

Yuan Lu

List of Publications by Year in descending order

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82
papers

1,632
citations

331670

21
h-index

315739

38
g-index

83
all docs

83
docs citations

83
times ranked

2354
citing authors

#	ARTICLE	IF	CITATIONS
1	Robust optical emission polarization in MoS ₂ monolayers through selective valley excitation. Physical Review B, 2012, 86, .	3.2	385
2	Electrical spin injection and detection in molybdenum disulfide multilayer channel. Nature Communications, 2017, 8, 14947.	12.8	63
3	Large and robust electrical spin injection into GaAs at zero magnetic field using an ultrathin CoFeB/MgO injector. Physical Review B, 2014, 90, .	3.2	56
4	Ferroelectric Control of Organic/Ferromagnetic Spinterface. Advanced Materials, 2016, 28, 10204-10210.	21.0	55
5	Electric-Field Control of Spin-Orbit Torques in WS ₂ /Permalloy Bilayers. ACS Applied Materials & Interfaces, 2018, 10, 2843-2849.	8.0	54
6	Spin-Polarized Inelastic Tunneling through Insulating Barriers. Physical Review Letters, 2009, 102, 176801.	7.8	50
7	Effects of a thin Mg layer on the structural and magnetoresistance properties of CoFeB/MgO/CoFeB magnetic tunnel junctions. Applied Physics Letters, 2007, 91, 222504.	3.3	47
8	Measurement of the valence-band offset at the epitaxial MgO-GaAs(001) heterojunction by x-ray photoelectron spectroscopy. Applied Physics Letters, 2006, 88, 042108.	3.3	45
9	Design of the low-temperature AlN interlayer for GaN grown on Si (111) substrate. Journal of Crystal Growth, 2005, 276, 381-388.	1.5	40
10	Influence of the growth temperature of the high-temperature AlN buffer on the properties of GaN grown on Si(111) substrate. Journal of Crystal Growth, 2004, 263, 4-11.	1.5	37
11	Long-Range Phase Coherence in Double-Barrier Magnetic Tunnel Junctions with a Large Thick Metallic Quantum Well. Physical Review Letters, 2015, 115, 157204.	7.8	37
12	A new method to fabricate InGaN quantum dots by metalorganic chemical vapor deposition. Journal of Crystal Growth, 2002, 235, 188-194.	1.5	34
13	MgO thickness dependence of spin injection efficiency in spin-light emitting diodes. Applied Physics Letters, 2008, 93, 152102.	3.3	34
14	High speed pulsed electrical spin injection in spin-light emitting diode. Applied Physics Letters, 2009, 94, 141109.	3.3	33
15	Electrical spin injection into GaAs based light emitting diodes using perpendicular magnetic tunnel junction-type spin injector. Applied Physics Letters, 2016, 108, .	3.3	30
16	Magnetization switching diagram of a perpendicular synthetic ferrimagnet CoFeB/Ta/CoFeB bilayer. Journal of Magnetism and Magnetic Materials, 2017, 433, 91-97.	2.3	28
17	Depth analysis of boron diffusion in MgO/CoFeB bilayer by x-ray photoelectron spectroscopy. Journal of Applied Physics, 2010, 108, .	2.5	26
18	Electrical spin injection into InGaAs/GaAs quantum wells: A comparison between MgO tunnel barriers grown by sputtering and molecular beam epitaxy methods. Applied Physics Letters, 2014, 105, 012404.	3.3	24

