

# Thomas A Lograsso

## List of Publications by Year in descending order

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104  
papers

4,259  
citations

147566

31  
h-index

114278

63  
g-index

105  
all docs

105  
docs citations

105  
times ranked

3425  
citing authors

#	ARTICLE	IF	CITATIONS
1	6% magnetic-field-induced strain by twin-boundary motion in ferromagnetic Ni <sup>1-x</sup> Mn <sup>x</sup> Ga. Applied Physics Letters, 2000, 77, 886-888.	1.5	1,057
2	Extraordinary magnetoelasticity and lattice softening in bcc Fe-Ga alloys. Journal of Applied Physics, 2003, 93, 8621-8623.	1.1	505
3	Magnetostrictive Properties of Galfenol Alloys Under Compressive Stress. Materials Transactions, 2002, 43, 881-886.	0.4	199
4	Magnetostriction of binary and ternary Fe <sup>1-x</sup> Ga <sup>x</sup> alloys. Journal of Materials Science, 2007, 42, 9582-9594.	1.7	140
5	Tetragonal magnetostriction and magnetoelastic coupling in Fe-Al, Fe-Ga, Fe-Ge, Fe-Si, Fe-Ga-Al, and Fe-Ga-Ge alloys. Journal of Applied Physics, 2012, 111, .	1.1	100
6	Magnetic field dependence of galfenol elastic properties. Journal of Applied Physics, 2005, 97, 10M315.	1.1	93
7	Flux growth at ambient pressure of millimeter-sized single crystals of LaFeAsO, LaFeAsO <sup>1-x</sup> F <sub>x</sub> , and LaFe <sup>1-x</sup> CoxAsO. Applied Physics Letters, 2009, 95, .	1.5	81
8	Magnetic field dependence of the maximum magnetic entropy change. Physical Review B, 2011, 83, .	1.1	81
9	Magnetostrictive and magnetoelectric behavior of Fe <sup>20</sup> at.% Ga <sup>x</sup> Pb(Zr,Ti)O <sub>3</sub> laminates. Journal of Applied Physics, 2005, 97, 103902.	1.1	74
10	Fe <sup>1-x</sup> Ga <sup>x</sup> Pb(Mg <sup>1-x</sup> Nb <sup>2x/3</sup> )O <sub>3</sub> PbTiO <sub>3</sub> magnetoelectric laminate composites. Applied Physics Letters, 2005, 87, 222504.	1.5	72
11	Magnetostriction of ternary Fe <sup>1-x</sup> Ga <sup>x</sup> X (X=C,V,Cr,Mn,Co,Rh) alloys. Journal of Applied Physics, 2007, 101, 09C507.	1.1	70
12	Hydrostatic pressure control of the magnetostructural phase transition in Gd <sub>5</sub> Si <sub>2</sub> Ge <sub>2</sub> single crystals. Physical Review B, 2005, 72, .	1.1	63
13	Energy gap evolution across the superconductivity dome in single crystals of (Ba <sub>1-x</sub> Tl <sub>x</sub> ) <sub>2</sub> ETQq <sub>1</sub> 1 <sub>0</sub> 784314 <sub>54</sub> / Overlock 10 Tf 50 237 Td (xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:math>T_j ETQq_0 0 0 rgBT / Overlock 10 Tf 50 237 Td</mml:math></mml:math> Comprehensive scenario for single-crystal growth and doping dependence of resistivity and anisotropic upper critical fields in (Ba <sub>1-x</sub> Tl <sub>x</sub> ) <sub>2</sub> ETQq <sub>0</sub> 0 <sub>0</sub> rgBT / Overlock 10 Tf 50 237 Td (xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:math>T_j ETQq_0 0 0 rgBT / Overlock 10 Tf 50 237 Td</mml:math></mml:math>)	4.7	54
14	Comprehensive scenario for single-crystal growth and doping dependence of resistivity and anisotropic upper critical fields in (Ba <sub>1-x</sub> Tl <sub>x</sub> ) <sub>2</sub> ETQq <sub>0</sub> 0 <sub>0</sub> rgBT / Overlock 10 Tf 50 237 Td (xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:math>T_j ETQq_0 0 0 rgBT / Overlock 10 Tf 50 237 Td</mml:math></mml:math>)	1.1	52
15	Magnetostriction of ternary Fe <sup>1-x</sup> Ga <sup>x</sup> X alloys (X=Ni,Mo,Sn,Al). Journal of Applied Physics, 2002, 91, 8225.	1.1	51
16	Temperature dependence of the magnetic anisotropy and magnetostriction of Fe <sub>100-x</sub> Gax (x=8.6, 16.6.) Tj ETQq <sub>0</sub> 0 <sub>0</sub> rgBT / Overlock 10 Tf 50 237 Td (xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:math>T_j ETQq_0 0 0 rgBT / Overlock 10 Tf 50 237 Td</mml:math></mml:math>)	1.1	51
17	Phase relationships and structural, magnetic, and thermodynamic properties of alloys in the pseudobinary Er <sub>5</sub> Si <sub>4</sub> Er <sub>5</sub> Ge <sub>4</sub> system. Physical Review B, 2004, 70, 040407. Native defects in tetradymite Bi (xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:math>T_j ETQq_0 0 0 rgBT / Overlock 10 Tf 50 237 Td</mml:math></mml:math>)	1.1	48
18			

