

Denis Music

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

215
papers

5,086
citations

37
h-index

58
g-index

225
ext. papers

5,549
ext. citations

3.5
avg, IF

5.62
L-index

#	Paper	IF	Citations
215	Mechanical property enhancement of NbTiZr refractory medium-entropy alloys due to Si-induced crystalline-to-amorphous transitions. <i>Surface and Coatings Technology</i> , 2022 , 433, 128144	4.4	0
214	Epitaxial growth and thermoelectric properties of Mg ₃ Bi ₂ thin films deposited by magnetron sputtering. <i>Applied Physics Letters</i> , 2022 , 120, 051901	3.4	2
213	Effect of synthesis temperature on the phase formation of NiTiAlFeCr compositionally complex alloy thin films. <i>Journal of Alloys and Compounds</i> , 2021 , 854, 155178	5.7	3
212	Effect of target peak power density on the phase formation, microstructure evolution, and mechanical properties of Cr ₂ AlC MAX-phase coatings. <i>Journal of the European Ceramic Society</i> , 2021 , 41, 1841-1847	6	2
211	Theoretical and Experimental Aspects of Current and Future Research on NbO ₂ Thin Film Devices. <i>Crystals</i> , 2021 , 11, 217	2.3	1
210	Metavalent bonding induced abnormal phonon transport in diamondlike structures: Beyond conventional theory. <i>Physical Review B</i> , 2021 , 103,	3.3	4
209	Unravelling the ion-energy-dependent structure evolution and its implications for the elastic properties of (V,Al)N thin films. <i>Acta Materialia</i> , 2021 , 214, 117003	8.4	4
208	Enhanced thermal stability of (Ti,Al)N coatings by oxygen incorporation. <i>Acta Materialia</i> , 2021 , 218, 117204	8.4	6
207	Selective oxidation of thermoelectric TiNiSn. <i>Computational Materials Science</i> , 2021 , 198, 110682	3.2	
206	Experimental and Theoretical Investigation of the Elastic Properties of HfV ₂ O ₇ . <i>Crystals</i> , 2020 , 10, 172	2.3	1
205	Effect of chemical composition, defect structure, and stress state on the elastic properties of (V,Al)N. <i>Journal of Physics Condensed Matter</i> , 2020 , 32, 025901	1.8	4
204	On thermal conductivity of amorphous niobium monoxide. <i>Journal Physics D: Applied Physics</i> , 2020 , 53, 285303	3	3
203	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
202	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
201	Molecular Coverage Determines Sliding Wear Behavior of -Octadecylphosphonic Acid Functionalized Cu-O Coated Steel Disks against Aluminum. <i>Materials</i> , 2020 , 13,	3.5	2
200	Review on Quantum Mechanically Guided Design of Ultra-Strong Metallic Glasses. <i>Frontiers in Materials</i> , 2020 , 7,	4	4
199	Quantum-mechanical study of interaction between polycarbonate and M _{0.5} Al _{0.5} N(0'0'1) surfaces (M = Ti, V, Cr). <i>Applied Surface Science</i> , 2020 , 520, 146306	6.7	

