Wenjian Lu

List of Publications by Year
in descending order

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94	3,614	126708	143772
papers	citations	33	57
		h-index	g-index

95	95	95	5103
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enhanced thermoelectric performance of phosphorene by strain-induced band convergence. Physical Review B, 2014, 90, .	1.1	271
2	Structure and control of charge density waves in two-dimensional 1T-TaS ₂. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15054-15059.	3.3	205
3	Strain-induced enhancement in the thermoelectric performance of a ZrS₂monolayer. Journal of Materials Chemistry C, 2016, 4, 4538-4545.	2.7	196
4	Superconductivity induced by Se-doping in layered charge-density-wave system 1T-TaS2â^'xSex. Applied Physics Letters, 2013, 102, .	1.5	118
5	Magnetocaloric effect and Griffiths-like phase in La0.67Sr0.33MnO3 nanoparticles. Journal of Applied Physics, 2008, 104, .	1.1	111
6	Strain-controlled switch between ferromagnetism and antiferromagnetism in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mtext>â^'</mml:mtext></mml:mrow></mml:math>-TaS2 monolayer. Physical Review B, 2016, 94, .	1.1	111
7	Real-Space Coexistence of the Melted Mott State and Superconductivity in Fe-Substituted<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mtext mathvariant="normal">â^'</mml:mtext><mml:msub><mml:mi>TaS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2012, 109, 176403.	2.9	107
8	Enhanced superconductivity by strain and carrier-doping in borophene: A first principles prediction. Applied Physics Letters, 2016, 109, .	1.5	105
9	Tricritical behavior of the two-dimensional intrinsically ferromagnetic semiconductor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="bold">CrGeTe</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2017, 95, .	1.1	103
10	Extremely large magnetoresistance in the type-II Weyl semimetal<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Mo</mml:mi><mml:msub><mml:mi>Te</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2016, 94, .	1.1	101
11	Effects of hydrostatic pressure on spin-lattice coupling in two-dimensional ferromagnetic Cr2Ge2Te6. Applied Physics Letters, 2018, 112, .	1.5	94
12	Electron-doped phosphorene: A potential monolayer superconductor. Europhysics Letters, 2014, 108, 67004.	0.7	91
13	Atomic lattice disorder in charge-density-wave phases of exfoliated dichalcogenides (1T-TaS) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 113, 11420-11424.	3.3	86
14	Nature of charge density waves and superconductivity in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mn>1</mml:mn><mml:mrow><mml:mi>T</mml:mi></mml:mrow><mml:mo>â^'</mml:mo></mml:math>-TaS2 monolayer. Physical Review B, 2016, 94, .	1.1	87
15	Fe-dopingâ€“induced superconductivity in the charge-density-wave system 1T-TaS ₂. Europhysics Letters, 2012, 97, 67005.	0.7	75
16	Superconductivity and bandwidth-controlled Mott metal-insulator transition in 1<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>T</mml:mi></mml:math>-TaS<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>Se<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi	1.1	69
17	Magnetic properties and magnetocaloric effect of La0.8Ca0.2MnO3 nanoparticles tuned by particle size. Journal of Applied Physics, 2012, 111, .	1.1	68
18	Manipulation of type-I and type-II Dirac points in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>PdTe</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> superconductor by external pressure. Physical Review B, 2017, 96, .	1.1	68

