

# Jiwei Lu

## List of Publications by Year in descending order

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78  
papers

4,213  
citations

185998

28  
h-index

106150

65  
g-index

80  
all docs

80  
docs citations

80  
times ranked

5528  
citing authors

#	ARTICLE	IF	CITATIONS
1	Terahertz-field-induced insulator-to-metal transition in vanadium dioxide metamaterial. <i>Nature</i> , 2012, 487, 345-348.	13.7	1,046
2	Polymorphism and Reversible Mechanochromic Luminescence for Solid-State Difluoroboron Avobenzone. <i>Journal of the American Chemical Society</i> , 2010, 132, 2160-2162.	6.6	765
3	The Promise of Nanomagnetism and Spintronics for Future Logic and Universal Memory. <i>Proceedings of the IEEE</i> , 2010, 98, 2155-2168.	16.4	266
4	Low-loss, tunable bismuth zinc niobate films deposited by rf magnetron sputtering. <i>Applied Physics Letters</i> , 2003, 83, 2411-2413.	1.5	177
5	Alkyl chain length effects on solid-state difluoroboron $\hat{I}^2$ -diketonate mechanochromic luminescence. <i>Journal of Materials Chemistry</i> , 2011, 21, 8409.	6.7	161
6	Directed Self-Assembly of Epitaxial $\text{CoFe}_2\text{O}_4/\text{BiFeO}_3$ Multiferroic Nanocomposites. <i>Nano Letters</i> , 2012, 12, 2367-2373.	4.5	113
7	Arene effects on difluoroboron $\hat{I}^2$ -diketonate mechanochromic luminescence. <i>Journal of Materials Chemistry</i> , 2011, 21, 8401.	6.7	110
8	Temperature dependence of the dielectric tunability of pyrochlore bismuth zinc niobate thin films. <i>Applied Physics Letters</i> , 2005, 86, 032901.	1.5	88
9	Phase transition in bulk single crystals and thin films of $\text{VVO}_2$ by <i>nanoscale infrared spectroscopy and imaging</i> . <i>Physical Review B</i> , 2015, 91, 114107.	1.1	88
10	Mechanochromic Luminescence Quenching: Force-Enhanced Singlet-to-Triplet Intersystem Crossing for Iodide-Substituted Difluoroboron-Dibenzoylmethane-Dodecane in the Solid State. <i>Inorganic Chemistry</i> , 2010, 49, 10747-10749.	1.9	85
11	Growth and characterization of vanadium dioxide thin films prepared by reactive-biased target ion beam deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2008, 26, 133-139.	0.9	77
12	Microwave dielectric properties of tunable capacitors employing bismuth zinc niobate thin films. <i>Journal of Applied Physics</i> , 2005, 97, 084110.	1.1	70
13	Large epitaxial bi-axial strain induces a Mott-like phase transition in $\text{VO}_2$ . <i>Applied Physics Letters</i> , 2014, 105, .	1.5	61
14	Influence of strain on the dielectric relaxation of pyrochlore bismuth zinc niobate thin films. <i>Applied Physics Letters</i> , 2004, 84, 957-959.	1.5	55
15	Two-Dimensional Mott Insulators in $\text{SrVO}_3$ Ultrathin Films. <i>Advanced Materials Interfaces</i> , 2014, 1, 1300126.	1.9	55
16	Interfacial perpendicular magnetic anisotropy and damping parameter in ultra thin $\text{Co}_2\text{FeAl}$ films. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	49
17	THz spectroscopy of $\text{VO}_2$ epitaxial films: controlling the anisotropic properties through strain engineering. <i>New Journal of Physics</i> , 2012, 14, 083026.	1.2	46
18	Microstructure and Dielectric Properties of Textured $\text{SrTiO}_3$ Thin Films. <i>Journal of the American Ceramic Society</i> , 2005, 88, 789-801.	1.9	43

