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	Nickel Niobate Anodes for High Rate Lithiumâ€Ion Batteries. Advanced Energy Materials, 2022, 12, .	19.5	49
2	Signatures of enhanced out-of-plane polarization in asymmetric BaTiO3 superlattices integrated on silicon. Nature Communications, 2022, 13, 265.	12.8	13
3	Growth studies of heteroepitaxial oxide thin films using reflection high-energy electron diffraction. , 2022, , 3-36.		1
4	Enhanced lithiation dynamics in nanostructured Nb18W16O93 anodes. Journal of Power Sources, 2021, 482, 228898.	7.8	15
5	Long-range ordering of two-dimensional wide bandgap tantalum oxide nanosheets in printed films. Journal of Materials Chemistry C, 2021, 9, 5699-5705.	5.5	3
6	Spatially Controlled Octahedral Rotations and Metalâ€“Insulator Transitions in Nickelate Superlattices. Nano Letters, 2021, 21, 1295-1302.	9.1	24
7	Lithium-based vertically aligned nanocomposites for three-dimensional solid-state batteries. MRS Bulletin, 2021, 46, 152-158.	3.5	6
8	Enhanced Cycling and Rate Capability by Epitaxially Matched Conductive Cubic TiO Coating on LiCoO₂ Cathode Films. ACS Applied Energy Materials, 2021, 4, 5024-5033.	5.1	14
9	Intrinsic versus extrinsic orbital and electronic reconstructions at complex oxide interfaces. Physical Review Materials, 2021, 5, .	2.4	6
10	2D titanoniobate-titaniumcarbide nanohybrid anodes for ultrafast lithium-ion batteries. Journal of Power Sources, 2021, 512, 230523.	7.8	5
11	High-Performance Lithium Polymer Battery Pack for Real-World Racing Motorcycle. , 2021, , .		1
12	Tailoring Vanadium Dioxide Film Orientation Using Nanosheets: a Combined Microscopy, Diffraction, Transport, and Soft Xâ€Ray in Transmission Study. Advanced Functional Materials, 2020, 30, 1900028.	14.9	16
13	Strainâ€Engineered Metalâ€toâ€Insulator Transition and Orbital Polarization in Nickelate Superlattices Integrated on Silicon. Advanced Materials, 2020, 32, e2004995.	21.0	24
14	Metal-insulator transition of SrVO 3 ultrathin films embedded in SrVO 3 / SrTiO 3 superlattices. Applied Physics Letters, 2020, 117, 133105.	3.3	7
15	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
16	Thermal-strain-engineered ferromagnetism of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>LaMn</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mo>/</mml:mo><mml:mi>SrTi</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> heterostructures grown on silicon. Physical Review Materials, 2020, 4, .	2.4	7
17	Two-dimensional electron systems in perovskite oxide heterostructures: Role of the polarity-induced substitutional defects. Physical Review Materials, 2020, 4, .	2.4	7
18	Numerical modeling of the plasma plume propagation and oxidation during pulsed laser deposition of complex oxide thin films. Physical Review Materials, 2020, 4, .	2.4	2

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19	Morphology Evolution during Lithium-Based Vertically Aligned Nanocomposite Growth. ACS Applied Materials & Interfaces, 2019, 11, 44444-44450.	8.0	9
20	Towards Oxide Electronics: a Roadmap. Applied Surface Science, 2019, 482, 1-93.	6.1	236
21	Doubling Reversible Capacities in Epitaxial Li₄Ti₅O₁₂ Thin Film Anodes for Microbatteries. ACS Applied Energy Materials, 2019, 2, 3410-3418.	5.1	32
22	Oxide superlattices by PLD: A practical guide. , 2018, , 27-52.		4
23	Enhanced Lithium Transport by Control of Crystal Orientation in Spinel LiMn₂O₄ Thin Film Cathodes. ACS Applied Energy Materials, 2018, 1, 7046-7051.	5.1	45
24	Depth-resolved resonant inelastic x-ray scattering at a superconductor/half-metallic-ferromagnet interface through standing wave excitation. Physical Review B, 2018, 98, .	3.2	6
