Katayun Barmak

List of Publications by Year in Descending Order

242 papers	5,805 citations	43 h-index	65 g-index
254 ext. papers	6,691 ext. citations	5 avg, IF	5.79 L-index

#	Paper	IF	Citations
242	Structure of the moiré exciton captured by imaging its electron and hole.. *Nature*, **2022**, 603, 247-252	50.4	3
241	Optical absorption of interlayer excitons in transition-metal dichalcogenide heterostructures.. *Science*, **2022**, 376, 406-410	33.3	7
240	Optical dispersion of valley-hybridised coherent excitons with momentum-dependent valley polarisation in monolayer semiconductor. *2D Materials*, **2021**, 8, 015009	5.9	7
239	Diffusivity Reveals Three Distinct Phases of Interlayer Excitons in MoSe_{2}/WSe_{2} Heterobilayers. *Physical Review Letters*, **2021**, 126, 106804	7.4	18
238	Enhanced Superconductivity in Monolayer -MoTe. *Nano Letters*, **2021**, 21, 2505-2511	11.5	14
237	Electrodeposition of Ru onto Ru and Au Seed Layers from Solutions of Ruthenium Nitrosyl Sulfate and Ruthenium Chloride. *Journal of the Electrochemical Society*, **2021**, 168, 052504	3.9	1
236	Electrodeposition of Cu(111) onto a Ru(0001) seed layer for epitaxial Cu interconnects. *Journal of Applied Physics*, **2021**, 130, 135301	2.5	0
235	Epitaxial metals for interconnects beyond Cu. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2020**, 38, 033406	2.9	14
234	Direct Measurement of the Radiative Pattern of Bright and Dark Excitons and Exciton Complexes in Encapsulated Tungsten Diselenide. *Scientific Reports*, **2020**, 10, 8091	4.9	10
233	Simulation of Hubbard model physics in WSe/WS moiré superlattices. *Nature*, **2020**, 579, 353-358	50.4	195
232	Influence of the Seed Layer and Electrolyte on the Epitaxial Electrodeposition of Co(0001) for the Fabrication of Single Crystal Interconnects. *Journal of the Electrochemical Society*, **2020**, 167, 162503	3.9	2
231	Defects in epitaxial Ru(0001) on Al2O3(0001): Dislocations, stacking faults, and deformation twins. *Journal of Applied Physics*, **2020**, 128, 045304	2.5	3
230	Quantitative Structural Characterization of Catalytically Active TiO2 Nanoparticles. *ACS Applied Nano Materials*, **2019**, 2, 6268-6276	5.6	9
229	Approaching the Intrinsic Limit in Transition Metal Diselenides via Point Defect Control. *Nano Letters*, **2019**, 19, 4371-4379	11.5	90
228	Resistivity and surface scattering of (0001) single crystal ruthenium thin films. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2019**, 37, 031516	2.9	14
227	Statistics of grain growth: Experiment versus the phase-field-crystal and Mullins models. *Materialia*, **2019**, 6, 100280	3.2	4
226	Advancements in the treatment and processing of electronic waste with sustainability: a review of metal extraction and recovery technologies. *Green Chemistry*, **2019**, 21, 919-936	10	133

