

Mark Huijben

List of Publications by Year in descending order

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112
papers

8,480
citations

57758

44
h-index

43889

91
g-index

115
all docs

115
docs citations

115
times ranked

8181
citing authors

#	ARTICLE	IF	CITATIONS
1	Magnetic effects at the interface between non-magnetic oxides. Nature Materials, 2007, 6, 493-496.	27.5	1,489
2	Critical thickness and orbital ordering in ultrathin $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ interfaces. Physical Review B, 2008, 78, 080401.	3.2	379
3	Interface Ferromagnetism and Orbital Reconstruction in $\text{BiFeO}_3/\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ Heterostructure. Physical Review Letters, 2010, 105, 087201.	7.8	335
4	Deterministic control of ferroelastic switching in multiferroic materials. Nature Nanotechnology, 2009, 4, 868-875.	31.5	331
5	Electronically coupled complementary interfaces between perovskite band insulators. Nature Materials, 2006, 5, 556-560.	27.5	325
6	Enhanced electric conductivity at ferroelectric vortex cores in BiFeO_3 . Nature Physics, 2012, 8, 81-88.	16.7	324
7	Suppression of Octahedral Tilts and Associated Changes in Electronic Properties at Epitaxial Oxide Heterostructure Interfaces. Physical Review Letters, 2010, 105, 087204.	7.8	308
8	Multiferroics and magnetoelectrics: thin films and nanostructures. Journal of Physics Condensed Matter, 2008, 20, 434220.	1.8	292
9	Structure-Property Relation of $\text{SrTiO}_3/\text{LaAlO}_3$ Interfaces. Advanced Materials, 2009, 21, 1665-1677.	21.0	292
10	Controlled lateral anisotropy in correlated manganite heterostructures by interface-engineered oxygen octahedral coupling. Nature Materials, 2016, 15, 425-431.	27.5	292
11	Orbital Reconstruction and the Two-Dimensional Electron Gas at the $\text{LaAlO}_3/\text{SrTiO}_3$ Interface. Physical Review Letters, 2009, 102, 166804.	7.8	274
12	Nanoscale Control of Exchange Bias with BiFeO_3 Thin Films. Nano Letters, 2008, 8, 2050-2055.	9.1	270
13	Towards Oxide Electronics: a Roadmap. Applied Surface Science, 2019, 482, 1-93.	6.1	236
14	Ferroelectric size effects in multiferroic BiFeO_3 thin films. Applied Physics Letters, 2007, 90, 252906.	3.3	180
15	Extreme mobility enhancement of two-dimensional electron gases at oxide interfaces by charge-transfer-induced modulation doping. Nature Materials, 2015, 14, 801-806.	27.5	174
16	High-Temperature Magnetic Insulating Phase in Ultrathin $\text{La}_{0.67}\text{Sr}_{0.33}\text{MnO}_3$. Physical Review Letters, 2012, 109, 157207.	7.8	106
17	Optimized fabrication of high-quality $\text{La}_{0.67}\text{Sr}_{0.33}\text{MnO}_3$ thin films considering all essential characteristics. Journal Physics D: Applied Physics, 2011, 44, 205001.	2.8	105
18	Parallel Electron-Hole Bilayer Conductivity from Electronic Interface Reconstruction. Physical Review Letters, 2010, 104, 166804.	7.8	102

