

Denis Music

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215
papers

5,086
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37
h-index

58
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225
ext. papers

5,549
ext. citations

3.5
avg, IF

5.62
L-index

#	Paper	IF	Citations
215	Ion-assisted physical vapor deposition for enhanced film properties on nonflat surfaces. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2005 , 23, 278-280	2.9	185
214	Influence of the Al distribution on the structure, elastic properties, and phase stability of supersaturated Ti _{1-x} Al _x N. <i>Journal of Applied Physics</i> , 2006 , 100, 094906	2.5	176
213	Bonding and classification of nanolayered ternary carbides. <i>Physical Review B</i> , 2004 , 70,	3.3	171
212	Thermal stability of Ti ₃ SiC ₂ thin films. <i>Acta Materialia</i> , 2007 , 55, 1479-1488	8.4	161
211	Ab initio calculated binodal and spinodal of cubic Ti _{1-x} Al _x N. <i>Applied Physics Letters</i> , 2006 , 88, 071922	3.4	120
210	Ab initio study of ductility in M ₂ AlC (M=Ti, V, Cr). <i>Physical Review B</i> , 2007 , 75,	3.3	105
209	Theoretical investigation of the bonding and elastic properties of nanolayered ternary nitrides. <i>Physical Review B</i> , 2005 , 71,	3.3	105
208	Structure, elastic properties and phase stability of Cr _{1-x} Al _x N. <i>Acta Materialia</i> , 2008 , 56, 2469-2475	8.4	93
207	Low temperature deposition of Al ₂ O ₃ thin films by sputtering using a Cr ₂ O ₃ template. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2002 , 20, 2134	2.9	92
206	Elastic properties of FeMn random alloys studied by ab initio calculations. <i>Applied Physics Letters</i> , 2007 , 91, 191904	3.4	84
205	Experimental and computational study on the phase stability of Al-containing cubic transition metal nitrides. <i>Journal Physics D: Applied Physics</i> , 2010 , 43, 035302	3	77
204	Effect of the Composition on the Structure of Cr-Al-C Investigated by Combinatorial Thin Film Synthesis and ab Initio Calculations. <i>Advanced Engineering Materials</i> , 2004 , 6, 903-907	3.5	75
203	Elastic properties of Cr ₂ AlC thin films probed by nanoindentation and ab initio molecular dynamics. <i>Scripta Materialia</i> , 2007 , 57, 1137-1140	5.6	69
202	Elastic properties of MFe ₃ N (M=Ni, Pd, Pt) studied by ab initio calculations. <i>Applied Physics Letters</i> , 2006 , 88, 031914	3.4	66
201	Combinatorial thin film materials science: From alloy discovery and optimization to alloy design. <i>Thin Solid Films</i> , 2012 , 520, 5491-5499	2.2	64
200	A proposal for an unusually stiff and moderately ductile hard coating material: Mo ₂ BC. <i>Journal Physics D: Applied Physics</i> , 2009 , 42, 185406	3	64
199	The correlation between the electronic structure and elastic properties of nanolaminates. <i>Jom</i> , 2007 , 59, 60-64	2.1	62