#	ARTICLE	IF	CITATIONS
19	Reversible spin-flop and irreversible metamagneticlike transitions induced by a magnetic field in the layeredGd5Ge4antiferromagnet. Physical Review B, 2004, 69, .	1.1	47
20	On the growth of icosahedral Alâ€“Pdâ€“Mn quasicrystals from the ternary melt. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1999, 79, 1673-1684.	0.6	43
21	Magnetic properties of single-crystalDyAl2. Physical Review B, 2005, 72, .	1.1	43
22	Upper critical field of $K_{Fe}^2$ pressure: A test for the change in the superconducting gap structure. Physical Review B, 2014, 89, .	1.1	43
23	Preparation of large single grains of the quasicrystalline icosahedral Alâ€“Cuâ€“Fe $\overline{1}$ phase. Journal of Materials Research, 1996, 11, 2125-2127.	1.2	40
24	Relation between Ga ordering and magnetostriction of Fe-Ga alloys studied by x-ray diffuse scattering. Physical Review B, 2010, 81, .	1.1	39
25	Real-space observation of quasicrystalline Sn monolayer formed on the fivefold surface of icosahedralAlâ€“Cuâ€“Fequasicrystal. Physical Review B, 2005, 72, .	1.1	37
26	Surface-driven electronic structure in LaFeAsO studied by angle-resolved photoemission spectroscopy. Physical Review B, 2010, 82, .	1.1	37
27	Magnetic domains in magnetostrictive Feâ€“Ga alloys. Applied Physics Letters, 2008, 93, .	1.5	36
28	Electronic structure and lattice dynamics of the magnetic shape-memory alloy $Co_2R$ Physical Review B, 2010, 82, and superlattice misfit strain of $R_2FeAsO$	1.1	36
29	Physical Review B, 2010, 82, and superlattice misfit strain of $R_2FeAsO$		

