efficient Broadband THz Antireflection Coating. , 2020, , . | | 0 |