Horng-Tay Jeng

List of Publications by Year
in descending order

96	10,314	94433 37	42399 92
papers	citations	h-index	g-index

98	98	98	10627
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enormous Berry-Curvature-Based Anomalous Hall Effect in Topological Insulator (Bi,Sb)₂Te₃ on Ferrimagnetic Europium Iron Garnet beyond 400 K. ACS Nano, 2022, 16, 2369-2380.	14.6	6
2	Magnetoconductance modulations due to interlayer tunneling in radial superlattices. Nanoscale Horizons, 2022, 7, 168-173.	8.0	0
3	Threefold Fermions, Weyl Points, and Superconductivity in the Mirror Symmetry Lacking Semiconductor TlCd2Te4. Nanomaterials, 2022, 12, 679.	4.1	1
4	Superconducting proximity effect in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:msqrt><mr Ni nanoislands on Pb(111). Physical Review Materials, 2022, 6, .	2.4	1
5	Modulation Doping Enables Ultrahigh Power Factor and Thermoelectric ZT in nâ€Type Bi₂Te_{2.7}Se_{0.3}. Advanced Science, 2022, 9, e2201353.	11.2	19
6	Impact of band structure on wave function dissipation in field emission resonance. Physical Review B, 2022, 105, .	3.2	1
7	Electric control of valley polarization in monolayer WSe2 using a van der Waals magnet. Nature Nanotechnology, 2022, 17, 721-728.	31.5	28
8	Indirect interactions of metal nanoparticles through graphene. Carbon, 2021, 174, 132-137.	10.3	11
9	A first-principles study of rare earth quaternary Heusler compounds: RXVZ (R = Yb, Lu; X = Fe, Co, Ni; Z) Tj ETQq1 1 0.784314 rgBT /Ov	2.8	22
10	Reduction of dopant ions and enhancement of magnetic properties by UV irradiation in Ce-doped TiO2. Scientific Reports, 2021, 11, 7668.	3.3	4
11	First-Principles Calculations Predict Tunable Large Magnetic Anisotropy Due to Spin-Polarized Quantum-Well Resonances in Nanometer-Thick SrRuO₃ Films: Implications for Spintronic Devices. ACS Applied Nano Materials, 2021, 4, 5932-5939.	5.0	5
12	Thermally Strain-Induced Band Gap Opening on Platinum Diselenide-Layered Films: A Promising Two-Dimensional Material with Excellent Thermoelectric Performance. Chemistry of Materials, 2021, 33, 3490-3498.	6.7	18
13	Topological Phase and Quantum Anomalous Hall Effect in Ferromagnetic Transition-Metal Dichalcogenides Monolayer 1Tâ€²VSe2. Nanomaterials, 2021, 11, 1998.	4.1	6
14	Topological Proximity-Induced Dirac Fermion in Two-Dimensional Antimonene. ACS Nano, 2021, 15, 15085-15095.	14.6	8
15	Topological Phase and Strong Correlation in Rare-Earth Hexaborides XB6 (X = La, Ce, Pr, Nd, Pm, Sm,) Tj ETQq1 1 0.784314 rgBT /Ove	2.9	5
16	Green Treatment of Phosphate from Wastewater Using a Porous Bio-Templated Graphene Oxide/MgMn-Layered Double Hydroxide Composite. IScience, 2020, 23, 101065.	4.1	21
17	Orbital-enhanced warping effect in px,py-derived Rashba spin splitting of monatomic bismuth surface alloy. Npj Quantum Materials, 2020, 5, .	5.2	7
18	Orbital ordering and magnetism in layered Perovskite Ruthenate Sr2RuO4. Scientific Reports, 2020, 10, 7089.	3.3	4

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19	Enhancing Quantum Yield in Strained MoS₂ Bilayers by Morphology-Controlled Plasmonic Nanostructures toward Superior Photodetectors. Chemistry of Materials, 2020, 32, 2242-2252.	6.7	24
20	Electronic structure of a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>(</mml:mo><mml:mn>3</mml:mn><mml:mo>Ã—</mml:mo><mml:mn>3</mml:mn><mml:mo>)</mml:mo><mml:mi mathvariant="italic">R</mml:mi><mml:mi>30</mml:mi><mml:mo>°</mml:mo></mml:mrow></mml:math> silicon layer on Al(111). Physical Review Materials, 2020, 4, .	2.4	5
21	Observing quantum trapping on MoS₂ through the lifetimes of resonant electrons: revealing the Pauli exclusion principle. Nanoscale Advances, 2020, 2, 5848-5856.	4.6	4
22	Unconventional topological phase transition in non-symmorphic material KHgX (Xâ€‰=â€‰As, Sb, Bi). Npj Computational Materials, 2019, 5, .	8.7	9
23	Enhancement of catalytic activity by UV-light irradiation in CeO2 nanocrystals. Scientific Reports, 2019, 9, 8018.	3.3	14
24	Tunable disorder and localization in the rare-earth nickelates. Physical Review Materials, 2019, 3, .	2.4	8
25	Negative circular polarization emissions from WSe2/MoSe2 commensurate heterobilayers. Nature Communications, 2018, 9, 1356.	12.8	88
26	Magnetic and noncentrosymmetric Weyl fermion semimetals in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="italic">R</mml:mi><mml:mi>		

