

Harold Hwang

List of Publications by Year in descending order

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215
papers

33,228
citations

9756

73
h-index

3638

180
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225
all docs

225
docs citations

225
times ranked

24262
citing authors

#	ARTICLE	IF	CITATIONS
1	A high-mobility electron gas at the LaAlO ₃ /SrTiO ₃ heterointerface. <i>Nature</i> , 2004, 427, 423-426.	13.7	4,140
2	Emergent phenomena at oxide interfaces. <i>Nature Materials</i> , 2012, 11, 103-113.	13.3	2,086
3	Lattice Effects on the Magnetoresistance in Doped LaMnO ₃ . <i>Physical Review Letters</i> , 1995, 75, 914-917.	2.9	1,898
4	Spin-Polarized Intergrain Tunneling in La ₂ /3Sr ₁ /3MnO ₃ . <i>Physical Review Letters</i> , 1996, 77, 2041-2044.	2.9	1,725
5	A highly active and stable IrO _x /SrIrO ₃ catalyst for the oxygen evolution reaction. <i>Science</i> , 2016, 353, 1011-1014.	6.0	1,606
6	Why some interfaces cannot be sharp. <i>Nature Materials</i> , 2006, 5, 204-209.	13.3	1,374
7	Polarization-sensitive broadband photodetector using a black phosphorus vertical p-n junction. <i>Nature Nanotechnology</i> , 2015, 10, 707-713.	15.6	1,007
8	Artificial charge-modulation in atomic-scale perovskite titanate superlattices. <i>Nature</i> , 2002, 419, 378-380.	13.7	932
9	Structural effects on the magnetic and transport properties of perovskite A _{1-x} A _x Fe ₂ MnO ₃ (x=0.25,0.30). <i>Physical Review B</i> , 1997, 56, 8265-8276.	1.1	811
10	Direct imaging of the coexistence of ferromagnetism and superconductivity at the LaAlO ₃ /SrTiO ₃ interface. <i>Nature Physics</i> , 2011, 7, 767-771.	6.5	765
11	Controlled Growth of High-Quality Monolayer WS ₂ Layers on Sapphire and Imaging Its Grain Boundary. <i>ACS Nano</i> , 2013, 7, 8963-8971.	7.3	696
12	Superconductivity in an infinite-layer nickelate. <i>Nature</i> , 2019, 572, 624-627.	13.7	673
13	Atomic-scale imaging of nanoengineered oxygen vacancy profiles in SrTiO ₃ . <i>Nature</i> , 2004, 430, 657-661.	13.7	585
14	Atomic-Scale Chemical Imaging of Composition and Bonding by Aberration-Corrected Microscopy. <i>Science</i> , 2008, 319, 1073-1076.	6.0	566
15	High electron mobility and quantum oscillations in non-encapsulated ultrathin semiconducting Bi ₂ O ₂ Se. <i>Nature Nanotechnology</i> , 2017, 12, 530-534.	15.6	507
16	Synthesis of freestanding single-crystal perovskite films and heterostructures by etching of sacrificial water-soluble layers. <i>Nature Materials</i> , 2016, 15, 1255-1260.	13.3	387
17	Scaling of the temperature dependent Hall effect in La _{2-x} Sr _x CuO ₄ . <i>Physical Review Letters</i> , 1994, 72, 2636-2639.	2.9	369
18	Large Kerr effect in bulk Se-based chalcogenide glasses. <i>Optics Letters</i> , 2000, 25, 254.	1.7	311