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19	Thermal conductivity reduction in oxygen-deficient strontium titanates. Applied Physics Letters, 2008, 92, .	3.3	100
20	Defect Engineering in Oxide Heterostructures by Enhanced Oxygen Surface Exchange. Advanced Functional Materials, 2013, 23, 5240-5248.	14.9	88
21	Atomically Resolved Mapping of Polarization and Electric Fields Across Ferroelectric/Oxide Interfaces by Zr Contrast Imaging. Advanced Materials, 2011, 23, 2474-2479.	21.0	79
22	Symmetry and lattice mismatch induced strain accommodation near and away from correlated perovskite interfaces. Applied Physics Letters, 2014, 105, .	3.3	77
23	Preventing the Reconstruction of the Polar Discontinuity at Oxide Heterointerfaces. Advanced Functional Materials, 2012, 22, 2235-2240.	14.9	72
24	Interface properties of magnetic tunnel junction $\langle \text{La} \rangle \langle \text{AlO}_3 \rangle$ Physical Review B, 2010, 82, .	3.2	71
25	Ultrathin limit and dead-layer effects in local polarization switching of BiFeO $\langle \text{AlO}_3 \rangle$ Physical Review B, 2012, 85, .	3.2	71
26	Probing the evolution of antiferromagnetism in multiferroics. Physical Review B, 2010, 81, .	3.2	70
27	Upper Limit to Magnetism in $\langle \text{LaAlO}_3 \rangle \langle \text{SrTiO}_3 \rangle$ Physical Review Letters, 2011, 107, 217201.		
28	Pulsed laser deposition-induced reduction of SrTiO ₃ crystals. Acta Materialia, 2010, 58, 457-463.	7.9	65
29	Hard x-ray photoemission and density functional theory study of the internal electric field in SrTiO ₃ /LaAlO ₃ oxide heterostructures. Physical Review B, 2013, 87, .	3.2	64
30	Research Update: Stoichiometry controlled oxide thin film growth by pulsed laser deposition. APL Materials, 2015, 3, .	5.1	61
31	Thickness Dependent Properties in Oxide Heterostructures Driven by Structurally Induced Metal-Oxygen Hybridization Variations. Advanced Functional Materials, 2017, 27, 1606717.	14.9	61
32	Persistent conductive footprints of 109Å° domain walls in bismuth ferrite films. Applied Physics Letters, 2014, 104, .	3.3	60
33	Ultrathin Limit of Exchange Bias Coupling at Oxide Multiferroic/Ferromagnetic Interfaces. Advanced Materials, 2013, 25, 4739-4745.	21.0	59
34	Thermal conductivity as a metric for the crystalline quality of SrTiO ₃ epitaxial layers. Applied Physics Letters, 2011, 98, 221904.	3.3	58
35	Metal-insulator-transition engineering by modulation tilt-control in perovskite nickelates for room temperature optical switching. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9515-9520.	7.1	56
36	Anomalously large measured thermoelectric power factor in Sr _{1-x} LaxTiO ₃ thin films due to SrTiO ₃ substrate reduction. Applied Physics Letters, 2008, 92, 202113.	3.3	54

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37	Interface structure of SrTiO ₃ /LaAlO ₃ at elevated temperatures studied in situ by synchrotron x rays. Physical Review B, 2007, 75, .	3.2	52
38	Quantum oscillations and subband properties of the two-dimensional electron gas at the LaAlO ₃ /SrTiO ₃ interface. APL Materials, 2014, 2, .	5.1	50
39	Intrinsic Nucleation Mechanism and Disorder Effects in Polarization Switching on Ferroelectric Surfaces. Physical Review Letters, 2009, 102, 017601.	7.8	49
40	Nickel Niobate Anodes for High Rate Lithium-Ion Batteries. Advanced Energy Materials, 2022, 12, .	19.5	49
41	Influence of charge compensation mechanisms on the sheet electron density at conducting LaAlO ₃ /SrTiO ₃ -interfaces. Applied Physics Letters, 2012, 100, .	3.3	48
42	The influence of oxygen deficiency on the thermoelectric properties of strontium titanates. Applied Physics Letters, 2008, 92, .	3.3	47
43	An Epitaxial Transparent Conducting Perovskite Oxide: Double-Doped SrTiO ₃ . Chemistry of Materials, 2010, 22, 3983-3987.	6.7	46
44	Direct patterning of functional interfaces in oxide heterostructures. Applied Physics Letters, 2012, 100, .	3.3	45
45	Enhanced Lithium Transport by Control of Crystal Orientation in Spinel LiMn ₂ O ₄ Thin Film Cathodes. ACS Applied Energy Materials, 2018, 1, 7046-7051.	5.1	45
46	Spectroscopic evidence of in-gap states at the SrTiO ₃ /LaAlO ₃ ultrathin interfaces. Applied Physics Letters, 2011, 98, .	3.3	43
47	Anisotropic electrical transport properties of a two-dimensional electron gas at SrTiO ₃ /LaAlO ₃ interfaces. Applied Physics Letters, 2011, 98, .	3.3	42
48	Band offsets and density of Ti d_{xy} states probed by x-ray photoemission on LaAlO ₃ /SrTiO ₃ interfaces. Physical Review B, 2013, 88, .	3.2	41
49	Tuning the electron effective mass in double-doped SrTiO ₃ . Physical Review B, 2013, 88, .	3.2	39
50	Transport limits in defect-engineered LaAlO ₃ /SrTiO ₃ bilayers. Nanoscale, 2015, 7, 1013-1022.	5.6	39
51	Defect-induced asymmetry of local hysteresis loops on BiFeO ₃ surfaces. Journal of Materials Science, 2009, 44, 5095-5101.	3.7	38
52	Momentum-resolved electronic structure at a buried interface from soft X-ray standing-wave angle-resolved photoemission. Europhysics Letters, 2013, 104, 17004.	2.0	35
53	Domain Selectivity in BiFeO ₃ Thin Films by Modified Substrate Termination. Advanced Functional Materials, 2016, 26, 2882-2889.	14.9	35
54	Enhanced Local Magnetization by Interface Engineering in Perovskite-type Correlated Oxide Heterostructures. Advanced Materials Interfaces, 2015, 2, 1400416.	3.7	33

