Kyle M Shen

List of Publications by Year
in descending order

82 papers	4,412 citations	136950 32 h-index	102487 66 g-index
83 all docs	83 docs citations	83 times ranked	5248 citing authors

#	Article	IF	Citations
1	Interfacial charge transfer and persistent metallicity of ultrathin SrIrO ₃ /SrRuO ₃ heterostructures. Science Advances, 2022, 8, eabj0481.	10.3	15
2	Comparing Thickness and Doping-Induced Effects on the Normal States of Infinite-Layer Electron-Doped Cuprates: Is There Anything to Learn?. Nanomaterials, 2022, 12, 1092.	4.1	1
3	Single-Crystal Alkali Antimonide Photocathodes: High Efficiency in the Ultrathin Limit. Physical Review Letters, 2022, 128, 114801.	7.8	20
4	Canonical approach to cation flux calibration in oxide molecular-beam epitaxy. Physical Review Materials, 2022, 6, .	2.4	8
5	Strong interlayer interactions in bilayer and trilayer moirÃ© superlattices. Science Advances, 2022, 8, eabk1911.	10.3	9
6	Disentangling types of lattice disorder impacting superconductivity in Sr2RuO4 by quantitative local probes. APL Materials, 2022, 10, .	5.1	4
7	Amorphization mechanism of SrIrO ₃ electrocatalyst: How oxygen redox initiates ionic diffusion and structural reorganization. Science Advances, 2021, 7, .	10.3	122
8	Strain-stabilized superconductivity. Nature Communications, 2021, 12, 59.	12.8	43
9	Separated transport relaxation scales and interband scattering in thin films of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>SrRuO</mml:mi><mml:mn>3</mml:mn></mml:msub> , <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>CaRuO</mml:mi><mml:mn>3</mml:mn></mml:msub> and <mml:math	3.2	5
10	Interfacial Electron-Phonon Coupling Constants Extracted from Intrinsic Replica Bands in Monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>FeSe</mml:mi><mml:mo>/</mml:mo><mml:mi>SrTi</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></mml: Physical Review Letters, 2021, 127, 016803.	7.8	14
11	Quantum oscillations and quasiparticle properties of thin film <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi>Sr</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml: Physical Review B, 2021, 104, .	3.2	4
12	Vanishing nematic order beyond the pseudogap phase in overdoped cuprate superconductors. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	19
13	Computational synthesis of substrates by crystal cleavage. Npj Computational Materials, 2021, 7, .	8.7	2
14	THz electrodynamics of mixed-valent YbAl$$_3$$ and LuAl$$_3$$ thin films. European Physical Journal B, 2021, 94, 1.	1.5	1
15	Realization of Epitaxial Thin Films of the Topological Crystalline Insulator Sr 3 SnO. Advanced Materials, 2020, 32, 2000809.	21.0	15
16	Effects of Anisotropic Strain on Spinâ€“Orbit Torque Produced by the Dirac Nodal Line Semimetal IrO₂. ACS Applied Materials & Interfaces, 2020, 12, 55411-55416.	8.0	29
17	Subterahertz Momentum Drag and Violation of Matthiessenâ€™s Rule in an Ultraclean Ferromagnetic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>SrRuO</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow> Metallic Thin Film. Physical Review Letters, 2020, 125, 217401.	7.8	9
18	Strain relaxation induced transverse resistivity anomalies in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Sr</mml:mi><mml:mi>Ru</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math> thin films. Physical Review B, 2020, 102, .	3.2	15