198	Intrinsic Thermal Shock Behavior of Common Rutile Oxides 2019 , 1, 290-300	2.1	4
197	Aspartic acid adsorption on thermoelectric surfaces. <i>Applied Surface Science</i> , 2019 , 496, 143716	6.7	
196	Synthesis of Intermetallic (Mg,Al)Ca by Combinatorial Sputtering. <i>Materials</i> , 2019 , 12,	3.5	3
195	Stress-Dependent Elasticity of TiAlN Coatings. <i>Coatings</i> , 2019 , 9, 24	2.9	10
194	Electronic structure tuning of the anomalous thermoelastic behavior in Nb-X (X = Zr, V, Mo) solid solutions. <i>Journal of Applied Physics</i> , 2019 , 125, 215103	2.5	2
193	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
192	Segregation of point defects at the CuInSe ₂ (001)/GaAs(001) interface. <i>Solid State Communications</i> , 2019 , 299, 113652	1.6	1
191	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
190	Temperature and Impurity Induced Stabilization of Cubic HfV ₂ Laves Phase. <i>Condensed Matter</i> , 2019 , 4, 63	1.8	2
189	First Principles Investigation of Anomalous Pressure-Dependent Thermal Conductivity of Chalcopyrites. <i>Materials</i> , 2019 , 12,	3.5	5
188	Computation of formation enthalpies and molar volumes of halides. <i>Solid State Ionics</i> , 2019 , 343, 115081	3.3	
187	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
186	Tuneable thermal expansion of poly (3,4-ethylenedioxythiophene) polystyrene sulfonate. <i>Journal of Physics Condensed Matter</i> , 2019 , 31, 125101	1.8	3
185	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
184	Ab Initio Guided Low Temperature Synthesis Strategy for Smooth Face-Centred Cubic FeMn Thin Films. <i>Metals</i> , 2018 , 8, 384	2.3	6
183	Chemical composition and stress dependence of the elastic properties of E(Fe,Mn) ₃ AlC thin films. <i>Scripta Materialia</i> , 2018 , 153, 49-53	5.6	6
182	Physical origin of inertness of Ta contacts on Bi ₂ Te ₃ . <i>Journal of Applied Physics</i> , 2018 , 124, 185106	2.5	2
181	Metalliclike thermoelectric Ti-V oxide nanocomposites. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018 , 36, 061201	2.9	1

180	Electrical resistivity modulation of thermoelectric iron based nanocomposites. <i>Vacuum</i> , 2018 , 157, 384-390	3.9	10
179	Atomistic Modeling-Based Design of Novel Materials . <i>Advanced Engineering Materials</i> , 2017 , 19, 1600688	3.5	10
178	Elastic properties of amorphous TiYB (T = Sc, Ti, V, Y, Zr, Nb) and the effect of O incorporation on bonding, density and elasticity (Ti, Zr). <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 085404	1.8	2
177	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
176	Topology and electronic structure of flexible (Nb,Ru)O thermoelectrics. <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 085701	1.8	1
175	Temperature independent Seebeck coefficient through quantum confinement modulation in amorphous Nb-O/Ni-Ta-O multilayers. <i>Solid State Communications</i> , 2017 , 258, 33-37	1.6	3
174	Nanometre-scale 3D defects in CrAlC thin films. <i>Scientific Reports</i> , 2017 , 7, 984	4.9	2
173	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
172	Ultra-stiff metallic glasses through bond energy density design. <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 265502	1.8	9
171	Quantum mechanically guided design of amorphous SiAlM (M = 3d metals) anodes for Li ion batteries. <i>Solid State Ionics</i> , 2017 , 303, 47-51	3.3	5
170	Theoretical study of deposition-induced point defects in ZnO. <i>Surface and Coatings Technology</i> , 2017 , 309, 531-535	4.4	3
169	Dependence of the constitution, microstructure and electrochemical behaviour of magnetron sputtered LiNiMnCo thin film cathodes for lithium-ion batteries on the working gas pressure and annealing conditions. <i>International Journal of Materials Research</i> , 2017 , 108, 879-886	0.5	2
168	A correlative experimental and ab initio approach to improve the fracture behavior of Mo thin films by alloying with Cu. <i>Applied Physics Letters</i> , 2017 , 111, 134101	3.4	4
167	Adsorption of film-forming species on NbO and NbO ₂ surfaces. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2017 , 35, 061512	2.9	4
166	Experimental and theoretical exploration of mechanical stability of Pt/NbO ₂ interfaces for thermoelectric applications. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 455502	3	4
165	On atomic mechanisms governing the oxidation of BiTe. <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 485705	1.8	22
164	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
163	Enhanced thermal stability of RuO ₂ /polyimide interface for flexible device applications. <i>Materials Research Express</i> , 2017 , 4, 095303	1.7	4

