

Thomas Tybell

List of Publications by Year in descending order

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114
papers

4,428
citations

185998

28
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106150

65
g-index

116
all docs

116
docs citations

116
times ranked

4871
citing authors

#	ARTICLE	IF	CITATIONS
1	Emergent premises in student experiences of a first-year electrical engineering course. European Journal of Engineering Education, 2021, 46, 302-317.	1.5	4
2	On the Effect of Water-Induced Degradation of Thin-Film Piezoelectric Microelectromechanical Systems. Journal of Microelectromechanical Systems, 2021, 30, 105-115.	1.7	12
3	Enhanced magnetic signal along edges of embedded epitaxial La _{0.7} Sr _{0.3} MnO ₃ nanostructures. Journal of Magnetism and Magnetic Materials, 2021, 521, 167324.	1.0	2
4	Uniaxial Néel vector control in perovskite oxide thin films by anisotropic strain engineering. Physical Review B, 2021, 103, .	1.1	1
5	Propagation properties of spin wave in Co ₂ FeAl Heusler alloy ultrathin films. Materials Research Express, 2021, 8, 086101.	0.8	1
6	Magnetodynamic properties of dipole-coupled 1D magnonic crystals. Journal of Magnetism and Magnetic Materials, 2021, 539, 168376.	1.0	2
7	In-plane quasi-single-domain BaTiO ₃ via interfacial symmetry engineering. Nature Communications, 2021, 12, 6784.	5.8	16
8	Electrochemically driven degradation of chemical solution deposited ferroelectric thin-films in humid ambient. Journal of Applied Physics, 2020, 127, 244101.	1.1	7
9	Epitaxial antiperovskite/perovskite heterostructures for materials design. Science Advances, 2020, 6, eaba4017.	4.7	18
10	Controlling spin current polarization through non-collinear antiferromagnetism. Nature Communications, 2020, 11, 4671.	5.8	103
11	Magneto-dynamic properties of complex oxide "La _{0.7} Sr _{0.3} MnO ₃ /SrTiO ₃ " heterostructure interface. Applied Physics Letters, 2019, 114, .	1.5	2
12	Thickness dependent uniaxial magnetic anisotropy due to step-edges in (111)-oriented La _{0.7} Sr _{0.3} MnO ₃ thin films. Journal of Magnetism and Magnetic Materials, 2019, 487, 165304.	1.0	4
13	Epitaxial K _{0.5} Na _{0.5} NbO ₃ thin films by aqueous chemical solution deposition. Royal Society Open Science, 2019, 6, 180989.	1.1	17
14	Bi vacancy formation in BiFeO ₃ epitaxial thin films under compressive (001)-strain from first principles. Journal of Materials Chemistry C, 2019, 7, 4870-4878.	2.7	8
15	Thickness dependent uniaxial magnetic anisotropy due to step-edges in (111)-oriented La _{0.7} Sr _{0.3} MnO ₃ thin films. Journal of Magnetism and Magnetic Materials, 2019, 487, 165304.	1.1	4
16	Synthesis and characterization of (111)-oriented BaTiO ₃ thin films. Materials Research Express, 2019, 6, 056409.	0.8	5
17	Three-dimensional subnanoscale imaging of unit cell doubling due to octahedral tilting and cation modulation in strained perovskite thin films. Physical Review Materials, 2019, 3, .	0.9	12
18	Performance and reliability of PZT-based piezoelectric micromirrors operated in realistic environments., 2018, , .		7