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55	Electronic reconstruction at $\text{LaAlO}_3/\text{SrTiO}_3$ interface. <i>Physical Review B</i> , 2010, 81, .	3.2	32
56	Interface-engineered oxygen octahedral coupling in manganite heterostructures. <i>Applied Physics Reviews</i> , 2017, 4, 041103.	11.3	32
57	Doubling Reversible Capacities in Epitaxial $\text{Li}_4\text{Ti}_5\text{O}_{12}$ Thin Film Anodes for Microbatteries. <i>ACS Applied Energy Materials</i> , 2019, 2, 3410-3418.	5.1	32
58	Ubiquitous long-range antiferromagnetic coupling across the interface between superconducting and ferromagnetic oxides. <i>Nature Communications</i> , 2014, 5, 5626.	12.8	30
59	Influence of substrate film interface engineering on the superconducting properties of $\text{YBa}_2\text{Cu}_3\text{O}_7$. <i>Applied Physics Letters</i> , 2004, 84, 1150-1152.	3.3	29
60	Enhanced Thermoelectric Power Factor of NaCo_2O_7 Thin Films by Structural Engineering. <i>Advanced Energy Materials</i> , 2014, 4, 1301927.	19.5	29
61	Long-Range Domain Structure and Symmetry Engineering by Interfacial Oxygen Octahedral Coupling at Heterostructure Interface. <i>Advanced Functional Materials</i> , 2016, 26, 6627-6634.	14.9	25
62	Non-spectroscopic composition measurements of $\text{SrTiO}_3\text{-La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ multilayers using scanning convergent beam electron diffraction. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	25
63	Strain-Engineered Metal-Insulator Transition and Orbital Polarization in Nickelate Superlattices Integrated on Silicon. <i>Advanced Materials</i> , 2020, 32, e2004995.	21.0	24
64	Spatially Controlled Octahedral Rotations and Metal-Insulator Transitions in Nickelate Superlattices. <i>Nano Letters</i> , 2021, 21, 1295-1302.	9.1	24
65	Native $\text{SrTiO}_3(001)$ surface layer from resonant $\text{Ti L}_{2,3}$ reflectance spectroscopy. <i>Physical Review B</i> , 2010, 82, .	3.2	19
66	Intrinsic origin of interface states and band-offset profiling of nanostructured $\text{LaAlO}_3/\text{SrTiO}_3$ heterojunctions probed by element-specific resonant photoemission spectroscopy. <i>Physical Review B</i> , 2014, 90, .	3.2	19
67	Achieving chemical stability in thermoelectric $\text{Na}_x\text{Co}_2\text{O}_7$ thin films. <i>RSC Advances</i> , 2012, 2, 6023.	3.6	16
68	The effect of Rh^{3+} dopant in SrTiO_3 on the active oxidation state of co-catalytic Pt nanoparticles in overall water splitting. <i>Catalysis Science and Technology</i> , 2016, 6, 7793-7799.	4.1	16
69	Tailoring Vanadium Dioxide Film Orientation Using Nanosheets: a Combined Microscopy, Diffraction, Transport, and Soft X-Ray in Transmission Study. <i>Advanced Functional Materials</i> , 2020, 30, 1900028.	14.9	16
70	Enhanced lithiation dynamics in nanostructured $\text{Nb}_{18}\text{W}_{16}\text{O}_{93}$ anodes. <i>Journal of Power Sources</i> , 2021, 482, 228898.	7.8	15
71	Enhanced Cycling and Rate Capability by Epitaxially Matched Conductive Cubic TiO Coating on LiCoO_2 Cathode Films. <i>ACS Applied Energy Materials</i> , 2021, 4, 5024-5033.	5.1	14
72	Local probing of coupled interfaces between two-dimensional electron and hole gases in oxide heterostructures by variable-temperature scanning tunneling spectroscopy. <i>Physical Review B</i> , 2012, 86, .	3.2	13

