

Xiang Li

List of Publications by Year in descending order

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39
papers

1,883
citations

331670

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38
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docs citations

43
times ranked

2203
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Room-Temperature Creation and Spin-Orbit Torque Manipulation of Skyrmions in Thin Films with Engineered Asymmetry. Nano Letters, 2016, 16, 1981-1988. | 9.1 | 275 |
| 2 | Room-Temperature Skyrmion Shift Device for Memory Application. Nano Letters, 2017, 17, 261-268. | 9.1 | 227 |
| 3 | Interfacial Dzyaloshinskii-Moriya Interaction: Effect of d Band Filling and Correlation with Spin Mixing Conductance. Physical Review Letters, 2018, 120, 157204. | 7.8 | 116 |
| 4 | Electric-Field-Controlled Magnetoelectric RAM: Progress, Challenges, and Scaling. IEEE Transactions on Magnetics, 2015, 51, 1-7. | 2.1 | 108 |
| 5 | Enhancement of voltage-controlled magnetic anisotropy through precise control of Mg insertion thickness at CoFeB/MgO interface. Applied Physics Letters, 2017, 110, . | 3.3 | 92 |
| 6 | Magneto-optical investigation of spin-orbit torques in metallic and insulating magnetic heterostructures. Nature Communications, 2015, 6, 8958. | 12.8 | 80 |
| 7 | Strain-induced modulation of perpendicular magnetic anisotropy in Ta/CoFeB/MgO structures investigated by ferromagnetic resonance. Applied Physics Letters, 2015, 106, . | 3.3 | 79 |
| 8 | Dzyaloshinskii-Moriya Interaction across an Antiferromagnet-Ferromagnet Interface. Physical Review Letters, 2017, 119, 027202. | 7.8 | 75 |
| 9 | Interfacial control of Dzyaloshinskii-Moriya interaction in heavy metal/ferromagnetic metal thin film heterostructures. Physical Review B, 2016, 94, . | 3.2 | 72 |
| 10 | Current-driven perpendicular magnetization switching in Ta/CoFeB/[TaOx or MgO/TaOx] films with lateral structural asymmetry. Applied Physics Letters, 2014, 105, . | 3.3 | 71 |
| 11 | Spin-orbit torques in perpendicularly magnetized Ir ₂₂ Mn ₇₈ /Co ₂₀ Fe ₆₀ B ₂₀ /MgO multilayer. Applied Physics Letters, 2016, 109, . | 3.3 | 58 |
| 12 | Current-induced spin-orbit torque switching of perpendicularly magnetized Hf/CoFeB/MgO and Hf/CoFeB/TaOx structures. Applied Physics Letters, 2015, 106, . | 3.3 | 55 |
| 13 | Spin-orbit torque from a ferromagnetic metal. Physical Review B, 2019, 99, . | 3.2 | 49 |
| 14 | Thermally stable voltage-controlled perpendicular magnetic anisotropy in Mo/CoFeB/MgO structures. Applied Physics Letters, 2015, 107, . | 3.3 | 47 |
| 15 | Voltage-controlled magnetoelectric memory and logic devices. MRS Bulletin, 2018, 43, 970-977. | 3.5 | 47 |
| 16 | Write Error Rate and Read Disturbance in Electric-Field-Controlled Magnetic Random-Access Memory. IEEE Magnetics Letters, 2017, 8, 1-5. | 1.1 | 37 |
| 17 | Spin-torque ferromagnetic resonance measurements utilizing spin Hall magnetoresistance in W/Co ₄₀ Fe ₄₀ B ₂₀ /MgO structures. Applied Physics Letters, 2016, 109, . | 3.3 | 36 |
| 18 | Enhanced voltage-controlled magnetic anisotropy in magnetic tunnel junctions with an MgO/PZT/MgO tunnel barrier. Applied Physics Letters, 2016, 108, . | 3.3 | 32 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 19 | Field-Free Switching of Perpendicular Magnetization through Voltage-Gated Spin-Orbit Torque. , 2019, , . | | 30 |