198	Systematic study on the pressure dependence of M ₂ AlC phases (M=Ti,V,Cr,Zr,Nb,Mo,Hf,Ta,W). <i>Physical Review B</i> , 2007 , 76,	3.3	62
197	Experimental and ab initio study of the mechanical properties of hydroxyapatite. <i>Applied Physics Letters</i> , 2007 , 90, 193902	3.4	60
196	Structure of the Ge ₂ Sb ₂ Te phase-change materials studied by theory and experiment. <i>Solid State Communications</i> , 2007 , 143, 240-244	1.6	53
195	Experimental and computational study on the effect of yttrium on the phase stability of sputtered CrAlN hard coatings. <i>Acta Materialia</i> , 2010 , 58, 2708-2715	8.4	52
194	Effect of transition metal additives on electronic structure and elastic properties of TiAl and Ti ₃ Al. <i>Physical Review B</i> , 2006 , 74,	3.3	52
193	Combinatorial synthesis of high entropy alloys: Introduction of a novel, single phase, body-centered-cubic FeMnCoCrAl solid solution. <i>Journal of Alloys and Compounds</i> , 2017 , 691, 683-689	5.7	51
192	Electronic structure and mechanical properties of Cr ₇ C ₃ . <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2004 , 326, 473-476	2.3	51
191	Elastic properties of fcc FeMnX (X=Al, Si) alloys studied by theory and experiment. <i>Acta Materialia</i> , 2011 , 59, 3145-3155	8.4	49
190	Structure of V ₂ AlC studied by theory and experiment. <i>Journal of Applied Physics</i> , 2006 , 99, 013501	2.5	47
189	Effect of Ion Energy on Structure and Composition of Cathodic Arc Deposited Alumina Thin Films. <i>Plasma Chemistry and Plasma Processing</i> , 2005 , 25, 303-317	3.6	47
188	Electronic origin of shearing in M ₂ AC (M = Ti,V,Cr,A = Al,Ga). <i>Journal of Physics Condensed Matter</i> , 2005 , 17, 7169-7176	1.8	46
187	Coupling in nanolaminated ternary carbides studied by theoretical means: The influence of electronic potential approximations. <i>Physical Review B</i> , 2006 , 73,	3.3	45
186	Effect of oxygen incorporation on the structure and elasticity of Ti-Al-O-N coatings synthesized by cathodic arc and high power pulsed magnetron sputtering. <i>Journal of Applied Physics</i> , 2014 , 116, 093515	2.5	41
185	Ab initio calculations of the structure and mechanical properties of vanadium oxides. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 145404	1.8	40
184	Phase stability of Ti ₃ SiC ₂ at elevated temperatures. <i>Scripta Materialia</i> , 2006 , 54, 105-107	5.6	40
183	Recent progress and new directions in density functional theory based design of hard coatings. <i>Surface and Coatings Technology</i> , 2016 , 286, 178-190	4.4	39
182	Electronic structure and shearing in nanolaminated ternary carbides. <i>Solid State Communications</i> , 2006 , 139, 139-143	1.6	38
181	Ab initio study of Ti _{0.5} Al _{0.5} N(001) residual and environmental gas interactions. <i>New Journal of Physics</i> , 2013 , 15, 073004	2.9	37

180	Elastic properties of face-centred cubic FeMnTi studied by nanoindentation and ab initio calculations. <i>Acta Materialia</i> , 2012 , 60, 6025-6032	8.4	37
179	Origin of the nitrogen over- and understoichiometry in Ti(0.5)Al(0.5)N thin films. <i>Journal of Physics Condensed Matter</i> , 2012 , 24, 155401	1.8	37
178	Estimation of the activation energy for surface diffusion during metastable phase formation. <i>Acta Materialia</i> , 2015 , 98, 135-140	8.4	36
177	Ab initio calculations and thermodynamic modeling for the FeMnNb system. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2012 , 38, 43-58	1.9	36
176	Systematic study on the electronic structure and mechanical properties of X2BC (X = Mo, Ti, V, Zr, Nb, Hf, Ta and W). <i>Journal of Physics Condensed Matter</i> , 2013 , 25, 045501	1.8	35
175	Elastic properties of γ -Fe4N probed by nanoindentation and ab initio calculation. <i>Acta Materialia</i> , 2012 , 60, 2054-2060	8.4	35
174	Temporal evolution of oxygen chemisorption on TiAlN. <i>Applied Surface Science</i> , 2014 , 290, 504-508	6.7	34
173	Thermodynamic and Electrochemical Properties of the LiCoO ₂ and LiNiO ₂ Systems. <i>Chemistry of Materials</i> , 2012 , 24, 97-105	9.6	34
172	Phase stability and elastic properties of Tan+1AlCn(n= 1B) at high pressure and elevated temperature. <i>Journal of Physics Condensed Matter</i> , 2007 , 19, 136207	1.8	34
171	Theoretical study of nitrogen vacancies in Ti4AlN3. <i>Applied Physics Letters</i> , 2005 , 86, 031911	3.4	33
170	The effect of Si alloying on the thermal stability of Al2O3 films deposited by filtered cathodic arc. <i>Surface and Coatings Technology</i> , 2013 , 235, 250-258	4.4	32
169	Influence of chemical composition and magnetic effects on the elastic properties of fcc FeMn alloys. <i>Acta Materialia</i> , 2011 , 59, 1493-1501	8.4	32
168	On the phase formation of sputtered hafnium oxide and oxynitride films. <i>Journal of Applied Physics</i> , 2010 , 108, 014904	2.5	32
167	Ab initio molecular dynamics of Al irradiation-induced processes during Al2O3 growth. <i>Applied Physics Letters</i> , 2011 , 98, 111908	3.4	32
166	Ionized physical vapor deposited Al2O3 films: Does subplantation favor formation of β -Al2O3?. <i>Physica Status Solidi - Rapid Research Letters</i> , 2010 , 4, 154-156	2.5	32
165	Bonding and elastic properties of amorphous ALYB. <i>Solid State Communications</i> , 2013 , 169, 6-9	1.6	31
164	MAX phase formation by intercalation upon annealing of TiCx/Al (0.4?x?1) bilayer thin films. <i>Acta Materialia</i> , 2011 , 59, 6168-6175	8.4	31
163	Origin of temperature-induced low friction of sputtered Si-containing amorphous carbon coatings. <i>Acta Materialia</i> , 2015 , 82, 437-446	8.4	30