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19	Titanium dxy ferromagnetism at the LaAlO ₃ /SrTiO ₃ interface. Nature Materials, 2013, 12, 703-706.	13.3	303
20	Pressure effects on the magnetoresistance in doped manganese perovskites. Physical Review B, 1995, 52, 15046-15049.	1.1	300
21	The role of strain in magnetic anisotropy of manganite thin films. Applied Physics Letters, 1997, 71, 140-142.	1.5	287
22	Generation and electric control of spin-valley-coupled circular photogalvanic current in WSe ₂ . Nature Nanotechnology, 2014, 9, 851-857.	15.6	278
23	High Responsivity Phototransistors Based on Few-Layer ReS ₂ for Weak Signal Detection. Advanced Functional Materials, 2016, 26, 1938-1944.	7.8	270
24	Charge localization by static and dynamic distortions of the MnO ₆ octahedra in perovskite manganites. Physical Review B, 1996, 54, 8992-8995.	1.1	259
25	An Emergent Change of Phase for Electronics. Science, 2010, 327, 1601-1602.	6.0	253
26	Dominant Mobility Modulation by the Electric Field Effect at the LaAlO ₃ /SrTiO ₃ interface. Physical Review Letters, 2009, 103, 226802.	2.9	246
27	Detection of Berry's Phase in a Bulk Rashba Semiconductor. Science, 2013, 342, 1490-1493.	6.0	244
28	Two-Dimensional Electron Gases at Oxide Interfaces. MRS Bulletin, 2008, 33, 1027-1034.	1.7	238
29	Two-dimensional normal-state quantum oscillations in a superconducting heterostructure. Nature, 2009, 462, 487-490.	13.7	222
30	Enhanced Intergrain Tunneling Magnetoresistance in Half-Metallic CrO ₂ Films. Science, 1997, 278, 1607-1609.	6.0	218
31	Charge-ordered states in (La,Sr) ₂ NiO ₄ for hole concentrations $n_h = 1/3$ and $1/2$. Physical Review B, 1994, 49, 7088-7091.	1.1	212
32	Polar Discontinuity Doping of the LaVO ₃ . Physical Review Letters, 2007, 99, 236805.	2.9	207
33	Electronic structure of the parent compound of superconducting infinite-layer nickelates. Nature Materials, 2020, 19, 381-385.	13.3	205
34	Superconducting Dome in Nd _{1-x} Bi _x Infinite Layer Films. Physical Review Letters, 2020, 125, 027001.	2.9	202
35	Pressure induced metallization with absence of structural transition in layered molybdenum diselenide. Nature Communications, 2015, 6, 7312.	5.8	193
36	Intergrain Magnetoresistance via Second-Order Tunneling in Perovskite Manganites. Physical Review Letters, 1999, 82, 4508-4511.	2.9	190

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37	Built-in and induced polarization across LaAlO ₃ /SrTiO ₃ heterojunctions. Nature Physics, 2011, 7, 80-86.	6.5	178
38	Subband Structure of a Two-Dimensional Electron Gas Formed at the Polar Surface of the Strong Spin-Orbit Perovskite $KTaO_3$. Physical Review Letters, 2012, 108, 117602.	2.9	173
39	Locally enhanced conductivity due to the tetragonal domain structure in LaAlO ₃ /SrTiO ₃ heterointerfaces. Nature Materials, 2013, 12, 1091-1095.	13.3	172
40	A Superconducting Praseodymium Nickelate with Infinite Layer Structure. Nano Letters, 2020, 20, 5735-5740.	4.5	172
41	Charge-ordered stripes in La _{1-x} Ca _x MnO ₃ with x>0.5 (invited). Journal of Applied Physics, 1997, 81, 4326-4330.	1.1	170
42	Evolution of the Low-Frequency Spin Dynamics in Ferromagnetic Manganites. Physical Review Letters, 1998, 80, 4012-4015.	2.9	165
43	Strongly Spin-Orbit Coupled Two-Dimensional Electron Gas Emerging near the Surface of Polar Semiconductors. Physical Review Letters, 2013, 110, 107204.	2.9	154
44	Extreme tensile strain states in La _{0.7} Ca _{0.3} MnO ₃ membranes. Science, 2020, 368, 71-76.	6.0	151
45	Robust d-wave superconductivity of infinite-layer nickelates. Physical Review B, 2020, 101, .		
46	Nickelate Superconductivity without Rare-Earth Magnetism: (La,Sr)NiO ₂ . Advanced Materials, 2021, 33, e2104083.	11.1	139
47	Microscopic origins for stabilizing room-temperature ferromagnetism in ultrathin manganite layers. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 11682-11685.	3.3	135
48	High-frequency modulation without the relaxation oscillation resonance in quantum cascade lasers. Applied Physics Letters, 2001, 79, 2526-2528.	1.5	131
49	Strain-induced room-temperature ferroelectricity in SrTiO ₃ membranes. Nature Communications, 2020, 11, 3141.	5.8	121
50	Magnon damping by magnon-phonon coupling in manganese perovskites. Physical Review B, 2000, 61, 9553-9557.	1.1	120
51	Softening and Broadening of the Zone Boundary Magnons in Pr _{0.63} Sr _{0.37} MnO ₃ . Physical Review Letters, 1998, 80, 1316-1319.	2.9	118
52	Epitaxial growth and electronic structure of LaTiO _x films. Applied Physics Letters, 2002, 80, 3922-3924.	1.5	115
53	Magnetic excitations in infinite-layer nickelates. Science, 2021, 373, 213-216.	6.0	110
54	Charge Writing at the LaAlO ₃ /SrTiO ₃ Surface. Nano Letters, 2010, 10, 2588-2591.	4.5	107