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73	Resonant soft x-ray scattering from stepped surfaces of SrTiO ₃ . Journal of Physics Condensed Matter, 2012, 24, 035501.	1.8	13
74	Highly ordered C60 films on epitaxial Fe/MgO(001) surfaces for organic spintronics. Organic Electronics, 2013, 14, 451-456.	2.6	13
75	Signatures of enhanced out-of-plane polarization in asymmetric BaTiO ₃ superlattices integrated on silicon. Nature Communications, 2022, 13, 265.	12.8	13
76	Transmission electron microscopy on interface engineered superconducting thin films. IEEE Transactions on Applied Superconductivity, 2003, 13, 2834-2837.	1.7	12
77	3-D vertically aligned few layer graphene "partially reduced graphene oxide/sulfur electrodes for high performance lithium-sulfur batteries. Sustainable Energy and Fuels, 2017, 1, 1516-1523.	4.9	12
78	Dielectric-permittivity-driven charge carrier modulation at oxide interfaces. Physical Review B, 2010, 81, .	3.2	11
79	Size effects on thermoelectric behavior of ultrathin Na _x CoO ₂ films. Applied Physics Letters, 2014, 105, 193902.	3.3	11
80	Stability and thermoelectric performance of doped higher manganese silicide materials solidified by RGS (ribbon growth on substrate) synthesis. Journal of Alloys and Compounds, 2020, 832, 154602.	5.5	11
81	High-temperature stability of thermoelectric Ca ₃ Co ₄ O ₉ thin films. Applied Physics Letters, 2015, 106, 143903.	3.3	10
82	Selective Hydrothermal Method To Create Patterned and Photoelectrochemically Effective Pt/WO ₃ Interfaces. ACS Applied Materials & Interfaces, 2013, 5, 13050-13054.	8.0	9
83	Uniaxial magnetic anisotropy induced low field anomalous anisotropic magnetoresistance in manganite thin films. APL Materials, 2014, 2, .	5.1	9
84	Growth studies of heteroepitaxial oxide thin films using reflection high-energy electron diffraction (RHEED). , 2015, , 3-29.		9
85	Modified spin relaxation mechanism by tunable coupling between interfacial two-dimensional electron gases in correlated oxide heterostructures. Physical Review B, 2017, 96, .	3.2	9
86	Morphology Evolution during Lithium-Based Vertically Aligned Nanocomposite Growth. ACS Applied Materials & Interfaces, 2019, 11, 44444-44450.	8.0	9
87	Initial Structure and Growth Dynamics of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Pulsed Laser Deposition. Physical Review Letters, 2007, 98, 196106.		
88	Experimental evidence for anisotropic double exchange interaction driven anisotropic transport in manganite heterostructures. Scientific Reports, 2017, 7, 2654.	3.3	7
89	Metal-insulator transition of SrVO ₃ ultrathin films embedded in SrVO ₃ / SrTiO ₃ superlattices. Applied Physics Letters, 2020, 117, 133105.	3.3	7
90	Thermal-strain-engineered ferromagnetism of $\text{LaMnO}_3/\text{SrTiO}_3$ heterostructures grown on silicon. Physical Review Materials, 2020, 4, .	2.4	7