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37	Carrier-driven coupling in ferromagnetic oxide heterostructures. Physical Review B, 2017, 96, .	3.2	5
38	Mirror Protected Dirac Fermions on a Weyl Semimetal NbP Surface. Physical Review Letters, 2017, 119, 196403.	7.8	20
39	Ultraquantum magnetoresistance in the Kramers-Weyl semimetal candidate Î²â˜Ag2Se. Physical Review B, 2017, 96, .	3.2	27
40	Type-II Symmetry-Protected Topological Dirac Semimetals. Physical Review Letters, 2017, 119, 026404.	7.8	145
41	Largeâ€Area and Highâ€Quality 2D Transition Metal Telluride. Advanced Materials, 2017, 29, 1603471.	21.0	181
42	Metalâ€“Semiconductor Phaseâ€Transition in WSe<sub>2(1â€_x₎Te₂_x Monolayer. Advanced Materials, 2017, 29, 1603991.	21.0	123
43	Prediction of nontrivial band topology and superconductivity in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">M</mml:mi><mml:msub><mml:mi mathvariant="normal">g</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>Pb</mml:mi></mml:mrow></mml:math>. Physical Review Materials, 2017, 1, .	2.4	8
44	Discovery of Lorentz-violating type II Weyl fermions in LaAlGe. Science Advances, 2017, 3, e1603266.	10.3	176
45	Newtype large Rashba splitting in quantum well states induced by spin chirality in metal/topological insulator heterostructures. NPG Asia Materials, 2016, 8, e332-e332.	7.9	6
46	High applicability of two-dimensional phosphorous in Kagome lattice predicted from first-principles calculations. Scientific Reports, 2016, 6, 23151.	3.3	18
47	Atomic-Scale Visualization of Quasiparticle Interference on a Type-II Weyl Semimetal Surface. Physical Review Letters, 2016, 117, 266804.	7.8	56
48	Large transverse Hall-like signal in topological Dirac semimetal Cd3As2. Scientific Reports, 2016, 6, 27487.	3.3	16
49	Discovery of a new type of topological Weyl fermion semimetal state in MoxW1â˜xTe2. Nature Communications, 2016, 7, 13643.	12.8	163
50	Three-dimensional Dirac cone carrier dynamics in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Na</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi>Bi</mml:mi></mml:mrow></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cd</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mi>As</mml:mi></mml:mrow></mml:math>. Physical Review B, 2016, 94, .	3.2	57
51	Superconducting topological surface states in the noncentrosymmetric bulk superconductor PbTaSe₂. Science Advances, 2016, 2, e1600894.	10.3	137
52	Prominent role of oxygen in the multiferroicity ofDyMnO3andTbMnO3: A resonant soft x-ray scattering spectroscopy study. Physical Review B, 2016, 94, .	3.2	7
53	Drumhead surface states and topological nodal-line fermions in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>TlTaSe</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> family. Physical Review B, 2016, 93, .	3.2	208
54	Signatures of Fermi Arcs in the Quasiparticle Interferences of the Weyl Semimetals TaAs and NbP. Physical Review Letters, 2016, 116, 066601.	7.8	54

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55	Spin Polarization and Texture of the Fermi Arcs in the Weyl Fermion Semimetal TaAs. Physical Review Letters, 2016, 116, 096801.	7.8	102
56	Topological Dirac surface states and superconducting pairing correlations in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>PbTaSe</mml:mi><mml:mn>2</mml:mn></mml:msub></ Physical Review B, 2016, 93, .	3.2	79
57	A strongly robust type II Weyl fermion semimetal state in Ta ₃ S ₂. Science Advances, 2016, 2, e1600295.	10.3	114
58	Newtype single-layer magnetic semiconductor in transition-metal dichalcogenides VX2 (Xâ€‰=â€‰S, Se and) Tj ETQq0 0 0 rgBT /Over	3.3	170
59	Observation of the spin-polarized surface state in a noncentrosymmetric superconductor BiPd. Nature Communications, 2016, 7, 13315.	12.8	42
60	Signatures of the Adlerâ€"Bellâ€"Jackiw chiral anomaly in a Weyl fermion semimetal. Nature Communications, 2016, 7, 10735.	12.8	603
61	Ab initiostudy of thePbTaSe2-related superconducting topological metals. Physical Review B, 2016, 94, .	3.2	22
62	Local property change of graphene induced by a Cu nanoparticle. Carbon, 2016, 98, 666-670.	10.3	6
63	Atomic-Scale Visualization of Quantum Interference on a Weyl Semimetal Surface by Scanning Tunneling Microscopy. ACS Nano, 2016, 10, 1378-1385.	14.6	112
64	Prediction of an arc-tunable Weyl Fermion metallic state in MoxW1â^'xTe2. Nature Communications, 2016, 7, 10639.	12.8	249
65	Topological nodal-line fermions in spin-orbit metal PbTaSe2. Nature Communications, 2016, 7, 10556.	12.8	688
66	Criteria for Directly Detecting Topological Fermi Arcs in Weyl Semimetals. Physical Review Letters, 2016, 116, 066802.	7.8	134
67	New type of Weyl semimetal with quadratic double Weyl fermions. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1180-1185.	7.1	291
68	Two distinct topological phases in the mixed-valence compound<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mtext>YbB</mml:mtext><mml:mn>6</mml:mn></mml:msub its differences from<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mtext>SmB</mml:mtext><mml:mn>6</mml:mn></mml:msub Physical Review B, 2015, 91, .	3.2	19
69	Electronic structure, spin-orbit coupling, and interlayer interaction in bulk<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi mathvariant="normal">MoS</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math>and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi mathvariant="normal">WS</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2015, 91, .	3.2	116
70	Surface versus bulk Dirac state tuning in a three-dimensional topological Dirac semimetal. Physical Review B, 2015, 91, .	3.2	16
71	Fermi surface topology and hot spot distribution in the Kondo lattice system<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="bold">CeB</mml:mi><mml:mn mathvariant="bold">6</mml:mn></mml:msub></mml:math>. Physical Review B, 2015, 92, .	3.2	29
72	Deeper insight into phase relations in ultrathin Pb films. Physical Review B, 2015, 92, .	3.2	11