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55	Aspects of the synthesis of thin film superconducting infinite-layer nickelates. APL Materials, 2020, 8, .	2.2	107
56	Quantum cascade lasers with double metal-semiconductor waveguide resonators. Applied Physics Letters, 2002, 80, 3060-3062.	1.5	104
57	Multiple conducting carriers generated in LaAlO ₃ /SrTiO ₃ heterostructures. Applied Physics Letters, 2009, 95, .	1.5	104
58	A heteroepitaxial perovskite metal-base transistor. Nature Materials, 2011, 10, 198-201.	13.3	104
59	Magnetic anisotropy of doped manganite thin films and crystals. Journal of Applied Physics, 1998, 83, 7064-7066.	1.1	103
60	Two-dimensional limit of crystalline order in perovskite membrane films. Science Advances, 2017, 3, eaao5173.	4.7	103
61	Doping evolution of the Mott-Hubbard landscape in infinite-layer nickelates. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	101
62	Phase diagram of infinite layer praseodymium nickelate $\text{Pr}_{1-x}\text{Ca}_x\text{NiO}_2$ thin films. Physical Review Materials, 2020, 4, .	0.9	100
63	Thickness dependence of the mobility at the LaAlO ₃ /SrTiO ₃ interface. Applied Physics Letters, 2009, 94, 222111.	1.5	96
64	Gate-tuned superfluid density at the superconducting LaAlO ₃ /SrTiO ₃ interface. Physical Review B, 2012, 86, .	1.1	94
65	Termination control of the interface dipole in La _{1-x} Sr _x AlO ₃ /SrTiO ₃ interface. Physical Review B, 2009, 79, .	1.1	90
66	Low-field magnetoresistance in the pyrochlore Tl ₂ Mn ₂ O ₇ . Nature, 1997, 389, 942-944.	13.7	89
67	Dramatic mobility enhancements in doped SrTiO ₃ thin films by defect management. Applied Physics Letters, 2010, 97, .	1.5	88
68	Electrically Tunable Coherent Optical Absorption in Graphene with Ion Gel. Nano Letters, 2015, 15, 1570-1576.	4.5	85
69	Gate-Induced Interfacial Superconductivity in 1T-SnSe ₂ . Nano Letters, 2018, 18, 1410-1415.	4.5	81
70	Evolution of the Valley Position in Bulk Transition-Metal Chalcogenides and Their Monolayer Limit. Nano Letters, 2016, 16, 4738-4745.	4.5	80
71	Visible-light-enhanced gating effect at the LaAlO ₃ /SrTiO ₃ interface. Nature Communications, 2014, 5, 5554.	5.8	79
72	APPLIED PHYSICS: Tuning Interface States. Science, 2006, 313, 1895-1896.	6.0	77

