

# Shu-Hua Yao

## List of Publications by Year in descending order

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69  
papers

1,598  
citations

361413

20  
h-index

315739

38  
g-index

70  
all docs

70  
docs citations

70  
times ranked

2503  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental Observation of Topological Edge States at the Surface Step Edge of the Topological Insulator $ZrTe_5$ . Physical Review Letters, 2016, 116, 176809. Dirac line nodes and effect of spin-orbit coupling in the nonsymmorphic critical semimetals	7.8	164
2	Experimental Observation of Anisotropic Adler-Bell-Jackiw Anomaly in Type-II Weyl Semimetal Crystals at the Quasiclassical Regime. Physical Review Letters, 2017, 118, 096603. $M$ SiS	3.2	131
3	Extremely large and significantly anisotropic magnetoresistance in ZrSiS single crystals. Applied Physics Letters, 2016, 108, .	3.3	91
5	Quantum oscillations of electrical resistivity in an insulator. Science, 2018, 362, 65-69.	12.6	79
6	Transition between strong and weak topological insulator in ZrTe5 and HfTe5. Scientific Reports, 2017, 7, 45667.	3.3	77
7	Tunable semimetallic state in compressive-strained $SrIr_3O_7$ films revealed by transport behavior. Physical Review B, 2015, 91, .	3.2	59
8	Composition and temperature-dependent phase transition in miscible $Mo_{1-x}W_xTe_2$ single crystals. Scientific Reports, 2017, 7, 44587.	3.3	58
9	Predicted Quantum Topological Hall Effect and Noncoplanar Antiferromagnetism in $K_0.5WTe_2$ . Physical Review Letters, 2016, 116, 256601.	7.8	57
10	Intrinsically modified thermoelectric performance of alkaline-earth isovalently substituted $[Bi_{2-x}AE_xO_4][CoO_2]_y$ single crystals. Journal of Applied Physics, 2013, 114, .	2.5	52
11	Giant positive magnetoresistance in half-metallic double-perovskite $Sr_2CrWO_6$ thin films. Science Advances, 2017, 3, e1701473.	10.3	52
12	Metal-insulator transition in $SrIrO_3$ with strong spin-orbit interaction. Journal of Physics Condensed Matter, 2013, 25, 125604.	1.8	48
13	Investigation on the phase-transition-induced hysteresis in the thermal transport along the c-axis of $MoTe_2$ . Npj Quantum Materials, 2017, 2, .	5.2	41
14	High-harmonic generation in Weyl semimetal $\hat{I}^2$ -WP2 crystals. Nature Communications, 2021, 12, 6437.	12.8	40
15	Dramatically decreased magnetoresistance in non-stoichiometric $WTe_2$ crystals. Scientific Reports, 2016, 6, 26903.	3.3	32
16	Infrared and Raman spectra of $Bi_2O_2X$ and $Bi_2OX_2$ ( $X = S, Se, \text{ and } Te$ ) studied from first principles calculations. RSC Advances, 2019, 9, 18042-18049.	3.6	26
17	Microstructure, growth mechanism and anisotropic resistivity of quasi-one-dimensional $ZrTe_5$ crystal. Journal of Crystal Growth, 2017, 457, 250-254.	1.5	24
18	Composition dependent phase transition and its induced hysteretic effect in the thermal conductivity of $W_xMo_{1-x}Te_2$ . Applied Physics Letters, 2017, 110, .	3.3	22