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19	Planar Hall effect in the type-II Weyl semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>T</mml:mi><mml:mi>d</mml:mi></mml:msub></mml:mrow></mml:math>-mathvariant="normal">e</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2018, 98, .	1.1	54
20	Spin-glass behavior and zero-field-cooled exchange bias in a Cr-based antiperovskite compound PdNCr₃. Journal of Materials Chemistry C, 2015, 3, 5683-5696.	2.7	53
21	Td-MoTe2: A possible topological superconductor. Applied Physics Letters, 2016, 109, .	1.5	51
22	Manipulating charge density wave order in monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mo>â</mml:mo></mml:m by strain and charge doping: A first-principles investigation. Physical Review B, 2017, 96, .	1.1	49
23	Atomistic origin of an ordered superstructure induced superconductivity in layered chalcogenides. Nature Communications, 2015, 6, 6091.	5.8	47
24	Critical behavior of two-dimensional intrinsically ferromagnetic semiconductor CrI3. Applied Physics Letters, 2018, 112, .	1.5	47
25	Tuning the electronic and magnetic properties of borophene by 3d transition-metal atom adsorption. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 3928-3931.	0.9	46
26	Manipulating charge density waves in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mtext>â</mml:mtext></mml:m charge-carrier doping: A first-principles investigation. Physical Review B, 2016, 94, .	1.1	43
27	Direct observation of an optically induced charge density wave transition in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mtext>â</mml:mtext></mml:m Physical Review B, 2015, 92, .	1.1	42
28	Distinct surface and bulk charge density waves in ultrathin <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mtext>â</mml:mtext></mml:m mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2016, 94, .	1.1	41
29	Size-induced changes of structural, magnetic and magnetocaloric properties of La0.7Ca0.2Ba0.1MnO3. Physica B: Condensed Matter, 2010, 405, 2733-2741.	1.3	40
30	Strain- and carrier-tunable magnetic properties of a two-dimensional intrinsically ferromagnetic semiconductor: <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>CoBr</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:m monolayer. Physical Review B, 2019, 99, .	1.1	39
31	Pressure-induced bulk superconductivity in a layered transition-metal dichalcogenide <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mrow></mml:m -tantalum selenium. Physical Review B, 2017, 95, .	1.1	34
32	Design strategy for p-type transparent conducting oxides. Journal of Applied Physics, 2020, 128, .	1.1	34
33	Temperature-Induced Lifshitz Transition and Possible Excitonic Instability in ZrSiSe. Physical Review Letters, 2020, 124, 236601.	2.9	34
34	Origin of the multiple charge density wave order in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mrow></mml:m Physical Review B, 2020, 101, .	1.1	33
35	Charge density wave and pressure-dependent superconductivity in the kagome metal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>CsV</mml:mi><mml:mn>3</mml:mn></mml:m : A first-principles study. Physical Review B, 2022, 105, .	1.3	33
36	Low-field magnetoresistance in La0.8Sr0.2MnO3/ZrO2 composite system. Materials Letters, 2006, 60, 3207-3211.	1.3	31

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37	Achieving Macroscopic V₄C₃T_x MXene by Selectively Etching Al from V₄AlC₃ Single Crystals. Inorganic Chemistry, 2020, 59, 3239-3248.	1.9	30
38	Strong Electronâ€“Phonon Coupling in the Excitonic Insulator Ta₂NiSe₅. Inorganic Chemistry, 2019, 58, 9036-9042.	1.9	29
39	Anisotropic magnetic entropy change in the hard ferromagnetic semiconductor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">V</mml:mi><mml:msub><mml:mi mathvariant="normal">I</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2019, 100, .	1.1	29
40	Structural phase transition and superconductivity hierarchy in 1T-TaS2 under pressure up to 100â€‰GPa. Npj Quantum Materials, 2021, 6, .	1.8	29
41	Colossal and reversible barocaloric effect in liquid-solid-transition materials n-alkanes. Nature Communications, 2022, 13, 596.	5.8	29
42	Dynamic diffraction effects and coherent breathing oscillations in ultrafast electron diffraction in layered 1T-TaSeTe. Structural Dynamics, 2017, 4, 044012.	0.9	28
43	Origin of the turn-on phenomenon in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>T</mml:mi><mml:mi>d</mml:mi></mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2017, 96, .	1.1	27
44	Room-temperature angular-dependent topological Hall effect in chiral antiferromagnetic Weyl semimetal Mn3Sn. Applied Physics Letters, 2019, 115, .	1.5	25
45	Roles of the Narrow Electronic Band near the Fermi Level in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mtext>â”</mml:mtext><mml:msub><mml:mrow><m -Related Layered Materials. Physical Review Letters, 2021, 126, 256402.	2.9	24
46	Magnetic and transport properties of the Co-doped manganite La0.7Sr0.3Mn1-xCoxO3 (0 â‰¤ x â‰¤ 0.5). Physica Status Solidi (B): Basic Research, 2005, 242, 1719-1727.	0.7	22
47	Superconductivity in CaSn₃ single crystals with a AuCu₃-type structure. Journal of Materials Chemistry C, 2015, 3, 11432-11438.	2.7	22
48	Origin of the structural phase transition in single-crystal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>TaT</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2018, 98, .	1.1	22
49	Photocurrent Imaging of Multi-Memristive Charge Density Wave Switching in Two-Dimensional 1T-TaS₂. Nano Letters, 2020, 20, 7200-7206.	4.5	22
50	Superconductivity in Fe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1.05</mml:mn></mml:mrow></mml:msub></mml:math>Te:O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow /><mml:mi>x</mml:mi></mml:msub></mml:math>single crystals. Physical Review B, 2013, 88, .	1.1	21
51	Origin of the extremely large magnetoresistance in topological semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>PtS</mml:mi><mml:msub><mml:mi mathvariant="normal">n</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2018, 97, .	1.1	21
52	Universal phase diagram of superconductivity and charge density wave versus high hydrostatic pressure in pure and Se-doped 1Tâ€²TaS2. Physical Review B, 2018, 97, .	1.1	21
53	Spin-orbit coupling enhanced superconductivity in Bi-rich compounds ABi3 (Aâ€‰=â€‰Sr and Ba). Scientific Reports, 2016, 6, 21484.	1.6	20
54	Manipulating superconductivity of 1T-TiTe₂by high pressure. Journal of Materials Chemistry C, 2017, 5, 4167-4173.	2.7	19