162	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
161	Crystallite size-dependent metastable phase formation of TiAlN coatings. <i>Scientific Reports</i> , 2017 , 7, 16096	4.9	26
160	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
159	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
158	Phase formation of Nb ₂ AlC investigated by combinatorial thin film synthesis and ab initio calculations. <i>Journal of the European Ceramic Society</i> , 2017 , 37, 35-41	6	5
157	Influence of O ₂ exposure on the interaction between CH ₄ and amorphous AlYB ₁₄ . <i>Applied Surface Science</i> , 2017 , 392, 1165-1172	6.7	5
156	Theoretical study of phase stability and elastic properties of T _{0.75} Y _{0.75} B ₁₄ (T = Sc, Ti, V, Y, Zr, Nb, Si). <i>Journal of Physics Condensed Matter</i> , 2016 , 28, 105501	1.8	3
155	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
154	Competitive incorporation of oxygen and nitrogen into amorphous Nb ₂ Bu ₂ O ₂ N. <i>Vacuum</i> , 2016 , 123, 175-178	3.7	5
153	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
152	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
151	Structural, mechanical, and magnetic properties of GaFe ₃ N thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2016 , 34, 040601	2.9	3
150	Thermomechanical response of thermoelectrics. <i>Applied Physics Letters</i> , 2016 , 109, 223903	3.4	16
149	Correlative theoretical and experimental investigation of the formation of AlYB ₁₄ and competing phases. <i>Journal of Applied Physics</i> , 2016 , 119, 085307	2.5	6
148	Electronic hybridisation implications for the damage-tolerance of thin film metallic glasses. <i>Scientific Reports</i> , 2016 , 6, 36556	4.9	21
147	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
146	Nanoscale decomposition of Nb ₂ Bu ₂ O ₂ N. <i>Solid State Communications</i> , 2016 , 245, 20-24	1.6	3
145	Stiffness and toughness prediction of Co ₂ Be ₃ Ta ₃ B metallic glasses, alloyed with Y, Zr, Nb, Mo, Hf, W, C, N and O by ab initio molecular dynamics. <i>Journal of Physics Condensed Matter</i> , 2015 , 27, 105502	1.8	5

144	Estimation of the activation energy for surface diffusion during metastable phase formation. <i>Acta Materialia</i> , 2015 , 98, 135-140	8.4	36
143	Theoretical and experimental study of NbO ₂ nanoslice formation. <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 305302	3	7
142	Amorphous-crystalline transition in thermoelectric NbO ₂ . <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 275301	3	12
141	Holistic quantum design of thermoelectric niobium oxynitride. <i>Solid State Communications</i> , 2015 , 212, 5-9	1.6	13
140	Vacancy filling effect in thermoelectric NbO. <i>Journal of Physics Condensed Matter</i> , 2015 , 27, 115501	1.8	7
139	Atomistic growth phenomena of reactively sputtered RuO ₂ and MnO ₂ thin films. <i>Journal of Applied Physics</i> , 2015 , 118, 015302	2.5	5
138	Origin of temperature-induced low friction of sputtered Si-containing amorphous carbon coatings. <i>Acta Materialia</i> , 2015 , 82, 437-446	8.4	30
137	Enhanced thermoelectric performance of amorphous Nb based oxynitrides. <i>Physica B: Condensed Matter</i> , 2015 , 479, 96-100	2.8	10
136	Temperature-Induced Short-Range Order Changes in Co ₆₇ B ₃₃ Glassy Thin Films and Elastic Limit Implications. <i>Materials Research Letters</i> , 2015 , 3, 82-87	7.4	5
135	Atomic scale onset of Al adhesion on Mo ₂ BC. <i>Thin Solid Films</i> , 2015 , 589, 707-711	2.2	5
134	Designing low thermal conductivity of RuO ₂ for thermoelectric applications. <i>Applied Physics Letters</i> , 2015 , 106, 063906	3.4	12
133	Critical evaluation of the colossal Seebeck coefficient of nanostructured rutile MnO ₂ . <i>Journal of Physics Condensed Matter</i> , 2015 , 27, 115302	1.8	5
132	Interaction of Al with O ₂ exposed Mo ₂ BC. <i>Applied Surface Science</i> , 2015 , 332, 699-703	6.7	20
131	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
130	Multifold Seebeck increase in RuO ₂ films by quantum-guided lanthanide dilute alloying. <i>Applied Physics Letters</i> , 2014 , 104, 053903	3.4	10
129	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
128	Experimental and ab initio investigations on textured LiMnO ₄ spinel thin film cathodes. <i>Thin Solid Films</i> , 2014 , 572, 208-215	2.2	4
127	Sputtered Si-containing low-friction carbon coatings for elevated temperatures. <i>Tribology International</i> , 2014 , 77, 15-23	4.9	25

