

Manfred R Wuttig

List of Publications by Year in descending order

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82
papers

5,323
citations

172386

29
h-index

82499

72
g-index

84
all docs

84
docs citations

84
times ranked

4044
citing authors

#	ARTICLE	IF	CITATIONS
1	Freezing of the polarization fluctuations in lead magnesium niobate relaxors. Journal of Applied Physics, 1990, 68, 2916-2921.	1.1	1,231
2	Magnetostriction of martensite. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1998, 77, 1273-1299.	0.7	626
3	Combinatorial search of thermoelastic shape-memory alloys with extremely small hysteresis width. Nature Materials, 2006, 5, 286-290.	13.3	551
4	Ultralow-fatigue shape memory alloy films. Science, 2015, 348, 1004-1007.	6.0	361
5	Demonstration of high efficiency elastocaloric cooling with large ΔT using NiTi wires. Applied Physics Letters, 2012, 101, 073904.	1.5	350
6	Magnetoelectric coupling in Terfenol-D/polyvinylidenedifluoride composites. Applied Physics Letters, 2002, 81, 100-101.	1.5	241
7	Elasticity and magnetoelasticity of Fe-Ga solid solutions. Applied Physics Letters, 2002, 80, 1135-1137.	1.5	147
8	Fabrication and characterization of all-thin-film magnetoelectric sensors. Applied Physics Letters, 2009, 94, .	1.5	142
9	The dielectric relaxation of lead magnesium niobate relaxor ferroelectrics. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1991, 64, 335-344.	0.6	134
10	Occurrence of ferromagnetic shape memory alloys (invited). Journal of Applied Physics, 2000, 87, 4707-4711.	1.1	102
11	Non-Joulian magnetostriction. Nature, 2015, 521, 340-343.	13.7	96
12	Local polar configurations in lead magnesium niobate relaxors. Journal of Applied Physics, 1991, 69, 414-419.	1.1	93
13	Magnetic anisotropy of FeGa alloys. Journal of Applied Physics, 2004, 95, 6939-6941.	1.1	90
14	Phase Transformations in Ferromagnetic NiMnGa Shape Memory Films. Materials Transactions, JIM, 2000, 41, 933-937.	0.9	72
15	Intermartensitic transformation in a NiMnGa alloy. Journal of Applied Physics, 2004, 95, 6957-6959.	1.1	69
16	Superparaelectric (Ba _{0.95} ,Sr _{0.05})(Zr _{0.2} ,Ti _{0.8})O ₃ Ultracapacitors. Advanced Energy Materials, 2020, 10, 2001778.	10.2	69
17	Magnetic domain observations in Fe-Ga alloys. Journal of Magnetism and Magnetic Materials, 2010, 322, 2023-2026.	1.0	58
18	Magnetoelectric magnetic field sensors. MRS Bulletin, 2018, 43, 834-840.	1.7	57

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19	Internal strain relaxation and the glassy behavior of La-modified lead zirconate titanate relaxors. Journal of Applied Physics, 1991, 69, 6595-6602.	1.1	54
20	Organic Exciton Multiferroics. Advanced Materials, 2012, 24, 724-727.	11.1	51
21	Magnetostrictive and Shape Memory Properties of Heusler Type Co_2NiGa Alloys. Materials Transactions, 2003, 44, 372-376.	0.4	44
22	Tunable electroresistance and electro-optic effects of transparent molecular ferroelectrics. Science Advances, 2017, 3, e1701008.	4.7	44
23	Combinatorial investigation of magnetostriction in FeGa and FeGaAl . Applied Physics Letters, 2008, 93, .	1.5	38
24	Room Temperature Multiferroicity of Charge Transfer Crystals. ACS Nano, 2015, 9, 9373-9379.	7.3	38
25	Anelastic relaxation and internal strain in lead magnesium niobate relaxors. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1991, 64, 835-849.	0.7	34
26	Charge-Transfer Magnetoelectrics of Polymeric Multiferroics. ACS Nano, 2014, 8, 3671-3677.	7.3	34
27	Multiferroicity of Carbon-Based Charge-Transfer Magnets. Advanced Materials, 2015, 27, 734-739.	11.1	31
28	Origin of magnetostriction in FeGa . Journal of Applied Physics, 2010, 107, .	1.1	30
29	Energy transduction ferroic materials. Materials Today, 2018, 21, 771-784.	8.3	30
30	Competing structural ordering tendencies in Heusler-type alloys with high Curie temperatures: $\text{Fe}_{1-x}\text{Mn}_x\text{Ni}_2$. Physical Review B, 2010, 82, .	11.1	27
31	Synthetic Crystals of Silver with Carbon: 3D Epitaxy of Carbon Nanostructures in the Silver Lattice. Advanced Functional Materials, 2015, 25, 4768-4777.	7.8	27
32	Combinatorial Investigation of Ferromagnetic Shape-Memory Alloys in the Ni-Mn-Al Ternary System Using a Composition Spread Technique. Materials Transactions, 2004, 45, 173-177.	0.4	26
33	Interaction of Phase Transformation and Magnetic Properties of Heusler Alloys: A Density Functional Theory Study. Jom, 2013, 65, 1540-1549.	0.9	21
34	Diblock copolymer based self-assembled nanomagnetoelectric. Applied Physics Letters, 2008, 93, 173507.	1.5	17
35	Nanolamellar magnetoelectric $\text{BaTiO}_3\text{CoFe}_2\text{O}_4$ bicrystal. Applied Physics Letters, 2009, 95, 153504.	1.5	16
36	External stimuli controlled multiferroic charge-transfer crystals. Nano Research, 2016, 9, 925-932.	5.8	16