25	Metalâ€“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
26	Electronic switching by metastable polarization states in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>BiFe</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> thin films. Physical Review Materials, 2018, 2, .	2.4	5
27	Non-spectroscopic composition measurements of SrTiO3-La0.7Sr0.3MnO3 multilayers using scanning convergent beam electron diffraction. Applied Physics Letters, 2017, 110, .	3.3	25
28	Thickness Dependent Properties in Oxide Heterostructures Driven by Structurally Induced Metalâ€“Oxygen Hybridization Variations. Advanced Functional Materials, 2017, 27, 1606717.	14.9	61
29	Interface-engineered oxygen octahedral coupling in manganite heterostructures. Applied Physics Reviews, 2017, 4, 041103.	11.3	32
30	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
31	3-D vertically aligned few layer graphene â€“ partially reduced graphene oxide/sulfur electrodes for high performance lithiumâ€“sulfur batteries. Sustainable Energy and Fuels, 2017, 1, 1516-1523.	4.9	12
32	Experimental evidence for anisotropic double exchange interaction driven anisotropic transport in manganite heterostructures. Scientific Reports, 2017, 7, 2654.	3.3	7
33	The effect of Rh^{Î´+} dopant in SrTiO₃ on the active oxidation state of co-catalytic Pt nanoparticles in overall water splitting. Catalysis Science and Technology, 2016, 6, 7793-7799.	4.1	16
34	Engineering interfacial energy profile by changing the substrate terminating plane in perovskite heterointerfaces. Physical Review B, 2016, 93, .	3.2	2
35	Domain Selectivity in BiFeO₃ Thin Films by Modified Substrate Termination. Advanced Functional Materials, 2016, 26, 2882-2889.	14.9	35
36	Longâ€Range Domain Structure and Symmetry Engineering by Interfacial Oxygen Octahedral Coupling at Heterostructure Interface. Advanced Functional Materials, 2016, 26, 6627-6634.	14.9	25

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37	Controlled lateral anisotropy in correlated manganite heterostructures by interface-engineered oxygen octahedral coupling. Nature Materials, 2016, 15, 425-431.	27.5	292
38	Research Update: Stoichiometry controlled oxide thin film growth by pulsed laser deposition. APL Materials, 2015, 3, .	5.1	61
39	Extreme mobility enhancement ofÂtwo-dimensional electron gases at oxide interfaces byÂcharge-transfer-induced modulationÂdoping. Nature Materials, 2015, 14, 801-806.	27.5	174
40	Enhanced Local Magnetization by Interface Engineering in Perovskiteâ€Type Correlated Oxide Heterostructures. Advanced Materials Interfaces, 2015, 2, 1400416.	3.7	33
41	Cost Efficient Manufacturing of Silicide Thermoelectric Materials and Modules using RGS Technique. Materials Today: Proceedings, 2015, 2, 538-547.	1.8	5
42	Thermoelectric oxides. , 2015, , 397-441.		3
43	Growth studies of heteroepitaxial oxide thin films using reflection high-energy electron diffraction (RHEED). , 2015, , 3-29.		9
44	High-temperature stability of thermoelectric Ca3Co4O9 thin films. Applied Physics Letters, 2015, 106, 143903.	3.3	10
45	Transport limits in defect-engineered LaAlO₃/SrTiO₃ bilayers. Nanoscale, 2015, 7, 1013-1022.	5.6	39
46	In-plain electric properties of [CaMnO3/REMO3] (RE = Bi, La M = Fe, Fe0.8Mn0.2) superlattices grown by pulsed laser deposition method. Japanese Journal of Applied Physics, 2014, 53, 05FB20.	1.5	1
47	Uniaxial magnetic anisotropy induced low field anomalous anisotropic magnetoresistance in manganite thin films. APL Materials, 2014, 2, .	5.1	9
48	Symmetry and lattice mismatch induced strain accommodation near and away from correlated perovskite interfaces. Applied Physics Letters, 2014, 105, .	3.3	77
