

Ajay K Yadav

List of Publications by Year in descending order

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33
papers

3,367
citations

331538

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docs citations

36
times ranked

4179
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Emergent interface vibrational structure of oxide superlattices. Nature, 2022, 601, 556-561. | 13.7 | 40 |
| 2 | Vortex Domain Walls in Ferroelectrics. Nano Letters, 2021, 21, 3533-3539. | 4.5 | 34 |
| 3 | Subterahertz collective dynamics of polar vortices. Nature, 2021, 592, 376-380. | 13.7 | 66 |
| 4 | Enhanced ferroelectricity in ultrathin films grown directly on silicon. Nature, 2020, 580, 478-482. | 13.7 | 486 |
| 5 | <i>In situ</i> Electric Field Manipulation of Ferroelectric Vortices. Microscopy and Microanalysis, 2019, 25, 1844-1845. | 0.2 | 3 |
| 6 | Challenges to Partial Switching of Hf _{0.8} Zr _{0.2} O ₂ Gated Ferroelectric FET for Multilevel/Analog or Low-Voltage Memory Operation. IEEE Electron Device Letters, 2019, 40, 1423-1426. | 2.2 | 27 |
| 7 | Optical creation of a supercrystal with three-dimensional nanoscale periodicity. Nature Materials, 2019, 18, 377-383. | 13.3 | 105 |
| 8 | Spatially resolved steady-state negative capacitance. Nature, 2019, 565, 468-471. | 13.7 | 245 |
| 9 | Improved Subthreshold Swing and Short Channel Effect in FDSOI n-Channel Negative Capacitance Field Effect Transistors. IEEE Electron Device Letters, 2018, 39, 300-303. | 2.2 | 128 |
| 10 | Emergent chirality in the electric polarization texture of titanate superlattices. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 915-920. | 3.3 | 121 |
| 11 | A Nitrided Interfacial Oxide for Interface State Improvement in Hafnium Zirconium Oxide-Based Ferroelectric Transistor Technology. IEEE Electron Device Letters, 2018, 39, 95-98. | 2.2 | 24 |
| 12 | Response Speed of Negative Capacitance FinFETs. , 2018, , . | | 29 |
| 13 | Phase Coexistence of Ferroelectric Vortices and Classical a1/a2 Domains in PbTiO3/SrTiO3 Superlattices.. Microscopy and Microanalysis, 2018, 24, 1638-1639. | 0.2 | 2 |
| 14 | Mapping Polarity, Toroidal Order, and the Local Energy Landscape by 4D-STEM. Microscopy and Microanalysis, 2018, 24, 176-177. | 0.2 | 2 |
| 15 | Unexpected termination switching and polarity compensation in $\text{LaAlO}_3/\text{SrTiO}_3$ heterostructures. Physical Review Materials, 2018, 2, . | | |
| 16 | High Speed Epitaxial Perovskite Memory on Flexible Substrates. Advanced Materials, 2017, 29, 1605699. | 11.1 | 74 |
| 17 | Stability of Polar Vortex Lattice in Ferroelectric Superlattices. Nano Letters, 2017, 17, 2246-2252. | 4.5 | 131 |
| 18 | Interface Engineering of Domain Structures in BiFeO ₃ Thin Films. Nano Letters, 2017, 17, 486-493. | 4.5 | 69 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 19 | Self-Aligned, Gate Last, FDSOI, Ferroelectric Gate Memory Device With 5.5-nm Hf _{0.8} Zr _{0.2} O ₂ , High Endurance and Breakdown Recovery. IEEE Electron Device Letters, 2017, 38, 1379-1382. | 2.2 | 76 |
| 20 | Orientation-controllable growth of Co ₃ O ₄ single nanocrystals using a BiCoO ₃ target by pulsed laser deposition. RSC Advances, 2017, 7, 42088-42093. | 1.7 | 1 |
| 21 | Phase coexistence and electric-field control of toroidal order in oxide superlattices. Nature Materials, 2017, 16, 1003-1009. | 13.3 | 159 |
| 22 | Stabilization of ferroelectric phase in tungsten capped Hf _{0.8} Zr _{0.2} O ₂ . Applied Physics Letters, 2017, 111, . | 1.5 | 58 |
| 23 | Quantification of flexoelectricity in PbTiO ₃ /SrTiO ₃ superlattice polar vortices using machine learning and phase-field modeling. Nature Communications, 2017, 8, 1468. | 5.8 | 93 |
| 24 | Ferroelectricity in HfO ₂ thin films as a function of Zr doping. , 2017, , . | | 5 |
| 25 | Measuring Orbital Angular Momentum (OAM) and Torque Transfer from Polarization Vortices with the Electron Microscopy Pixel Array Detector. Microscopy and Microanalysis, 2017, 23, 1634-1635. | 0.2 | 1 |
| 26 | Frontiers in strain-engineered multifunctional ferroic materials. MRS Communications, 2016, 6, 151-166. | 0.8 | 17 |
| 27 | Reconstruction of Polarization Vortices by Diffraction Mapping of Ferroelectric PbTiO ₃ / SrTiO ₃ Superlattice Using a High Dynamic Range Pixelated Detector. Microscopy and Microanalysis, 2016, 22, 472-473. | 0.2 | 7 |
| 28 | Observation of polar vortices in oxide superlattices. Nature, 2016, 530, 198-201. | 13.7 | 682 |
| 29 | Single crystal functional oxides on silicon. Nature Communications, 2016, 7, 10547. | 5.8 | 156 |
| 30 | Thermal flux limited electron Kapitza conductance in copper-niobium multilayers. Applied Physics Letters, 2015, 106, . | 1.5 | 21 |
| 31 | Crossover from incoherent to coherent phonon scattering in epitaxial oxide superlattices. Nature Materials, 2014, 13, 168-172. | 13.3 | 399 |
| 32 | Epitaxy-distorted spin-orbit Mott insulator in Sr ₂ IrO ₄ thin films. Physical Review B, 2013, 87, . | 1.1 | 70 |
| 33 | Size effects on thermoelectricity in a strongly correlated oxide. Physical Review B, 2012, 85, . | 1.1 | 12 |