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37	Thermo-Mechanical Ni ₅₀ Ti ₅₀ /Si Composite Thin Film Switch. Materials Research Society Symposia Proceedings, 1994, 360, 375.	0.1	14
38	Spinodally synthesized magnetoelectric. Applied Physics Letters, 2007, 91, .	1.5	14
39	Tuning crystallographic compatibility to enhance shape memory in ceramics. Physical Review Materials, 2019, 3, .	0.9	14
40	Structural studies of Fe _{0.81} Ga _{0.19} by reciprocal space mapping. Applied Physics Letters, 2002, 81, 3185-3187.	1.5	13
41	Desiliconization of Mullite Felt. Journal of the American Ceramic Society, 1991, 74, 2419-2427.	1.9	12
42	Substrate stress controlled magnetic domains in amorphous Terfenolâ€” films. Applied Physics Letters, 1995, 66, 2424-2426.	1.5	12
43	All Conjugated Copolymer Excitonic Multiferroics. Advanced Materials, 2013, 25, 783-787.	11.1	12
44	Elasticity Study in Ferromagnetic Shape Memory Alloys. Materials Research Society Symposia Proceedings, 2003, 785, 221.	0.1	11
45	Phase Transformation and Magnetic Property of Heusler Type Co₂NiGa Alloys. Materials Transactions, 2004, 45, 204-207.	0.4	11
46	Insitumechanical relaxation of Cu films growing on a Si substrate. Applied Physics Letters, 1993, 63, 3437-3439.	1.5	10
47	Unique magnetostriction of Fe _{68.8} Pd _{31.2} attributable to twinning. Scientific Reports, 2016, 6, 34259.	1.6	10
48	Nondestructive dynamic evaluation of thin NiTi film adhesion. Journal of Adhesion Science and Technology, 1994, 8, 625-633.	1.4	9
49	Stresses in chemical vapor deposited epitaxial 3Câ€”SiC membranes. Journal of Applied Physics, 1995, 77, 1280-1283.	1.1	9
50	Graphoepitaxial NiTi shape memory thin films on Si. Applied Physics Letters, 1998, 73, 750-752.	1.5	9
51	Patterned Shape Memory Alloy Films. Materials Transactions, 2002, 43, 951-955.	0.4	9
52	Transformationâ€”Induced Magnetoelasticity in FeGa Alloys. Advanced Engineering Materials, 2019, 21, 1900399.	1.6	8
53	Magnetic mesostructure of giant magnetostrictive spring magnet type multilayers. Journal of Applied Physics, 1999, 85, 6238-6240.	1.1	7
54	Self-organized two-dimensional onions. Applied Physics Letters, 2009, 94, 113507.	1.5	7