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73	Tunable spin helical Dirac quasiparticles on the surface of three-dimensional HgTe. Physical Review B, 2015, 92, .	3.2	19
74	Direct transition resonance in atomically uniform topological Sb(111) thin films. Physical Review B, 2015, 92, .	3.2	3
75	Phase diagram of the layered oxide SnO: GW and electron-phonon studies. Scientific Reports, 2015, 5, 16359.	3.3	24
76	Selective interlayer ferromagnetic coupling between the Cu spins in YBa2Cu3O7â^'x grown on top of La0.7Ca0.3MnO3. Scientific Reports, 2015, 5, 16690.	3.3	13
77	Experimental discovery of a topological Weyl semimetal state in TaP. Science Advances, 2015, 1, e1501092.	10.3	337
78	Unconventional transformation of spin Dirac phase across a topological quantum phase transition. Nature Communications, 2015, 6, 6870.	12.8	34
79	Discovery of a Weyl fermion state with Fermi arcs in niobium arsenide. Nature Physics, 2015, 11, 748-754.	16.7	817
80	Observation of Fermi arc surface states in a topological metal. Science, 2015, 347, 294-298.	12.6	603
81	Observation of a three-dimensional topological Dirac semimetal phase in high-mobility Cd3As2. Nature Communications, 2014, 5, 3786.	12.8	1,166
82	Observation of quantum-tunnelling-modulated spin texture in ultrathin topological insulator Bi2Se3 films. Nature Communications, 2014, 5, 3841.	12.8	112
83	Direct observation of the transition from indirect to direct bandgap in atomically thin epitaxial MoSe2. Nature Nanotechnology, 2014, 9, 111-115.	31.5	1,129
84	Spin-correlated electronic state on the surface of a spin-orbit Mott system. Physical Review B, 2014, 90, .	3.2	11
85	Thickness dependence of spin polarization and electronic structure of ultra-thin films of MoS2 and related transition-metal dichalcogenides. Scientific Reports, 2014, 4, 6270.	3.3	36
86	Hedgehog spin texture and Berryâ€™s phase tuning in a magnetic topological insulator. Nature Physics, 2012, 8, 616-622.	16.7	353
87	Charge ordering and ferroelectric polarization in multiferroic TbMn<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"	3.2	19
88	Electronic structure and orbital-ordering of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Sr</mml:mi><mml:msub><mml:mi mathvariant="normal">Ru</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow><mml:mi mathvariant="normal">Ti</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>:<mml:math	3.2	17
89	Orbital Ordering and Jahn-Teller Distortion in Perovskite RuthenateSrRuO3. Physical Review Letters, 2006, 97, 067002.	7.8	84
90	Charge-orbital ordering in low-temperature structures of magnetite:GGA+Uinvestigations. Physical Review B, 2006, 74, .	3.2	80

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91	Charge-Orbital Ordering and Verwey Transition in Magnetite. Physical Review Letters, 2004, 93, 156403.	7.8	249
92	Relativistic density-functional calculations of interconfigurational energies for second and third transition-metal rows. Physical Review B, 2002, 66, .	3.2	8
93	First-principles investigations of the orbital magnetic moments in CrO2. Journal of Applied Physics, 2002, 92, 951-957.	2.5	25
94	First-Principles Calculation of the Orbital Magnetic Moment of O and Cr in Half-metallic CrO2. Materials Research Society Symposia Proceedings, 2002, 718, 1.	0.1	0
95	First-principles investigations of the magnetocrystalline anisotropy in strained Ni-substituted magnetite (NiFe2O4). Journal of Magnetism and Magnetic Materials, 2002, 240, 436-438.	2.3	18
96	Strongly Enhanced Thermoelectric Performance over a Wide Temperature Range in Topological Insulator Thin Films. ACS Applied Energy Materials, 0, , .	5.1	4