162	Ab initio molecular dynamics model for density, elastic properties and short range order of Co-Fe-Ta-B metallic glass thin films. <i>Journal of Physics Condensed Matter</i> , 2011 , 23, 475401	1.8	30
161	Thermodynamic description of the LiNiO ₂ /NiO ₂ pseudo-binary system and extrapolation to the Li(Co,Ni)O ₂ /Co,NiO ₂ system. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2012 , 37, 100-107	1.9	29
160	Efficient supercell design for surface and interface calculations of hexagonal phases: α -Al ₂ O ₃ case study. <i>Computational Materials Science</i> , 2011 , 50, 1197-1201	3.2	29
159	Synthesis and elastic properties of V ₂ AlC thin films by magnetron sputtering from elemental targets. <i>Journal Physics D: Applied Physics</i> , 2009 , 42, 185408	3	29
158	Electronic structure of Nb ₂ N and NbN thin films. <i>Journal of Applied Physics</i> , 2006 , 99, 044911	2.5	29
157	Elastic modulus-density relationship for amorphous boron suboxide thin films. <i>Applied Physics A: Materials Science and Processing</i> , 2003 , 76, 269-271	2.6	29
156	Combinatorial evaluation of phase formation and magnetic properties of FeMnCoCrAl high entropy alloy thin film library. <i>Scientific Reports</i> , 2019 , 9, 7864	4.9	28
155	Structure and bonding of M ₂ SbP (M=Ti,Zr,Hf). <i>Physical Review B</i> , 2005 , 71,	3.3	28
154	Development of thin film cathodes for lithium-ion batteries in the material system LiMnO ₄ by r.f. magnetron sputtering. <i>Thin Solid Films</i> , 2013 , 528, 217-223	2.2	27
153	Influence of valence electron concentration on elastic properties of RRh ₃ B (R=Y, Zr, and Nb). <i>Applied Physics Letters</i> , 2006 , 89, 121914	3.4	27
152	Alternating covalent-ionic and metallic bonding in perovskite borides studied using ab initio methods. <i>Physical Review B</i> , 2005 , 71,	3.3	27
151	Crystallite size-dependent metastable phase formation of TiAlN coatings. <i>Scientific Reports</i> , 2017 , 7, 16096	4.9	26
150	Determining the Elasticity of Materials Employing Quantum-mechanical Approaches: From the Electronic Ground State to the Limits of Materials Stability. <i>Steel Research International</i> , 2011 , 82, 86-100	1.6	26
149	Synthesis and thermoelectric properties of RuO ₂ nanorods. <i>Journal of Applied Physics</i> , 2010 , 108, 013702	2.5	26
148	Sputtered Si-containing low-friction carbon coatings for elevated temperatures. <i>Tribology International</i> , 2014 , 77, 15-23	4.9	25
147	Reducing the impurity incorporation from residual gas by ion bombardment during high vacuum magnetron sputtering. <i>Applied Physics Letters</i> , 2006 , 88, 191905	3.4	25
146	Ab initio study of M ₂ AlN (M = Ti,V,Cr). <i>Journal of Physics Condensed Matter</i> , 2005 , 17, L15-L19	1.8	25
145	Tantalum-doped hydroxyapatite thin films: Synthesis and characterization. <i>Acta Materialia</i> , 2012 , 60, 3435-3443	8.4	24