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19	Oxygen vacancies in the bulk and at neutral domain walls in hexagonal YMnO_3 . Physical Review B, 2018, 98, .		
20	Octahedral coupling in (111)- and (001)-oriented $\text{La}_2/3\text{Sr}_1/3\text{MnO}_3/\text{SrTiO}_3$ heterostructures. Journal of Applied Physics, 2018, 124, .	1.1	5
21	Magnetic domain formation in ultrathin complex oxide ferromagnetic/antiferromagnetic bilayers. Applied Physics Letters, 2018, 113, .	1.5	7
22	Effect of (111)-oriented strain on the structure and magnetic properties of $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ thin films. Journal of Physics Condensed Matter, 2018, 30, 255702.	0.7	10
23	Goldstone-like phonon modes in a (111)-strained perovskite. Physical Review Materials, 2018, 2, .	0.9	18
24	Role of antiferromagnetic spin axis on magnetic reconstructions at the (111)-oriented $\text{LaAlO}_3/\text{SrTiO}_3$ interface. Physical Review B, 2017, 96, .	0.9	6
25	First-principles study of the effect of (111) strain on octahedral rotations and structural phases of $\text{LaAlO}_3/\text{SrTiO}_3$. Physical Review B, 2017, 95, .		17
26	Atomap: a new software tool for the automated analysis of atomic resolution images using two-dimensional Gaussian fitting. Advanced Structural and Chemical Imaging, 2017, 3, 9.	4.0	159
27	Twinned-domain-induced magnonic modes in epitaxial LSMO/STO films. New Journal of Physics, 2017, 19, 063002.	1.2	5
28	Magnetic domain configuration of (111)-oriented LaFeO_3 epitaxial thin films. APL Materials, 2017, 5, .	2.2	7
29	Strain-phonon coupling in (111)-oriented perovskite oxides. Physical Review B, 2017, 96, .	1.1	7
30	Atomap - Automated Analysis of Atomic Resolution STEM Images. Microscopy and Microanalysis, 2017, 23, 426-427.	0.2	1
31	Spatially Confined Spin Polarization and magnetic sublattice control in $(\text{La,Sr})\text{MnO}_3$ Thin Films by Oxygen Vacancy Ordering. Scientific Reports, 2017, 7, 4386.	1.6	7
32	Towards Mapping Perovskite Oxide 3-D Structure Using Two-Dimensional Pixelated STEM Detector. Microscopy and Microanalysis, 2016, 22, 476-477.	0.2	1
33	Assessing electron beam sensitivity for SrTiO_3 and $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ using electron energy loss spectroscopy. Ultramicroscopy, 2016, 169, 98-106.	0.8	17
34	Interstitial oxygen as a source of p-type conductivity in hexagonal manganites. Nature Communications, 2016, 7, 13745.	5.8	61
35	Teaching freshmen engineering communication. , 2016, , .		0
36	Concurrent magnetic and structural reconstructions at the interface of (111)-oriented $\text{LaAlO}_3/\text{SrTiO}_3$. Physical Review B, 2016, 94, .	1.1	26

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37	Thickness and temperature dependence of the magnetodynamic damping of pulsed laser deposited La _{0.7} Sr _{0.3} MnO ₃ on (111)-oriented SrTiO ₃ . Journal of Magnetism and Magnetic Materials, 2016, 420, 280-284.	1.0	17
38	Effect of Polar (111)-Oriented SrTiO ₃ on Initial Perovskite Growth. Crystal Growth and Design, 2016, 16, 2357-2362.	1.4	32
39	Controlling the switching field in nanomagnets by means of domain-engineered antiferromagnets. Physical Review B, 2015, 92, .	1.1	8
40	Structural investigation of epitaxial LaFeO ₃ thin films on (111) oriented SrTiO ₃ by transmission electron microscopy. Journal of Physics: Conference Series, 2015, 644, 012002.	0.3	9
41	Point contact investigations of film and interface magnetoresistance of La _{0.7} Sr _{0.3} MnO ₃ heterostructures on Nb:SrTiO ₃ . Journal of Magnetism and Magnetic Materials, 2015, 374, 433-439.	1.0	1
42	Structural phases driven by oxygen vacancies at the La _{0.7} Sr _{0.3} MnO ₃ /SrTiO ₃ hetero-interface. Applied Physics Letters, 2015, 106, .	1.5	42
43	Crystalline symmetry controlled magnetic switching in epitaxial (111) La _{0.7} Sr _{0.3} MnO ₃ thin films. APL Materials, 2015, 3, 062501.	2.2	15
44	Thickness dependence of dynamic and static magnetic properties of pulsed laser deposited La _{0.7} Sr _{0.3} MnO ₃ films on SrTiO ₃ (001). Journal of Magnetism and Magnetic Materials, 2014, 369, 197-204.	1.0	40
45	In-plane structural order of domain engineered La _{0.7} Sr _{0.3} MnO ₃ thin films. Philosophical Magazine, 2013, 93, 1549-1562.	0.7	9
46	Surface stability of epitaxial La _{0.7} Sr _{0.3} MnO ₃ thin films on (111)-oriented SrTiO ₃ . Journal of Applied Physics, 2013, 113, .	1.1	31
47	Spin-Flop Coupling and Exchange Bias in Embedded Complex Oxide Micromagnets. Physical Review Letters, 2013, 111, 107201.	2.9	28
48	Photo-Electrochemical Synthesis of Silver-Oxide Clathrate Ag ₇ O ₈ NO ₃ on SrTiO ₃ . Electrochemical and Solid-State Letters, 2012, 15, E19.	2.2	4
49	Qualitative determination of surface roughness by <i>in situ</i> reflection high energy electron diffraction. Applied Physics Letters, 2012, 100, .	1.5	14
50	Sub-bandgap photocurrent effects on dynamic pyroelectric measurement in Pt/PbTiO ₃ /Nb:SrTiO ₃ heterostructures. Journal of Applied Physics, 2012, 112, .	1.1	13
51	Domain relaxation in La _{0.7} Sr _{0.3} MnO ₃ /SrTiO ₃ thin films due to declamping. Microscopy and Microanalysis, 2012, 18, 1868-1869.	0.2	0
52	Synthesis of epitaxial multiferroic oxide thin films. , 2012, , 73-98.		0
53	Crossover from Spin-Flop Coupling to Collinear Spin Alignment in Antiferromagnetic/Ferromagnetic Nanostructures. Nano Letters, 2012, 12, 2386-2390.	4.5	29
54	Consequences of High Adatom Energy during Pulsed Laser Deposition of La _{0.7} Sr _{0.3} MnO ₃ . Crystal Growth and Design, 2012, 12, 562-566.	1.4	19

