

Diyar Talbayev

List of Publications by Year in descending order

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Version: 2024-02-01

48
papers

1,256
citations

279487

23
h-index

377514

34
g-index

48
all docs

48
docs citations

48
times ranked

1738
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Hidden phases with neuromorphic responses and highly enhanced piezoelectricity in an antiferroelectric prototype. <i>Physical Review B</i> , 2022, 105, . | 1.1 | 8 |
| 2 | Magneto-optical nonreciprocity without chirality: Archimedean spirals on InSb. <i>Optics Express</i> , 2022, 30, 17193. | 1.7 | 0 |
| 3 | Ultrafast Neuromorphic Dynamics Using Hidden Phases in the Prototype of Relaxor Ferroelectrics. <i>Physical Review Letters</i> , 2021, 126, 027602. | 2.9 | 27 |
| 4 | Nonreciprocal Fabry-Perot effect and performance enhancement in a magneto-optical InSb-based Faraday terahertz isolator. <i>Optics Express</i> , 2020, 28, 38280. | 1.7 | 15 |
| 5 | Thin-film growth and structural characterization of a novel layered iridate $\text{Ba}_7\text{Ir}_3\text{O}_{13}$. <i>Semiconductor Science and Technology</i> , 2019, 34, 025002. | 1.0 | 0 |
| 6 | Broken symmetries, non-reciprocity, and multiferroicity. <i>Npj Quantum Materials</i> , 2018, 3, . | 1.8 | 104 |
| 7 | High-Temperature Terahertz Optical Diode Effect without Magnetic Order in Polar FeZnMoO_8 . <i>Physical Review Letters</i> , 2018, 120, 027601. | 2.9 | 36 |
| 8 | Measurement of Quadratic Terahertz Optical Nonlinearities Using Second-Harmonic Lock-in Detection. <i>Physical Review Applied</i> , 2018, 10, . | 1.5 | 18 |
| 9 | A One-Way Mirror: High-Performance Terahertz Optical Isolator Based on Magnetoplasmonics. <i>Advanced Optical Materials</i> , 2018, 6, 1800572. | 3.6 | 44 |
| 10 | Beyond the effective mass approximation: A predictive theory of the nonlinear optical response of conduction electrons. <i>Physical Review B</i> , 2017, 95, . | 1.1 | 10 |
| 11 | Terahertz-frequency magnetoelectric effect in Ni-doped $\text{CaBaCo}_4\text{O}_7$. <i>Physical Review B</i> , 2017, 96, . | 1.1 | 12 |
| 12 | Giant THz surface plasmon polariton induced by high-index dielectric metasurface. <i>Scientific Reports</i> , 2017, 7, 9876. | 1.6 | 8 |
| 13 | Thin InSb layers with metallic gratings: a novel platform for spectrally-selective THz plasmonic sensing. <i>Optics Express</i> , 2016, 24, 19448. | 1.7 | 23 |
| 14 | Role of spin fluctuations in the conductivity of CrO_2 . <i>Physical Review B</i> , 2016, 93, . | 1.1 | 13 |
| 15 | Observing the interplay between surface and bulk optical nonlinearities in thin van der Waals crystals. <i>Scientific Reports</i> , 2016, 6, 22620. | 1.6 | 42 |
| 16 | Spin-dependent polaron formation dynamics in $\text{Eu}_0.75\text{Y}_{0.25}\text{MnO}$ by femtosecond pump-probe spectroscopy. <i>Physical Review B</i> , 2015, 91, . | 1.1 | 1 |
| 17 | The influence of charge and magnetic order on polaron and acoustic phonon dynamics in LuFe_2O_4 . <i>Applied Physics Letters</i> , 2015, 107, . | 1.5 | 2 |
| 18 | Terahertz Spectroscopy of Spin Waves in Multiferroic BiFeO_3 in High Magnetic Fields. <i>Physical Review Letters</i> , 2013, 110, 257201. | 2.9 | 60 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Effect of growth temperature on the terahertz-frequency conductivity of the epitaxial transparent conducting spinel NiCo ₂ O ₄ films. AIP Advances, 2013, 3, . | 0.6 | 20 |
| 20 | Probing the Interplay between Quantum Charge Fluctuations and Magnetic Ordering in LuFe ₂ O ₄ . Scientific Reports, 2013, 3, 2654. | 1.6 | 15 |
| 21 | Thickness dependent structural, magnetic, and electronic properties of the epitaxial films of transparent conducting oxide NiCo ₂ O ₄ . Journal of Applied Physics, 2013, 114, . | 1.1 | 49 |
| 22 | Efficient measurement of broadband terahertz optical activity. Applied Physics Letters, 2012, 100, 241114. | 1.5 | 31 |
| 23 | Effect of annealing on the temperature-dependent dielectric properties of LaAlO ₃ at terahertz frequencies. AIP Advances, 2012, 2, 012120. | 0.6 | 7 |
| 24 | Relaxation of Photoinduced Quasi-Particles in Correlated Electron Metals. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 340-350. | 1.9 | 8 |
| 25 | Long-wavelength magnetic and magnetoelectric excitations in the ferroelectric antiferromagnet BiFeO ₃ . Physical Review B, 2011, 83, . | 1.1 | 66 |
| 26 | Competing energy scales in high-temperature superconductors: Ultrafast pump-probe studies. Physica Status Solidi - Rapid Research Letters, 2011, 5, 1-9. | 1.2 | 8 |
| 27 | Time-resolved quasiparticle dynamics of the itinerant antiferromagnet UPt ₃ . Physical Review B, 2011, 84, . | 1.1 | 9 |
| 28 | Coherent Spin Precession via Photoinduced Antiferromagnetic Interactions in La _{0.67} Ca _{0.33} MnO ₃ . Physical Review Letters, 2011, 107, 207205. | 2.9 | 20 |
| 29 | Hybridization and Superconducting Gaps in the Heavy-Fermion Superconductor PuCoGa ₅ . Probed by Ultrafast Pump-Probe Study of Phase Separations and Competing Orders in the Underdoped manganite Ba _{1-x} Tb _x CoO ₃ . Physical Review Letters, 2010, 104, 027003. | 2.9 | 23 |
| 30 | Ultrafast carrier capture in InGaAs quantum posts. Applied Physics Letters, 2009, 95, . | 1.5 | 10 |
| 31 | Self-assembled multilayers and enhanced superconductivity in (YBa ₂ Cu ₃ O _{7-x}) _{0.5} :(BaZrO ₃) _{0.5} nanocomposite films. Journal of Applied Physics, 2009, 106, . | 1.1 | 31 |
| 32 | Detection of Coherent Magnons via Ultrafast Pump-Probe Reflectance Spectroscopy in Multiferroic Ba _{0.6} Bi _{0.4} Fe ₂ O ₇ . Physical Review Letters, 2008, 101, 097603. | 2.9 | 29 |
| 33 | Magnetic Exchange Interaction between Rare-Earth and Mn Ions in Multiferroic Hexagonal Manganites. Physical Review Letters, 2008, 101, 247601. | 2.9 | 36 |
| 34 | Terahertz wave generation via optical rectification from multiferroic BiFeO ₃ . Applied Physics Letters, 2008, 93, . | 1.5 | 29 |
| 35 | Carrier dynamics in InGaAs with embedded ErAs nanoislands. Applied Physics Letters, 2008, 93, 121108. | 1.5 | 37 |