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19	The growth morphologies of GaN layer on Si(111) substrate. Journal of Crystal Growth, 2003, 247, 91-98.	1.5	23
20	Band structure of the epitaxial Fe ^{0.5} Mg ^{0.5} O/GaAs(001) tunnel junction studied by x-ray and ultraviolet photoelectron spectroscopies. Applied Physics Letters, 2006, 89, 152106.	3.3	23
21	Coherent Resonant Tunneling through Double Metallic Quantum Well States. Nano Letters, 2019, 19, 3019-3026.	9.1	22
22	Investigation of GaN layer grown on Si(111) substrate using an ultrathin AlN wetting layer. Journal of Crystal Growth, 2002, 236, 77-84.	1.5	21
23	Spin-Polarized Transient Electron Trapping in Phosphorus-Doped Silicon. Physical Review Letters, 2011, 106, 217202.	7.8	20
24	Spin-orbit coupling effect by minority interface resonance states in single-crystal magnetic tunnel junctions. Physical Review B, 2012, 86, .	3.2	20
25	Enhancement of ferroelectric performance in PVDF:Fe ₃ O ₄ nanocomposite based organic multiferroic tunnel junctions. Applied Physics Letters, 2020, 116, .	3.3	19
26	Polarity determination for GaN thin films by electron energy-loss spectroscopy. Applied Physics Letters, 2002, 81, 1990-1992.	3.3	16
27	Electrical Initialization of Electron and Nuclear Spins in a Single Quantum Dot at Zero Magnetic Field. Nano Letters, 2018, 18, 2381-2386.	9.1	16
28	Atomic-scale understanding of high thermal stability of the Mo/CoFeB/MgO spin injector for spin-injection in remanence. Nanoscale, 2018, 10, 10213-10220.	5.6	16
29	Microstructure of GaN films grown on Si(111) substrates by metalorganic chemical vapor deposition. Journal of Crystal Growth, 2003, 256, 416-423.	1.5	15
30	Reverse Schottky-asymmetry spin current detectors. Applied Physics Letters, 2010, 97, 162501.	3.3	15
31	Quenching of Spin Polarization Switching in Organic Multiferroic Tunnel Junctions by Ferroelectric Ailing-Channel in Organic Barrier. ACS Applied Materials & Interfaces, 2018, 10, 30614-30622.	8.0	14
32	Enhanced magnetoresistance by monoatomic roughness in epitaxial Fe/MgO/Fe tunnel junctions. Physical Review B, 2015, 91, .	3.2	13
33	Movable-Type Transfer and Stacking of van der Waals Heterostructures for Spintronics. IEEE Access, 2020, 8, 70488-70495.	4.2	13
34	Angular Dependence of the Spin Photocurrent in a $\text{Co}/\text{Fe}/\text{MgO}/\text{n-GaAs}$ Quantum-Well Structure. Physical Review Applied, 2017, 8, .	1.5	12
35	Evidence of Pure Spin-Current Generated by Spin Pumping in Interface-Localized States in Hybrid Metal/Silicon/Metal Vertical Structures. Nano Letters, 2019, 19, 90-99.	9.1	12
36	Spin Injection and Relaxation in p-Doped (In,Ga)As/CaAs Quantum-Dot Spin Light-Emitting Diodes at Zero Magnetic Field. Physical Review Applied, 2020, 14, .	3.8	12

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37	Bias Dependence of the Electrical Spin Injection into GaAs from $\text{Co}/\text{Fe}/\text{MgO}/\text{B}/\text{MgO}$ Injectors with Different MgO Growth Processes. <i>Physical Review Applied</i> , 2017, 8, .	2.5	10
38	Electrical Spin Injection into the 2D Electron Gas in AlN/GaN Heterostructures with Ultrathin AlN Tunnel Barrier. <i>Advanced Functional Materials</i> , 2021, 31, 2009771.	14.9	11
39	Large Perpendicular Magnetic Anisotropy in Ta/CoFeB/MgO on Full-Coverage Monolayer MoS_2 and First-Principles Study of Its Electronic Structure. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 32579-32589.	8.0	11
40	Growth of crack-free GaN films on Si(111) substrate by using Al-rich AlN buffer layer. <i>Journal of Applied Physics</i> , 2004, 96, 4982-4988.	2.5	10
41	Structural defects analysis versus spin polarized tunneling in $\text{Co}_2\text{FeAl}/\text{MgO}/\text{CoFe}$ magnetic tunnel junctions with thick MgO barriers. <i>Journal of Magnetism and Magnetic Materials</i> , 2013, 347, 79-85.	2.3	10
42	Influence of the magnetic field sweeping rate on magnetic transitions in synthetic ferrimagnets with perpendicular anisotropy. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	10
43	Multifunctional Photodetectors Based on Nanolayered Black Phosphorus/ $\text{SnS}_{0.5}\text{Se}_{1.5}$ Heterostructures. <i>ACS Applied Nano Materials</i> , 2019, 2, 3548-3555.	5.0	10
44	Perpendicularly magnetized CoFeB multilayers with tunable interlayer exchange for synthetic ferrimagnets. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 432, 260-265.	2.3	9
45	Inversion of the domain wall propagation in synthetic ferrimagnets. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	9
46	Depth distribution of the strain in the GaN layer with low-temperature AlN interlayer on Si(111) substrate studied by Rutherford backscattering/channeling. <i>Applied Physics Letters</i> , 2004, 85, 5562-5564.	3.3	8
47	Interfacial trapping for hot electron injection in silicon. <i>Applied Physics Letters</i> , 2013, 103, 022407.	3.3	8
48	Spin dependent transport properties of Mn-Ga/MgO/Mn-Ga magnetic tunnel junctions with metal(Mg.) T_j ETQq0 0 0 rgBT /Overlock 10 T	2.5	8
49	Remote microwave monitoring of magnetization switching in CoFeB/Ta/CoFeB spin logic device. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	8
50	Relaxation dynamics of magnetization transitions in synthetic antiferromagnet with perpendicular anisotropy. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 135804.	1.8	8
51	Electrical transport properties of black phosphorus based field-effect transistor with Au/Co/MgO tunneling contacts. <i>Journal of Applied Physics</i> , 2017, 122, 164301.	2.5	7
52	Magnetic aftereffects in CoFeB/Ta/CoFeB spin valves of large area. <i>Physical Review B</i> , 2017, 96, .	3.2	7
53	Magnetic Configurations and State Diagram of Nanoring Magnetic Tunnel Junctions. <i>Physical Review Applied</i> , 2018, 10, .	3.8	7
54	Recovery of surface state bands after desorption of Te capping layer on $(\text{Bi}_{1-x}\text{Sb}_x)_2\text{Te}_3$ ternary topological insulators. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 494002.	2.8	7