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55	Surface stoichiometry of La _{0.7} Sr _{0.3} MnO ₃ during in vacuo preparation; A synchrotron photoemission study. Surface Science, 2012, 606, 1360-1366.	0.8	24
56	Electron energy loss spectroscopy investigation of Pb and Ti hybridization with O at the PbTiO ₃ /SrTiO ₃ interface. Journal of Applied Physics, 2011, 109, 034104.	1.1	20
57	Effects of nanostructuring and substrate symmetry on antiferromagnetic domain structure in LaFeO ₃ thin films. Physical Review B, 2011, 84, .	1.1	24
58	The Nature of Polarization Fatigue in BiFeO ₃ . Advanced Materials, 2011, 23, 1621-1625.	11.1	127
59	Structural coupling across the LaAlO ₃ /SrTiO ₃ interface: High-resolution x-ray diffraction study. Physical Review B, 2011, 84, .	1.1	11
60	PbO-deficient PbTiO ₃ : Mass transport, structural effects and possibility for intrinsic screening of the ferroelectric polarization. Applied Physics Letters, 2011, 98, .	1.5	12
61	Polarization control in ferroelectric PbTiO ₃ nanorods. Journal of Applied Physics, 2010, 108, 124320.	1.1	16
62	Phase transitions, electrical conductivity and chemical stability of BiFeO ₃ at high temperatures. Journal of Solid State Chemistry, 2010, 183, 1205-1208.	1.4	45
63	Growth and characterization of (Pb,La)(Zr,Ti)O ₃ thin film epilayers on SrTiO ₃ -buffered Si(001). Thin Solid Films, 2010, 518, 5471-5477.	0.8	8
64	Photocatalytic Synthesis of Silver-Oxide Clathrate Ag ₇ O ₈ NO ₃ . Journal of the Electrochemical Society, 2010, 157, E181.	1.3	10
65	Nanoscale surface modification of La _{0.7} Sr _{0.3} MnO ₃ thin films. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2010, 28, 407-410.	0.6	0
66	Long-range spontaneous structural ordering in barium stannate thin films. Applied Physics Letters, 2010, 97, 081906.	1.5	19
67	Origin of suppressed polarization in BiFeO ₃ films. Applied Physics Letters, 2010, 97, 212904.	1.5	27
68	Study of defect-dipoles in an epitaxial ferroelectric thin film. Applied Physics Letters, 2010, 96, .	1.5	61
69	Antiferromagnetic Domain Reconfiguration in Embedded LaFeO ₃ Thin Film Nanostructures. Nano Letters, 2010, 10, 4578-4583.	4.5	37
70	Sputter-deposited (Pb,La)(Zr,Ti)O ₃ thin films: Effect of substrate and optical properties. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2009, 27, 548-553.	0.9	8
71	Epilayer control of photodeposited materials during UV photocatalysis. Applied Physics Letters, 2009, 94, 232901.	1.5	15
72	The fabrication and characterization of PbTiO ₃ nanomesas realized on nanostructured SrRuO ₃ /SrTiO ₃ templates. Nanotechnology, 2009, 20, 255705.	1.3	4

