

Ajay K Yadav

List of Publications by Year in descending order

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33
papers

3,367
citations

331670

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377865

34
g-index

36
all docs

36
docs citations

36
times ranked

4179
citing authors

#	ARTICLE	IF	CITATIONS
1	Observation of polar vortices in oxide superlattices. Nature, 2016, 530, 198-201.	27.8	682
2	Enhanced ferroelectricity in ultrathin films grown directly on silicon. Nature, 2020, 580, 478-482.	27.8	486
3	Crossover from incoherent to coherent phonon scattering in epitaxial oxide superlattices. Nature Materials, 2014, 13, 168-172.	27.5	399
4	Spatially resolved steady-state negative capacitance. Nature, 2019, 565, 468-471.	27.8	245
5	Phase coexistence and electric-field control of toroidal order in oxide superlattices. Nature Materials, 2017, 16, 1003-1009.	27.5	159
6	Single crystal functional oxides on silicon. Nature Communications, 2016, 7, 10547.	12.8	156
7	Stability of Polar Vortex Lattice in Ferroelectric Superlattices. Nano Letters, 2017, 17, 2246-2252.	9.1	131
8	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
9	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
10	Optical creation of a supercrystal with three-dimensional nanoscale periodicity. Nature Materials, 2019, 18, 377-383.	27.5	105
11	Quantification of flexoelectricity in PbTiO ₃ /SrTiO ₃ superlattice polar vortices using machine learning and phase-field modeling. Nature Communications, 2017, 8, 1468.	12.8	93
12	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.	3.9	76
13	High Speed Epitaxial Perovskite Memory on Flexible Substrates. Advanced Materials, 2017, 29, 1605699.	21.0	74
14	Epitaxy-distorted spin-orbit Mott insulator in Sr IrO_2 thin films. Physical Review B, 2013, 87, .	3.2	70
15	Interface Engineering of Domain Structures in BiFeO ₃ Thin Films. Nano Letters, 2017, 17, 486-493.	9.1	69
16	Subterahertz collective dynamics of polar vortices. Nature, 2021, 592, 376-380.	27.8	66
17	Stabilization of ferroelectric phase in tungsten capped Hf _{0.8} Zr _{0.2} O ₂ . Applied Physics Letters, 2017, 111, .	3.3	58
18	Emergent interface vibrational structure of oxide superlattices. Nature, 2022, 601, 556-561.	27.8	40

#	ARTICLE	IF	CITATIONS
19	Vortex Domain Walls in Ferroelectrics. Nano Letters, 2021, 21, 3533-3539.	9.1	34
20	Response Speed of Negative Capacitance FinFETs. , 2018, , .		29
21	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.	3.9	27
22	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
23	Thermal flux limited electron Kapitza conductance in copper-niobium multilayers. Applied Physics Letters, 2015, 106, .	3.3	21
24	Frontiers in strain-engineered multifunctional ferroic materials. MRS Communications, 2016, 6, 151-166.	1.8	17
25	Size effects on thermoelectricity in a strongly correlated oxide. Physical Review B, 2012, 85, .	3.2	12
26	Unexpected termination switching and polarity compensation in $\text{LaAlO}_3/\text{SrTiO}_3$ heterostructures. Physical Review Materials, 2018, 2, .		
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.	0.4	7
28	Ferroelectricity in HfO ₂ thin films as a function of Zr doping. , 2017, , .		5
29	<i>In situ</i> Electric Field Manipulation of Ferroelectric Vortices. Microscopy and Microanalysis, 2019, 25, 1844-1845.	0.4	3
30	Phase Coexistence of Ferroelectric Vortices and Classical a ₁ /a ₂ Domains in PbTiO ₃ /SrTiO ₃ Superlattices.. Microscopy and Microanalysis, 2018, 24, 1638-1639.	0.4	2
31	Mapping Polarity, Toroidal Order, and the Local Energy Landscape by 4D-STEM. Microscopy and Microanalysis, 2018, 24, 176-177.	0.4	2
32	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.	3.6	1
33	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