225	Resistivity scaling and electron surface scattering in epitaxial Co(0001) layers. *Journal of Applied Physics*, **2019**, 125, 245105	2.5	26
224	Measurement of spin mixing conductance in Ni81Fe19/W and Ni81Fe19/W heterostructures via ferromagnetic resonance. *Journal of Applied Physics*, **2019**, 126, 043902	2.5	
223	Shedding light on exciton's nature in monolayer quantum material by optical dispersion measurements. *Optics Express*, **2019**, 27, 37131-37149	3.3	8
222	Infrared Interlayer Exciton Emission in MoS_{2}/WSe_{2} Heterostructures. *Physical Review Letters*, **2019**, 123, 247402	7.4	56
221	Electrodeposition of Epitaxial Co on Ru(0001)/Al2O3(0001). *Journal of the Electrochemical Society*, **2019**, 166, D875-D881	3.9	5
220	A Commentary on: Reaction Kinetics in Processes of Nucleation and Growth. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2018**, 49, 3616-3680	2.5	5
219	Via Method for Lithography Free Contact and Preservation of 2D Materials. *Nano Letters*, **2018**, 18, 1416-1420	11.5	37
218	Resistivity size effect in epitaxial Ru(0001) layers. *Journal of Applied Physics*, **2018**, 124, 165105	2.5	36
217	Deterministic coupling of site-controlled quantum emitters in monolayer WSe to plasmonic nanocavities. *Nature Nanotechnology*, **2018**, 13, 1137-1142	28.7	105
216	Kinetics of first-order phase transitions with correlated nuclei. *Physical Review E*, **2017**, 95, 022121	2.4	11
215	The grain boundary character distribution of highly twinned nanocrystalline thin film aluminum compared to bulk microcrystalline aluminum. *Journal of Materials Science*, **2017**, 52, 9819-9833	4.3	12
214	Copper oxide catalyst supported on niobium oxide for CO oxidation at low temperatures. *Catalysis Communications*, **2017**, 97, 42-46	3.2	15
213	Selective Solar Absorbers: Scalable, Dip-and-Dry Fabrication of a Wide-Angle Plasmonic Selective Absorber for High-Efficiency Solar Thermal Energy Conversion (Adv. Mater. 41/2017). *Advanced Materials*, **2017**, 29,	24	1
212	Scalable, "Dip-and-Dry" Fabrication of a Wide-Angle Plasmonic Selective Absorber for High-Efficiency Solar-Thermal Energy Conversion. *Advanced Materials*, **2017**, 29, 1702156	24	71
211	On the potential of tungsten as next-generation semiconductor interconnects. *Electronic Materials Letters*, **2017**, 13, 449-456	2.9	22
210	Transformation of topologically close-packed W to body-centered cubic W: Comparison of experiments and computations. *Journal of Chemical Physics*, **2017**, 147, 152709	3.9	17
209	Impact of deposition rate, underlayers, and substrates on tungsten formation in sputter deposited films. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2017**, 35, 061516	2.9	5
208	Atomistic simulations of grain boundary energies in tungsten. *Materials Letters*, **2017**, 186, 116-118	3.3	8

207	Towards a gradient flow for microstructure. *Atti Della Accademia Nazionale Dei Lincei, Classe Di Scienze Fisiche, Matematiche E Naturali, Rendiconti Lincei Matematica E Applicazioni*, **2017**, 28, 777-805	0.7	4
206	Oxygen storage and redox properties of Nb-doped ZrO 2 -CeO 2 -Y 2 O 3 solid solutions for three-way automobile exhaust catalytic converters. *Catalysis Today*, **2016**, 277, 227-233	5.3	5
205	On twin density and resistivity of nanometric Cu thin films. *Journal of Applied Physics*, **2016**, 120, 065106	2.5	9
204	Topologically close-packed phases: Deposition and formation mechanism of metastable W in thin films. *Acta Materialia*, **2016**, 104, 223-227	8.4	26
203	Thermodynamic and kinetic parameters of the chemical order–disorder transformation in L10 FeNi (tetrataenite). *Acta Materialia*, **2016**, 103, 608-615	8.4	33
202	Discovery of process-induced tetragonality in equiatomic ferromagnetic FeNi. *Acta Materialia*, **2016** , 116, 263-269	8.4	19
201	Kinetics of order-disorder transformation of L12 FeNi3 in the Fe-Ni system. *Journal of Alloys and Compounds*, **2016**, 689, 593-598	5.7	6
200	Interdiffusion in nanometric Fe/Ni multilayer films. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2015**, 33, 021510	2.9	14
199	Method for measurement of diffusivity: Calorimetric studies of Fe/Ni multilayer thin films. *Scripta Materialia*, **2015**, 104, 1-4	5.6	4
198	Intrinsic magnetic properties of L10 FeNi obtained from meteorite NWA 6259. *Journal of Applied Physics*, **2015**, 117, 17E318	2.5	33
197	L10 phase formation in ternary FePdNi alloys. *Journal of Alloys and Compounds*, **2015**, 648, 845-852	5.7	7
196	Recent Developments in Material Microstructure: a Theory of Coarsening. *Materials Research Society Symposia Proceedings*, **2015**, 1753, 102		
195	Grain size dependence of the twin length fraction in nanocrystalline Cu thin films via transmission electron microscopy based orientation mapping. *Journal of Materials Research*, **2015**, 30, 528-537	2.5	9
194	Crystal orientation mapping in scanning and transmission electron microscopes **2014**, 39-66		0
193	Quantitative Kinetic Models of the A1 to ${rm L}1_{0}$ Transformation in FePt and Related Ternary Alloy Films. *IEEE Transactions on Magnetics*, **2014**, 50, 1-4	2	
192	Interfacial orientation and misorientation relationships in nanolamellar Cu/Nb composites using transmission-electron-microscope-based orientation and phase mapping. *Acta Materialia*, **2014**, 64, 333-344	8.4	37
191	De Magnete et Meteorite: Cosmically Motivated Materials. *IEEE Magnetics Letters*, **2014**, 5, 1-4	1.6	34
190	Fabrication and characterization of reactive multilayer films and foils **2014**, 160-243		36