126	Temporal evolution of oxygen chemisorption on TiAlN. <i>Applied Surface Science</i> , 2014 , 290, 504-508	6.7	34
125	Ab initio and experimental study on the effect of Y additions on the phase formation and thermal stability of Al ₂ O ₃ thin films deposited by filtered cathodic arc evaporation. <i>Surface and Coatings Technology</i> , 2014 , 257, 333-337	4.4	4
124	Modulation of transport properties of RuO ₂ with 3d transition metals. <i>Materials Research Express</i> , 2014 , 1, 045034	1.7	7
123	Phase stability predictions of Cr _{1-x} M _x 2(Al _{1-y} Ay)(C _{1-z} Xz) (M= Ti, Hf, Zr; A= Si, X= B). <i>Journal Physics D: Applied Physics</i> , 2014 , 47, 065308	3	14
122	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
121	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
120	Bonding and elastic properties of amorphous AlYB. <i>Solid State Communications</i> , 2013 , 169, 6-9	1.6	31
119	The effect of Si alloying on the thermal stability of Al ₂ O ₃ films deposited by filtered cathodic arc. <i>Surface and Coatings Technology</i> , 2013 , 235, 250-258	4.4	32
118	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
117	Development of thin film cathodes for lithium-ion batteries in the material system LiMnO ₂ by r.f. magnetron sputtering. <i>Thin Solid Films</i> , 2013 , 528, 217-223	2.2	27
116	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
115	Ab initio study of the effect of Si on the phase stability and electronic structure of δ and ϵ -Al ₂ O ₃ . <i>Journal of Physics Condensed Matter</i> , 2013 , 25, 125502	1.8	16
114	Systematic study on the electronic structure and mechanical properties of X ₂ BC (X = Mo, Ti, V, Zr, Nb, Hf, Ta and W). <i>Journal of Physics Condensed Matter</i> , 2013 , 25, 045501	1.8	35
113	Thermodynamic description of the layered O ₃ and O ₂ structural LiCoO ₂ -NiO ₂ pseudo-binary systems. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2013 , 41, 6-15	1.9	20
112	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
111	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
110	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
109	Nonmetal sublattice population induced defect structure in transition metal aluminum oxynitrides. <i>Applied Physics Letters</i> , 2013 , 103, 221905	3.4	24