49	Quantum oscillations and subband properties of the two-dimensional electron gas at the LaAlO3/SrTiO3 interface. APL Materials, 2014, 2, .	5.1	50
50	Intrinsic origin of interface states and band-offset profiling of nanostructured <span class="aps-inline-formula"><math xmlns="http://www.w3.org/1998/Math/MathML"><mi mathvariant="normal">LaAlO</mi><msub><mrow></mrow><mn>3</mn></msub><mo>/<mi mathvariant="normal">SrTiO</mi><msub><mrow></mrow><mn>3</mn></msub></math> heterojunctions probed by element-specific resonan. Physical Review B, 2014, 90, .	3.2	17
51	Ubiquitous long-range antiferromagnetic coupling across the interface between superconducting and ferromagnetic oxides. Nature Communications, 2014, 5, 5626.	12.8	30
52	Size effects on thermoelectric behavior of ultrathin NaxCoO2 films. Applied Physics Letters, 2014, 105, 193902.	3.3	11
53	Fabrication and crystal structure of [ABO₃/REMO₃] (A = Ca, La, B = Fe, Mn, RE =) Tj ETQq1 1 0.784314 rgB method. Japanese Journal of Applied Physics, 2014, 53, 05FB12.	1.5	2
54	Enhanced Thermoelectric Power Factor of Na_xCoO₂ Thin Films by Structural Engineering. Advanced Energy Materials, 2014, 4, 1301927.	19.5	29

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55	Persistent conductive footprints of 109Â° domain walls in bismuth ferrite films. Applied Physics Letters, 2014, 104, .	3.3	60
56	Hard x-ray photoemission and density functional theory study of the internal electric field in SrTiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>/LaAlO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>oxide heterostructures. Physical Review B, 2013, 87, .	3.2	64
57	Multi-band conduction behaviour at the interface of LaAlO3/SrTiO3 heterostructures. Journal of the Korean Physical Society, 2013, 63, 437-440.	0.7	4
58	Selective Hydrothermal Method To Create Patterned and Photoelectrochemically Effective Pt/WO₃ Interfaces. ACS Applied Materials & Interfaces, 2013, 5, 13050-13054.	8.0	9
59	Highly ordered C60 films on epitaxial Fe/MgO(001) surfaces for organic spintronics. Organic Electronics, 2013, 14, 451-456.	2.6	13
60	Defect Engineering in Oxide Heterostructures by Enhanced Oxygen Surface Exchange. Advanced Functional Materials, 2013, 23, 5240-5248.	14.9	88
61	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
62	Band offsets and density of Ti<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mrow><mml:mn>3</mml:mn><mml:mo>+</mml:mo></mml:mrow></mml:msup></mml:math>states probed by x-ray photoemission on LaAlO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>/SrTiO<mml:math xmlns:mml="http://www.w3.org/199	3.2	41
63	Ultrathin Limit of Exchange Bias Coupling at Oxide Multiferroic/Ferromagnetic Interfaces. Advanced Materials, 2013, 25, 4739-4745.	21.0	59
64	Local probing of coupled interfaces between two-dimensional electron and hole gases in oxide heterostructures by variable-temperature scanning tunneling spectroscopy. Physical Review B, 2012, 86, .	3.2	13
65	Growth and Evaluation of [AFeOx/REFeO3] (A=Ca, Sr, RE=La, Bi) Superlattices by Pulsed Laser Deposition Method Using High Density Targets Prepared by Pechini Method. Materials Research Society Symposia Proceedings, 2012, 1454, 161-166.	0.1	2
66	Direct patterning of functional interfaces in oxide heterostructures. Applied Physics Letters, 2012, 100, .	3.3	45
67	High-Temperature Magnetic Insulating Phase in Ultrathin<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>La</mml:mi><mml:mn>0.67</mml:mn></mml:msub><mml:msub><mml:mi>Sr</mml:mi><mml:mn> Physical Review Letters, 2012, 109, 157207.	7.8	106