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91	Two-dimensional electron systems in perovskite oxide heterostructures: Role of the polarity-induced substitutional defects. <i>Physical Review Materials</i> , 2020, 4, .	2.4	7
92	Depth-resolved resonant inelastic x-ray scattering at a superconductor/half-metallic-ferromagnet interface through standing wave excitation. <i>Physical Review B</i> , 2018, 98, .	3.2	6
93	Lithium-based vertically aligned nanocomposites for three-dimensional solid-state batteries. <i>MRS Bulletin</i> , 2021, 46, 152-158.	3.5	6
94	Intrinsic versus extrinsic orbital and electronic reconstructions at complex oxide interfaces. <i>Physical Review Materials</i> , 2021, 5, .	2.4	6
95	Growth of CaFeOx/LaFeO3 Superlattice on SrTiO3(100) Substrates. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1292, 125.	0.1	5
96	Cost Efficient Manufacturing of Silicide Thermoelectric Materials and Modules using RGS Technique. <i>Materials Today: Proceedings</i> , 2015, 2, 538-547.	1.8	5
97	2D titanoniobate-titaniumcarbide nanohybrid anodes for ultrafast lithium-ion batteries. <i>Journal of Power Sources</i> , 2021, 512, 230523.	7.8	5
98	Electronic switching by metastable polarization states in $\text{BiFeO}_3/\text{O}_3$ thin films. <i>Physical Review Materials</i> , 2018, 2, .	2.4	5
99	Interface engineering and strain in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ thin films. <i>Phase Transitions</i> , 2008, 81, 703-716.	1.3	4
100	Multi-band conduction behaviour at the interface of LaAlO3/SrTiO3 heterostructures. <i>Journal of the Korean Physical Society</i> , 2013, 63, 437-440.	0.7	4
101	Oxide superlattices by PLD: A practical guide. , 2018, , 27-52.		4
102	Thermoelectric oxides. , 2015, , 397-441.		3
103	Long-range ordering of two-dimensional wide bandgap tantalum oxide nanosheets in printed films. <i>Journal of Materials Chemistry C</i> , 2021, 9, 5699-5705.	5.5	3
104	Growth and Evaluation of $[\text{AFeO}_x/\text{REFeO}_3]$ (A=Ca, Sr, RE=La, Bi) Superlattices by Pulsed Laser Deposition Method Using High Density Targets Prepared by Pechini Method. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1454, 161-166.	0.1	2
105	Growth of $[\text{CaFeO}_x/\text{BiFeO}_3]$ superlattice by Pulsed Laser Deposition Method Using High Density Target Prepared by Pechini Method. <i>Transactions of the Materials Research Society of Japan</i> , 2012, 37, 381-384.	0.2	2
106	Fabrication and crystal structure of $[\text{ABO}_3/\text{REMO}_3]$ (A = Ca, La, B = Fe, Mn, RE =) Tj ETQq0 0 0 rgBT /Overlock method. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 05FB12.	1.5	2
107	Engineering interfacial energy profile by changing the substrate terminating plane in perovskite heterointerfaces. <i>Physical Review B</i> , 2016, 93, .	3.2	2
108	Numerical modeling of the plasma plume propagation and oxidation during pulsed laser deposition of complex oxide thin films. <i>Physical Review Materials</i> , 2020, 4, .	2.4	2

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109	In-plane electric properties of [CaMnO ₃ /REMO ₃] (RE = Bi, La M = Fe, Fe _{0.8} Mn _{0.2}) superlattices grown by pulsed laser deposition method. Japanese Journal of Applied Physics, 2014, 53, 05FB20.	1.5	1
110	Growth studies of heteroepitaxial oxide thin films using reflection high-energy electron diffraction. , 2022, , 3-36.		1
111	High-Performance Lithium Polymer Battery Pack for Real-World Racing Motorcycle. , 2021, , .		1
112	Interfacial Structure in Multiferroic BiFeO ₃ Thin Films. Microscopy and Microanalysis, 2009, 15, 1028-1029.	0.4	0