

# Ajay K Yadav

## List of Publications by Year in descending order

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33  
papers

3,367  
citations

331670

21  
h-index

377865

34  
g-index

36  
all docs

36  
docs citations

36  
times ranked

4179  
citing authors

| #  | ARTICLE                                                                                                                                                                                                                 | IF   | CITATIONS |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1  | Emergent interface vibrational structure of oxide superlattices. Nature, 2022, 601, 556-561.                                                                                                                            | 27.8 | 40        |
| 2  | Vortex Domain Walls in Ferroelectrics. Nano Letters, 2021, 21, 3533-3539.                                                                                                                                               | 9.1  | 34        |
| 3  | Subterahertz collective dynamics of polar vortices. Nature, 2021, 592, 376-380.                                                                                                                                         | 27.8 | 66        |
| 4  | Enhanced ferroelectricity in ultrathin films grown directly on silicon. Nature, 2020, 580, 478-482.                                                                                                                     | 27.8 | 486       |
| 5  | <i>In situ</i> Electric Field Manipulation of Ferroelectric Vortices. Microscopy and Microanalysis, 2019, 25, 1844-1845.                                                                                                | 0.4  | 3         |
| 6  | Challenges to Partial Switching of Hf <sub>0.8</sub> Zr <sub>0.2</sub> O <sub>2</sub> Gated Ferroelectric FET for Multilevel/Analog or Low-Voltage Memory Operation. IEEE Electron Device Letters, 2019, 40, 1423-1426. | 3.9  | 27        |
| 7  | Optical creation of a supercrystal with three-dimensional nanoscale periodicity. Nature Materials, 2019, 18, 377-383.                                                                                                   | 27.5 | 105       |
| 8  | Spatially resolved steady-state negative capacitance. Nature, 2019, 565, 468-471.                                                                                                                                       | 27.8 | 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.                                                 | 3.9  | 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.                                 | 7.1  | 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.                                       | 3.9  | 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.                                                             | 0.4  | 2         |
| 14 | Mapping Polarity, Toroidal Order, and the Local Energy Landscape by 4D-STEM. Microscopy and Microanalysis, 2018, 24, 176-177.                                                                                           | 0.4  | 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.                                                                                                                   | 21.0 | 74        |
| 17 | Stability of Polar Vortex Lattice in Ferroelectric Superlattices. Nano Letters, 2017, 17, 2246-2252.                                                                                                                    | 9.1  | 131       |
| 18 | Interface Engineering of Domain Structures in BiFeO <sub>3</sub> Thin Films. Nano Letters, 2017, 17, 486-493.                                                                                                           | 9.1  | 69        |

| #  | ARTICLE                                                                                                                                                                                                                              | IF   | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 19 | Self-Aligned, Gate Last, FDSOI, Ferroelectric Gate Memory Device With 5.5-nm Hf <sub>0.8</sub> Zr <sub>0.2</sub> O <sub>2</sub> , High Endurance and Breakdown Recovery. IEEE Electron Device Letters, 2017, 38, 1379-1382.          | 3.9  | 76        |
| 20 | Orientation-controllable growth of Co <sub>3</sub> O <sub>4</sub> single nanocrystals using a BiCoO <sub>3</sub> target by pulsed laser deposition. RSC Advances, 2017, 7, 42088-42093.                                              | 3.6  | 1         |
| 21 | Phase coexistence and electric-field control of toroidal order in oxide superlattices. Nature Materials, 2017, 16, 1003-1009.                                                                                                        | 27.5 | 159       |
| 22 | Stabilization of ferroelectric phase in tungsten capped Hf <sub>0.8</sub> Zr <sub>0.2</sub> O <sub>2</sub> . Applied Physics Letters, 2017, 111, .                                                                                   | 3.3  | 58        |
| 23 | Quantification of flexoelectricity in PbTiO <sub>3</sub> /SrTiO <sub>3</sub> superlattice polar vortices using machine learning and phase-field modeling. Nature Communications, 2017, 8, 1468.                                      | 12.8 | 93        |
| 24 | Ferroelectricity in HfO <sub>2</sub> /ZrO <sub>2</sub> 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.                                        | 0.4  | 1         |
| 26 | Frontiers in strain-engineered multifunctional ferroic materials. MRS Communications, 2016, 6, 151-166.                                                                                                                              | 1.8  | 17        |
| 27 | Reconstruction of Polarization Vortices by Diffraction Mapping of Ferroelectric PbTiO <sub>3</sub> / SrTiO <sub>3</sub> Superlattice Using a High Dynamic Range Pixelated Detector. Microscopy and Microanalysis, 2016, 22, 472-473. | 0.4  | 7         |
| 28 | Observation of polar vortices in oxide superlattices. Nature, 2016, 530, 198-201.                                                                                                                                                    | 27.8 | 682       |
| 29 | Single crystal functional oxides on silicon. Nature Communications, 2016, 7, 10547.                                                                                                                                                  | 12.8 | 156       |
| 30 | Thermal flux limited electron Kapitza conductance in copper-niobium multilayers. Applied Physics Letters, 2015, 106, .                                                                                                               | 3.3  | 21        |
| 31 | Crossover from incoherent to coherent phonon scattering in epitaxial oxide superlattices. Nature Materials, 2014, 13, 168-172.                                                                                                       | 27.5 | 399       |
| 32 | Epitaxy-distorted spin-orbit Mott insulator in Sr <sub>2</sub> IrO <sub>4</sub> thin films. Physical Review B, 2013, 87, .                                                                                                           | 3.2  | 70        |
| 33 | Size effects on thermoelectricity in a strongly correlated oxide. Physical Review B, 2012, 85, .                                                                                                                                     | 3.2  | 12        |