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73	Polarization direction and stability in ferroelectric lead titanate thin films. Journal of Applied Physics, 2009, 106, .	1.1	18
74	Epitaxial (Pb,La)(Zr,Ti)O ₃ thin films on buffered Si(100) by on-axis radio frequency magnetron sputtering. Thin Solid Films, 2009, 517, 2623-2626.	0.8	5
75	High-temperature semiconducting cubic phase of BiFeO ₃ . Physical Review B, 2009, 79, .	1.1	33
76	Structure and Properties of Multiferroic Oxygen Hyperstoichiometric BiFe _{1-x} Mn _x O _{3+δ} . Chemistry of Materials, 2009, 21, 5176-5186.	3.2	95
77	The case for electro-optic waveguide devices from ferroelectric (Pb,La)(Zr,Ti)O ₃ thin film epilayers. , 2009, , .		2
78	The Ferroic Phase Transitions of BiFeO ₃ . Advanced Materials, 2008, 20, 3692-3696.	11.1	196
79	PbTiO ₃ nanorod arrays grown by self-assembly of nanocrystals. Nanotechnology, 2008, 19, 225605.	1.3	36
80	Comparison of TEM specimen preparation of perovskite thin films by tripod polishing and conventional ion milling. Journal of Electron Microscopy, 2008, 57, 175-179.	0.9	26
81	Ferroelectric stripe domains in PbTiO ₃ thin films: Depolarization field and domain randomness. Journal of Applied Physics, 2008, 104, .	1.1	35
82	Crystalline and dielectric properties of sputter deposited PbTiO ₃ thin films. Journal of Applied Physics, 2008, 103, .	1.1	15
83	Photochemical switching of ultrathin PbTiO ₃ films. Applied Physics Letters, 2008, 92, 112901.	1.5	58
84	Size-Dependent Properties of Multiferroic BiFeO ₃ Nanoparticles. Chemistry of Materials, 2007, 19, 6478-6484.	3.2	290
85	Formation and electronic properties of oxygen annealed Au/Ni and Pt/Ni contacts to p-type GaN. Semiconductor Science and Technology, 2007, 22, 186-193.	1.0	12
86	Nanoscale structuring of SrRuO ₃ thin film surfaces by scanning tunneling microscopy. Applied Surface Science, 2007, 253, 4704-4708.	3.1	14
87	Synthesis of BiFeO ₃ by Wet Chemical Methods. Journal of the American Ceramic Society, 2007, 90, 3430-3434.	1.9	148
88	Nanoscale studies of domain wall motion in epitaxial ferroelectric thin films. Journal of Applied Physics, 2006, 100, 051608.	1.1	112
89	Simulation of Photonic Band Gap Waveguides in Lead-Lanthanum Zirconate-Titanate. , 2006, , .		1
90	Effects of thermal annealing in oxygen on the antiferromagnetic order and domain structure of epitaxial LaFeO ₃ thin films. Thin Solid Films, 2005, 486, 108-112.	0.8	12

