

# Irene lucas

## List of Publications by Year in descending order

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41  
papers

1,096  
citations

471371

17  
h-index

395590

33  
g-index

41  
all docs

41  
docs citations

41  
times ranked

1710  
citing authors

#	ARTICLE	IF	CITATIONS
1	Observation of the spin Seebeck effect in epitaxial Fe <sub>3</sub> O <sub>4</sub> thin films. Applied Physics Letters, 2013, 102, .	1.5	163
2	Anomalous Nernst effect of Fe <sub>3</sub> O <sub>4</sub> single crystal. Physical Review B, 2014, 90, .	1.1	100
3	Epitaxial Growth of Superconducting Ba(Fe <sub>1-x</sub> Co <sub>x</sub> ) <sub>2</sub> As <sub>2</sub> Thin Films on Technical Ion Beam Assisted Deposition MgO Substrates. Applied Physics Express, 2011, 4, 013103.	1.1	79
4	Unconventional scaling and significant enhancement of the spin Seebeck effect in multilayers. Physical Review B, 2015, 92, .	1.1	73
5	Control of the spin to charge conversion using the inverse Rashba-Edelstein effect. Applied Physics Letters, 2015, 106, .	1.5	66
6	Terahertz Spin Currents and Inverse Spin Hall Effect in Thin-Film Heterostructures Containing Complex Magnetic Compounds. Spin, 2017, 07, 1740010.	0.6	65
7	Langmuir-Blodgett Films of the Metal-Organic Framework MIL-101(Cr): Preparation, Characterization, and CO <sub>2</sub> Adsorption Study Using a QCM-Based Setup. ACS Applied Materials & Interfaces, 2016, 8, 16486-16492.	4.0	49
8	Thermoelectric performance of spin Seebeck effect in Fe <sub>3</sub> O <sub>4</sub> /Pt-based thin film heterostructures. APL Materials, 2016, 4, 104802.	2.2	42
9	Magnetic properties of CoP alloys electrodeposited at room temperature. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 1513-1516.	1.0	39
10	Enhancement of the spin Peltier effect in multilayers. Physical Review B, 2017, 95, .	1.1	36
11	Observation of the Strain Induced Magnetic Phase Segregation in Manganite Thin Films. Nano Letters, 2015, 15, 492-497.	4.5	35
12	Observation of a topologically protected state in a magnetic domain wall stabilized by a ferromagnetic chemical barrier. Scientific Reports, 2018, 8, 16695.	1.6	35
13	Interface-induced anomalous Nernst effect in Fe <sub>3</sub> O <sub>4</sub> /Pt-based heterostructures. Applied Physics Letters, 2019, 114, .	1.5	32
14	Spin Seebeck effect in insulating epitaxial Fe <sup>3+</sup> Fe <sub>2</sub> O <sub>3</sub> thin films. APL Materials, 2017, 5, .	2.2	23
15	Characteristic length scale of the magnon accumulation in Fe <sub>3</sub> O <sub>4</sub> /Pt bilayer structures by incoherent thermal excitation. Applied Physics Letters, 2016, 109, .	1.5	20
16	Independent Control of the Magnetization in Ferromagnetic La <sub>2/3</sub> Sr <sub>1/3</sub> MnO <sub>3</sub> /SrTiO <sub>3</sub> /LaCoO <sub>3</sub> Heterostructures Achieved by Epitaxial Lattice Mismatch. Nano Letters, 2016, 16, 1736-1740.	4.5	19
17	Temperature dependence of the spin Seebeck effect in [Fe <sub>3</sub> O <sub>4</sub> /Pt] <sub>n</sub> multilayers. AIP Advances, 2017, 7, .	0.6	19
18	Transition of laser-induced terahertz spin currents from torque- to conduction-electron-mediated transport. Physical Review B, 2022, 105, .	1.1	17