144	Nonmetal sublattice population induced defect structure in transition metal aluminum oxynitrides. <i>Applied Physics Letters</i> , 2013 , 103, 221905	3.4	24
143	From quantum to continuum mechanics: studying the fracture toughness of transition metal nitrides and oxynitrides. <i>Materials Research Letters</i> , 2018 , 6, 142-151	7.4	23
142	Influence of the Chemical Composition on the Phase Constitution and the Elastic Properties of RF-Sputtered Hydroxyapatite Coatings. <i>Plasma Processes and Polymers</i> , 2008 , 5, 168-174	3.4	23
141	Thermodynamic evaluation of the AlCrTi system. <i>International Journal of Materials Research</i> , 2006 , 97, 539-542		23
140	Modeling of metastable phase formation for sputtered Ti _{1-x} Al _x N thin films. <i>Acta Materialia</i> , 2019 , 165, 615-625	8.4	23
139	On atomic mechanisms governing the oxidation of BiTe. <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 485705	1.8	22
138	Revealing the relationships between chemistry, topology and stiffness of ultrastrong Co-based metallic glass thin films: A combinatorial approach. <i>Acta Materialia</i> , 2016 , 107, 213-219	8.4	22
137	Energetics of point defects in TiC. <i>Journal of the European Ceramic Society</i> , 2009 , 29, 773-777	6	22
136	Phase stability and elastic properties of XMgB ₁₄ studied by ab initio calculations (X=Al,Ge,Si,C,Mg,Sc,Ti,V,Zr,Nb,Ta,Hf). <i>Physical Review B</i> , 2008 , 78,	3.3	22
135	Surface energy of M ₂ AC(0001) determined by density functional theory (M=Ti,V,Cr; A=Al,Ga,Ge). <i>Surface Science</i> , 2007 , 601, 896-899	1.8	22
134	Electronic structure of Sc ₂ AC (A=Al, Ga, In, Tl). <i>Solid State Communications</i> , 2005 , 133, 381-383	1.6	22
133	Synthesis and mechanical properties of boron suboxide thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2002 , 20, 335-337	2.9	22
132	Correlative plasma-surface model for metastable Cr-Al-N: Frenkel pair formation and influence of the stress state on the elastic properties. <i>Journal of Applied Physics</i> , 2017 , 121, 215108	2.5	21
131	Modeling of metastable phase formation diagrams for sputtered thin films. <i>Science and Technology of Advanced Materials</i> , 2016 , 17, 210-219	7.1	21
130	Interfacial structure of V ₂ AlC thin films deposited on (112̄0̄)-sapphire. <i>Scripta Materialia</i> , 2011 , 64, 347-350	3.5	21
129	Ab initio lattice stability of fcc and hcp Fe-Mn random alloys. <i>Journal of Physics Condensed Matter</i> , 2010 , 22, 295402	1.8	21
128	Composition-constitution-morphology relationship of Al ₂ O ₃ thin films deposited by plasma assisted chemical vapor deposition. <i>Surface and Coatings Technology</i> , 2009 , 204, 215-221	4.4	21
127	Boride-based nano-laminates with MAX-phase-like behaviour. <i>Journal of Solid State Chemistry</i> , 2006 , 179, 2850-2857	3.3	21

