Liling Sun

List of Publications by Year
in descending order

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62 papers	1,626 citations	361413 20 h-index	302126 39 g-index
63 all docs	63 docs citations	63 times ranked	2690 citing authors

#	Article	IF	Citations
1	Re-emerging superconductivity at 48â€‰kelvin in iron chalcogenides. Nature, 2012, 483, 67-69.	27.8	294
2	Superconductivity emerging from a suppressed large magnetoresistant state in tungsten ditelluride. Nature Communications, 2015, 6, 7804.	12.8	290
3	Robust zero resistance in a superconducting high-entropy alloy at pressures up to 190 GPa. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13144-13147.	7.1	121
4	High-entropy alloy superconductors: Status, opportunities, and challenges. Physical Review Materials, 2019, 3, .	2.4	88
5	Introduction of Interfacial Charges to Black Phosphorus for a Family of Planar Devices. Nano Letters, 2016, 16, 6870-6878.	9.1	69
6	Pressure-induced melting of magnetic order and emergence of a new quantum state in Î±â˜’RuCl3. Physical Review B, 2018, 97, .	3.2	43
7	In situ fabrication of cobalt-doped SrFe2As2 thin films by using pulsed laser deposition with excimer laser. Applied Physics Letters, 2009, 95, 062507.	3.3	40
8	Emergence of double-dome superconductivity in ammoniated metal-doped FeSe. Scientific Reports, 2015, 5, 9477.	3.3	39
9	Convenient optical pressure gauge for multimegabar pressures calibrated to 300GPa. Applied Physics Letters, 2005, 86, 014103.	3.3	38
10	Electron-hole balance and the anomalous pressure-dependent superconductivity in black phosphorus. Physical Review B, 2017, 96, .	3.2	37
11	Quantum Phases of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>SrCu</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:mrow><mml:mo stretchy="false">(</mml:mo><mml:mrow><mml:msub><mml:mrow><mml:mi>BO</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow>	7.8	37
12	Valence change of europium in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>EuFe</mml:mtext></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> compressed<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mro. Physical Review B, 2010, 82, .	3.2	33
13	Independence of topological surface state and bulk conductance in three-dimensional topological insulators. Npj Quantum Materials, 2018, 3, .	5.2	33
14	Role of the 245 phase in alkaline iron selenide superconductors revealed by high-pressure studies. Physical Review B, 2014, 89, .	3.2	31
15	Pressure-induced lattice collapse in the tetragonal phase of single-crystalline<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Fe</mml:mtext></mml:mrow><mml:mrow><mml:mn>1.05</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> Physical Review B, 2009, 80, .	3.2	29
16	Recordâ€High Superconductivity in Niobiumâ€“Titanium Alloy. Advanced Materials, 2019, 31, e1807240.	21.0	27
17	Pressure-induced quantum phase transitions in a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Yb</mml:mi><mml:msub><mml:mi mathvariant="normal">B</mml:mi><mml:mn>6</mml:mn></mml:msub></mml:mrow></mml:math>single crystal. Physical Review B, 2015, 92, .	3.2	26
18	Quantum phase transition and destruction of Kondo effect in pressurized SmB6. Science Bulletin, 2017, 62, 1439-1444.	9.0	22

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19	Crossover from two-dimensional to three-dimensional superconducting states in bismuth-based cuprate superconductor. Nature Physics, 2020, 16, 295-300.	16.7	22
20	High pressure studies on silane to 210 GPa at 300 K: optical evidence of an insulatorâ€“semiconductor transition. Journal of Physics Condensed Matter, 2006, 18, 8573-8580.	1.8	21
21	Reversible phase transition between amorphous and crystalline in Zr41.2Ti13.8Cu12.5Ni10Be22.5 under high pressure at room temperature. Applied Physics Letters, 2000, 76, 2874-2876.	3.3	20
22	Observation of superconductivity in the pressurized Weyl-semimetal candidate <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>TaIrT</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2019, 99, .	3.2	20
23	Correlation between superconductivity and bond angle of CrAs chain in non-centrosymmetric compounds A2Cr3As3 (Aâ€‰=â€‰K, Rb). Scientific Reports, 2016, 6, 37878.	3.3	19
24	Pressure-induced superconducting state in crystalline boron nanowires. Physical Review B, 2009, 79, .	3.2	18
25	Superconductivity in pressurized <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>CeRhG</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> and related noncentrosymmetric compounds. Physical Review B, 2018, 97, .	3.2	18
26	Quantum phase transition from superconducting to insulating-like state in a pressurized cuprate superconductor. Nature Physics, 2022, 18, 406-410.	16.7	18
27	Pressure-induced exotic states in rare earth hexaborides. Reports on Progress in Physics, 2016, 79, 084503.	20.1	17
28	Transformation probability of graphite-diamond assisted by nonmetallic catalysts at high pressure and high temperature. Journal of Materials Research, 1999, 14, 631-633.	2.6	10
29	Observation of a bi-critical point between antiferromagnetic and superconducting phases in pressurized single crystal Ca0.73La0.27FeAs2. Science Bulletin, 2017, 62, 857-862.	9.0	10
30	Puzzle maker in SmB6: accompany-type valence fluctuation state. Reports on Progress in Physics, 2017, 80, 112501.	20.1	10
31	Solidification characteristics of Pd40Ni40P20 alloy under microgravity condition. Science in China Series A: Mathematics, 1997, 40, 662-667.	0.5	9
32	Structure and crystallization of bulk amorphous Pd41Ni10Cu28P21 alloy. Science in China Series A: Mathematics, 2000, 43, 407-413.	0.5	8
33	Localized-to-itinerant transition preceding antiferromagnetic quantum critical point and gapless superconductivity in CeRh0.5Ir0.5In5. Communications Physics, 2020, 3, .	5.3	8
34	Nonsuperconducting electronic ground state in pressurized <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>BaFe</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>BaFe</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mrow><mml:mn>2.5</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>. Physical Revie	3.2	8
35	Universal superconductivity phase diagram for pressurized tetradymite topological insulators. Physical Review Materials, 2018, 2, .	2.4	8
36	Unusual transition phenomenon in Zr-based bulk metallic glass upon heating at high pressure. Applied Physics Letters, 2002, 80, 3087-3089.	3.3	7