#	ARTICLE	IF	CITATIONS
37	Phase selection during directional solidification of peritectic alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 1287-1300.	1.1	27
38	Crossover in the magnetic response of single-crystalline $BaKFe_2$ . Physical Review B, 2014, 90, .	1.1	27
39	Gd <sub>5</sub> (Si,Ge) <sub>4</sub> thin film displaying large magnetocaloric and strain effects due to magnetostructural transition. Applied Physics Letters, 2015, 106, .	1.5	27
40	Itinerant and Localized Magnetization Dynamics in Antiferromagnetic Ho. Physical Review Letters, 2016, 116, 257202.	2.9	27
41	Giant magnetostriction behavior at the Curie temperature of single crystal Gd <sub>5</sub> (Si <sub>0.5</sub> Ge <sub>0.5</sub> ) <sub>4</sub> . Journal of Applied Physics, 2004, 95, 6945-6947.	1.1	26
42	Spatially-resolved study of the Meissner effect in superconductors using NV-centers-in-diamond optical magnetometry. New Journal of Physics, 2018, 20, 043010.	1.2	26
43	Fermi surface reconstruction in $FeTj$ compound. Physical Review B, 2012, 86, .	1.1	25
44	Surface oxidation of a quasicrystalline $AlCuFe$ alloy: No effect of surface orientation and grain boundaries on the final state. Journal of Materials Research, 1999, 14, 3185-3188.	1.1	25
45	Surface oxidation of a quasicrystalline $AlCuFe$ alloy: No effect of surface orientation and grain boundaries on the final state. Journal of Materials Research, 1999, 14, 3185-3188.	1.2	24
46	Magnetic force microscopy investigation of domain structures in $Fe_{1-x}Ga_x$ single crystals (12<x<25). Journal of Applied Physics, 2005, 98, 023904.	1.1	24
47	Hydrostatic and uniaxial pressure dependence of superconducting transition temperature of $KFeAs$ single crystals. Physical Review B, 2012, 86, .	1.1	24
48	Magnetostriction of iron-germanium single crystals. Journal of Applied Physics, 2008, 103, .	1.1	23
49	Experimental Study on Viscosity and Phase Segregation of $AlSi$ Powders in Microseemisolid Powder Forming. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2010, 132, .	1.3	22
50	Neutron diffraction studies of the magnetoelastic compounds $Tb_5Si_6Ge_4$ (x=2.2 and 2.5). Physical Review B, 2005, 72, .	1.1	21
51	RHEED and STM studies of the pseudo-tenfold surface of the $Al_{77.5}Pd_{19}Mn_{3.5}$ approximant crystal. Physical Review B, 2005, 71, .	1.1	21
52	Evolution of London penetration depth with scattering in single crystals of $KNaFe_2As_2$ . Physical Review B, 2014, 89, .	1.1	20
53	Compositional variation of the phonon dispersion curves of bcc Fe-Ga alloys. Physical Review B, 2005, 72, .	1.1	18
54	Magnetic and structural transitions in $La_{1-x}Fe_x$ crystals. Physical Review B, 2015, 91, .	1.1	18