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19	Phase Change Hyperbolic Heterostructures for Nanopolaritonics: A Case Study of hBN/VO <sub>2</sub> . Advanced Materials, 2019, 31, e1900251.	11.1	43
20	Composition control and dielectric properties of bismuth zinc niobate thin films synthesized by radio-frequency magnetron sputtering. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, 1745-1751.	0.9	40
21	Transport behavior and electronic structure of phase pure VO <sub>2</sub> thin films grown on <i>c</i> -plane sapphire under different O <sub>2</sub> partial pressure. Journal of Applied Physics, 2013, 114, .	1.1	38
22	Very large anisotropy in the dc conductivity of epitaxial VO <sub>2</sub> thin films grown on (011) rutile TiO <sub>2</sub> substrates. Applied Physics Letters, 2008, 93, .	1.5	36
23	Symmetry breaking and geometric confinement in VO <sub>2</sub> : Results from a three-dimensional infrared nano-imaging. Applied Physics Letters, 2014, 104, 121905.	1.5	36
24	Ultrafast electron-lattice coupling dynamics in VO <sub>2</sub> and V <sub>2</sub> O <sub>3</sub> thin films. Physical Review B, 2017, 96, .	1.1	32
25	Metal-insulator transition induced in CaVO <sub>3</sub> thin films. Journal of Applied Physics, 2013, 113, .	1.1	31
26	Low-loss tunable capacitors fabricated directly on gold bottom electrodes. Applied Physics Letters, 2006, 88, 112905.	1.5	29
27	Strain-induced enhancement of coercivity in amorphous TbFeCo films. Journal of Applied Physics, 2013, 113, .	1.1	29
28	Ferromagnetism in Rutile Structure Cr Doped VO <sub>2</sub> Thin Films Prepared by Reactive-Bias Target Ion Beam Deposition. Journal of Superconductivity and Novel Magnetism, 2008, 21, 87-92.	0.8	28
29	Epitaxial niobium dioxide thin films by reactive-biased target ion beam deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, 021516.	0.9	28
30	Magnetic anisotropy in composite CoFe <sub>2</sub> O <sub>4</sub> -BiFeO <sub>3</sub> ultrathin films grown by pulsed-electron deposition. Journal of Applied Physics, 2012, 111, .	1.1	25
31	Weak Antilocalization and Anisotropic Magnetoresistance as a Probe of Surface States in Topological Bi <sub>2</sub> TexSe <sub>3</sub> Thin Films. Scientific Reports, 2020, 10, 4845.	1.6	24
32	Atomic structure of (111) SrTiO <sub>3</sub> •Pt interfaces. Applied Physics Letters, 2006, 88, 131914.	1.5	23
33	Epitaxial $\bar{1}11$ phase MnAl thin films on MgO (001) with thickness-dependent magnetic anisotropy. Journal of Applied Physics, 2011, 110, .	1.1	23
34	Time-resolved light-induced insulator-metal transition in niobium dioxide and vanadium dioxide thin films. Optical Materials Express, 2017, 7, 213.	1.6	23
35	Contributions to the dielectric losses of textured SrTiO <sub>3</sub> thin films with Pt electrodes. Journal of Applied Physics, 2005, 98, 054101.	1.1	21
36	Microstructural and domain effects in epitaxial CoFe <sub>2</sub> O <sub>4</sub> films on MgO with perpendicular magnetic anisotropy. Journal of Magnetism and Magnetic Materials, 2012, 324, 524-527.	1.0	21

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37	Phase transitions in textured SrTiO <sub>3</sub> thin films on epitaxial Pt electrodes. Journal of Applied Physics, 2006, 99, 033521.	1.1	18
38	Distinct Length Scales in the VO <sub>2</sub> Metal-Insulator Transition Revealed by Bichromatic Optical Probing. Advanced Optical Materials, 2014, 2, 30-33.	3.6	18
39	Transport Anisotropy of Epitaxial VO <sub>2</sub> Films near the Metal-Semiconductor Transition. Applied Physics Express, 2011, 4, 091104.	1.1	17
40	Threshold Switching Characteristics of Nb/NbO <sub>2</sub> /TiN Vertical Devices. IEEE Journal of the Electron Devices Society, 2016, 4, 11-14.	1.2	17
41	Microstructure of Epitaxial SrTiO <sub>3</sub> /Pt/Ti/ Sapphire Heterostructures. Journal of Materials Research, 2005, 20, 2261-2265.	1.2	16
42	An Easy Method To Monitor Lactide Polymerization with a Boron Fluorescent Probe. ACS Applied Materials & Interfaces, 2010, 2, 3069-3074.	4.0	16
43	Electron molecular beam epitaxy: Layer-by-layer growth of complex oxides via pulsed electron-beam deposition. Journal of Applied Physics, 2013, 113, .	1.1	16
44	Magnetic damping and spin polarization of highly ordered B <sub>2</sub> Co <sub>2</sub> FeAl thin films. Journal of Applied Physics, 2014, 116, 073902.	1.1	15
45	Rapid, cost-effective DNA quantification via a visually-detectable aggregation of superparamagnetic silica-magnetite nanoparticles. Nano Research, 2014, 7, 755-764.	5.8	14
46	Metal-insulator transition in SrTiO <sub>3</sub> thin films. Applied Physics Letters, 2013, 103, .	1.5	13
47	Radiation effects on the magnetism and the spin dependent transport in magnetic materials and nanostructures for spintronic applications. Journal of Materials Research, 2015, 30, 1430-1439.	1.2	13
48	Controlling phase separation in vanadium dioxide thin films via substrate engineering. Physical Review B, 2017, 96, .	1.1	13
49	Temperature-dependent dielectric relaxation in bismuth zinc niobate thin films. Applied Physics Letters, 2010, 97, 022902.	1.5	11
50	Magneto-transport and domain wall scattering in epitaxy L <sub>1</sub> MnAl thin film. Journal of Applied Physics, 2016, 119, .	1.1	11
51	BZN THIN FILM CAPACITORS FOR MICROWAVE LOW LOSS TUNABLE APPLICATIONS. Integrated Ferroelectrics, 2005, 77, 21-26.	0.3	10
52	Recovery of the chemical ordering in L <sub>1</sub> MnAl epitaxial thin films irradiated by 2 MeV protons. Applied Physics Letters, 2013, 102, .	1.5	10
53	Spin-torque oscillation in large size nano-magnet with perpendicular magnetic fields. Journal of Magnetism and Magnetic Materials, 2017, 432, 356-361.	1.0	9
54	Modulation of the magnetism in ion implanted Mn <sub>x</sub> Ge <sub>1-x</sub> thin films by rapid thermal anneal. Journal of Applied Physics, 2010, 108, .	1.1	8