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91	Characterization of crystalline $\text{Pb}_{0.92}\text{La}_{0.08}\text{Zr}_{0.4}\text{Ti}_{0.6}\text{O}_3$ thin films grown by off-axis radio frequency magnetron sputtering. <i>Thin Solid Films</i> , 2005, 492, 71-74.	0.8	6
92	Imaging of out-of-plane interfacial strain in epitaxial $\text{PbTiO}_3/\text{SrTiO}_3$ thin films. <i>Applied Physics Letters</i> , 2005, 86, 092907.	1.5	23
93	Nanoscale Etching of Metallic Perovskites Using STM. <i>Materials Research Society Symposia Proceedings</i> , 2004, 811, 140.	0.1	3
94	A Novel High Frequency Surface Acoustic Wave Device Based on Piezoelectric Interdigital Transducers. <i>Integrated Ferroelectrics</i> , 2004, 63, 55-62.	0.3	4
95	High-frequency surface acoustic wave device based on thin-film piezoelectric interdigital transducers. <i>Applied Physics Letters</i> , 2004, 85, 1757-1759.	1.5	64
96	High temperature transport kinetics in heteroepitaxial LaFeO_3 thin films. <i>Solid-State Electronics</i> , 2003, 47, 2279-2282.	0.8	23
97	Surface acoustic wave resonator from thick MOVPE-grown layers of $\text{GaN}(0001)$ on sapphire. <i>Materials Research Society Symposia Proceedings</i> , 2002, 743, L6.37.1.	0.1	4
98	Nanoscale study of dpolarization phenomena in $\text{Pb}(\text{Zr}_{0.2}\text{Ti}_{0.8})\text{O}_3$ thin films. , 2002, 4811, 256.		0
99	Domain Wall Creep in Epitaxial Ferroelectric $\text{Pb}(\text{Zr}_{0.2}\text{Ti}_{0.8})\text{O}_3$ Thin Films. <i>Physical Review Letters</i> , 2002, 89, 097601.	2.9	488
100	Nanoscale control of ferroelectric polarization and domain size in epitaxial $\text{Pb}(\text{Zr}_{0.2}\text{Ti}_{0.8})\text{O}_3$ thin films. <i>Applied Physics Letters</i> , 2001, 79, 530-532.	1.5	191
101	Preparation of {110} textured Ag ribbons for biaxially aligned superconducting tapes. <i>IEEE Transactions on Applied Superconductivity</i> , 2001, 11, 3371-3374.	1.1	7
102	Stable {110} textured Ag ribbons for biaxially-aligned $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ coated tapes. <i>Superconductor Science and Technology</i> , 2000, 13, 912-919.	1.8	21
103	Ferroelectricity in thin perovskite films. <i>Applied Physics Letters</i> , 1999, 75, 856-858.	1.5	449
104	Electrostatic Modulation of Superconductivity in Ultrathin $\text{GdBa}_2\text{Cu}_3\text{O}_{7-x}$ Films. <i>Science</i> , 1999, 284, 1152-1155.	6.0	254
105	Scanning probe microscopy for the imaging and control of ferroelectric oxides. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 1998, 56, 173-177.	1.7	4
106	Control and imaging of ferroelectric domains over large areas with nanometer resolution in atomically smooth epitaxial $\text{Pb}(\text{Zr}_{0.2}\text{Ti}_{0.8})\text{O}_3$ thin films. <i>Applied Physics Letters</i> , 1998, 72, 1454-1456.	1.5	133
107	Electronic nanofeatures in epitaxial ferroelectric oxide heterostructures. , 1998, 3481, 435.		0
108	The microwave surface impedance of $\text{DyBa}_2/\text{Cu}_3/\text{O}_{7-x}$ very thin films. <i>IEEE Transactions on Applied Superconductivity</i> , 1997, 7, 1877-1880.	1.1	1

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109	Electronic Doping in Epitaxial Pb(Zr _{0.52} Ti _{0.48})O ₃ /SrRuO ₃ Heterostructures using a Ferroelectric Field Effect. Materials Research Society Symposia Proceedings, 1997, 474, 313.	0.1	0
110	Nonvolatile, Reversible Writing of Electronic Nanostructures in Epitaxial Ferroelectric / Metallic Oxide Heterostructures using a Field Effect. Materials Research Society Symposia Proceedings, 1997, 493, 291.	0.1	0
111	Local, Nonvolatile Electronic Writing of Epitaxial Pb(Zr _{0.52} Ti _{0.48})O ₃ /SrRuO ₃ Heterostructures. Science, 1997, 276, 1100-1103.	6.0	256
112	Microwave losses and propagation in SrTiO ₃ /YBa ₂ Cu ₃ O _{7-x} bilayers on LaAlO ₃ . European Physical Journal D, 1996, 46, 1083-1084.	0.4	0
113	Microwave measurements on thin YBa ₂ Cu ₃ O _{7-x} films of different thickness. European Physical Journal D, 1996, 46, 1081-1082.	0.4	1
114	Ferroelectric field effect in SrCuO ₂ and SrRuO ₃ films. Journal of Low Temperature Physics, 1996, 105, 1517-1522.	0.6	5