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19	Electronic nematicity in Sr ₂ RuO ₄. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 10654-10659.	7.1	14
20	Two-dimensional magnetic monopole gas in an oxide heterostructure. Nature Communications, 2020, 11, 1341.	12.8	6
21	Mott gap collapse in lightly hole-doped Sr2â^'xKxIrO4. Nature Communications, 2020, 11, 2597.	12.8	12
22	Enhanced surface superconductivity in Ba(Fe0.95Co0.05)2As2. Applied Physics Letters, 2020, 116, 062601.	3.3	2
23	Inhomogeneous ferromagnetism mimics signatures of the topological Hall effect in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>SrRuO</mml:mi><mml:mn>3</mml:mn></mml:msub></m films. Physical Review Materials, 2020, 4, .	2.4	26
24	Low energy photoemission from (100) Ba1â^'xLaxSnO3 thin films for photocathode applications. European Physical Journal: Special Topics, 2019, 228, 713-718.	2.6	2
25	Harnessing Local Sample Variations to Generate Self-Consistent EELS References for Stoichiometry Quantification. Microscopy and Microanalysis, 2019, 25, 580-581.	0.4	0
26	Electronic structure of SnSe2 films grown by molecular beam epitaxy. Applied Physics Letters, 2019, 114, 091602.	3.3	12
27	Strain-engineering Mott-insulating La2CuO4. Nature Communications, 2019, 10, 786.	12.8	35
28	Chlorine evolution reaction electrocatalysis on RuO2(110) and IrO2(110) grown using molecular-beam epitaxy. Journal of Chemical Physics, 2019, 150, 041726.	3.0	39
29	Dirac nodal lines protected against spin-orbit interaction in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>IrO</mml:mi><mml:mn>2</mml:mn></mml:msub></m Physical Review Materials, 2019, 3, .	2.4	23
30	Electronic and vibrational signatures of ruthenium vacancies in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Sr</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:m thin films. Physical Review Materials, 2019, 3, .	2.4	8
31	Synthesis science of SrRuO3 and CaRuO3 epitaxial films with high residual resistivity ratios. APL Materials, 2018, 6, .	5.1	61
32	Band offset and electron affinity of MBE-grown SnSe2. Applied Physics Letters, 2018, 112, .	3.3	13
33	Controlling surface carrier density by illumination in the transparent conductor La-doped BaSnO3. Applied Physics Letters, 2018, 112, .	3.3	14
34	X-ray absorption spectroscopy study of annealing process on Sr1â€“xLaxCuO2 electron-doped cuprate thin films. Journal of Applied Physics, 2018, 123, .	2.5	6
35	Direct Imaging of Tilt Relaxation from the Interface in Epitaxially Strained Ca2RuO4 Thin Films using ABF-STEM. Microscopy and Microanalysis, 2018, 24, 64-65.	0.4	2
36	Demystifying the growth of superconducting Sr2RuO4 thin films. APL Materials, 2018, 6, .	5.1	33

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37	Measurements of Oxygen Electroadsorption Energies and Oxygen Evolution Reaction on RuO₂(110): A Discussion of the Sabatier Principle and Its Role in Electrocatalysis. Journal of the American Chemical Society, 2018, 140, 17597-17605.	13.7	177
38	Engineering Carrier Effective Masses in Ultrathin Quantum Wells of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>IrO</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>. Physical Review Letters, 2018, 121, 176802.	7.8	17
39	Revealing the hidden heavy Fermi liquid in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>CaRuO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2018, 98, .	3.2	17
40	Rutile <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>IrO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> superlattices: A hyperconnected analog to the Ruddelsden-Popper structure. Physical Review Materials, 2018, 2, .	2.4	17
41	Putting the squeeze on superconductivity. Science, 2017, 355, 133-133.	12.6	11
42	Influence of Surface Adsorption on the Oxygen Evolution Reaction on IrO₂(110). Journal of the American Chemical Society, 2017, 139, 3473-3479.	13.7	269
43	Surface atomic structure of epitaxial <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>LaNiO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math> films studied by in situ LEED-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>I</mml:mi><mml:mo>(</mml:mo><mml:mi>V</mml:mi></mml:math>. Physical Review B, 2017, 95, .	3.2	7
44	Lifshitz transition from valence fluctuations in YbAl3. Nature Communications, 2017, 8, 852.	12.8	19
45	Adsorption-controlled growth of La-doped BaSnO3 by molecular-beam epitaxy. APL Materials, 2017, 5, .	5.1	131
46	Epitaxial growth and electronic properties of mixed valence YbAl3 thin films. Journal of Applied Physics, 2016, 120, 035105.	2.5	4
47	Imaging chiral symmetry breaking from KekulÃ© bond order in graphene. Nature Physics, 2016, 12, 950-958.	16.7	111
48	Evolution of electronic correlations across the rutile, perovskite, and Ruddelsden-Popper iridates with octahedral connectivity. Physical Review B, 2016, 94, .	3.2	38
49	Electron Doping of the Parent Cuprate <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>La</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>CuO</mml:mi></mml:math> Cation Substitution. Physical Review Letters, 2016, 117, 147002.	7.8	22
50	Manipulating superconductivity in ruthenates through Fermi surface engineering. Physical Review B, 2016, 94, .	3.2	26
51	Strain Control of Fermiology and Many-Body Interactions in Two-Dimensional Ruthenates. Physical Review Letters, 2016, 116, 197003.	7.8	82
52	Observation of semilocalized dispersive states in the strongly correlated electron-doped ferromagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Eu</mml:mi><mml:mrow><mml:mn>1</mml:mn></mml:math mathvariant="normal">O</mml:mi></mml:mrow></mml:math>. Physical Review B, 2016, 94, .	3.2	1
53	Oxygen evolution reaction electrocatalysis on SrIrO₃ grown using molecular beam epitaxy. Journal of Materials Chemistry A, 2016, 4, 6831-6836.	10.3	62
54	Formation and Observation of a Quasi-Two-Dimensional <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>d</mml:mi></mml:mrow><mml:mrow><mml:mi>x</mml:mi></mml:math> Liquid in Epitaxially Stabilized <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Sr</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:math>. Physical Review Letters, 2015, 115, 096405.	7.8	16

