

Turan Birol

List of Publications by Year in descending order

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72
papers

1,993
citations

236612

25
h-index

264894

42
g-index

72
all docs

72
docs citations

72
times ranked

3333
citing authors

#	ARTICLE	IF	CITATIONS
1	Exploiting dimensionality and defect mitigation to create tunable microwave dielectrics. Nature, 2013, 502, 532-536.	13.7	204
2	â€Ferroelectricâ€™ metals reexamined: fundamental mechanisms and design considerations for new materials. Journal of Materials Chemistry C, 2016, 4, 4000-4015.	2.7	119
3	Free Energy from Stationary Implementation of the $\langle \text{DFT} \rangle + \langle \text{DMFT} \rangle$ Physical Review Letters, 2015, 115, 256402.	2.9	87
4	Theory of the charge density wave in $\langle A \rangle_{\text{Sb}}^5$ Kagome metals. Physical Review B, 2021, 104, .	1.1	86
5	Dimerization-Induced Cross-Layer Quasi-Two-Dimensionality in Metallic $\langle \text{IrTe} \rangle_2$. Physical Review Letters, 2014, 112, .	2.9	85
6	Interface Control of Emergent Ferroic Order in Ruddlesden-Popper $\langle \text{Sr} \rangle_n \langle \text{O} \rangle_3$ Physical Review Letters, 2011, 107, 257602.	2.9	77
7	Reversible control of magnetic interactions by electric field in a single-phase material. Nature Communications, 2013, 4, 1334.	5.8	67
8	The magnetoelectric effect in transition metal oxides: Insights and the rational design of new materials from first principles. Current Opinion in Solid State and Materials Science, 2012, 16, 227-242.	5.6	64
9	Covalency in transition-metal oxides within all-electron dynamical mean-field theory. Physical Review B, 2014, 90, .	1.1	64
10	The Catalytic Mechanics of Dynamic Surfaces: Stimulating Methods for Promoting Catalytic Resonance. ACS Catalysis, 2020, 10, 12666-12695.	5.5	54
11	Revealing the competition between charge density wave and superconductivity in $\langle \text{CsV} \rangle_3$ through uniaxial strain. Physical Review B, 2021, 104, .	1.1	51
12	SrNbO3 as a transparent conductor in the visible and ultraviolet spectra. Communications Physics, 2020, 3, .	2.0	48
13	Time-reversal symmetry broken by charge order in $\langle \text{CsV} \rangle_3 \langle \text{Sb} \rangle_5$ Physical Review Research, 2022, 4, .	1.3	48
14	Origin of giant spin-lattice coupling and the suppression of ferroelectricity in $\langle \text{EuTiO} \rangle_3$ from first principles. Physical Review B, 2013, 88, .	1.1	45
15	$\langle A \rangle_{\text{Sb}}^5$ Physical Review B, 2021, 104, .		

#	ARTICLE	IF	CITATIONS
19	Applications of DFT + DMFT in Materials Science. Annual Review of Materials Research, 2019, 49, 31-52.	4.3	35
20	Structural and magnetic phase transitions in $\text{Ca}_{1-x}\text{Fe}_x\text{As}_2$ with $x > 0.73$ in electron-overdoped FeAs layers. Physical Review B, 2016, 93, .	4.7	34
21	Voltage-induced ferromagnetism in a diamagnet. Science Advances, 2020, 6, eabb7721.		
22	Evidence for Topologically Protected Surface States and a Superconducting Phase in Ti_4Te_5		