68	Resonant soft x-ray scattering from stepped surfaces of SrTiO₃. Journal of Physics Condensed Matter, 2012, 24, 035501.	1.8	13
69	Achieving chemical stability in thermoelectric NaxCoO2 thin films. RSC Advances, 2012, 2, 6023.	3.6	16
70	Enhanced electric conductivity at ferroelectric vortex cores in BiFeO3. Nature Physics, 2012, 8, 81-88.	16.7	324
71	Influence of charge compensation mechanisms on the sheet electron density at conducting LaAlO3/SrTiO3-interfaces. Applied Physics Letters, 2012, 100, .	3.3	48
72	Growth of [CaFeO_x/BiFeO₃] superlattice by Pulsed Laser Deposition Method Using High Density Target Prepared by Pechini Method. Transactions of the Materials Research Society of Japan, 2012, 37, 381-384.	0.2	2

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73	Ultrathin limit and dead-layer effects in local polarization switching of BiFeO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2012, 85, .	3.2	71
74	Preventing the Reconstruction of the Polar Discontinuity at Oxide Heterointerfaces. Advanced Functional Materials, 2012, 22, 2235-2240.	14.9	72
75	Tuning the electronic effective mass in double-doped<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">SrTiO</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></m Physical Review B, 2011, 83, .	3.2	39
76	Upper Limit to Magnetism in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>LaAlO</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mo>/</mml:mo><mml:msub><mml Physical Review Letters, 2011, 107, 217201.	7.8	67
77	Thermal conductivity as a metric for the crystalline quality of SrTiO3 epitaxial layers. Applied Physics Letters, 2011, 98, 221904.	3.3	58
78	Spectroscopic evidence of in-gap states at the SrTiO3/LaAlO3 ultrathin interfaces. Applied Physics Letters, 2011, 98, .	3.3	43
79	Atomically Resolved Mapping of Polarization and Electric Fields Across Ferroelectric/Oxide Interfaces by Zâ€contrast Imaging. Advanced Materials, 2011, 23, 2474-2479.	21.0	79
80	Anisotropic electrical transport properties of a two-dimensional electron gas at SrTiO3â€“LaAlO3 interfaces. Applied Physics Letters, 2011, 98, .	3.3	42
81	Growth of CaFeOX/LaFeO3 Superlattice on SrTiO3(100) Substrates. Materials Research Society Symposia Proceedings, 2011, 1292, 125.	0.1	5
82	Optimized fabrication of high-quality La_{0.67}Sr_{0.33}MnO₃ thin films considering all essential characteristics. Journal Physics D: Applied Physics, 2011, 44, 205001.	2.8	105
83	Pulsed laser deposition-induced reduction of SrTiO3 crystals. Acta Materialia, 2010, 58, 457-463.	7.9	65
84	NativeSrTiO3(001) surface layer from resonant TiL2,3reflectance spectroscopy. Physical Review B, 2010, 82, .	3.2	19
85	Dielectric-permittivity-driven charge carrier modulation at oxide interfaces. Physical Review B, 2010, 81, .	3.2	11
86	Electronic reconstruction at<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi></mml:math>-type<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>SrTiO</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:m Physical Review B, 2010, 81, .	3.2	32
87	Interface properties of magnetic tunnel junction<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>La</mml:mtext></mml:mrow><mml:mrow><mml:mn>0.7</mml:mn></mml:m Physical Review B, 2010, 82, .	3.2	71
88	Probing the evolution of antiferromagnetism in multiferroics. Physical Review B, 2010, 81, .	3.2	70
89	Parallel Electron-Hole Bilayer Conductivity from Electronic Interface Reconstruction. Physical Review Letters, 2010, 104, 166804.	7.8	102
90	An Epitaxial Transparent Conducting Perovskite Oxide: Double-Doped SrTiO₃. Chemistry of Materials, 2010, 22, 3983-3987.	6.7	46