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55	Chiral charge density waves induced by Ti-doping in 1T-TaS2. Applied Physics Letters, 2021, 118, .	1.5	19
56	Suppression of superconductivity in layered Bi4O4S3 by Ag doping. European Physical Journal B, 2012, 85, 1.	0.6	18
57	Critical behavior in the itinerant ferromagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>AsNC</mml:mi><mml:msub><mml:mi mathvariant="normal">r</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> with tetragonal-antiperovskite structure. Physical Review B, 2018, 98, .	1.1	18
58	Observation of the large orbital entropy in Zn-doped orbital-spin-coupled system MnV2O4. Applied Physics Letters, 2010, 96, .	1.5	17
59	Vertical La0.7Ca0.3MnO3 nanorods tailored by high magnetic field assisted pulsed laser deposition. Scientific Reports, 2016, 6, 19483.	1.6	17
60	Unveiling the mechanisms of metal-insulator transitions in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi mathvariant="normal">V</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> : The role of trigonal distortion. Physical Review B, 2021, 103, .	1.1	17
61	Coexistence of superconductivity and commensurate charge density wave in 4H-b-TaS2â^'xSex single crystals. Journal of Applied Physics, 2014, 115, .	1.1	16
62	Magnetic anisotropy and anomalous Hall effect in monoclinic single crystal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cr</mml:mi><mml:mn>1</mml:mn></mml:msub></mml:mrow></mml:math> Physical Review B, 2020, 102, .	1.1	16
63	Superconducting and Topological Properties in Centrosymmetric PbTaS₂ Single Crystals. Journal of Physical Chemistry C, 2020, 124, 6349-6355.	1.5	16
64	CuSe-based layered compound<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi mathvariant="normal">Bi</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mrow><mml:mi mathvariant="normal">YO</mml:mi></mml:mrow><mml:mn>4</mml:mn></mml:msub><mml:msub><mml:mrow><mml:mi mathvariant="normal">Cu</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mrow><mml:mi mathvariant="normal">Se</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math>as a	1.1	15
65	Field-induced topological Hall effect in antiferromagnetic axion insulator candidate <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>EuIn</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> Physical Review Research, 2022, 4, .	1.3	15
66	Structural, electrical, and thermoelectric properties of distorted 1T-Ta _{1â^'x} Nb _x Te ₂ single crystals. Europhysics Letters, 2015, 109, 17003.	0.7	14
67	Two-dimensional charge order stabilized in clean polytype heterostructures. Nature Communications, 2022, 13, 413.	5.8	14
68	Resistivity plateau and large magnetoresistance in the charge density wave system TaTe4. Applied Physics Letters, 2017, 110, .	1.5	13
69	Inducing and tuning Kondo screening in a narrow-electronic-band system. Nature Communications, 2022, 13, 2156.	5.8	13
70	Prediction of Superconductivity in 3d Transition-Metal Based Antiperovskites via Magnetic Phase Diagram. Journal of the Physical Society of Japan, 2014, 83, 054704.	0.7	11
71	Thickness and Stacking Sequence Determination of Exfoliated Dichalcogenides (1T-TaS₂,) Tj ETQq1 1 0.784314 rgBT /Ov Microanalysis, 2018, 24, 387-395.	0.2	11
72	Role of nitrogen in AlNxMn3: A density functional theory study. Journal of Applied Physics, 2013, 113, 023905.	1.1	10