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|----|--|-----|-----------|
| 37 | Coupling between an Optical Phonon and the Kondo Effect. Physical Review Letters, 2008, 100, 026409. | 2.9 | 29 |
| 38 | Observation of Competing Order in a High- T_c Superconductor Using Femtosecond Optical Pulses. Physical Review Letters, 2007, 99, 147008. | 2.9 | 50 |
| 39 | Spin excitations in the antiferromagnet NaNiO_2 . Physical Review B, 2007, 75, . | 1.1 | 13 |
| 40 | Ultrafast interface magnetization dynamics in Fe/AlGaAs (001) heterostructure. Applied Physics Letters, 2007, 91, . | 1.5 | 8 |
| 41 | Photoinduced coherent magnetization precession in epitaxial $\text{La}_{0.67}\text{Ca}_{0.33}\text{MnO}_3$ films. Physical Review B, 2006, 73, . | 1.1 | 23 |
| 42 | Ultrafast magnetization dynamics of epitaxial Fe films on AlGaAs (001). Applied Physics Letters, 2005, 86, 152512. | 1.5 | 39 |
| 43 | Strain and anisotropy effects on spin waves in epitaxial $\text{La}_{0.67}\text{Sr}_{0.33}\text{MnO}_3$ films. Applied Physics Letters, 2005, 86, 182501. | 1.5 | 11 |
| 44 | Interface Magnetization Reversal and Anisotropy in Fe/AlGaAs (001). Physical Review Letters, 2005, 95, 137202. | 2.9 | 35 |
| 45 | High Resolution and Far-Infrared Magneto-Optical FTS with Synchrotron Light. , 2005, , . | | 0 |
| 46 | Antiferromagnetic Resonance in LaMnO_3 at Low Temperature. Physical Review Letters, 2004, 93, . | 2.9 | 34 |
| 47 | Field-frequency mapping of the electron spin resonance in the paramagnetic and antiferromagnetic states of LaMnO_3 . Physical Review B, 2004, 69, . | 1.1 | 28 |
| 48 | Intersubband resonance polarons in $\text{Al}\tilde{\Gamma}$ -GaAs tunneling junctions. JETP Letters, 2000, 71, 387-390. | 0.4 | 8 |