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73	Lattice-polarization effects on electron-gas charge densities in ionic superlattices. <i>Physical Review B</i> , 2006, 73, .	1.1	76
74	Visualizing the interfacial evolution from charge compensation to metallic screening across the manganite metal-insulator transition. <i>Nature Communications</i> , 2014, 5, 3464.	5.8	73
75	Electrical tuning of a quantum plasmonic resonance. <i>Nature Nanotechnology</i> , 2017, 12, 866-870.	15.6	72
76	Characterization of the Schottky barrier in SrRuO ₃ Nb:SrTiO ₃ junctions. <i>Applied Physics Letters</i> , 2007, 90, 143507.	1.5	71
77	Enhanced Thermodynamic Stability of Epitaxial Oxide Thin Films. <i>Advanced Materials</i> , 2008, 20, 2528-2532.	11.1	71
78	Enhancing Electron Mobility at the LaAlO ₃ /SrTiO ₃ Interface by Surface Control. <i>Advanced Materials</i> , 2013, 25, 4735-4738.	11.1	71
79	Quantification and impact of nonparabolicity of the conduction band of indium tin oxide on its plasmonic properties. <i>Applied Physics Letters</i> , 2014, 105, 181117.	1.5	69
80	Imaging and tuning polarity at SrTiO ₃ domain walls. <i>Nature Materials</i> , 2017, 16, 1203-1208.	13.3	68
81	Polaronic behavior in a weak-coupling superconductor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 1475-1480.	3.3	67
82	Surface depletion in doped SrTiO ₃ thin films. <i>Applied Physics Letters</i> , 2004, 84, 1716-1718.	1.5	65
83	Complex oxides on fire. <i>Nature Materials</i> , 2008, 7, 694-695.	13.3	65
84	Strain-tunable magnetism at oxide domain walls. <i>Nature Physics</i> , 2019, 15, 269-274.	6.5	65
85	Electrochemical generation of liquid and solid sulfur on two-dimensional layered materials with distinct areal capacities. <i>Nature Nanotechnology</i> , 2020, 15, 231-237.	15.6	65
86	Electronic charges and electric potential at LaAlO ₃ /SrTiO ₃ interfaces studied by core-level photoemission spectroscopy. <i>Physical Review B</i> , 2011, 84, .	1.1	64
87	Transistor operation and mobility enhancement in top-gated LaAlO ₃ /SrTiO ₃ heterostructures. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	64
88	Freestanding Oxide Ferroelectric Tunnel Junction Memories Transferred onto Silicon. <i>Nano Letters</i> , 2019, 19, 3999-4003.	4.5	64
89	Stoichiometry control of the electronic properties of the LaAlO ₃ /SrTiO ₃ heterointerface. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	63
90	Tuning the Electron Gas at an Oxide Heterointerface via Free Surface Charges. <i>Advanced Materials</i> , 2011, 23, 1744-1747.	11.1	60

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91	Gate-Induced Metal-Insulator Transition in MoS_2 by Solid Superionic Conductor LaF_3 . Nano Letters, 2018, 18, 2387-2392.	4.5	60
92	Controlling band alignments by artificial interface dipoles at perovskite heterointerfaces. Nature Communications, 2015, 6, 6759.	5.8	58
93	Beyond Substrates: Strain Engineering of Ferroelectric Membranes. Advanced Materials, 2020, 32, e2003780.	11.1	58
94	Electronic Structure Trends Across the Rare-Earth Series in Superconducting Infinite-Layer Nickelates. Physical Review X, 2021, 11, .	2.8	57
95	Carrier density and disorder tuned superconductor-metal transition in a two-dimensional electron system. Nature Communications, 2018, 9, 4008.	5.8	55
96	Monolithic active mode locking of quantum cascade lasers. Applied Physics Letters, 2000, 77, 169-171.	1.5	53
97	Temperature-dependent polarity reversal in $\text{Au}/\text{NbO}_2/\text{TiO}_2/\text{SrO}/\text{TiO}_2/\text{SrO}/\text{TiO}_2/\text{NbO}_2/\text{Au}$ Schottky	1.1	52
98	Enhancing the electron mobility via delta-doping in SrTiO_3 . Applied Physics Letters, 2010, 97, .	1.5	52
99	Ubiquitous strong electron-phonon coupling at the interface of $\text{FeSe}/\text{SrTiO}_3$. Nature Communications, 2017, 8, 14468.	5.8	51
100	Nanometer Scale Electronic Reconstruction at the Interface between LaVO_3 and LaVO_4 . Physical Review Letters, 2006, 97, 256803.	2.9	50
101	Isotropic Pauli-limited superconductivity in the infinite-layer nickelate $\text{Nd}_{0.775}\text{Sr}_{0.225}\text{NiO}_2$. Nature Physics, 2021, 17, 473-477.	6.5	50
102	Orbital and spin character of doped carriers in infinite-layer nickelates. Physical Review B, 2021, 104, .	1.1	50
103	Enhancing the low field magnetoresistive response in perovskite manganites. Applied Physics Letters, 1996, 68, 3494-3496.	1.5	49
104	Atomically flat (110) SrTiO_3 and heteroepitaxy. Applied Physics Letters, 2005, 86, 171908.	1.5	49
105	Intrinsic spin-orbit coupling in superconducting $\hat{\Gamma}$ -doped SrTiO_3 heterostructures. Physical Review B, 2012, 86, .	1.1	49
106	Ultralow Damping in Nanometer-Thick Epitaxial Spinel Ferrite Thin Films. Nano Letters, 2018, 18, 4273-4278.	4.5	48
107	Fermi Surface and Superconductivity in Low-Density High-Mobility $\hat{\Gamma}$ -Doped SrTiO_3 . Physical Review Letters, 2011, 107, 106801.	2.9	46
108	Scanning SQUID susceptometry of a paramagnetic superconductor. Physical Review B, 2012, 85, .	1.1	46