189	Comparison of crystal orientation mapping-based and image-based measurement of grain size and grain size distribution in a thin aluminum film. *Acta Materialia*, **2014**, 79, 138-145	8.4	13
188	Metal silicides in advanced complementary metal-oxide-semiconductor (CMOS) technology **2014**, 244-301		3
187	X-ray diffraction for characterizing metallic films **2014**, 3-38		23
186	Magnetic properties of metallic thin films **2014**, 454-546		4
185	Orientation Mapping **2014**, 1113-1141		2
184	Inspired by nature: investigating tetrataenite for permanent magnet applications. *Journal of Physics Condensed Matter*, **2014**, 26, 064213	1.8	64
183	Failure of semiclassical models to describe resistivity of nanometric, polycrystalline tungsten films. *Journal of Applied Physics*, **2014**, 115, 104308	2.5	41
182	Surface and grain boundary scattering in nanometric Cu thin films: A quantitative analysis including twin boundaries. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2014**, 32, 061503	2.9	50
181	Metallic thin films: stresses and mechanical properties **2014**, 353-421		3
180	Optical properties of metallic films **2014**, 547-589		
179	Structure formation during deposition of polycrystalline metallic thin films **2014**, 67-120		4
178	Electron scattering in metallic thin films **2014**, 422-453		1
177	Post-deposition grain growth in metallic films **2014**, 121-159		
176	Disorder–order transformations in metallic films **2014**, 302-350		
175	Thermal properties of metallic films **2014**, 590-619		
174	Capturing the complex physics behind universal grain size distributions in thin metallic films. *Acta Materialia*, **2014**, 64, 72-77	8.4	43
173	Grain boundary character distribution of nanocrystalline Cu thin films using stereological analysis of transmission electron microscope orientation maps. *Microscopy and Microanalysis*, **2013**, 19, 111-9	0.5	36
172	The five-parameter grain boundary character distribution of nanocrystalline tungsten. *Scripta Materialia*, **2013**, 69, 413-416	5.6	25

171	L1 $_{0}$ FePt: Ordering, Anisotropy Constant and Their Relation to Film Composition. *IEEE Transactions on Magnetics*, **2013**, 49, 3284-3291	2	9
170	Intrinsic Properties of Fe-Substituted $L1_{0}$ Magnets. *IEEE Transactions on Magnetics*, **2013**, 49, 5194-5198	2	21
169	Granular L10 FePt:X (X = Ag, B, C, SiOx, TaOx) thin films for heat assisted magnetic recording. *European Physical Journal B*, **2013**, 86, 1	1.2	26
168	Extreme value analysis of tail departure from log-normality in experimental and simulated grain size distributions. *Acta Materialia*, **2013**, 61, 5595-5604	8.4	29
167	Grain growth and the puzzle of its stagnation in thin films: The curious tale of a tail and an ear. *Progress in Materials Science*, **2013**, 58, 987-1055	42.2	71
166	Visible-light photochemical activity of heterostructured core-shell materials composed of selected ternary titanates and ferrites coated by tiO2. *ACS Applied Materials & Interfaces*, **2013**, 5, 5064-71	9.5	47
165	Simulation of electrical conduction in thin polycrystalline metallic films: Impact of microstructure. *Journal of Applied Physics*, **2013**, 114, 133703	2.5	28
164	Grain boundary and surface scattering in interconnect metals **2013**,		3
163	Crystallographic anisotropy of the resistivity size effect in single crystal tungsten nanowires. *Scientific Reports*, **2013**, 3, 2591	4.9	28
162	A Theory and Challenges for Coarsening in Microstructure. *Springer INdAM Series*, **2013**, 193-220	0.4	1
161	A comparison of texture results obtained using precession electron diffraction and neutron diffraction methods at diminishing length scales in ordered bimetallic nanolamellar composites. *Scripta Materialia*, **2012**, 67, 336-339	5.6	46
160	Effect of downscaling nano-copper interconnects on the microstructure revealed by high resolution TEM-orientation-mapping. *Nanotechnology*, **2012**, 23, 135702	3.4	34
159	Electron mean free path of tungsten and the electrical resistivity of epitaxial (110) tungsten films. *Physical Review B*, **2012**, 86,	3.3	63
158	Predictive Theory for the Grain Boundary Character Distribution. *Materials Science Forum*, **2012**, 715-716, 279-285	0.4	3
157	Resistivity in rough metallic thin films: A Monte Carlo study. *Journal of Applied Physics*, **2012**, 112, 013704	2.5	12
156	Grain Growth and the Puzzle of its Stagnation in Thin Films a Detailed Comparison of Experiments and Simulations. *Materials Science Forum*, **2012**, 715-716, 473-479	0.4	12
155	The impact of deposition temperature on L10 formation in FePt films. *Journal of Applied Physics*, **2012**, 111, 07B718	2.5	6
154	Evolution of nanoscale roughness in Cu/SiO2 and Cu/Ta interfaces. *Applied Physics Letters*, **2012**, 100, 024106	3.4	7