#	ARTICLE	IF	CITATIONS
19	Shubnikov–de Haas oscillations in bulk $ZrTe_5$ single crystals. Physical Review B, 2018, 97, . Mobility-controlled extremely large magnetoresistance in perfect electron-hole compensated	3.2	22
20	First-principles study of lattice thermal conductivity in $ZrTe_5$ and $HfTe_5$ . Journal of Applied Physics, 2018, 123, .	3.2	22
21	Experimental observation of conductive edge states in weak topological insulator candidate $HfTe_5$ . APL Materials, 2018, 6, .	1.7	19
22	Low lattice thermal conductivity and high thermoelectric figure of merit in $Na_2P_2O_7$ . Physical Review B, 2019, 99, .	2.5	19
23	The physical mechanism of extremely low thermal conductivity of $BiCuTeO$ and $BiCuSeO$ revealed by inelastic neutron and Raman spectroscopy. Journal of Alloys and Compounds, 2020, 826, 154161.	5.1	19
24	Strong correlation of the growth mode and electrical properties of $BiCuSeO$ single crystals with growth temperature. CrystEngComm, 2015, 17, 6136-6141.	3.2	18
25	quasi-two-dimensional Fermi liquid single-crystal $Bi_2O_3$ .	5.5	18
26	Structure and physical properties of $K_0.63RhO_2$ single crystals. AIP Advances, 2012, 2, .	2.6	17
27	High temperature solution growth, chemical depotassiation and growth mechanism of $KxRhO_2$ crystals. CrystEngComm, 2013, 15, 5050.	3.2	16
28	Quantitative control of Fe/Mo anti-site defect and its effects on the properties of $Sr_2FeMoO_6$ . CrystEngComm, 2013, 15, 4601.	1.3	15
29	Tunable Resistance or Magnetoresistance Cusp and Extremely Large Magnetoresistance in Defect-Engineered $HfTe_5$ Single Crystals. Physical Review Applied, 2018, 9, .	3.8	15
30	One-Order Decreased Lattice Thermal Conductivity of $SnSe$ Crystals by the Introduction of Nanometer $SnSe$ Secondary Phase. Journal of Physical Chemistry C, 2019, 123, 27666-27671.	2.6	15
31	Ultra-low thermal conductivities along $c$ -axis of naturally misfit layered $Bi_2[AE]_2Co_2O_y$ ( $AE = Tl, ET, Q, Pb$ ) Overl	3.1	14
32	Comparisons of electrical/magneto-transport properties of degenerate semiconductors $BiCuXO$ ( $X = S, Pb$ ) Overl	3.3	12
33	Lattice dynamics of $KxRhO_2$ single crystals. AIP Advances, 2015, 5, .	2.5	12
34	Lattice dynamics of $KxRhO_2$ single crystals. AIP Advances, 2015, 5, .	1.3	11
35	Large thermopower from dressed quasiparticles in the layered cobaltates and rhodates. Physical Review B, 2017, 96, .	3.2	11

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37	Observing electronic structures on <i>ex situ</i> grown topological insulator thin films. <i>Physica Status Solidi - Rapid Research Letters</i> , 2013, 7, 130-132.	2.4	10
38	Depotassiation of $K_{0.62}RhO_2$ and electronic property of the end-product $K_{0.32}RhO_2$ single crystal. <i>Solid State Communications</i> , 2016, 230, 1-5.	1.9	9
39	Preparation, Structure Evolution, and Metal-Insulator Transition of $Na_xRhO_2$ Crystals ( $0.25 \leq x \leq 1$ ). <i>Inorganic Chemistry</i> , 2018, 57, 2730-2735.	4.0	9
40	Subtle effect of doping on the charge density wave in $TaTe_2$ ( $TaTe_2$ ) $Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 617 Td$ ( $x=0.0, 0.25, 0.5, 0.75, 1$ ) $Tj ETQq1 1 0.784314 rgBT /Overlock 1.3 4$	3.2	8
41	Significant ferrimagnetisms observed in superlattice composed of antiferromagnetic $LaFeO_3$ and $YMnO_3$ . <i>Applied Physics Letters</i> , 2013, 102, 042403.	3.3	8
42	Growth, structure and physical properties of gadolinium doped $Sr_2IrO_4$ single crystal. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2014, 378, 2777-2781.	2.1	8
43	Anisotropic electrical and thermal conductivity in $Bi_{1-x}Ca_xSr_2IrO_8$ ( $x=0.0, 0.25, 0.5, 0.75, 1$ ) $Tj ETQq1 1 0.784314 rgBT /Overlock 1.3 4$	2.5	7
44	The relationship between anisotropic magnetoresistance and topology of Fermi surface in $Td-MoTe_2$ crystal. <i>Journal of Applied Physics</i> , 2017, 122, .	2.5	7
45	Electrical, magneto-transport and significant thermoelectric properties of Te-rich $ZrTe_5$ polycrystals. <i>Journal of Alloys and Compounds</i> , 2018, 764, 540-544.	5.5	7
46	Electrical, magnetic, and magneto-electrical properties in quasi-two-dimensional $K_{0.58}RhO_2$ single crystals doped with rare-earth elements. <i>Applied Physics Letters</i> , 2014, 105, 062408.	3.3	6
47	Crystal growth, structure, and dielectric properties of layered cobaltates $La_{2-x}Sr_xCoO_4$ ( $x=0.4, 0.5$ ) $Tj ETQq1 1 0.784314 rgBT /Overlock 1.3 4$	3.2	6
48	Ultralow cross-plane lattice thermal conductivity caused by $Bi_2O_3/Bi_2O_3$ interfaces in natural superlattice-like single crystals. <i>CrystEngComm</i> , 2019, 21, 6261-6268.	2.6	6
49	One-Order Decrease of Thermal Conductivity in Nanostructured $ZrTe_5$ and $HfTe_5$ Crystals. <i>Crystal Growth and Design</i> , 2020, 20, 680-687.	3.0	6
50	Modulating electrical transport properties of $SnSe$ crystal to improve the thermoelectric power factor by adjusting growth method. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	5
51	An electronic phase diagram of hole-doped $BiCuSeO$ crystals determined by transport characterization under various growth conditions. <i>CrystEngComm</i> , 2021, 23, 273-281.	2.6	5
52	Enhanced photothermoelectric detection in $Co:BiCuSeO$ crystals with tunable Seebeck effect. <i>Optics Express</i> , 2022, 30, 8356.	3.4	5
53	First-principles calculations of structural and electronic properties of layered $AxRhO_2$ ( $A = Li, Na, K$ ) $Tj ETQq1 1 0.784314 rgBT /Overlock 1.3 4$	1.3	4
54	The Microstructural Characterization of Multiferroic $LaFeO_3$ - $YMnO_3$ Multilayers Grown on (001)- and (111)- $SrTiO_3$ Substrates by Transmission Electron Microscopy. <i>Materials</i> , 2017, 10, 839.	2.9	3