#	ARTICLE	IF	CITATIONS
37	Strain tuning of plasma frequency in vanadate, niobate, and molybdate perovskite oxides. Physical Review Materials, 2019, 3, .	0.9	18
38	Free-Carrier-Induced Ferroelectricity in Layered Perovskites. Physical Review Letters, 2021, 127, 087601.	2.9	17
39	Chemical bonding and Born charge in 1T-HfS ₂ . Npj 2D Materials and Applications, 2021, 5, .	3.9	15
40	Strain-induced majority carrier inversion in ferromagnetic epitaxial LaCoO_3 thin films. Physical Review Materials, 2020, 4, .	0.9	14
41	Phase stability and large in-plane resistivity anisotropy in the 112-type iron-based superconductor $\text{CaLa}_2\text{FeAs}_2$. Physical Review Letters, 2020, 124, 167203.	1.1	10
42	Spin-lattice Coupling and the Emergence of the Trimerized Phase in the Kagome Antiferromagnet $\text{Na}_2\text{V}_2\text{O}_7$. Physical Review Letters, 2020, 124, 167203.	2.9	13
43	Coexistence and Interaction of Spinons and Magnons in an Antiferromagnet with Alternating Antiferromagnetic and Ferromagnetic Quantum Spin Chains. Physical Review Letters, 2020, 125, 037204.	2.9	12
44	Coherence lifetimes of excitations in an atomic condensate due to the thin spectrum. Physical Review A, 2007, 76, .	1.0	11
45	Magnetically induced phonon splitting in ACr_2S_4 from first principles. Physical Review B, 2016, 93, .	1.1	10
46	Metallic line defect in wide-bandgap transparent perovskite BaSnO_3 . Science Advances, 2021, 7, .	4.7	11
47	Influence of the central mode and soft phonon on the microwave dielectric loss near the strain-induced ferroelectric phase transitions in $\text{Sr}_2\text{FeMoO}_6$. Physical Review B, 2018, 98, .	1.1	10
48	Dopant Segregation Inside and Outside Dislocation Cores in Perovskite BaSnO_3 and Reconstruction of the Local Atomic and Electronic Structures. Nano Letters, 2021, 21, 4357-4364.	4.5	10
49	What controls electrostatic vs electrochemical response in electrolyte-gated materials? A perspective on critical materials factors. APL Materials, 2022, 10, 040901.	2.2	10
50	Raman study of magnetic excitations and magnetoelastic coupling in $\text{Sr}_2\text{Cr}_2\text{O}_7$. Physical Review B, 2015, 91, .	1.1	10
51	Nature of the magnetic interactions in $\text{Sr}_2\text{Cr}_2\text{O}_7$. Physical Review B, 2018, 98, .	1.1	10
52	Guided design of copper oxysulfide superconductors. Europhysics Letters, 2015, 111, 17002.	0.7	8
53	Cation order control of correlations in double perovskite $\text{Sr}_2\text{FeMoO}_6$. Physical Review Research, 2020, 2, .	2.3	10
54	Electronic correlations in the semiconducting half-Heusler compound FeVSb . Physical Review B, 2021, 103, .	1.1	7

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55	Contrasting ferromagnetism in pyrite FeS_2 induced by chemical doping versus electrostatic gating. <i>Physical Review Materials</i> , 2020, 4, .		
56	Spin torque from tunneling through impurities in a magnetic tunnel junction. <i>Physical Review B</i> , 2009, 80, .	1.1	6
57	Spin-lattice and electron-phonon coupling in 3d/5d hybrid $\text{Sr}_3\text{Ni}_2\text{O}_6$. <i>Npj Quantum Materials</i> , 2019, 4, .	1.8	6
58	Strain-tunable metamagnetic critical endpoint in Mott insulating rare-earth titanates. <i>Physical Review B</i> , 2022, 105, .	1.1	6
59	Robust gapless superconductivity in $\text{Hf}_x\text{Bi}_{1-x}$. <i>Physical Review B</i> , 2021, 103, .		
60	Prediction of double-Weyl points in the iron-based superconductor $\text{CaK}_2\text{Fe}_4\text{As}_5$. <i>Physical Review B</i> , 2021, 104, .	1.1	5
61	Uniaxial Strain Control of Bulk Ferromagnetism in Rare-Earth Titanates. <i>Physical Review Letters</i> , 2022, 128, 167201.	2.9	5
62	High-pressure spectroscopic investigation of multiferroic $\text{Ni}_3\text{V}_2\text{O}_{11}$. <i>Physical Review B</i> , 2018, 98, .		
63	Multiferroic behavior in EuTi_3O_7 films constrained by symmetry. <i>Physical Review B</i> , 2020, 101, .	1.1	4
64	First-principles characterization of the magnetic properties of $\text{Cu}_2\text{V}_2\text{O}_7$. <i>Physical Review Materials</i> , 2021, 5, .		
65	Electrons go loopy in a family of superconductors. <i>Nature</i> , 2022, 602, 216-217.	13.7	4
66	Two-component electronic phase separation in the doped Mott insulator $\text{Y}_{1-x}\text{Ca}_x\text{TiO}_3$. <i>Physical Review B</i> , 2021, 104, .	1.1	3
67	Phase Diffusion of a q-Deformed Oscillator. <i>Symmetry</i> , 2009, 1, 240-251.	1.1	2
68	Publisher's Note: Interface Control of Emergent Ferroic Order in $\text{Ruddlesden-Popper Sr}_{n+1}\text{Ti}_n\text{O}_{3n+1}$ [Phys. Rev. Lett. 107, 257602 (2011)]. <i>Physical Review Letters</i> , 2012, 108, .	2.9	2
69	Publisher's Note: Structural and magnetic phase transitions in $\text{Ca}_{1-x}\text{K}_x\text{FeAs}_2$ electron-overdoped FeAs layers [Phys. Rev. B 93, 054522 (2016)]. <i>Physical Review B</i> , 2016, 93, .		
70	Effects of zero mode and thin spectrum on the life time of atomic Bose Einstein condensates. <i>European Physical Journal: Special Topics</i> , 2008, 160, 11-22.	1.2	1
71	Pauli Reply. <i>Physical Review Letters</i> , 2021, 127, 049702.	2.9	0
72	Anisotropic properties, charge ordering, and ferrimagnetic structures in the strongly correlated V_2PO_5 single crystal. <i>Physical Review Materials</i> , 2020, 4, .		