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73	Exchange bias induced after zeroâ€field cooling in antiperovskite compounds Ga_{1â€“x}NMn_{3+x}. Physica Status Solidi (B): Basic Research, 2015, 252, 582-588.	0.7	10
74	Infrared nanoimaging of the metal-insulator transition in the charge-density-wave van der Waals material 1Tâ˜TaS2. Physical Review B, 2018, 97, .	1.1	9
75	Large Positive Thermal Expansion and Small Band Gap in Double-ReO₃-Type Compound NaSbF₆. Inorganic Chemistry, 2017, 56, 4990-4995.	1.9	8
76	Origin of the large magnetoresistance in the candidate chiral superconductor <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>4</mml:mn><mml:msub><mml:mi>H</mml:mi><mml:m mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2020, 102, .	1.1	8
77	Edge-controlled half-metallic ferromagnetism and direct-gap semiconductivity in ZrS₂ nanoribbons. RSC Advances, 2017, 7, 33408-33412.	1.7	7
78	Mobility spectrum analytical approach for the type-II Weyl semimetal Td-MoTe2. Applied Physics Letters, 2018, 112, .	1.5	6
79	Complete Strain Mapping of Nanosheets of Tantalum Disulfide. ACS Applied Materials & Interfaces, 2020, 12, 43173-43179.	4.0	6
80	Colossal 3D Electrical Anisotropy of MoAlB Single Crystal. Small, 2022, 18, e2104460.	5.2	6
81	Equal-spin triplet<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math>-wave pairing in Nb/Ni proximity effect bilayers. Physical Review B, 2010, 81, .	1.1	5
82	First-principles prediction of layered antiperovskite superconductors A2CNi4 (A = Al, Ga, and Sn). AIP Advances, 2012, 2, .	0.6	5
83	Inversion symmetry breaking induced triply degenerate points in orderly arranged PtSeTe family materials. Journal of Physics Condensed Matter, 2018, 30, 245502.	0.7	5
84	Charge-density-wave tuning in monolayer 1H-TaSe₂by biaxial strain and charge doping. Europhysics Letters, 2019, 127, 37001.	0.7	5
85	Studies of electrical and thermal transport properties of the electron-doped manganite Sr0.9Ce0.1MnO3. Physica B: Condensed Matter, 2005, 367, 243-248.	1.3	4
86	Pressure controllable phase transition in MoTe2 by the interlayer band occupancy. Physics Letters, Section A: General, Atomic and Solid State Physics, 2019, 383, 126016.	0.9	4
87	Temperature-dependent electrical transport mechanism in amorphous Ge₂Sb₂Te₅films. Physica Status Solidi (B): Basic Research, 2016, 253, 1855-1860.	0.7	3
88	Modulation of electronic state in copper-intercalated 1T-TaS2. Nano Research, 2022, 15, 4327-4333.	5.8	3
89	Observation and Manipulation of a Phase Separated State in a Charge Density Wave Material. Nano Letters, 2022, 22, 1929-1936.	4.5	3
90	Long-Range Spin-Triplet Superconductivity Induced by Magnetic Field in d Wave Superconductor/Ferromagnet Hybrid System. Journal of Superconductivity and Novel Magnetism, 2016, 29, 1741-1746.	0.8	2

#	Article	IF	Citations
91	Sizeable bandgap modulation in Y2Hf2O7 pyrochlore oxide thin films through B-site substitution. Applied Physics Letters, 2021, 118, 141902.	1.5	2
92	Origin and strain tuning of charge density wave in LaTe3. Physica B: Condensed Matter, 2022, 639, 413988.	1.3	2
93	Two-dimensional charge order stabilized in clean polytype heterostructures. Microscopy and Microanalysis, 2021, 27, 896-898.	0.2	1
94	Mapping Periodic Lattice Distortions in Exfoliated Dichalchogenides with Atomic Resolution cryo-STEM. Microscopy and Microanalysis, 2016, 22, 1550-1551.	0.2	0