126	Electronic hybridisation implications for the damage-tolerance of thin film metallic glasses. <i>Scientific Reports</i> , 2016 , 6, 36556	4.9	21
125	Interaction of Al with O ₂ exposed Mo ₂ BC. <i>Applied Surface Science</i> , 2015 , 332, 699-703	6.7	20
124	Thermodynamic description of the layered O ₃ and O ₂ structural LiCoO ₂ /CoO ₂ pseudo-binary systems. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2013 , 41, 6-15	1.9	20
123	Ab initio study of effects of substitutional additives on the phase stability of α -alumina. <i>Journal of Physics Condensed Matter</i> , 2010 , 22, 505502	1.8	19
122	Thermal expansion and elasticity of PdFe ₃ N within the quasiharmonic approximation. <i>European Physical Journal B</i> , 2010 , 77, 401-406	1.2	18
121	Electronic structure of M ₂ AlC(0001) surfaces (M = Ti, V, Cr). <i>Journal of Physics Condensed Matter</i> , 2006 , 18, 8877-8881	1.8	18
120	Ab initio study of Nb ₂ SC and Nb ₂ S ₂ C: Differences in coupling between the S and Nb layers. <i>Solid State Communications</i> , 2006 , 137, 306-309	1.6	18
119	Elastic properties of amorphous boron suboxide based solids studied using ab initio molecular dynamics. <i>Journal of Physics Condensed Matter</i> , 2008 , 20, 195203	1.8	17
118	Elastic modulus of amorphous boron suboxide thin films studied by theoretical and experimental methods. <i>Journal of Applied Physics</i> , 2003 , 93, 940-944	2.5	17
117	Ab initio study of the effect of Si on the phase stability and electronic structure of α - and β -Al ₂ O ₃ . <i>Journal of Physics Condensed Matter</i> , 2013 , 25, 125502	1.8	16
116	Elastic properties of fcc Fe-Mn-X (X=Cr, Co, Ni, Cu) alloys from first-principles calculations. <i>Physical Review B</i> , 2013 , 87,	3.3	16
115	Coulomb-potential-dependent decohesion of Magn β phases. <i>Journal of Physics Condensed Matter</i> , 2010 , 22, 292203	1.8	16
114	The influence of additions of Al and Si on the lattice stability of fcc and hcp Fe-Mn random alloys. <i>Journal of Physics Condensed Matter</i> , 2011 , 23, 246003	1.8	16
113	Low temperature growth and characterization of (Na,K)NbO _x thin films. <i>Journal of Crystal Growth</i> , 2003 , 254, 400-404	1.6	16
112	Thermomechanical response of thermoelectrics. <i>Applied Physics Letters</i> , 2016 , 109, 223903	3.4	16
111	Density, elastic and magnetic properties of CoBe β Al β Si metallic glasses by theory and experiment. <i>Scripta Materialia</i> , 2012 , 66, 765-768	5.6	15
110	Polypropylene/MAlN (M=Ti, Cr) interface interactions. <i>Surface Science</i> , 2012 , 606, 986-989	1.8	15
109	Quantum Mechanically Guided Design of Transition Metal Alloyed RuO ₂ Nanorods. <i>Crystal Growth and Design</i> , 2010 , 10, 4531-4536	3.5	15