| 20 | Voltage-Controlled Magnetic Tunnel Junctions for Processing-In-Memory Implementation. IEEE Electron Device Letters, 2018, 39, 440-443. | 3.9 | 29 |
| 21 | In-plane current-driven spin-orbit torque switching in perpendicularly magnetized films with enhanced thermal tolerance. Applied Physics Letters, 2016, 108, . | 3.3 | 26 |
| 22 | Colossal electric field control of magnetic anisotropy at ferromagnetic interfaces induced by iridium overlayer. Physical Review B, 2019, 99, . | 3.2 | 24 |
| 23 | Spin-torque ferromagnetic resonance in W seed and capping layers. Journal of Applied Physics, 2017, 121, . | 2.5 | 21 |
| 24 | Predictive Materials Design of Magnetic Random-Access Memory Based on Nanoscale Atomic Structure and Element Distribution. Nano Letters, 2019, 19, 8621-8629. | 9.1 | 22 |
| 25 | Competing effect of spin-orbit torque terms on perpendicular magnetization switching in structures with multiple inversion asymmetries. Scientific Reports, 2016, 6, 23956. | 3.3 | 21 |
| 26 | Perpendicular magnetic tunnel junction with W seed and capping layers. Journal of Applied Physics, 2017, 121, . | 2.5 | 21 |
| 27 | Materials Requirements of High-Speed and Low-Power Spin-Orbit-Torque Magnetic Random-Access Memory. IEEE Journal of the Electron Devices Society, 2020, 8, 674-680. | 2.1 | 18 |
| 28 | Large voltage-controlled magnetic anisotropy in the SrTiO ₃ /Fe/Cu structure. Applied Physics Letters, 2017, 111, 152403. | 3.3 | 16 |
| 29 | Large and robust charge-to-spin conversion in sputtered conductive WTe with disorder. Matter, 2021, 4, 1639-1653. | 10.0 | 15 |
| 30 | Partial spin absorption induced magnetization switching and its voltage-assisted improvement in an asymmetrical all spin logic device at the mesoscopic scale. Applied Physics Letters, 2017, 111, . | 3.3 | 14 |
| 31 | Experimental demonstration of voltage-gated spin-orbit torque switching in an antiferromagnet/ferromagnet structure. Physical Review B, 2021, 103, . | 3.2 | 14 |
| 32 | Charge-spin interconversion in epitaxial Pt probed by spin-orbit torques in a magnetic insulator. Physical Review Materials, 2021, 5, . | 2.4 | 13 |
| 33 | Influence of inserted Mo layer on the thermal stability of perpendicularly magnetized Ta/Mo/Co ₂₀ Fe ₆₀ B ₂₀ /MgO/Ta films. AIP Advances, 2016, 6, . | 1.3 | 8 |
| 34 | Enhancement of Perpendicular Magnetic Anisotropy Through Fe Insertion at the CoFe/W Interface. IEEE Transactions on Magnetics, 2018, 54, 1-5. | 2.1 | 6 |
| 35 | Modeling and Circuit Design of Associative Memories With Spin-Orbit Torque FETs. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2019, 5, 197-205. | 1.5 | 6 |
| 36 | High voltage-controlled magnetic anisotropy and interface magnetoelectric effect in sputtered multilayers annealed at high temperatures. Science China: Physics, Mechanics and Astronomy, 2020, 63, 1. | 5.1 | 6 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Voltage-controlled magnetic tunnel junctions with synthetic ferromagnet free layer sandwiched by asymmetric double MgO barriers. Journal Physics D: Applied Physics, 0, , . | 2.8 | 5 |
| 38 | Tunable spin-orbit torque efficiency in in-plane and perpendicular magnetized [Pt/Co] _n multilayer. Applied Physics Letters, 2021, 118, 042405. | 3.3 | 5 |
| 39 | Interface control of domain wall depinning field. AIP Advances, 2018, 8, . | 1.3 | 4 |