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55	Crack-free GaN/Si(111) epitaxial layers grown with InAlGaN alloy as compliant interlayer by metalorganic chemical vapor deposition. Journal of Crystal Growth, 2005, 279, 335-340.	1.5	6
56	Metalliclike behavior of the exchange coupling in (001) Fe/MgO/Fe junctions. Physical Review B, 2017, 96, .	3.2	6
57	Title is missing!. Journal of Materials Science Letters, 2003, 22, 1581-1583.	0.5	5
58	A magnetometry study of Co oxidation in Co/MgO bilayers grown by sputtering. Journal of Applied Physics, 2008, 104, .	2.5	5
59	Electrical control of interfacial trapping for magnetic tunnel transistor on silicon. Applied Physics Letters, 2014, 104, 042408.	3.3	5
60	Magnetic tunnel transistor with a perpendicular Co/Ni multilayer sputtered on a Si/Cu(111) Schottky diode. Journal Physics D: Applied Physics, 2016, 49, 355003.	2.8	5
61	Ferromagnetic resonance of CoFeB/Ta/CoFeB spin valves versus CoFeB film. Thin Solid Films, 2017, 640, 8-13.	1.8	5
62	MEMS-based fabrication of high-performance inductors with back hollow structure and ferromagnetic film. Microelectronic Engineering, 2017, 168, 5-9.	2.4	5
63	Thickness and angular dependence of the magnetocurrent of hot electrons in a magnetic tunnel transistor with crossed anisotropies. Physical Review B, 2017, 96, .	3.2	5
64	Co - Fe - B/MgO/Ge Spin Photodiode Operating at Telecommunication Wavelength with Zero Applied Magnetic Field. Physical Review Applied, 2018, 10, .	3.8	5
65	Evidence of a strong perpendicular magnetic anisotropy in Au/Co/MgO/GaN heterostructures. Nanoscale Advances, 2019, 1, 4466-4475.	4.6	5
66	The structure and current-voltage characteristics of multi-sheet InGaN quantum dots grown by a new multi-step method. Journal of Crystal Growth, 2002, 243, 19-24.	1.5	4
67	Fe/MgO/Fe (100) textured tunnel junctions exhibiting spin polarization features of single crystal junctions. Applied Physics Letters, 2012, 100, 072408.	3.3	4
68	Low-Energy Spin Precession in the Molecular Field of a Magnetic Thin Film. Annalen Der Physik, 2021, 533, 2000470.	2.4	4
69	Electrical detection of light helicity using a quantum-dot-based hybrid device at zero magnetic field. Physical Review Materials, 2020, 4, .	2.4	4
70	Recombination Time Mismatch and Spin Dependent Photocurrent at a Ferromagnetic-Metal-Semiconductor Tunnel Junction. Physical Review Letters, 2022, 128, 057701.	7.8	4
71	Crack-free InAlGaN quaternary alloy films grown on Si(111) substrate by metalorganic chemical vapor deposition. Journal of Crystal Growth, 2004, 273, 79-85.	1.5	3
72	Symmetry-state features in a global analysis of the temperature-dependent spin transport in Fe/MgO/Fe junctions. Physical Review B, 2018, 98, .	3.2	3

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73	Tunneling anisotropic magnetoresistance in fully epitaxial magnetic tunnel junctions with different barriers. Applied Physics Letters, 2018, 112, 242404.	3.3	2
74	Comparison of spin photocurrent in devices based on in-plane or out-of-plane magnetized CoFeB spin detectors. Physical Review B, 2019, 100, .	3.2	2
75	Temperature dependence of transport mechanisms in organic multiferroic tunnel junctions. Journal Physics D: Applied Physics, 2020, 53, 325301.	2.8	2
76	Ferromagnetic resonance in monocrystalline spin valves CoFeB/Ta/CoFeB and CoFeB films with perpendicular magnetic anisotropy. Physics of the Solid State, 2017, 59, 1553-1557.	0.6	1
77	Angular Dependence of the Spin Photocurrent in a Spin Light Emitting Diode. Journal of Nanoscience and Nanotechnology, 2018, 18, 7573-7577.	0.9	1
78	Interfacial influence on electrical injection and transport characterization of CoFeB MgO GaAs-InGaAs quantum wells hetero-structure. Applied Surface Science, 2019, 473, 230-234.	6.1	1
79	High-temperature Stability Amorphous Ternary AlBN Dielectric Films on N ⁺⁺ GaN. Advanced Engineering Materials, 0, , 2200191.	3.5	1
80	Very efficient electrical spin injection (/detection) into quantum dots at zero magnetic field. , 2017, , .		0
81	Research progress of spin light emitting diode. Wuli Xuebao/Acta Physica Sinica, 2020, 69, 208501.	0.5	0
82	Spin dependent charge transfer in MoSe ₂ /hBN/Ni hybrid structures. Applied Physics Letters, 2021, 119, 263103.	3.3	0