

# Mark Huijben

## List of Publications by Year in descending order

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112  
papers

8,480  
citations

66250

44  
h-index

49824

91  
g-index

115  
all docs

115  
docs citations

115  
times ranked

9218  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nickel Niobate Anodes for High Rate Lithium-ion Batteries. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	49
2	Signatures of enhanced out-of-plane polarization in asymmetric BaTiO <sub>3</sub> superlattices integrated on silicon. <i>Nature Communications</i> , 2022, 13, 265.	5.8	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 Nb <sub>18</sub> W <sub>16</sub> O <sub>93</sub> anodes. <i>Journal of Power Sources</i> , 2021, 482, 228898.	4.0	15
5	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.	2.7	3
6	Spatially Controlled Octahedral Rotations and Metal-Insulator Transitions in Nickelate Superlattices. <i>Nano Letters</i> , 2021, 21, 1295-1302.	4.5	24
7	Lithium-based vertically aligned nanocomposites for three-dimensional solid-state batteries. <i>MRS Bulletin</i> , 2021, 46, 152-158.	1.7	6
8	Enhanced Cycling and Rate Capability by Epitaxially Matched Conductive Cubic TiO <sub>2</sub> Coating on LiCoO <sub>2</sub> Cathode Films. <i>ACS Applied Energy Materials</i> , 2021, 4, 5024-5033.	2.5	14
9	Intrinsic versus extrinsic orbital and electronic reconstructions at complex oxide interfaces. <i>Physical Review Materials</i> , 2021, 5, .	0.9	6
10	2D titanoniobate-titaniumcarbide nanohybrid anodes for ultrafast lithium-ion batteries. <i>Journal of Power Sources</i> , 2021, 512, 230523.	4.0	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 X-Ray in Transmission Study. <i>Advanced Functional Materials</i> , 2020, 30, 1900028.	7.8	16
13	Strain-Engineered Metal-Insulator Transition and Orbital Polarization in Nickelate Superlattices Integrated on Silicon. <i>Advanced Materials</i> , 2020, 32, e2004995.	11.1	24
14	Metal-insulator transition of SrVO <sub>3</sub> ultrathin films embedded in SrVO <sub>3</sub> / SrTiO <sub>3</sub> superlattices. <i>Applied Physics Letters</i> , 2020, 117, 133105.	1.5	7
15	Stability and thermoelectric performance of doped higher manganese silicide materials solidified by RGS (ribbon growth on substrate) synthesis. <i>Journal of Alloys and Compounds</i> , 2020, 832, 154602.	2.8	11
16	Thermal-strain-engineered ferromagnetism of $\text{LaMnO}_3/\text{SrTiO}_3$ heterostructures grown on silicon. <i>Physical Review Materials</i> , 2020, 4, .	0.9	1
17	Two-dimensional electron systems in perovskite oxide heterostructures: Role of the polarity-induced substitutional defects. <i>Physical Review Materials</i> , 2020, 4, .	0.9	7
18	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, .	0.9	2

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19	Morphology Evolution during Lithium-Based Vertically Aligned Nanocomposite Growth. ACS Applied Materials & Interfaces, 2019, 11, 44444-44450.	4.0	9
20	Towards Oxide Electronics: a Roadmap. Applied Surface Science, 2019, 482, 1-93.	3.1	236
21	Doubling Reversible Capacities in Epitaxial $\text{Li}_4\text{Ti}_5\text{O}_{12}$ Thin Film Anodes for Microbatteries. ACS Applied Energy Materials, 2019, 2, 3410-3418.	2.5	32
22	Oxide superlattices by PLD: A practical guide. , 2018, , 27-52.		4
23	Enhanced Lithium Transport by Control of Crystal Orientation in Spinel $\text{LiMn}_2\text{O}_4$ Thin Film Cathodes. ACS Applied Energy Materials, 2018, 1, 7046-7051.	2.5	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, .	1.1	6
25	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.	3.3	56
26	Electronic switching by metastable polarization states in $\text{BiFeO}_3$ thin films. Physical Review Materials, 2018, 2, .	0.9	5
27	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. Applied Physics Letters, 2017, 110, .	1.5	25
28	Thickness Dependent Properties in Oxide Heterostructures Driven by Structurally Induced Metal-insulator Oxygen Hybridization Variations. Advanced Functional Materials, 2017, 27, 1606717.	7.8	61
29	Interface-engineered oxygen octahedral coupling in manganite heterostructures. Applied Physics Reviews, 2017, 4, 041103.	5.5	32
30	Modified spin relaxation mechanism by tunable coupling between interfacial two-dimensional electron gases in correlated oxide heterostructures. Physical Review B, 2017, 96, .	1.1	9
31	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.	2.5	12
32	Experimental evidence for anisotropic double exchange interaction driven anisotropic transport in manganite heterostructures. Scientific Reports, 2017, 7, 2654.	1.6	7
33	The effect of $\text{Rh}^{+}$ dopant in $\text{SrTiO}_3$ on the active oxidation state of co-catalytic Pt nanoparticles in overall water splitting. Catalysis Science and Technology, 2016, 6, 7793-7799.	2.1	16
34	Engineering interfacial energy profile by changing the substrate terminating plane in perovskite heterointerfaces. Physical Review B, 2016, 93, .	1.1	2
35	Domain Selectivity in $\text{BiFeO}_3$ Thin Films by Modified Substrate Termination. Advanced Functional Materials, 2016, 26, 2882-2889.	7.8	35
36	Long-Range Domain Structure and Symmetry Engineering by Interfacial Oxygen Octahedral Coupling at Heterostructure Interface. Advanced Functional Materials, 2016, 26, 6627-6634.	7.8	25