108	Equilibrium structure of Bi ₂ O ₃ from first principles. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 175403	1.8	15
107	Ab initio study of basal slip in Nb(2)AlC. <i>Journal of Physics Condensed Matter</i> , 2006 , 18, 4389-95	1.8	15
106	Synthesis and mechanical properties of Fe-Nb thin-film metallic glasses. <i>Scripta Materialia</i> , 2012 , 67, 181-184	5.6	14
105	Deformation behavior of Re alloyed Mo thin films on flexible substrates: In situ fragmentation analysis supported by first-principles calculations. <i>Scientific Reports</i> , 2017 , 7, 7374	4.9	14
104	Effect of Si additions on thermal stability and the phase transition sequence of sputtered amorphous alumina thin films. <i>Journal of Applied Physics</i> , 2015 , 117, 025302	2.5	14
103	Phase stability predictions of Cr _{1-x} M _x Al _{1-y} Ay(C _{1-z} X _z) (M= Ti, Hf, Zr; A= Si, X= B). <i>Journal Physics D: Applied Physics</i> , 2014 , 47, 065308	3	14
102	Elastic properties of Sr _{n+1} Ti _n O _{3n+1} phases (n= 1-∞). <i>Journal of Physics Condensed Matter</i> , 2008 , 20, 055224	1.8	14
101	Microstructure/dielectric property relationship of low temperature synthesised (Na,K)NbO _x thin films. <i>Journal of Crystal Growth</i> , 2004 , 262, 322-326	1.6	14
100	Holistic quantum design of thermoelectric niobium oxynitride. <i>Solid State Communications</i> , 2015 , 212, 5-9	1.6	13
99	Stress-dependent prediction of metastable phase formation for magnetron-sputtered V _{1-x} Al _x N and Ti _{1-x} Al _x N thin films. <i>Acta Materialia</i> , 2020 , 196, 313-324	8.4	13
98	Towards designing La _{1-x} Sr _x Co _y Fe _{1-y} O ₃ with enhanced phase stability: Role of the defect structure. <i>Solid State Ionics</i> , 2014 , 255, 108-112	3.3	13
97	Influence of Si and N additions on structure and phase stability of Ge ₂ Sb ₂ Te ₅ thin films. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 435501	1.8	13
96	Amorphous-crystalline transition in thermoelectric NbO ₂ . <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 275301	3	12
95	Designing low thermal conductivity of RuO ₂ for thermoelectric applications. <i>Applied Physics Letters</i> , 2015 , 106, 063906	3.4	12
94	Role of RuO ₃ for the formation of RuO ₂ nanorods. <i>Applied Physics Letters</i> , 2012 , 100, 033108	3.4	12
93	Theoretical study of elastic properties and phase stability of M _{0.5} Al _{0.5} N _{1-x} O _x (M = Sc, Ti, V, Cr). <i>Journal of Applied Physics</i> , 2013 , 113, 083512	2.5	11
92	Atomistic Modeling-Based Design of Novel Materials. <i>Advanced Engineering Materials</i> , 2017 , 19, 1600688	3.5	10
91	Stress-Dependent Elasticity of TiAlN Coatings. <i>Coatings</i> , 2019 , 9, 24	2.9	10