153	Granular L10 FePt-B and FePt-B-Ag (001) thin films for heat assisted magnetic recording. *Journal of Applied Physics*, **2012**, 111, 07B709	2.5	29
152	Precession-Assisted Nanoscale Phase and Crystal Orientation Mapping of Cu-Nb Composites in the Transmission Electron Microscope. *Microscopy and Microanalysis*, **2012**, 18, 1426-1427	0.5	3
151	Automated Crystal Orientation and Phase Mapping for Thin Film Applications by Transmission Electron Microscopy. *Microscopy and Microanalysis*, **2011**, 17, 1086-1087	0.5	6
150	Characterizing Texture and Grain Boundaries in Nanoscale Cu Interconnects by Precession Electron Diffraction. *Microscopy and Microanalysis*, **2011**, 17, 1346-1347	0.5	
149	Grain Boundary Characterization of Nanocrystalline Cu from the Stereological Analysis of Transmission Electron Microscope Orientation Maps. *Microscopy and Microanalysis*, **2011**, 17, 1416-1417	0.5	1
148	Re-evaluation of the impact of ternary additions of Ni and Cu on the A1 to L10 transformation in FePt films. *Journal of Applied Physics*, **2011**, 109, 123916	2.5	40
147	The Orientation Distributions of Lines, Surfaces, and Interfaces around Three-Phase Boundaries in Solid Oxide Fuel Cell Cathodes. *Journal of the American Ceramic Society*, **2011**, 94, 4045-4051	3.8	19
146	Experimental measurements of the heats of formation of Fe3Pt, FePt, and FePt3 using differential scanning calorimetry. *Journal of Applied Physics*, **2011**, 110, 013903	2.5	18
145	Phase, grain structure, stress, and resistivity of sputter-deposited tungsten films. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2011**, 29, 051512	2.9	66
144	Critical events, entropy, and the grain boundary character distribution. *Physical Review B*, **2011**, 83,	3.3	30
143	The A1 to L10 transformation in FePt films with ternary alloying additions of Mg, V, Mn, and B. *Journal of Applied Physics*, **2011**, 109, 07B739	2.5	16
142	An entropy based theory of the grain boundary character distribution. *Discrete and Continuous Dynamical Systems*, **2011**, 30, 427-454	2	10
141	Grain Size Determination and Grain Boundary Characterization of Nanocrystalline Thin Films from Conical Dark Field Imaging. *Microscopy and Microanalysis*, **2010**, 16, 1276-1277	0.5	
140	Impact Of Surface And Grain Boundary Scattering On The Resistivity Of Nanometric Cu Interconnects **2010**,		7
139	Surface and grain-boundary scattering in nanometric Cu films. *Physical Review B*, **2010**, 81,	3.3	141
138	A Commentary on: Reaction Kinetics in Processes of Nucleation and Growth. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2010**, 41, 2711-2775	2.3	51
137	A1 to L1 $_{0}$ Transformation in FePt Films With Ternary Alloying Additions of Ag and Au. *IEEE Transactions on Magnetics*, **2010**, 46, 1773-1776	2	33
136	High contrast hollow-cone dark field transmission electron microscopy for nanocrystalline grain size quantification. *Micron*, **2010**, 41, 177-82	2.3	27