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55	Formation mechanism of superconducting phase and its three-dimensional architecture in pseudo-single-crystal $K_xFe_2\tilde{y}Se_2$ . Physical Review B, 2016, 93, .	1.1	16
56	Quasiperiodic ordering in thick Sn layer on $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \langle \text{mml:mi} \rangle \text{i} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -Al-Pd-Mn: A possible quasicrystalline clathrate. Physical Review Research, 2020, 2, .	1.3	16
57	Large magnetically induced strains in Ni <sub>50</sub> Mn <sub>28.7</sub> Ga <sub>21.3</sub> driven with collinear field and stress. Journal of Applied Physics, 2006, 99, 063903.	1.1	15
58	Spin-wave dispersion in magnetostrictive Fe-Ga alloys: Inelastic neutron scattering measurements. Physical Review B, 2007, 75, .	1.1	15
59	Structural studies of Fe <sub>0.81</sub> Ga <sub>0.19</sub> by reciprocal space mapping. Applied Physics Letters, 2002, 81, 3185-3187.	1.5	13
60	X-ray diffuse scattering measurements of chemical short-range order and lattice strains in a highly magnetostrictive Fe <sub>b&gt;0.813&lt;/b&gt;Ga<sub>b&gt;0.187&lt;/b&gt; alloy in an applied magnetic field. Physical Review B, 2012, 85, .</sub></sub>	1.1	13
61	Electrical resistivity and magnetoresistance of single-crystal $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \text{display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mtext} \rangle \text{Tb} \langle \text{mml:mtext} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 5 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle$ Physical Review B, 2009, 80, .	1.1	12
62	Magnetostructural transition in $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \text{display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mtext} \rangle \text{Gd} \langle \text{mml:mtext} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 5 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle$ Physical Review B, 2009, 80, .	1.1	12
63	Flux requirements for the growth of RFeAsO $\hat{e}$ (R=rare $\hat{e}$ ,earth) superconductors. Applied Physics Letters, 2011, 98, .	1.5	12
64	Reversible tuning of the surface state in a pseudobinary Bi <sub>2</sub> (Te-Se) <sub>3</sub> topological insulator. Physical Review B, 2012, 86, .	1.1	12
65	Terrace-dependent morphology of thin Sn films deposited on the fivefold surface of the icosahedral Al $\hat{e}$ "Cu $\hat{e}$ "Fe quasicrystal. Philosophical Magazine, 2006, 86, 807-812.	0.7	11
66	Experimental exploration of the origin of magnetostriction in single crystalline iron. Applied Physics Letters, 2010, 97, 072508.	1.5	11
67	High superconducting anisotropy and weak vortex pinning in Co-doped LaFeAsO. Physical Review B, 2012, 86, .	1.1	11
68	In situ high energy x-ray synchrotron diffraction study of the synthesis and stoichiometry of LaFeAsO and LaFeAsO <sub>1<math>\hat{a}</math>"x</sub> Fy. Journal of Applied Physics, 2009, 105, 123912.	1.1	10
69	Magnetoelasticity of Fe $\hat{e}$ "Si single crystals. Journal of Applied Physics, 2010, 107, 09A911.	1.1	10
70	The occurrence and periodicity of oscillating peritectic microstructures developed during directional solidification. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1997, 28, 1543-1552.	1.1	9
71	Temperature dependence of the magnetic relaxation peak and magnetic relaxation in $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \langle \text{mml:mrow} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mo} \rangle \langle \text{mml:mo} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Tj ET} \langle \text{mml:math} \rangle$ Physical Review B, 2018, 97, .	1.1	9
72	Magnetoelastic coupling in Fe <sub>100<math>\hat{a}</math>"x</sub> Gex single crystals with 4<x<18. Journal of Applied Physics, 2009, 105, 07A932.	1.1	8

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73	Imprinting bulk amorphous alloy at room temperature. Scientific Reports, 2015, 5, 16540.	1.6	8
74	Dependence of the absolute value of the penetration depth in $Ba_{1-x}K_xFe_2As_2$ . Physical Review B, 2018, 98, .	1.1	8
75	Dielectric resonator method for determining gap symmetry of superconductors through anisotropic nonlinear Meissner effect. Review of Scientific Instruments, 2019, 90, 043901.	0.6	8
76	The Pr-rich portion of the Ni-Pr system. Journal of Phase Equilibria and Diffusion, 2005, 26, 209-214.	0.5	7
77	Thermal expansion and Grüneisen parameters in some $PrNiSi$ compounds. Journal of Applied Physics, 2005, 97, 10M516.	1.1	7
78	Voids and pits on sputter-annealed fivefold terraces of icosahedral $AlPdMn$ quasicrystals. Philosophical Magazine, 2006, 86, 819-824.	0.7	7
79	Anisotropic magnetoelastic coupling in single-crystalline $CeFeAsO$ as seen via high-resolution x-ray diffraction. Physical Review B, 2011, 84, .	1.1	7
80	Anisotropic magnetic deflagration in single crystals of $Gd_{5-x}Ge_x$ . Physical Review B, 2012, 85, .	1.1	7
81	Magnetism-dependent phonon anomaly in $LaFeAsO$ observed via inelastic x-ray scattering. Physical Review B, 2013, 87, .	1.1	7
82	Chemical Disorder in Topological Insulators: A Route to Magnetism Tolerant Topological Surface States. Nano Letters, 2017, 17, 4047-4054.	4.5	7
83	Terrace-dependent nucleation of small $Ag$ clusters on a five-fold icosahedral quasicrystal surface. Philosophical Magazine, 2007, 87, 2995-3001.	0.7	6
84	Competition between orthorhombic and re-entrant tetragonal phases in underdoped $Ba_{1-x}K_xFe_2As_2$ probed by the response to contr. Physical Review B, 2019, 99, .	1.1	6
85	Low-Energy Ion Scattering Measurements from an $Al-Pd-Mn$ Quasicrystal. Materials Research Society Symposia Proceedings, 2000, 643, 1111.	0.1	5
86	Specific heat investigation for line nodes in heavily overdoped $Ba_{1-x}K_xFe_2As_2$ . Physical Review B, 2015, 91, .	1.1	5
87	Phase Stability of Single Crystalline $Co-Ni-Ga$ Shape Memory Alloy. Materials Research Society Symposia Proceedings, 2003, 785, 781.	0.1	4
88	Magnetic anisotropy and phase transitions in single-crystal $Tb_5(Si_2Ge_1.8)$ . Journal of Applied Physics, 2005, 97, 10M313.	1.1	4
89	Solid and liquid thermal expansion and structural observations in the quasicrystalline $Cd_{84}Yb_{16}$ compound. Philosophical Magazine Letters, 2005, 85, 151-162.	0.5	4
90	Contamination from magnetic starting materials in flux-grown single crystals of $RFeAsO$ superconductors. Physical Review B, 2011, 84, .	1.1	4