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37	Controlled lateral anisotropy in correlated manganite heterostructures by interface-engineered oxygen octahedral coupling. <i>Nature Materials</i> , 2016, 15, 425-431.	13.3	292
38	Research Update: Stoichiometry controlled oxide thin film growth by pulsed laser deposition. <i>APL Materials</i> , 2015, 3, .	2.2	61
39	Extreme mobility enhancement of two-dimensional electron gases at oxide interfaces by charge-transfer-induced modulation doping. <i>Nature Materials</i> , 2015, 14, 801-806.	13.3	174
40	Enhanced Local Magnetization by Interface Engineering in Perovskite-Type Correlated Oxide Heterostructures. <i>Advanced Materials Interfaces</i> , 2015, 2, 1400416.	1.9	33
41	Cost Efficient Manufacturing of Silicide Thermoelectric Materials and Modules using RGS Technique. <i>Materials Today: Proceedings</i> , 2015, 2, 538-547.	0.9	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 Ca <sub>3</sub> Co <sub>4</sub> O <sub>9</sub> thin films. <i>Applied Physics Letters</i> , 2015, 106, 143903.	1.5	10
45	Transport limits in defect-engineered LaAlO <sub>3</sub> /SrTiO <sub>3</sub> bilayers. <i>Nanoscale</i> , 2015, 7, 1013-1022.	2.8	39
46	In-plane electric properties of [CaMnO <sub>3</sub> /REMO <sub>3</sub> ] (RE = Bi, La M = Fe, Fe <sub>0.8</sub> Mn <sub>0.2</sub> ) superlattices grown by pulsed laser deposition method. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 05FB20.	0.8	1
47	Uniaxial magnetic anisotropy induced low field anomalous anisotropic magnetoresistance in manganite thin films. <i>APL Materials</i> , 2014, 2, .	2.2	9
48	Symmetry and lattice mismatch induced strain accommodation near and away from correlated perovskite interfaces. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	77
49	Quantum oscillations and subband properties of the two-dimensional electron gas at the LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interface. <i>APL Materials</i> , 2014, 2, .	2.2	50
50	Intrinsic origin of interface states and band-offset profiling of nanostructured LaAlO <sub>3</sub> /SrTiO <sub>3</sub> heterojunctions probed by element-specific resonant photoemission spectroscopy. <i>Physical Review B</i> , 2014, 90, .		
51	Ubiquitous long-range antiferromagnetic coupling across the interface between superconducting and ferromagnetic oxides. <i>Nature Communications</i> , 2014, 5, 5626.	5.8	30
52	Size effects on thermoelectric behavior of ultrathin Na <sub>x</sub> CoO <sub>2</sub> films. <i>Applied Physics Letters</i> , 2014, 105, 193902.	1.5	11
53	Fabrication and crystal structure of [ABO <sub>3</sub> /REMO <sub>3</sub> ] (A = Ca, La, B = Fe, Mn, RE = ) thin films by pulsed laser deposition method. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 05FB12.	0.8	2
54	Enhanced Thermoelectric Power Factor of Na <sub>x</sub> CoO <sub>2</sub> Thin Films by Structural Engineering. <i>Advanced Energy Materials</i> , 2014, 4, 1301927.	10.2	29