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55	Non-hydrostatic pressure-dependent structural and transport properties of BiCuSeO and BiCuSO single crystals. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 105702.	1.8	3
56	Microstructure and magnetic properties of a novel 10-H hexagonal perovskite nanosheet in a Bi <sup>2+</sup> -Fe <sup>2+</sup> -Cr <sup>3+</sup> -O system. <i>RSC Advances</i> , 2012, 2, 5683.	3.6	2
57	Crystal growth and magneto-transport behavior of PdS <sub>1-x</sub> Te <sub>x</sub> . <i>Journal of Crystal Growth</i> , 2018, 487, 116-119.	1.5	2
58	Anomalous transport and magnetic properties induced by slight Cu valence alternation in layered oxytelluride BiCuTeO. <i>RSC Advances</i> , 2020, 10, 18753-18759.	3.6	2
59	Ultralow Lattice Thermal Conductivity of A <sub>0.5</sub> RhO <sub>2</sub> (A = K, Rb, Cs) Induced by Interfacial Scattering and Resonant Scattering. <i>Journal of Physical Chemistry C</i> , 2021, 125, 11648-11655.	3.1	2
60	The electrical- and magneto-transport properties of Rb-, Sn-, and Co-doped BiCuSeO crystals. <i>AIP Advances</i> , 2021, 11, 105207.	1.3	2
61	Realization of adjustable electron concentration and its effect on electrical- and Seebeck-property of n-type SnSe crystals. <i>Applied Physics Letters</i> , 2022, 120, 022102.	3.3	2
62	Magnetic and electrical transport properties of Pb <sub>1-x</sub> La <sub>x</sub> Ti <sub>1-x</sub> Mn <sub>x</sub> O <sub>3</sub> ceramics. <i>AIP Advances</i> , 2012, 2, .	1.3	1
63	Electronic structure of correlated topological insulator candidate YbB <sub>6</sub> studied by photoemission and quantum oscillation. <i>Chinese Physics B</i> , 2020, 29, 017304.	1.4	1
64	Spectral weight reduction of two-dimensional electron gases at oxide surfaces across the ferroelectric transition. <i>Scientific Reports</i> , 2020, 10, 16834.	3.3	1
65	Growth, Structure, Electrical Transport and Thermal Stability of New Allotropic MoC <sub>4</sub> Crystals. <i>Crystal Growth and Design</i> , 2021, 21, 4909-4913.	3.0	1
66	Magnetic Field Tuning of Magnetic- and Structure-Phase Transition in Mn <sub>2</sub> V <sub>2</sub> O <sub>7</sub> Crystals. <i>Journal of Physical Chemistry C</i> , 2022, 126, 5055-5063.	3.1	1
67	Growth and Thermal Conductivity Study of CuCr <sub>2</sub> Se <sub>4</sub> -CuCrSe <sub>2</sub> Hetero-Composite Crystals. <i>Crystals</i> , 2022, 12, 433.	2.2	1
68	Initial growth of Bi <sub>4</sub> LaTi <sub>3</sub> FeO <sub>15</sub> thin films on SrTiO <sub>3</sub> , MgO and YSZ substrates. <i>Crystal Research and Technology</i> , 2012, 47, 663-670.	1.3	0
69	Observation of nontrivial topological electronic structure of orthorhombic SnSe. <i>Physical Review Materials</i> , 2022, 6, .	2.4	0