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55	Quantifying electronic correlation strength in a complex oxide: A combined DMFT and ARPES study of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mtext>LaNiO</mml:mtext><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2015, 92, .	3.2	32
56	Interplay of Spin-Orbit Interactions, Dimensionality, and Octahedral Rotations in Semimetallic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mtext mathvariant="bold">SrIrO</mml:mtext><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2015, 114, 016401.	7.8	189
57	Doping evolution and polar surface reconstruction of the infinite-layer cuprate<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Sr</mml:mi><mml:mrow><mml:mn>1</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>. Physical Review B, 2015, 92, .	3.2	20
58	Hierarchical spin-orbital polarization of a giant Rashba system. Science Advances, 2015, 1, e1500495.	10.3	38
59	Atomic-scale control of competing electronic phases in ultrathin LaNiO3. Nature Nanotechnology, 2014, 9, 443-447.	31.5	183
60	Evidence for Topologically Protected Surface States and a Superconducting Phase in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mo stretchy="false">[</mml:mo><mml:msub><mml:mrow><mml:mi>Tl</mml:mi></mml:mrow><mml:mrow><mml:mn>4</mml:mn></mml:mrow></mml:msub><mml:mo stretchy="false">]</mml:mo><mml:mo		

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73	Evolution of the Fermi Surface and Quasiparticle Renormalization through a van Hove Singularity in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Sr</mml:mi><mml:mrow><mml:mn>2</mml:mn><mml:mo>â^'</mml:mo><mml:mi>y</mml:mi></mml:mrow></mml:msub><mml:msub><mml:mi>Ca</mml:mi><mml:mi>y</mml:mi></mml:msub><mml:msub><mml:mi>Cu</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>O</mml:mi><mml:mrow><mml:mn>4</mml:mn><mml:mo>+</mml:mo><mml:mi>Î´</mml:mi></mml:mrow></mml:msub></mml:math>. Physical Review Letters, 2007, 99, 187001.	7.8	56
74	Anomalous high-energy dispersion in angle-resolved photoemission spectra from the insulating cuprateCa2CuO2Cl2. Physical Review B, 2005, 71, .	3.2	103
75	Nodal Quasiparticles and Antinodal Charge Ordering in Ca2-xNaxCuO2Cl2. Science, 2005, 307, 901-904.	12.6	320
76	Missing Quasiparticles and the Chemical Potential Puzzle in the Doping Evolution of the Cuprate Superconductors. Physical Review Letters, 2004, 93, 267002.	7.8	242
77	Universal nodal Fermi velocity. Nature, 2003, 423, 398-398.	27.8	291
78	Evolution of a metal to insulator transition inCa2â^'xNaxCuO2Cl2as seen by angle-resolved photoemission. Physical Review B, 2003, 67, .	3.2	83
79	X-ray diffraction measurements of thec-axis Debye-Waller factors ofYBa2Cu3O7andHgBa2CaCu2O6. Physical Review B, 2003, 67, .	3.2	5
80	Electronic excitations near the Brillouin zone boundary ofBi2Sr2CaCu2O8+Î´. Physical Review B, 2002, 65, .	3.2	37
81	Doping Dependence of ann-Type Cuprate Superconductor Investigated by Angle-Resolved Photoemission Spectroscopy. Physical Review Letters, 2002, 88, 257001.	7.8	379
82	Anomalous Electronic Structure and Pseudogap Effects inNd1.85Ce0.15CuO4. Physical Review Letters, 2001, 87, 147003.	7.8	175