

Diyar Talbayev

List of Publications by Year in descending order

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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	Broken symmetries, non-reciprocity, and multiferroicity. Npj Quantum Materials, 2018, 3, .	1.8	104
2	Ultrafast Pump-Probe Study of Phase Separation and Competing Orders in the Underdoped BaTiO_3 . Physical Review Letters, 2019, 104, 027003.	2.9	95
3	Long-wavelength magnetic and magnetoelectric excitations in the ferroelectric antiferromagnet BiFeO_3 . Physical Review Letters, 2011, 104, 027003.	1.1	66
4	Terahertz Spectroscopy of Spin Waves in Multiferroic BiFeO_3 . High Magnetic Fields. Physical Review Letters, 2013, 110, 257201.	2.9	60
5	High-Temperature Terahertz Optical Diode Effect without Magnetic Order in Polar FeZnMoO_8 . Physical Review Letters, 2019, 123, 087601.	2.9	30
6	Observation of Competing Order in a High- T_c Superconductor Using Femtosecond Optical Pulses. Physical Review Letters, 2007, 99, 147008.	2.9	50
7	Thickness dependent structural, magnetic, and electronic properties of the epitaxial films of transparent conducting oxide NiCo_2O_4 . Journal of Applied Physics, 2013, 114, .	1.1	49
8	A One-Way Mirror: High-Performance Terahertz Optical Isolator Based on Magnetoplasmonics. Advanced Optical Materials, 2018, 6, 1800572.	3.6	44
9	Observing the interplay between surface and bulk optical nonlinearities in thin van der Waals crystals. Scientific Reports, 2016, 6, 22620.	1.6	42
10	Ultrafast magnetization dynamics of epitaxial Fe films on AlGaAs (001). Applied Physics Letters, 2005, 86, 152512.	1.5	39
11	Carrier dynamics in InGaAs with embedded ErAs nanoislands. Applied Physics Letters, 2008, 93, 121108.	1.5	37
12	Magnetic Exchange Interaction between Rare-Earth and Mn Ions in Multiferroic Hexagonal Manganites. Physical Review Letters, 2008, 101, 247601.	2.9	36
13	Interface Magnetization Reversal and Anisotropy in Fe/AlGaAs (001). Physical Review Letters, 2005, 95, 137202.	2.9	35
14	Antiferromagnetic Resonance in LaMnO_3 at Low Temperature. Physical Review Letters, 2004, 93, .	2.9	34
15	Self-assembled multilayers and enhanced superconductivity in $(\text{YBa}_2\text{Cu}_3\text{O}_{7-x})_{0.5}(\text{BaZrO}_3)_{0.5}$ nanocomposite films. Journal of Applied Physics, 2009, 106, .	1.1	31
16	Efficient measurement of broadband terahertz optical activity. Applied Physics Letters, 2012, 100, 241114.	1.5	31
17	Detection of Coherent Magnons via Ultrafast Pump-Probe Reflectance Spectroscopy in Multiferroic BaTiO_3 . Physical Review Letters, 2008, 101, 097603.	2.9	29
18	Terahertz wave generation via optical rectification from multiferroic BiFeO_3 . Applied Physics Letters, 2008, 93, .	1.5	29