90	Multifold Seebeck increase in RuO ₂ films by quantum-guided lanthanide dilute alloying. <i>Applied Physics Letters</i> , 2014 , 104, 053903	3.4	10
89	Enhanced thermoelectric performance of amorphous Nb based oxynitrides. <i>Physica B: Condensed Matter</i> , 2015 , 479, 96-100	2.8	10
88	Enthalpies of formation of layered LiNi _x Mn _x Co _{1-2x} O ₂ (0 ≤ x ≤ 0.5) compounds as lithium ion battery cathode materials. <i>International Journal of Materials Research</i> , 2017 , 108, 869-878	0.5	10
87	Extending the rule of mixture to the sub unit-cell level. <i>Scripta Materialia</i> , 2011 , 65, 735-738	5.6	10
86	Influence of high-energy Si ⁺ ion irradiation on microstructure and mechanical properties of alumina films. <i>Surface and Coatings Technology</i> , 2002 , 158-159, 534-537	4.4	10
85	Synthesis and characterization of boron-oxygen-hydrogen thin films at low temperatures. <i>Materials Research Bulletin</i> , 2005 , 40, 1345-1352	5.1	10
84	Ultra-stiff metallic glasses through bond energy density design. <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 265502	1.8	9
83	Intercalation of Al into MC (M=Ti, V, Cr). <i>Journal of the European Ceramic Society</i> , 2009 , 29, 2885-2891	6	9
82	Theoretical investigation of the bonding and solubility in Nb ₂ W _x AlC. <i>Journal of Physics Condensed Matter</i> , 2005 , 17, 6047-6056	1.8	9
81	Role of carbon in boron suboxide thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2003 , 21, 1355-1358	2.9	9
80	High-throughput exploration of thermoelectric and mechanical properties of amorphous NbO ₂ with transition metal additions. <i>Journal of Applied Physics</i> , 2016 , 120, 045104	2.5	9
79	Stability, elastic properties and fracture toughness of Al _{0.75} X _{0.75} B ₁₄ (X=Sc, Ti, V, Cr, Y, Zr, Nb, Mo) investigated using ab initio calculations. <i>Journal of Physics Condensed Matter</i> , 2013 , 25, 335501	1.8	8
78	Thermal expansion of Pd-based metallic glasses by ab initio methods and high energy X-ray diffraction. <i>Scientific Reports</i> , 2017 , 7, 15744	4.9	8
77	δ-ZnFe ₃ N thin films: A proposal for a moderately ductile, corrosion-protective coating on steel. <i>Scripta Materialia</i> , 2011 , 65, 380-383	5.6	8
76	Theoretical and experimental study of NbO ₂ nanoslice formation. <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 305302	3	7
75	Vacancy filling effect in thermoelectric NbO. <i>Journal of Physics Condensed Matter</i> , 2015 , 27, 115501	1.8	7
74	Spinodal decomposition of reactively sputtered (V _{0.64} Al _{0.36}) _{0.49} N _{0.51} thin films. <i>Surface and Coatings Technology</i> , 2020 , 389, 125641	4.4	7
73	Structural transformation of sputtered o-LiMnO ₂ thin-film cathodes induced by electrochemical cycling. <i>Thin Solid Films</i> , 2013 , 549, 263-267	2.2	7

72	Modulation of transport properties of RuO ₂ with 3d transition metals. <i>Materials Research Express</i> , 2014 , 1, 045034	1.7	7
71	Elastic properties of fcc Fe-Mn-X (X = Cr, Co, Ni, Cu) alloys studied by the combinatorial thin film approach and ab initio calculations. <i>Journal of Physics Condensed Matter</i> , 2013 , 25, 245401	1.8	7
70	Phase stability of Al ₂ YB ₁₄ sputtered thin films. <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 355006	1.8	7
69	Decreasing friction during Al cold forming using a nanomolecular layer. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2017 , 35, 020605	2.9	6
68	Ab Initio Guided Low Temperature Synthesis Strategy for Smooth Face-Centred Cubic FeMn Thin Films. <i>Metals</i> , 2018 , 8, 384	2.3	6
67	Chemical composition and stress dependence of the elastic properties of ϵ (Fe,Mn) ₃ AlC thin films. <i>Scripta Materialia</i> , 2018 , 153, 49-53	5.6	6
66	From qualitative to quantitative description of the anomalous thermoelastic behavior of V, Nb, Ta, Pd and Pt. <i>Journal of Physics Condensed Matter</i> , 2019 , 31, 225402	1.8	6
65	Synthesis, microstructure, and mechanical properties of YPd ₃ B thin films. <i>Journal of Alloys and Compounds</i> , 2012 , 540, 75-80	5.7	6
64	Elastic properties and 2D icosahedral bonding in borides of hexagonal WC type. <i>Scripta Materialia</i> , 2005 , 52, 29-31	5.6	6
63	Correlative theoretical and experimental investigation of the formation of Al ₂ YB ₁₄ and competing phases. <i>Journal of Applied Physics</i> , 2016 , 119, 085307	2.5	6
62	Enhanced thermal stability of (Ti,Al)N coatings by oxygen incorporation. <i>Acta Materialia</i> , 2021 , 218, 117204	2.4	6
61	Quantum mechanically guided design of amorphous Si _{1-x} Al _x M (M = 3d metals) anodes for Li ion batteries. <i>Solid State Ionics</i> , 2017 , 303, 47-51	3.3	5
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