#	ARTICLE	IF	CITATIONS
19	Optimization of magnetic properties of electrodeposited CoP multilayers for sensor applications. Journal of Applied Physics, 2007, 101, 043907.	1.1	16
20	Room-temperature AFM Electric-Field-Induced Topotactic Transformation between Perovskite and Brownmillerite SrFeO <sub>x</sub> with Sub-micrometer Spatial Resolution. Advanced Functional Materials, 2019, 29, 1901984.	7.8	15
21	Quantification of the interfacial and bulk contributions to the longitudinal spin Seebeck effect. Applied Physics Letters, 2021, 118, .	1.5	14
22	Chemical solution synthesis and ferromagnetic resonance of epitaxial thin films of yttrium iron garnet. Physical Review Materials, 2017, 1, .	0.9	13
23	Analytical model for the sensitivity of a toroidal fluxgate sensor. Sensors and Actuators A: Physical, 2006, 130-131, 142-146.	2.0	12
24	Interfacial ferromagnetism and atomic structures in high-temperature grown Fe <sub>3</sub> O <sub>4</sub> /Pt/Fe <sub>3</sub> O <sub>4</sub> epitaxial trilayers. Journal of Applied Physics, 2019, 126, .	1.1	12
25	Apparent auxetic to non-auxetic crossover driven by Co <sup>2+</sup> redistribution in CoFe <sub>2</sub> O <sub>4</sub> thin films. APL Materials, 2019, 7, .	2.2	11
26	A New Single-Sensor Magnetic Field Gradiometer. Sensor Letters, 2009, 7, 563-570.	0.4	11
27	Pinning field and coercivity in CoP alloys. Journal of Magnetism and Magnetic Materials, 2007, 316, 462-464.	1.0	10
28	Tunnel Conduction in Epitaxial Bilayers of Ferromagnetic LaCoO <sub>3</sub> /La <sub>2/3</sub> Sr <sub>1/3</sub> MnO <sub>3</sub> Deposited by a Chemical Solution Method. ACS Applied Materials & Interfaces, 2014, 6, 21279-21285.	4.0	10
29	Magnetic hardening and domain structure in Co/Pt antidots with perpendicular anisotropy. Journal Physics D: Applied Physics, 2017, 50, 065003.	1.3	10
30	Enhanced thermo-spin effects in iron-oxide/metal multilayers. Journal Physics D: Applied Physics, 2018, 51, 224003.	1.3	9
31	Engineering the spin conversion in graphene monolayer epitaxial structures. APL Materials, 2021, 9, .	2.2	9
32	Resonance frequency dependence on out-of-plane forces for square silicon membranes: Applications to a MEMS gradiometer. Sensors and Actuators A: Physical, 2010, 163, 75-81.	2.0	6
33	Highly Bi-doped Cu thin films with large spin-mixing conductance. APL Materials, 2018, 6, .	2.2	5
34	Optimization of YIG/Bi stacks for spin-to-charge conversion and influence of aging. Journal Physics D: Applied Physics, 0, , .	1.3	5
35	Tuning Coherent-Phonon Heat Transport in LaCoO <sub>3</sub> /SrTiO <sub>3</sub> Superlattices. Journal of Physical Chemistry Letters, 2021, 12, 11878-11885.	2.1	5
36	Ferromagnetic epitaxial Cr <sub>2</sub> O <sub>3</sub> thin films grown on oxide substrates by Pulsed Laser Deposition. Applied Surface Science, 2020, 534, 147638.	3.1	4

#	ARTICLE	IF	CITATIONS
37	Dimensionality-driven metal-insulator transition in spin-orbit-coupled IrO <sub>2</sub> . <i>Nanoscale</i> , 2021, 13, 17125-17135.	2.8	3
38	In situ MEMS gradiometer with nanometer-resolution optical detection system. <i>Sensors and Actuators A: Physical</i> , 2010, 159, 33-40.	2.0	2
39	Strong Crystallographic Influence on Spin Hall Mechanism in PLD-Grown IrO <sub>2</sub> Thin Films. <i>Nanomaterials</i> , 2021, 11, 1478.	1.9	2
40	Influence of the substrate on the anomalous Nernst effect of magnetite thin films. <i>Materials Research Society Symposia Proceedings</i> , 2014, 1674, 19.	0.1	0
41	Assessment of Layer Thickness and Interface Quality in CoP Electrodeposited Multilayers. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 18930-18934.	4.0	0