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91	Polarized Light Microscopy Study on the Reentrant Phase Transition in a $(\text{Ba}_{1-x}\text{K}_x)\text{Fe}_2\text{As}_2$ Single Crystal with $x = 0.24$ . Crystals, 2016, 6, 142.	1.0	3
92	Laser angle-resolved photoemission as a probe of initial state $k_z$ dispersion, final-state band gaps, and spin texture of Dirac states in the $\text{Bi}_2\text{Te}_3$ topological insulator. Physical Review B, 2016, 94, .	1.1	3
93	Doping evolution of the anisotropic upper critical fields in the iron-based superconductor $(\text{Ba}_{1-x}\text{K}_x)\text{Fe}_2\text{As}_2$ . Physical Review B, 2017, 96, .	1.1	3
94	Magnetostrictive performance of additively manufactured CoFe rods using the LENSTMSystem. AIP Advances, 2018, 8, 056403.	0.6	3
95	Bulk single crystal growth and sample surface preparation of catalytic NaAu <sub>2</sub> . Journal of Alloys and Compounds, 2019, 789, 362-366.	2.8	3
96	Mechanical detwinning device for anisotropic resistivity measurements in samples requiring dismounting for particle irradiation. Review of Scientific Instruments, 2020, 91, 073904.	0.6	2
97	On the growth of icosahedral $\text{Al-Pd-Mn}$ quasicrystals from the ternary melt. , 0, .		2
98	Processing Of Al-Cu-Fe Quasicrystalline Single Grains. Materials Research Society Symposia Proceedings, 1998, 553, 3.	0.1	1
99	Determination of Structural Anisotropy of Stress-Annealed $\text{Fe}_{80.5}\text{Ga}_{19.5}$ . IEEE Transactions on Magnetics, 2009, 45, 4142-4144.	1.2	1
100	The Influence of Growth Rate on Porosity in Al-Pd-Mn Icosahedral Quasicrystals.. Materials Research Society Symposia Proceedings, 2000, 643, 151.	0.1	0
101	Magnetism dependent phonon anomaly in $\text{LaFeAsO}$ observed via inelastic x-ray scattering. Journal of Applied Physics, 2013, 113, 17E153.	1.1	0
102	Femto second pulsed laser deposition of nanoparticulate thin film of $\text{Gd}_5\text{Si}_x\text{Ge}_4$ . , 2015, , .		0
103	Effect of controlled pointlike disorder induced by 2.5-MeV electron irradiation on the nematic resistivity anisotropy of hole-doped $(\text{Ba},\text{K})\text{Fe}_2\text{As}_2$ . Physical Review B, 2020, 102, .	1.1	0
104	Quantum size effects in Ag thin films grown on the fivefold surface of the icosahedral Al-Cu-Fe quasicrystal: Influence of the growth temperature. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, 013212.	0.9	0