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91	Suppression of Octahedral Tilts and Associated Changes in Electronic Properties at Epitaxial Oxide Heterostructure Interfaces. Physical Review Letters, 2010, 105, 087204.	7.8	308
92	Interface Ferromagnetism and Orbital Reconstruction in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>BiFeO</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mtext mathvariant="normal">â^'</mml:mtext><mml:msub><mml:mi>La</mml:mi><mml:mn>0.7</mml:mn></mml:msub><mml:msub><mml:r Physical Review Letters, 2010, 105, 027201.	7.8	335
93	Intrinsic Nucleation Mechanism and Disorder Effects in Polarization Switching on Ferroelectric Surfaces. Physical Review Letters, 2009, 102, 017601.	7.8	49
94	Structureâ€“Property Relation of SrTiO₃/LaAlO₃ Interfaces. Advanced Materials, 2009, 21, 1665-1677.	21.0	292
95	Defect-induced asymmetry of local hysteresis loops on BiFeO3 surfaces. Journal of Materials Science, 2009, 44, 5095-5101.	3.7	38
96	Deterministic control of ferroelastic switching in multiferroic materials. Nature Nanotechnology, 2009, 4, 868-875.	31.5	331
97	Orbital Reconstruction and the Two-Dimensional Electron Gas at the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>LaAlO</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mo>/</mml:mo><mml:msub><mml:m Physical Review Letters, 2009, 102, 166804.	7.8	274
98	Interfacial Structure in Multiferroic BiFeO3 Thin Films. Microscopy and Microanalysis, 2009, 15, 1028-1029.	0.4	0
99	Nanoscale Control of Exchange Bias with BiFeO₃ Thin Films. Nano Letters, 2008, 8, 2050-2055.	9.1	270
100	Critical thickness and orbital ordering in ultrathin<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>La</mml:mtext></mml:mrow><mml:mrow><mml:mn>0.7</mml:m Physical Review B, 2008, 78, .	3.2	372
101	Multiferroics and magnetoelectrics: thin films and nanostructures. Journal of Physics Condensed Matter, 2008, 20, 434220.	1.8	292
102	Interface engineering and strain in YBa₂Cu₃O_{7â^'Î´}thin films. Phase Transitions, 2008, 81, 703-716.	1.3	4
103	The influence of oxygen deficiency on the thermoelectric properties of strontium titanates. Applied Physics Letters, 2008, 92, .	3.3	47
104	Thermal conductivity reduction in oxygen-deficient strontium titanates. Applied Physics Letters, 2008, 92, .	3.3	100
105	Anomalously large measured thermoelectric power factor in Sr1â^'xLaxTiO3 thin films due to SrTiO3 substrate reduction. Applied Physics Letters, 2008, 92, 202113.	3.3	54
106	Interface structure ofSrTiO3â•LaAlO3at elevated temperatures studiedin situby synchrotron x rays. Physical Review B, 2007, 75, .	3.2	52
107	Initial Structure and Growth Dynamics of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>YBa</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>Cu</mml:mi><mml:mi><mml:r mathvariant="normal">O</mml:mi><mml:mrow><mml:mn>7</mml:mn><mml:mo>â^'</mml:mo><mml:mi>Î´</mml:mi></mml:mrow><mml: Pulsed Laser Deposition. Physical Review Letters, 2007, 99, 196106.	7.8	8
108	Magnetic effects at the interface between non-magnetic oxides. Nature Materials, 2007, 6, 493-496.	27.5	1,489

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109	Ferroelectric size effects in multiferroic BiFeO3 thin films. Applied Physics Letters, 2007, 90, 252906.	3.3	180
110	Electronically coupled complementary interfaces between perovskite band insulators. Nature Materials, 2006, 5, 556-560.	27.5	325
111	Influence of substrateâ€“film interface engineering on the superconducting properties of YBa2Cu3O7âˆ'Î´. Applied Physics Letters, 2004, 84, 1150-1152.	3.3	29
112	Transmission electron microscopy on interface engineered superconducting thin films. IEEE Transactions on Applied Superconductivity, 2003, 13, 2834-2837.	1.7	12