Hosub Jin

List of Publications by Year
in descending order

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36 papers	3,447 citations	257450 24 h-index	361022 35 g-index
39 all docs	39 docs citations	39 times ranked	4727 citing authors

#	Article	IF	Citations
1	display="inline"><mml:msub><mml:mi>J</mml:mi><mml:mi>eff</mml:mi></mml:msub><mml:mo>=</mml:mo><mml:mn>1</mml:mn> State Induced by Relativistic Spin-Orbit Coupling in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Sr</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>IrO</mml:mi> Physical Review Letters, 2008, 101, 076402.	7.8	1,332
2	Switchable S = 1/2 and J = 1/2 Rashba bands in ferroelectric halide perovskites. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6900-6904.	7.1	252
3	Antagonism between Spinâ€“Orbit Coupling and Steric Effects Causes Anomalous Band Gap Evolution in the Perovskite Photovoltaic Materials CH₃NH₃Sn_{1â€“x}Pb_xI₃. Journal of Physical Chemistry Letters, 2015, 6, 3503-3509.	4.6	202
4	Dimensional Reduction: A Design Tool for New Radiation Detection Materials. Advanced Materials, 2011, 23, 4163-4167.	21.0	185
5	Temperature dependence of the electronic structure of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi>J</mml:mi><mml:mrow><mml:mtext>eff</mml:mtext></mml:mrow></mml:msub> scriptlevel="1"><mml:mfrac bevelled="false"><mml:mn>1</mml:mn><mml:mn>2</mml:mn></mml:mfrac></mml:mstyle></mml:mrow></mml:math>Mott	3.2	149
6	Anisotropic exchange interactions of spin-orbit-integrated states in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Sr</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub> Physical Review B, 2009, 80, .	3.2	117
7	Thallium Chalcohalides for X-ray and Î³-ray Detection. Journal of the American Chemical Society, 2011, 133, 10030-10033.	13.7	105
8	Topological insulator phase in halide perovskite structures. Physical Review B, 2012, 86, .	3.2	104
9	Thallium Chalcogenide-Based Wide-Band-Gap Semiconductors: TlGaSe₂ for Radiation Detectors. Chemistry of Materials, 2011, 23, 3120-3128.	6.7	87
10	Topological Quantum Phase Transition in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>5</mml:mn><mml:mi>d</mml:mi></mml:math>Transition Metal Oxide<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Na</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>IrO</mml:mi><mml:m Physical Review Letters, 2012, 108, 106401.	7.8	87
11	Phonon-driven spin-Floquet magneto-valleytronics in MoS2. Nature Communications, 2018, 9, 638.	12.8	86
12	Cs₂M^{II}M^{IV}₃Q₈ (Q = S, Se, Te): An Extensive Family of Layered Semiconductors with Diverse Band Gaps. Chemistry of Materials, 2013, 25, 3344-3356.	6.7	75
13	Candidates for topological insulators: Pb-based chalcogenide series. Physical Review B, 2011, 83, .	3.2	56
14	CsHgInS₃: a New Quaternary Semiconductor for Î³-ray Detection. Chemistry of Materials, 2012, 24, 4434-4441.	6.7	56
15	Spin-orbital entangled molecular jeff states in lacunar spinel compounds. Nature Communications, 2014, 5, 3988.	12.8	52
16	Search and design of nonmagnetic centrosymmetric layered crystals with large local spin polarization. Physical Review B, 2015, 91, .	3.2	51
17	Tl₂Hg₃Q₄ (Q = S, Se, and Te): High-Density, Wide-Band-Gap Semiconductors. Chemistry of Materials, 2011, 23, 4375-4383.	6.7	50
18	CsCdInQ₃ (Q = Se, Te): New Photoconductive Compounds As Potential Materials for Hard Radiation Detection. Chemistry of Materials, 2013, 25, 2089-2099.	6.7	50

#	Article	IF	Citations
19	Prediction of ferroelectricity-driven Berry curvature enabling charge- and spin-controllable photocurrent in tin telluride monolayers. Nature Communications, 2019, 10, 3965.	12.8	47
20	Photoconductivity in Tl₆SI₄: A Novel Semiconductor for Hard Radiation Detection. Chemistry of Materials, 2013, 25, 2868-2877.	6.7	45
21	Gate-tunable giant nonreciprocal charge transport in noncentrosymmetric oxide interfaces. Nature Communications, 2019, 10, 4510.	12.8	44
22	Topological Oxide Insulator in Cubic Perovskite Structure. Scientific Reports, 2013, 3, 1651.	3.3	43
23	Emergence of the giant out-of-plane Rashba effect and tunable nanoscale persistent spin helix in ferroelectric SnTe thin films. Applied Physics Letters, 2020, 116, .	3.3	38
24	Strain-induced topological insulator phase and effective magnetic interactions in Li2IrO3. Physical Review B, 2013, 87, .	3.2	35
25	LiPbSb₃S₆: A Semiconducting Sulfosalt with Very Low Thermal Conductivity. Inorganic Chemistry, 2014, 53, 673-675.	4.0	19
26	Theoretical evidence of spin-orbital-entangled <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>J</mml:mi><mml:mi>eff</mml:mi></mml:msub><mml:mo state in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>3</mml:mn><mml:mi>d</mml:mi></mml:mrow></mml:r transition metal oxide <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>CuAl</mml:mi></mm. Phy.	3.2	16
27	Defect-gradient-induced Rashba effect in van der Waals PtSe2 layers. Nature Communications, 2022, 13, 2759.	12.8	13
28	Formation of native defects in the Î³-ray detector material Cs2Hg6S7. Applied Physics Letters, 2012, 101, .	3.3	11
29	Magnetic Ordering, Anomalous Lifshitz Transition, and Topological Grain Boundaries in Two-Dimensional Biphenylene Network. Nano Letters, 2022, 22, 3112-3117.	9.1	11
30	Mercury and antimony chalcohalide semiconductors as new candidates for radiation detection applications at room temperature. Proceedings of SPIE, 2012, , .	0.8	8
31	Two-dimensional Peierls instability via zone-boundary Dirac line nodes in layered perovskite oxides. Physical Review B, 2019, 99, .	3.2	7
32	Graphene analogue in (111)-oriented BaBiO3 bilayer heterostructures for topological electronics. Scientific Reports, 2018, 8, 555.	3.3	6
33	Dimensionally reduced heavy atom semiconductors as candidate materials for Î³-ray detection: the case of Cs₂Hg₆S₇. Materials Research Society Symposia Proceedings, 2011, 1341, 1.	0.1	3
34	Characterization of thallium-based ternary semiconductor compounds for radiation detection. , 2012, , .		3
35	Observation of spin-polarized Anderson state around charge neutral point in graphene with Fe-clusters. Scientific Reports, 2020, 10, 4784.	3.3	2
36	Vertical transverse transport induced by hidden in-plane Berry curvature in two dimensions. Physical Review B, 2021, 104, .	3.2	1