135	Interfacial interaction of solid cobalt with liquid Pb-free SnBiInZnSb soldering alloys. *Journal of Materials Science*, **2009**, 44, 5960-5979	4.3	14
134	Dominant role of grain boundary scattering in the resistivity of nanometric Cu films. *Physical Review B*, **2009**, 79,	3.3	84
133	Orientation Imaging of Nanocrystalline Platinum Films in the TEM. *Microscopy and Microanalysis*, **2009**, 15, 1232-1233	0.5	4
132	Interfacial interaction of solid nickel with liquid Pb-free SnBiInZnSb soldering alloys. *Journal of Alloys and Compounds*, **2008**, 460, 337-352	5.7	3
131	Towards a Statistical Theory of Texture Evolution in Polycrystals. *SIAM Journal of Scientific Computing*, **2008**, 30, 3150-3169	2.6	16
130	Grain growth and void formation in dielectric-encapsulated Cu thin films. *Journal of Materials Research*, **2008**, 23, 2033-2039	2.5	7
129	Resistivity Size Effect in Encapsulated Cu Thin Films **2008**,		2
128	On the phase identification of dc magnetron sputtered PtRu alloy thin films. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2008**, 26, 1208-1212	2.9	1
127	Classical size effect in oxide-encapsulated Cu thin films: Impact of grain boundaries versus surfaces on resistivity. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2008**, 26, 605-609	2.9	33
126	Time-temperature-transformation diagrams for the A1 to L10 phase transformation in FePt and FeCuPt thin films. *Journal of Applied Physics*, **2007**, 101, 014905	2.5	50
125	. *IEEE Transactions on Electron Devices*, **2007**, 54, 807-813	2.9	9
124	Dissolution Kinetics of Nickel in Lead-Free Sn-Bi-In-Zn-Sb Soldering Alloys. *Materials Research Society Symposia Proceedings*, **2007**, 993, 1		4
123	Effect of alloy composition on the thermodynamic and kinetic parameters of the A1 to L10 transformation in FePt, FeNiPt, and FeCuPt films. *Journal of Applied Physics*, **2007**, 102, 024912	2.5	43
122	Grain boundary energy and grain growth in Al films: Comparison of experiments and simulations. *Scripta Materialia*, **2006**, 54, 1059-1063	5.6	51
121	L10 Ordered Intermetallics for Ultrahigh Density Magnetic Recording Media: Phase Formation and the Role of Alloy Chemistry and Composition. *Materials Research Society Symposia Proceedings*, **2006**, 980, 5		
120	The A1 to L10 transformation in FePt and FeCuPt thin films: Determination of isothermal transformation kinetics from nonisothermal measurements. *Journal of Applied Physics*, **2006**, 99, 08G901	2.5	18
119	Remarks on a Multiscale Approach to Grain Growth in Polycrystals. *Progress in Nonlinear Differential Equations and Their Application*, **2006**, 1-11	1	2
118	Characterization of Pt-Ru binary alloy thin films for work function tuning. *IEEE Electron Device Letters*, **2006**, 27, 542-545	4.4	12