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109	A Two-Dimensional MoS ₂ Catalysis Transistor by Solid-State Ion Gating Manipulation and Adjustment (SIGMA). Nano Letters, 2019, 19, 7293-7300.	4.5	46
110	Oxygen vacancies shine blue. Nature Materials, 2005, 4, 803-804.	13.3	45
111	Dual-Gate Modulation of Carrier Density and Disorder in an Oxide Two-Dimensional Electron System. Nano Letters, 2016, 16, 6130-6136.	4.5	45
112	Coexistence of two-dimensional and three-dimensional Shubnikov-de Haas oscillations in Ar ⁺ -irradiated KTaO ₃ . Physical Review B, 2013, 88, .	1.1	44
113	Scanning Probe Manipulation of Magnetism at the LaAlO ₃ /SrTiO ₃ Heterointerface. Nano Letters, 2012, 12, 4055-4059.	4.5	43
114	Anisotropic Transport at the LaAlO ₃ /SrTiO ₃ Interface Explained by Microscopic Imaging of Channel-Flow over SrTiO ₃ Domains. ACS Applied Materials & Interfaces, 2016, 8, 12514-12519.	4.0	42
115	Atomic Control of the Electronic Structure at Complex Oxide Heterointerfaces. MRS Bulletin, 2006, 31, 28-35.	1.7	41
116	Modulation doping of a Mott quantum well by a proximate polar discontinuity. Physical Review B, 2009, 79, .	1.1	41
117	Thermodynamic guiding principles in selective synthesis of strontium iridate Ruddlesden-Popper epitaxial films. APL Materials, 2016, 4, .	2.2	41
118	Spectroscopic Evidence for Competing Reconstructions in Polar Multilayers LaAlO ₃ . Physical Review Letters, 2009, 102, 236401.	2.9	40
119	Strong self-phase modulation in planar chalcogenide glass waveguides. Optics Letters, 2002, 27, 363.	1.7	39
120	Band Edge Engineering of Oxide Photoanodes for Photoelectrochemical Water Splitting: Integration of Subsurface Dipoles with Atomic-Scale Control. Advanced Energy Materials, 2016, 6, 1502154.	10.2	39
121	Strain Gradient Elasticity in SrTiO ₃ Membranes: Bending versus Stretching. Nano Letters, 2021, 21, 2470-2475.	4.5	39
122	Quantum longitudinal and Hall transport at the LaAlO ₃ /SrTiO ₃ interface at low electron densities. Solid State Communications, 2014, 197, 25-29.	0.9	38
123	Free-standing crystalline YBaCuO ₂ thin films. Physical Review Letters, 2009, 102, 236401.	0.9	38
124	Finite size effect and phase diagram of ultra-thin La _{0.7} Sr _{0.3} MnO ₃ . Solid State Communications, 2010, 150, 598-601.	0.9	37
125	Tuning of Plasmons in Transparent Conductive Oxides by Carrier Accumulation. ACS Photonics, 2018, 5, 1493-1498.	3.2	37
126	Transport mechanisms in manganite-titanate heterojunctions. Physical Review B, 2007, 75, .	1.1	36