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37	Superconducting Properties of GdFeAsO0.85 at High Pressure. Journal of Superconductivity and Novel Magnetism, 2016, 29, 1105-1110.	1.8	7
38	RSAVS superconductors: Materials with a superconducting state that is robust against large volume shrinkage. Physical Review Materials, 2020, 4, .	2.4	7
39	Valence electronic structure of tantalum carbide and nitride. Science in China Series G: Physics, Mechanics and Astronomy, 2007, 50, 737-741.	0.2	6
40	Anomalous connection between antiferromagnetic and superconducting phases in the pressurized noncentrosymmetric heavy-fermion compound <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>CeRhG</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2019, 99, .	3.2	6
41	Observation of three superconducting transitions in the pressurized CDW-bearing compound <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>TaTe</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review Materials, 2022, 6, .	2.4	6
42	Robust antiferromagnetism preventing superconductivity in pressurized (Ba0.61K0.39)Mn2Bi2. Scientific Reports, 2015, 4, 7342.	3.3	5
43	Reemergence of superconductivity in pressurized quasi-one-dimensional superconductor K2Mo3As3. Physical Review Materials, 2021, 5, .	2.4	5
44	Effects of gravity on the microstructure of Zr41Ti14-Cu12.5Ni10Be22.5 bulk glass forming alloy. Science Bulletin, 2001, 46, 961-962.	1.7	4
45	Thermodynamics of a Magnetic Transition in MnS2 at High Pressures. JETP Letters, 2018, 107, 311-314.	1.4	4
46	Conversion of graphite to diamond assisted by non-metallic catalysts under high pressure and high temperature: A review. High Pressure Research, 1998, 16, 69-77.	1.2	3
47	Formation of bulk Î²â€“FeSi2by annealing rapidly solidified Î±â€“FeSi2ribbons. Journal of Materials Research, 2000, 15, 1045-1047.	2.6	3
48	Bulk diamond formation from graphite in the presence of C-O-H fluid under high pressure. High Pressure Research, 2001, 21, 159-173.	1.2	3
49	Enhanced crystallization and phase transformation of amorphous silicon nitride under high pressure. Journal of Materials Research, 2001, 16, 67-75.	2.6	3
50	Dualism of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>4</mml:mn><mml:mi>f</mml:mi></mml:mrow></mml:m electrons and its relation to high-temperature antiferromagnetism in the heavy-fermion compound <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">YbCoC</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2020, 101, .	3.2	3
51	Hall-coefficient diagnostics of the surface state in pressurized <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Sm</mml:mi><mml:msub><mml:mi mathvariant="normal">B</mml:mi><mml:mn>6</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2020, 101, .	3.2	3
52	Dependence of High Pressure on Phase Transformation in Zr_{<B>41.2</B>}Ti_{<B>13.8</B>}Cu_{<B>12.5</B>}Ni_{<B>10</B>}Be_{<B>22.5</B>} Materials Transactions, 2001, 42, 579-582.	1.2	3
53	Quasi-uniaxial pressure induced superconductivity in the stoichiometric compound <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>UTe</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2022, 106, .	3.2	2
54	Non-metallic catalysts for diamond synthesis under high pressure and high temperature. Science in China Series A: Mathematics, 1999, 42, 834-841.	0.5	1

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55	Containerless solidification of Zr41Ti14Cu12.5Ni10Be22.5 glass-forming alloy in drop tube. Science Bulletin, 2002, 47, 1700-1703.	1.7	1
56	Technique for x-ray markers at high pressure in the diamond anvil cell. Review of Scientific Instruments, 2005, 76, 036102.	1.3	1
57	Correlation between Fermi surface reconstruction and superconductivity in pressurized <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>FeTe</mml:mi><mml:mrow><mml:mn>0. Physical Review B, 2020, 101, .	3.2	1
58	Pressure influence on the valence and magnetic state of Yb ions in noncentrosymmetric heavy-fermion YbNiC2. Physical Review B, 2021, 103, .	3.2	1
59	Observation of nearly identical superconducting transition temperatures in the pressurized Weyl semimetals MIrTe4 (M=Nb and Ta). Physical Review B, 2021, 104, .	3.2	1
60	Effect of proton irradiation on structure relaxation of Zr41.5Ti14.9Cu12.6Ni10.5Be20.4 bulk metallic glass. Science Bulletin, 2004, 49, 999-1001.	1.7	0
61	Electronic correlations and pressure-induced metallicity in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>LaMnPO</mml:mi><mml:mrow><mml:mn mathvariant="normal">F</mml:mi><mml:mi>x</mml:mi></mml:msub></mml:mrow></mml:math>revealed via infrared spectroscopy. Physical Review B, 2016, 94, .	3.2	0
62	Advanced high-pressure transport measurement system integrated with low temperature and magnetic field. Chinese Physics B, 2018, 27, 077402.	1.4	0