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55	Tension and strain annealing for abnormal grain growth in magnetostrictive Galfenol rolled sheet. Journal of Applied Physics, 2011, 109, 07A941.	1.1	7
56	Martensite adaption through epitaxial nano transition layers in TiNiCu shape memory alloys. Journal of Applied Crystallography, 2016, 49, 1009-1015.	1.9	7
57	Thermal expansion of Ni/Cu multilayers. Journal of Applied Physics, 1994, 76, 4567-4570.	1.1	6
58	Magnetolectric relaxation in rhombohedral LiNbO ₃ -CoFe ₂ O ₄ . Applied Physics Letters, 2012, 100, .	1.5	6
59	Magneto-mechanical instability in Terfenol-D films. Applied Physics Letters, 1995, 67, 3641-3643.	1.5	5
60	Internal Stresses and Damping in Ni/Cu Multilayered Thin Films. Materials Research Society Symposia Proceedings, 1992, 280, 527.	0.1	4
61	Thermo-Mechanical Properties of Terfenol-D Thin Films. Materials Research Society Symposia Proceedings, 1994, 360, 195.	0.1	4
62	The effect of substrate constraint on the martensitic transformation of Ni-Ti thin films. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1996, 27, 2859-2861.	1.1	4
63	Printing Air-Stable High-Tc Molecular Magnet with Tunable Magnetic Interaction. Nano Letters, 2022, 22, 545-553.	4.5	4
64	Actuation field in martensitic Ni _{49.0} Mn _{23.5} Ga _{27.5} . Journal of Applied Physics, 2007, 101, 09C519.	1.1	3
65	First-principles study of ferromagnetic Ni ₂ CoGa(Zn) alloys in the Heusler and the inverse Heusler structure. Materials Research Society Symposia Proceedings, 2009, 1200, 50.	0.1	3
66	New Functional Magnetic Shape Memory Alloys from First-Principles Calculations. Materials Research Society Symposia Proceedings, 2009, 1200, 38.	0.1	3
67	Bimorph-type Magnetostrictive Actuator/Sensor Thin Films. Materials Research Society Symposia Proceedings, 2005, 888, 1.	0.1	2
68	Development of New Magnetostrictive Materials in Heusler Type CoNiGa System. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2002, 66, 147-150.	0.2	2
69	Shape Memory and Magnetostrictive Materials for Mems. Materials Research Society Symposia Proceedings, 1998, 546, 145.	0.1	1
70	Stress-Induced Martensite in NiTi Corrugated Films. Materials Research Society Symposia Proceedings, 1999, 604, 105.	0.1	1
71	Rapid-Solidification Effect on Magnetostriction in Iron-based Ferromagnetic Shape Memory Alloy. Materials Research Society Symposia Proceedings, 2001, 703, 1.	0.1	1
72	Microstructure and Magnetostriction of Rapidly-solidified Fe-Ga System Alloy. Materials Research Society Symposia Proceedings, 2003, 785, 1241.	0.1	1

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73	Development of Magnetostrictive Fe-Ga and Fe-Pd Thin Films. Materials Research Society Symposia Proceedings, 2004, 855, 66.	0.1	1
74	In-Process Evaluation of Kinetic Energy of Sputter Depositing Atoms Using Multijunction Thermal Converters. Materials Research Society Symposia Proceedings, 1994, 356, 555.	0.1	0
75	Stress Evolution in Ultra Thin Sputtered Films. Materials Research Society Symposia Proceedings, 1995, 405, 475.	0.1	0
76	Stress Controlled Magneto-Mechanical Instability In Terfenol-D Thin Films. Materials Research Society Symposia Proceedings, 1997, 505, 595.	0.1	0
77	Thermomechanical and martensitic transformation stresses of NiTiSi thin film composites. Metals and Materials International, 1997, 3, 40-45.	0.2	0
78	Twin evolution near the phase transformation of In77.5Ti22.5. Phase Transitions, 1999, 69, 351-361.	0.6	0
79	Model for the elastic behavior near intermartensitic transitions. Journal of Applied Physics, 2005, 97, 10M302.	1.1	0
80	Synthetic Alloys: Synthetic Crystals of Silver with Carbon: 3D Epitaxy of Carbon Nanostructures in the Silver Lattice (Adv. Funct. Mater. 30/2015). Advanced Functional Materials, 2015, 25, 4746-4746.	7.8	0
81	Charge-Transfer Magnets: Multiferroicity of Carbon-Based Charge-Transfer Magnets (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Overloc 11.1	11.1	0
82	CBED Investigations of Boron Monoarsenide Crystals. Microscopy and Microanalysis, 2018, 24, 30-31.	0.2	0