117	On the use of alloying elements for Cu interconnect applications. *Journal of Vacuum Science & Technology B*, **2006**, 24, 2485		97
116	Calorimetric studies of the A1 to L10 transformation in binary FePt thin films with compositions in the range of 47.5–54.4at.% Fe. *Journal of Applied Physics*, **2005**, 97, 024902	2.5	53
115	Interfacial interaction of solid nickel with liquid bismuth and Bi-base alloys. *Journal of Alloys and Compounds*, **2005**, 389, 61-74	5.7	16
114	Formation of boride layers at the Fe-10% Cr alloy-boron interface. *Journal of Alloys and Compounds*, **2005**, 398, 113-122	5.7	63
113	Light scattering from spin wave excitations in a Co/CoPt exchange spring. *Journal of Magnetism and Magnetic Materials*, **2005**, 290-291, 530-532	2.8	8
112	On the relationship of magnetocrystalline anisotropy and stoichiometry in epitaxial L10 CoPt (001) and FePt (001) thin films. *Journal of Applied Physics*, **2005**, 98, 033904	2.5	174
111	Differential scanning calorimetry studies of the effect of Cu on the A1 to L10 transformation in FePt thin films. *Scripta Materialia*, **2005**, 53, 423-428	5.6	29
110	Grain Boundary Energy and Grain Growth in Highly-Textured Al Films and Foils: Experiment and Simulation. *Materials Science Forum*, **2005**, 495-497, 1255-1260	0.4	2
109	X-ray diffraction from polycrystalline multilayers in grazing-incidence geometry: Measurement of crystallite size depth distribution. *Physical Review B*, **2005**, 72,	3.3	7
108	Resistivity-temperature behavior of dilute Cu(Ir) and Cu(W) alloy films. *Journal of Materials Research*, **2005**, 20, 3391-3396	2.5	2
107	Microstructural Characterization Associated with Solid-Solid Transformations **2005**, 2397-2408		
106	Microstructural Characterization Associated with Solid-Solid Transformations **2005**, 2397-2408		
105	Interphase exchange effects in CoPt/Co bilayer thin films. *Journal Physics D: Applied Physics*, **2004**, 37, 2638-2642	3	9
104	Calorimetric studies of the A1 to L10 transformation in FePt and related ternary alloy thin films. *Journal of Applied Physics*, **2004**, 95, 7486-7488	2.5	51
103	Stoichiometry-anisotropy connections in epitaxial L10 FePt(001) films. *Journal of Applied Physics*, **2004**, 95, 7501-7503	2.5	31
102	Growth of epitaxial CoSi2 from Cobalt Carbonyl on Si(100) Substrate. *Materials Research Society Symposia Proceedings*, **2004**, 810, 243		
101	Grain Boundary Properties and Grain Growth: Al Foils, Al Films. *Materials Research Society Symposia Proceedings*, **2004**, 819, N6.6.1		5
100	Sintering prevention and phase transformation of FePt nanoparticles. *Journal of Magnetism and Magnetic Materials*, **2004**, 284, 336-341	2.8	42

99	Interaction of iron-chromium alloys containing 10 and 25 mass% chromium with liquid aluminium Part II Formation of intermetallic compounds. *Journal of Materials Science*, **2004**, 39, 4219-4230	4.3	17
98	Spin wave excitations in exchange spring Co/CoPt thin film bilayers. *Journal of Magnetism and Magnetic Materials*, **2004**, 272-276, 273-274	2.8	4
97	Interaction of iron-chromium alloys containing 10 and 25 mass% chromium with liquid aluminium Part I Dissolution kinetics. *Journal of Materials Science*, **2003**, 38, 3249-3255	4.3	15
96	Phase transformation kinetics and self-patterning in misfitting thin films. *Acta Materialia*, **2003**, 51, 6415-6427	8.4	12
95	UHV/CVD growth of Co on Si(0 0 1) using cobalt carbonyl. *Applied Surface Science*, **2003**, 219, 136-142	6.7	7
94	The CoPt system: a natural exchange spring. *Physica B: Condensed Matter*, **2003**, 327, 190-193	2.8	10
93	L1o-CoPt/Co bilayer ferromagnetic films: interdiffusion, structure and microstructure. *Acta Materialia*, **2003**, 51, 313-323	8.4	8
92	Texture of Cu and dilute binary Cu-alloy films: impact of annealing and solute content. *Materials Science in Semiconductor Processing*, **2003**, 6, 175-184	4.3	21
91	Annealing behavior of Cu and dilute Cu-alloy films: Precipitation, grain growth, and resistivity. *Journal of Applied Physics*, **2003**, 94, 1605-1616	2.5	81
90	Robust exchange coupling in bilayer exchange-spring thin films. *Journal of Applied Physics*, **2003**, 93, 7235-7237	2.5	12
89	Interfacial composition and microstructure of Fe/sub 3/O/sub 4/ magnetic tunnel junctions. *IEEE Transactions on Magnetics*, **2003**, 39, 2806-2808	2	18
88	Texture and Resistivity of Cu and Dilute Cu Alloy Films. *Materials Research Society Symposia Proceedings*, **2002**, 721, 1		4
87	Calorimetric studies of the A1 to L10 transformation in FePt and CoPt thin films. *Applied Physics Letters*, **2002**, 80, 4268-4270	3.4	84
86	Texture and resistivity of dilute binary Cu(Al), Cu(In), Cu(Ti), Cu(Nb), Cu(Ir), and Cu(W) alloy thin films. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **2002**, 20, 2314		19
85	Ferromagnetic exchange-spring nanocomposites of A1 + L1/sub 0/ CoPt. *IEEE Transactions on Magnetics*, **2002**, 38, 2799-2801	2	15
84	Textures of Cu and Dilute Binary Cu(Ti) and Cu(In) Thin Films. *Materials Science Forum*, **2002**, 408-412, 1567-1572	0.4	1
83	Cu and Dilute Binary Cu(Ti), Cu(Sn) and Cu(Al) Thin Films: Texture, Grain Growth and Resistivity. *Materials Research Society Symposia Proceedings*, **2002**, 721, 1		2
82	Metastable and equilibrium phase formation in sputter-deposited Ti/Al multilayer thin films. *Journal of Applied Physics*, **2002**, 91, 9575	2.5	26