108	Density, elastic and magnetic properties of Co ₄₀ Fe ₄₀ Ta ₁₀ Bi metallic glasses by theory and experiment. <i>Scripta Materialia</i> , 2012 , 66, 765-768	5.6	15
107	Synthesis and mechanical properties of Fe ₄₀ Ni ₄₀ B thin-film metallic glasses. <i>Scripta Materialia</i> , 2012 , 67, 181-184	5.6	14
106	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
105	Ab initio calculations and thermodynamic modeling for the Fe ₄₀ Mn ₄₀ Ni ₁₀ B system. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2012 , 38, 43-58	1.9	36
104	Influence of magnetic ordering on the elastic properties of PdFe ₃ N. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012 , 30, 030602	2.9	4
103	Thermodynamic and Electrochemical Properties of the Li _{1-x} Co _x O and Li _{1-x} Ni _x O Systems. <i>Chemistry of Materials</i> , 2012 , 24, 97-105	9.6	34
102	Polypropylene/AlN (M=Ti, Cr) interface interactions. <i>Surface Science</i> , 2012 , 606, 986-989	1.8	15
101	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
100	Thermodynamic description of the LiNiO ₂ /NiO ₂ pseudo-binary system and extrapolation to the Li(Co,Ni)O ₂ /NiO ₂ system. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2012 , 37, 100-107	1.9	29
99	Elastic properties of face-centred cubic Fe ₄₀ Mn ₄₀ Ni ₁₀ studied by nanoindentation and ab initio calculations. <i>Acta Materialia</i> , 2012 , 60, 6025-6032	8.4	37
98	Quantum mechanically guided design of Co ₄₃ Fe ₂₀ Ta _{(5.5)X_(31.5) (X=B, Si, P, S) metallic glasses. <i>Journal of Physics Condensed Matter</i>, 2012, 24, 175402}	1.8	5
97	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
96	Elastic properties of Fe ₄₀ N probed by nanoindentation and ab initio calculation. <i>Acta Materialia</i> , 2012 , 60, 2054-2060	8.4	35
95	Tantalum-doped hydroxyapatite thin films: Synthesis and characterization. <i>Acta Materialia</i> , 2012 , 60, 3435-3443	8.4	24
94	Role of RuO ₃ for the formation of RuO ₂ nanorods. <i>Applied Physics Letters</i> , 2012 , 100, 033108	3.4	12
93	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
92	Efficient supercell design for surface and interface calculations of hexagonal phases: Al ₂ O ₃ case study. <i>Computational Materials Science</i> , 2011 , 50, 1197-1201	3.2	29
91	Interfacial structure of V ₂ AlC thin films deposited on (1120)-sapphire. <i>Scripta Materialia</i> , 2011 , 64, 347-350	3.5	21

90	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
89	Extending the rule of mixture to the sub unit-cell level. <i>Scripta Materialia</i> , 2011 , 65, 735-738	5.6	10
88	MAX phase formation by intercalation upon annealing of TiC _x /Al (0.4?x?1) bilayer thin films. <i>Acta Materialia</i> , 2011 , 59, 6168-6175	8.4	31
87	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
86	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
85	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
84	Spontaneous Formation of In-Whiskers on YIn ₃ Thin Films Deposited by Combinatorial Magnetron Sputtering. <i>IEEE Nanotechnology Magazine</i> , 2011 , 10, 1202-1208	2.6	2
83	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
82	Quantum mechanically guided design of transition metal doped SrCo _{0.875} M _{0.125} O ₃ (M = Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn). <i>Applied Physics Letters</i> , 2011 , 99, 231905	3.4	2
81	On the solubility of yttrium in RuO ₂ . <i>Journal of Applied Physics</i> , 2011 , 110, 054317	2.5	5
80	Ab initio molecular dynamics of Al irradiation-induced processes during Al ₂ O ₃ growth. <i>Applied Physics Letters</i> , 2011 , 98, 111908	3.4	32
79	On the phase formation of sputtered hafnium oxide and oxynitride films. <i>Journal of Applied Physics</i> , 2010 , 108, 014904	2.5	32
78	Ab initio study of effects of substitutional additives on the phase stability of Al ₂ O ₃ . <i>Journal of Physics Condensed Matter</i> , 2010 , 22, 505502	1.8	19
77	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
76	Coulomb-potential-dependent decohesion of Magn ₂ phases. <i>Journal of Physics Condensed Matter</i> , 2010 , 22, 292203	1.8	16
75	Quantum Mechanically Guided Design of Transition Metal Alloyed RuO ₂ Nanorods. <i>Crystal Growth and Design</i> , 2010 , 10, 4531-4536	3.5	15
74	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
73	Synthesis and thermoelectric properties of RuO ₂ nanorods. <i>Journal of Applied Physics</i> , 2010 , 108, 013702	2.5	26

72	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
71	Ionized physical vapor deposited Al ₂ O ₃ films: Does subplantation favor formation of β -Al ₂ O ₃ ?. <i>Physica Status Solidi - Rapid Research Letters</i> , 2010 , 4, 154-156	2.5	32
70	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
69	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
68	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
67	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
66	Energetics of point defects in TiC. <i>Journal of the European Ceramic Society</i> , 2009 , 29, 773-777	6	22
65	Intercalation of Al into MC (M=Ti, V, Cr). <i>Journal of the European Ceramic Society</i> , 2009 , 29, 2885-2891	6	9
64	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
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