#	ARTICLE	IF	CITATIONS
19	Coupling between an Optical Phonon and the Kondo Effect. Physical Review Letters, 2008, 100, 026409.	2.9	29
20	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
21	Ultrafast Neuromorphic Dynamics Using Hidden Phases in the Prototype of Relaxor Ferroelectrics. Physical Review Letters, 2021, 126, 027602.	2.9	27
22	Photoinduced coherent magnetization precession in epitaxial La _{0.67} Ca _{0.33} MnO ₃ films. Physical Review B, 2006, 73, .	1.1	23
23	Hybridization and Superconducting Gaps in the Heavy-Fermion Superconductor PuCoGa_5 Probed via the Dynamics of Photoinduced Quasiparticles. Physical Review Letters, 2010, 104, 227002.	2.9	23
24	Thin InSb layers with metallic gratings: a novel platform for spectrally-selective THz plasmonic sensing. Optics Express, 2016, 24, 19448.	1.7	23
25	Coherent Spin Precession via Photoinduced Antiferromagnetic Interactions in $\text{La}_{0.67}\text{Ca}_{0.33}\text{MnO}_3$. Physical Review Letters, 2011, 107, 207205.	2.9	20
26	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
27	Measurement of Quadratic Terahertz Optical Nonlinearities Using Second-Harmonic Lock-in Detection. Physical Review Applied, 2018, 10, .	1.5	18
28	Spin-dependent polaron formation dynamics in $\text{Eu}_{0.75}\text{Mn}_{0.25}\text{O}$ by femtosecond pump-probe spectroscopy. Physical Review B, 2015, 91, .	1.1	17
29	Probing the Interplay between Quantum Charge Fluctuations and Magnetic Ordering in LuFe ₂ O ₄ . Scientific Reports, 2013, 3, 2654.	1.6	15
30	Nonreciprocal Fabry-Perot effect and performance enhancement in a magneto-optical InSb-based Faraday terahertz isolator. Optics Express, 2020, 28, 38280.	1.7	15
31	Spin excitations in the antiferromagnet NaNiO ₂ . Physical Review B, 2007, 75, .	1.1	13
32	Terahertz-frequency magnetoelectric effect in Ni-doped $\text{CaBaCo}_4\text{O}_7$. Physical Review B, 2017, 96, .	1.1	12
33	Strain and anisotropy effects on spin waves in epitaxial La _{0.67} Sr _{0.33} MnO ₃ films. Applied Physics Letters, 2005, 86, 182501.	1.5	11
34	Ultrafast carrier capture in InGaAs quantum posts. Applied Physics Letters, 2009, 95, .	1.5	10
35	Beyond the effective mass approximation: A predictive theory of the nonlinear optical response of conduction electrons. Physical Review B, 2017, 95, .	1.1	10
36	Time-resolved quasiparticle dynamics of the itinerant antiferromagnet UPtGa. Physical Review B, 2011, 84, .	1.1	9

#	ARTICLE	IF	CITATIONS
37	Intersubband resonance polarons in Al ¹³ GaAs tunneling junctions. JETP Letters, 2000, 71, 387-390.	0.4	8
38	Ultrafast interface magnetization dynamics in Fe ¹³ AlGaAs (001) heterostructure. Applied Physics Letters, 2007, 91, .	1.5	8
39	Competing energy scales in high-temperature superconductors: Ultrafast pump-probe studies. Physica Status Solidi - Rapid Research Letters, 2011, 5, 1-9.	1.2	8
40	Relaxation of Photoinduced Quasi-Particles in Correlated Electron Metals. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 340-350.	1.9	8
41	Giant THz surface plasmon polariton induced by high-index dielectric metasurface. Scientific Reports, 2017, 7, 9876.	1.6	8
42	Hidden phases with neuromorphic responses and highly enhanced piezoelectricity in an antiferroelectric prototype. Physical Review B, 2022, 105, .	1.1	8
43	Effect of annealing on the temperature-dependent dielectric properties of LaAlO ₃ at terahertz frequencies. AIP Advances, 2012, 2, 012120.	0.6	7
44	Role of spin fluctuations in the conductivity of CrO ₂ . Physical Review B, 2016, 93, .		
45	The influence of charge and magnetic order on polaron and acoustic phonon dynamics in LuFe ₂ O ₄ . Applied Physics Letters, 2015, 107, .	1.5	2
46	Thin-film growth and structural characterization of a novel layered iridate Ba ₇ Ir ₃ O ₁₃ . Semiconductor Science and Technology, 2019, 34, 025002.	1.0	0
47	High Resolution and Far-Infrared Magneto-Optical FTS with Synchrotron Light. , 2005, , .		0
48	Magneto-optical nonreciprocity without chirality: Archimedean spirals on InSb. Optics Express, 2022, 30, 17193.	1.7	0