81	Stress evolution in polycrystalline thin film reactions. *Thin Solid Films*, **2001**, 389, 8-11	2.2	4
80	Microstructure evolution during solid state reactions of Nb/Al multilayers. *Acta Materialia*, **2001**, 49, 2813-2826	8.4	17
79	Interdiffusion in bilayer CoPt/Co films: potential for tailoring the magnetic exchange spring. *Journal of Magnetism and Magnetic Materials*, **2001**, 233, 257-273	2.8	48
78	Texture in Ti/Al and Nb/Al multilayer thin films: Role of Cu. *Journal of Materials Research*, **2001**, 16, 1449-1459	2.5	7
77	Magnetic signature of compositional gradient in exchange-spring bilayer films of CoPt/Co. *Journal of Applied Physics*, **2001**, 89, 7528-7530	2.5	7
76	Impact of short-range repulsive interactions between nuclei on the evolution of a phase transformation. *Journal of Chemical Physics*, **2001**, 114, 915	3.9	20
75	Nb/Al and Nb/Al(Cu) multilayer thin films: the enthalpy of formation of NbAl3. *Thermochimica Acta*, **2000**, 348, 53-59	2.9	13
74	Evolution of perimeter fraction during a phase transformation. *Acta Materialia*, **2000**, 48, 1181-1186	8.4	8
73	Effect of annealing on magnetic exchange coupling in CoPt/Co bilayer thin films. *Journal of Applied Physics*, **2000**, 87, 6140-6142	2.5	24
72	Dissociation of dilute immiscible copper alloy thin films. *Journal of Applied Physics*, **2000**, 87, 2204-2214	2.5	46
71	Ex situ characterization of phase transformations and associated microstructures in polycrystalline thin films. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **1999**, 17, 1950-1957	2.9	4
70	Grain growth in ultrathin films of CoPt and FePt. *Journal of Materials Research*, **1999**, 14, 3263-3270	2.5	29
69	Quantitative analysis of spatial distribution of nucleation sites: microstructural implications. *Acta Materialia*, **1999**, 47, 435-445	8.4	18
68	Characterization of single and discretely-stepped electro-composite coatings of nickel-alumina. *Journal of Materials Science*, **1999**, 34, 3203-3211	4.3	46
67	Evidence of a two-stage reaction mechanism in sputter deposited Nb/Al multilayer thin-films studied by in situ synchrotron X-ray diffraction. *Materials Letters*, **1999**, 39, 268-273	3.3	22
66	Issues associated with the analysis and acquisition of thin-film grain size data. *Materials Letters*, **1999**, 41, 296-302	3.3	29
65	On the relationship of high coercivity and L10 ordered phase in CoPt and FePt thin films. *Journal of Applied Physics*, **1999**, 86, 4527-4533	2.5	290
64	High-resolution quantitative X-ray microanalysis of Nb/Al multilayer thin films using the Φ-factor approach. *Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties*, **1999**, 79, 1423-1442		3

63	Low-magnification Quantitative X-ray Mapping of Grain-boundary Segregation in Aluminum-4 wt.% Copper by Analytical Electron Microscopy. *Microscopy and Microanalysis*, **1999**, 5, 254-266	0.5	18
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