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127	LaVO 4 : Eu Phosphor films with enhanced Eu solubility. Applied Physics Letters, 2011, 98, .	1.5	36
128	Asymmetric interface profiles in LaVO ₃ •SrTiO ₃ heterostructures grown by pulsed laser deposition. Applied Physics Letters, 2007, 91, 163101.	1.5	35
129	Magnetic anisotropy, damping, and interfacial spin transport in Pt/LSMO bilayers. AIP Advances, 2016, 6, .	0.6	35
130	Electrochemical and high pressure superoxygenation of YCuO _{2+x} and LaCuO _{2+x} delafossites. Journal of Materials Research, 1994, 9, 314-317.	1.2	33
131	Electric field penetration in Au/Nb:SrTiO ₃ Schottky junctions probed by bias-dependent internal photoemission. Applied Physics Letters, 2011, 98, .	1.5	33
132	BaFeO ₃ cubic single crystalline thin film: A ferromagnetic insulator. Applied Physics Letters, 2013, 103, .	1.5	33
133	Gated tuned superconductivity and phonon softening in monolayer and bilayer MoS ₂ . Npj Quantum Materials, 2017, 2, .	1.8	33
134	Hard x-ray photoemission study of LaAlO ₃ /SrTiO ₃ heterostructures. Physical Review B, 2016, 94, .	1.1	31
135	Variations superconducting transition temperature due to tetragonal domains in two-dimensionally multilayers. Physical Review B, 2016, 94, .	1.1	30
136	Oxygen-deficient barium lead oxide perovskites. Physical Review B, 1993, 47, 11525-11528.	1.1	29
137	Shubnikov•de Haas oscillations in the bulk Rashba semiconductor BiTeI. Physical Review B, 2013, 87, .	1.1	29
138	Origin of the Magnetoresistance in Oxide Tunnel Junctions Determined through Electric Polarization Control of the Interface. Physical Review X, 2015, 5, .	2.8	29
139	Large-Area Crystalline BaSnO ₃ Membranes with High Electron Mobilities. ACS Applied Electronic Materials, 2019, 1, 1269-1274.	2.0	29
140	Direct Imaging of Nanoscale Conductance Evolution in Ion-Gel-Gated Oxide Transistors. Nano Letters, 2015, 15, 4730-4736.	4.5	28
141	Electronic structure of the Mott insulator LaVO ₃ in a quantum well geometry. Applied Physics Letters, 2006, 89, 251916.	1.5	27
142	Landau Level Spectroscopy of Dirac Electrons in a Polar Semiconductor with Giant Rashba Spin Splitting. Physical Review Letters, 2013, 111, 166403.	2.9	27
143	Ultrathin Epitaxial Barrier Layer to Avoid Thermally Induced Phase Transformation in Oxide Heterostructures. ACS Applied Materials & Interfaces, 2017, 9, 54-59.	4.0	27
144	Large-Scale Production of Graphene Nanoribbons from Electrospun Polymers. Journal of the American Chemical Society, 2014, 136, 17284-17291.	6.6	26