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55	Magnetic properties of ion implanted $\text{Ge}_{1-x}\text{Mn}_x$ thin films solidified through pulsed laser melting. Journal of Applied Physics, 2011, 109, 093917.	1.1	8
56	Effects of target bias voltage in magnetic tunnel junctions grown by ion beam deposition. Journal of Applied Physics, 2009, 106, 013905.	1.1	7
57	Electron conduction in lateral granular oxide-metal tunnel junctions. Applied Physics Letters, 2010, 97, 242113.	1.5	7
58	Properties of vanadium and tantalum granular oxide-metal tunnel junctions fabricated by electrochemical anodization. Applied Physics Letters, 2009, 95, .	1.5	6
59	Enhanced magnetic and electrical properties in amorphous Ge:Mn thin films by non-magnetic codoping. Journal of Applied Physics, 2012, 111, 033916.	1.1	6
60	Surface morphology control of Nb thin films by biased target ion beam deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, 031507.	0.9	6
61	Structural, magnetic, and nanoscale switching properties of $\text{BiFeO}_3$ thin films grown by pulsed electron deposition. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2013, 31, .	0.6	5
62	Spin torque nano oscillators as key building blocks for the Systems-on-Chip of the future. , 2014, , .		5
63	Transport phenomena in $\text{SrVO}_3/\text{SrTiO}_3$ superlattices. Journal Physics D: Applied Physics, 2018, 51, 10LT01.	1.3	5
64	Fabrication of high toughness alumina with elongated grains. Journal of Materials Science Letters, 2001, 20, 1425-1427.	0.5	4
65	Metal-oxide-oxide-metal granular tunnel diodes fabricated by anodization. Applied Physics Letters, 2011, 99, 252101.	1.5	4
66	Metal-insulator transition in nanocomposite $\text{VO}_x$ films formed by anodic electrodeposition. Applied Physics Letters, 2013, 103, 202102.	1.5	4
67	Structural and magnetic properties of Cr-diluted $\text{CoFeB}$ . Journal of Applied Physics, 2013, 114, 153902.	1.1	4
68	Growth and Characterization of $\text{NbTiN}$ Films Synthesized by Reactive Bias Target Ion Beam Deposition (RBTIBD). IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.1	4
69	HIGH FREQUENCY LOSS MODELING USING DIELECTRIC RELAXATION. Integrated Ferroelectrics, 2005, 77, 87-92.	0.3	3
70	Structural, transport, and ultrafast dynamic properties of $\text{V}_{1-x}\text{Nb}_x\text{O}_2$ thin films. Physical Review B, 2019, 99, .	1.1	2
71	GEOMETRICAL SCALING EFFECTS IN HIGH PERMITTIVITY CAPACITORS. Integrated Ferroelectrics, 2006, 80, 437-442.	0.3	1
72	Detection of bottom ferromagnetic electrode oxidation in magnetic tunnel junctions by magnetometry measurements. Journal of Applied Physics, 2010, 108, 113918.	1.1	1

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73	Self-assembled multiferroic magnetic QCA structures for low power systems. , 2012, , .		1
74	Magnetism in Ge[ <sub>(1-x)</sub> ]Mn[ <sub>(x)</sub> ] Thin Films and Quantum Dots Synthesized by Ion Implantation. , 2009, , .		0
75	Large strain-induced conductivity anisotropy in VO <sub>2</sub> thin films, probed by THz spectroscopy. , 2011, , .		0
76	Correlation of Nanoscale Structure and Magnetic Properties in Manganese Doped Germanium Dilute Magnetic Semiconductors. Materials Research Society Symposia Proceedings, 2011, 1305, 1.	0.1	0
77	Optical Studies on VO <sub>2</sub> Thin Films. Materials Research Society Symposia Proceedings, 2015, 1803, 1.	0.1	0
78	Effect of Surface Plasmons on the Insulator to Metal Transition in Thin Film Vanadium Dioxide. , 2018, , .		0