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55	Persistent conductive footprints of 109Å° domain walls in bismuth ferrite films. Applied Physics Letters, 2014, 104, .	1.5	60
56	Hard x-ray photoemission and density functional theory study of the internal electric field in SrTiO <sub>3</sub> /LaAlO <sub>3</sub> oxide heterostructures. Physical Review B, 2013, 87, .	1.1	64
57	Multi-band conduction behaviour at the interface of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> heterostructures. Journal of the Korean Physical Society, 2013, 63, 437-440.	0.3	4
58	Selective Hydrothermal Method To Create Patterned and Photoelectrochemically Effective Pt/WO <sub>3</sub> Interfaces. ACS Applied Materials & Interfaces, 2013, 5, 13050-13054.	4.0	9
59	Highly ordered C60 films on epitaxial Fe/MgO(001) surfaces for organic spintronics. Organic Electronics, 2013, 14, 451-456.	1.4	13
60	Defect Engineering in Oxide Heterostructures by Enhanced Oxygen Surface Exchange. Advanced Functional Materials, 2013, 23, 5240-5248.	7.8	88
61	Momentum-resolved electronic structure at a buried interface from soft X-ray standing-wave angle-resolved photoemission. Europhysics Letters, 2013, 104, 17004.	0.7	35
62	Band offsets and density of Ti states probed by x-ray photoemission on LaAlO <sub>3</sub> /SrTiO <sub>3</sub> interfaces. Physical Review B, 2012, 86, .	1.1	41
63	Ultra-thin Limit of Exchange Bias Coupling at Oxide Multiferroic/Ferromagnetic Interfaces. Advanced Materials, 2013, 25, 4739-4745.	11.1	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, .	1.1	13
65	Growth and Evaluation of [AFeOx/REFeO <sub>3</sub> ] (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, .	1.5	45
67	High-Temperature Magnetic Insulating Phase in Ultrathin La <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> . Physical Review Letters, 2012, 109, 157207.	2.9	106
68	Resonant soft x-ray scattering from stepped surfaces of SrTiO <sub>3</sub> . Journal of Physics Condensed Matter, 2012, 24, 035501.	0.7	13
69	Achieving chemical stability in thermoelectric Na <sub>x</sub> CoO <sub>2</sub> thin films. RSC Advances, 2012, 2, 6023.	1.7	16
70	Enhanced electric conductivity at ferroelectric vortex cores in BiFeO <sub>3</sub> . Nature Physics, 2012, 8, 81-88.	6.5	324
71	Influence of charge compensation mechanisms on the sheet electron density at conducting LaAlO <sub>3</sub> /SrTiO <sub>3</sub> -interfaces. Applied Physics Letters, 2012, 100, .	1.5	48
72	Growth of [CaFeO <sub>3</sub> /BiFeO <sub>3</sub> ] 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 <sub>3</sub> . Physical Review B, 2012, 85, .	1.1	71
74	Preventing the Reconstruction of the Polar Discontinuity at Oxide Heterointerfaces. Advanced Functional Materials, 2012, 22, 2235-2240.	7.8	72
75	Tuning the electronic effective mass in double-doped SrTiO <sub>3</sub> . Physical Review B, 2011, 83, .	1.1	39
76	Upper Limit to Magnetism in LaAlO <sub>3</sub> . Physical Review Letters, 2011, 107, 217201.	2.9	67
77	Thermal conductivity as a metric for the crystalline quality of SrTiO <sub>3</sub> epitaxial layers. Applied Physics Letters, 2011, 98, 221904.	1.5	58
78	Spectroscopic evidence of in-gap states at the SrTiO <sub>3</sub> /LaAlO <sub>3</sub> ultrathin interfaces. Applied Physics Letters, 2011, 98, .	1.5	43
79	Atomically Resolved Mapping of Polarization and Electric Fields Across Ferroelectric/Oxide Interfaces by Zr Contrast Imaging. Advanced Materials, 2011, 23, 2474-2479.	11.1	79
80	Anisotropic electrical transport properties of a two-dimensional electron gas at SrTiO <sub>3</sub> /LaAlO <sub>3</sub> interfaces. Applied Physics Letters, 2011, 98, .	1.5	42
81	Growth of CaFeOx/LaFeO <sub>3</sub> Superlattice on SrTiO <sub>3</sub> (100) Substrates. Materials Research Society Symposia Proceedings, 2011, 1292, 125.	0.1	5
82	Optimized fabrication of high-quality La <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> thin films considering all essential characteristics. Journal Physics D: Applied Physics, 2011, 44, 205001.	1.3	105
83	Pulsed laser deposition-induced reduction of SrTiO <sub>3</sub> crystals. Acta Materialia, 2010, 58, 457-463.	3.8	65
84	Native SrTiO <sub>3</sub> (001) surface layer from resonant TiL <sub>2,3</sub> reflectance spectroscopy. Physical Review B, 2010, 82, .	1.1	19
85	Dielectric-permittivity-driven charge carrier modulation at oxide interfaces. Physical Review B, 2010, 81, .	1.1	11
86	Electronic reconstruction at n-SrTiO <sub>3</sub> /p-LaAlO <sub>3</sub> interface. Physical Review B, 2010, 81, .	1.1	32
87	Interface properties of magnetic tunnel junction La <sub>0.7</sub> Sr <sub>0.3</sub> TiO <sub>3</sub> /LaAlO <sub>3</sub> . Physical Review B, 2010, 82, .	1.1	71
88	Probing the evolution of antiferromagnetism in multiferroics. Physical Review B, 2010, 81, .	1.1	70
89	Parallel Electron-Hole Bilayer Conductivity from Electronic Interface Reconstruction. Physical Review Letters, 2010, 104, 166804.	2.9	102
90	An Epitaxial Transparent Conducting Perovskite Oxide: Double-Doped SrTiO <sub>3</sub> . Chemistry of Materials, 2010, 22, 3983-3987.	3.2	46