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145	Stabilization of Sr ₃ Al ₂ O ₆ Growth Templates for Ex Situ Synthesis of Freestanding Crystalline Oxide Membranes. Nano Letters, 2021, 21, 4454-4460.	4.5	25
146	Reentrant insulating state in ultrathin manganite films. Applied Physics Letters, 2011, 99, 092513.	1.5	24
147	Atomically Engineered Metal-Insulator Transition at the TiO ₂ /LaAlO ₃ Heterointerface. Nano Letters, 2014, 14, 6743-6746.	4.5	24
148	Enhanced Electrical Transparency by Ultrathin LaAlO ₃ Insertion at Oxide Metal/Semiconductor Heterointerfaces. Nano Letters, 2015, 15, 1622-1626.	4.5	24
149	Oxygen Evolution Reaction Activity in IrOx/SrIrO ₃ Catalysts: Correlations between Structural Parameters and the Catalytic Activity. Journal of Physical Chemistry Letters, 2019, 10, 1516-1522.	2.1	24
150	Magnetotransport effects in polar versus non-polar SrTiO ₃ based heterostructures. Physical Review B, 2012, 86, .	1.1	23
151	Ferromagnetic resonance of perpendicularly magnetized Tm ₃ Fe ₅ O ₁₂ /Pt heterostructures. Applied Physics Letters, 2019, 115, .	1.5	23
152	Resonant soft x-ray scattering studies of interface reconstructions in SrTiO ₃ /LaAlO ₃ superlattices. Journal of Applied Physics, 2009, 106, 083705.	1.1	22
153	Josephson Junctions with Tunable Weak Links. Science, 2001, 292, 252-254.	6.0	21
154	Charge dynamics in (La, Sr) ₂ CuO ₄ : from underdoping to overdoping. Journal of Low Temperature Physics, 1994, 95, 23-31.	0.6	20
155	Photoinduced Demagnetization and Insulator-to-Metal Transition in Ferromagnetic Insulating BaFeO ₃ Thin Films. Physical Review Letters, 2016, 116, 256402.	2.9	20
156	Observation of an intermediate state during lithium intercalation of twisted bilayer MoS ₂ . Nature Communications, 2022, 13, .	5.8	20
157	Mn ₃ O ₄ precipitates in laser-ablated manganite films. Applied Physics Letters, 2009, 95, .	1.5	19
158	Compositional and gate tuning of the interfacial conductivity in LaAlO ₃ /LaTiO ₃ /SrTiO ₃ heterostructures. Applied Physics Letters, 2013, 102, .	1.5	19
159	Metal-to-insulator transition in anatase TiO ₂ thin films induced by growth rate modulation. Applied Physics Letters, 2012, 101, .	1.5	18
160	Synthesis and electronic properties of Fe ₂ TiO ₅ epitaxial thin films. APL Materials, 2018, 6, .	2.2	18
161	Rectifying NdNiO ₃ •Nb:SrTiO ₃ junctions as a probe of the surface electronic structure of NdNiO ₃ . Applied Physics Letters, 2006, 88, 142111.	1.5	17
162	Negative differential resistance induced by Mn substitution at interfaces. Physical Review B, 2008, 77, .	1.1	16

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163	Spatial density profile of electrons near the LaAlO ₃ /SrTiO ₃ heterointerface revealed by time-resolved photoluminescence spectroscopy. Applied Physics Letters, 2014, 104, .	1.5	16
164	Optical Study of Tetragonal Domains in LaAlO ₃ /SrTiO ₃ . Journal of Superconductivity and Novel Magnetism, 2015, 28, 1017-1020.	0.8	16
165	A termination-insensitive and robust electron gas at the heterointerface of two complex oxides. Nature Communications, 2019, 10, 4026.	5.8	16
166	Understanding Degradation Mechanisms in SrIrO ₃ Oxygen Evolution Electrocatalysts: Chemical and Structural Microscopy at the Nanoscale. Advanced Functional Materials, 2021, 31, 2101542.	7.8	16
167	Carrier doping in anatase TiO ₂ film by perovskite overlayer deposition. Applied Physics Letters, 2008, 93, 082112.	1.5	15
168	Electronic structure of superconducting nickelates probed by resonant photoemission spectroscopy. Matter, 2022, 5, 1806-1815.	5.0	15
169	Tuning Band Alignment Using Interface Dipoles at the Pt/Anatase TiO ₂ Interface. Advanced Materials, 2015, 27, 7458-7461.	11.1	14
170	Enhanced Sensitivity of Atomic-Resolution Spectroscopic Imaging by Direct Electron Detection. Microscopy and Microanalysis, 2017, 23, 366-367.	0.2	14
171	Mapping cation diffusion through lattice defects in epitaxial oxide thin films on the water-soluble buffer layer SrAl ₂ O ₆ using atomic resolution electron microscopy. APL Materials, 2017, 5, .	2.2	13
172	Strain Tuning in Complex Oxide Epitaxial Films Using an Ultrathin Strontium Aluminate Buffer Layer. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1700339.	1.2	13
173	Charge order textures induced by non-linear couplings in a half-doped manganite. Nature Communications, 2021, 12, 3747.	5.8	12
174	Interface reconstruction in V-oxide heterostructures determined by x-ray absorption spectroscopy. Applied Physics Letters, 2009, 95, 023115.	1.5	11
175	Insulator-to-metal crossover near the edge of the superconducting dome in $\text{Nd}_{1-x}\text{Ce}_x\text{VO}_2$. Physical Review Research, 2021, 3, .		
176	Magnetodielectric coupling in nonmagnetic Au/GaAs:Si Schottky barriers. Physical Review B, 2009, 80, .	1.1	10
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