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91	Suppression of Octahedral Tilts and Associated Changes in Electronic Properties at Epitaxial Oxide Heterostructure Interfaces. <i>Physical Review Letters</i> , 2010, 105, 087204.	2.9	308
92	Interface Ferromagnetism and Orbital Reconstruction in $\text{BiFeO}_3/\text{LaAlO}_3$ Interfaces. <i>Physical Review Letters</i> , 2010, 105, 027201.	2.9	335
93	Intrinsic Nucleation Mechanism and Disorder Effects in Polarization Switching on Ferroelectric Surfaces. <i>Physical Review Letters</i> , 2009, 102, 017601.	2.9	49
94	Structure-Property Relation of $\text{SrTiO}_3/\text{LaAlO}_3$ Interfaces. <i>Advanced Materials</i> , 2009, 21, 1665-1677.	11.1	292
95	Defect-induced asymmetry of local hysteresis loops on $\text{BiFeO}_3$ surfaces. <i>Journal of Materials Science</i> , 2009, 44, 5095-5101.	1.7	38
96	Deterministic control of ferroelastic switching in multiferroic materials. <i>Nature Nanotechnology</i> , 2009, 4, 868-875.	15.6	331
97	Orbital Reconstruction and the Two-Dimensional Electron Gas at the $\text{LaAlO}_3/\text{SrTiO}_3$ Interface. <i>Physical Review Letters</i> , 2009, 102, 166804.	2.9	274
98	Interfacial Structure in Multiferroic $\text{BiFeO}_3$ Thin Films. <i>Microscopy and Microanalysis</i> , 2009, 15, 1028-1029.	0.2	0
99	Nanoscale Control of Exchange Bias with $\text{BiFeO}_3$ Thin Films. <i>Nano Letters</i> , 2008, 8, 2050-2055.	4.5	270
100	Critical thickness and orbital ordering in ultrathin $\text{LaAlO}_3/\text{SrTiO}_3$ interfaces. <i>Physical Review B</i> , 2008, 78, .	11	379
101	Multiferroics and magnetoelectrics: thin films and nanostructures. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 434220.	0.7	292
102	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.	0.6	4
103	The influence of oxygen deficiency on the thermoelectric properties of strontium titanates. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	47
104	Thermal conductivity reduction in oxygen-deficient strontium titanates. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	100
105	Anomalously large measured thermoelectric power factor in $\text{Sr}_{1-x}\text{La}_x\text{TiO}_3$ thin films due to $\text{SrTiO}_3$ substrate reduction. <i>Applied Physics Letters</i> , 2008, 92, 202113.	1.5	54
106	Interface structure of $\text{SrTiO}_3/\text{LaAlO}_3$ at elevated temperatures studied in situ by synchrotron x rays. <i>Physical Review B</i> , 2007, 75, .	1.1	52
107	Initial Structure and Growth Dynamics of $\text{CuO}/\text{SrTiO}_3$ Interfaces. <i>Physical Review Letters</i> , 2007, 99, 196106.	2.9	274
108	Magnetic effects at the interface between non-magnetic oxides. <i>Nature Materials</i> , 2007, 6, 493-496.	13.3	1,489

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109	Ferroelectric size effects in multiferroic BiFeO <sub>3</sub> thin films. Applied Physics Letters, 2007, 90, 252906.	1.5	180
110	Electronically coupled complementary interfaces between perovskite band insulators. Nature Materials, 2006, 5, 556-560.	13.3	325
111	Influence of substrate-film interface engineering on the superconducting properties of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . Applied Physics Letters, 2004, 84, 1150-1152.	1.5	29
112	Transmission electron microscopy on interface engineered superconducting thin films. IEEE Transactions on Applied Superconductivity, 2003, 13, 2834-2837.	1.1	12