Denis Music

List of Publications by Year
in descending order

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220 papers	6,103 citations	70961 41 h-index	106150 65 g-index
225 all docs	225 docs citations	225 times ranked	4391 citing authors

#	Article	IF	Citations
1	Bonding and classification of nanolayered ternary carbides. Physical Review B, 2004, 70, .	1.1	212
2	Ion-assisted physical vapor deposition for enhanced film properties on nonflat surfaces. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, 278-280.	0.9	211
3	Influence of the Al distribution on the structure, elastic properties, and phase stability of supersaturated Ti1â^'xAlxN. Journal of Applied Physics, 2006, 100, 094906.	1.1	202
4	Thermal stability of Ti3SiC2 thin films. Acta Materialia, 2007, 55, 1479-1488.	3.8	198
5	Theoretical investigation of the bonding and elastic properties of nanolayered ternary nitrides. Physical Review B, 2005, 71, .	1.1	173
6	Ab initio calculated binodal and spinodal of cubic Ti1â^'xAlxN. Applied Physics Letters, 2006, 88, 071922.	1.5	130
7	Ab initiostudy of ductility inM2AlC(M=Ti, V, Cr). Physical Review B, 2007, 75, .	1.1	125
8	Structure, elastic properties and phase stability of Cr1â€“xAlxN. Acta Materialia, 2008, 56, 2469-2475.	3.8	109
9	Low temperature deposition of Î±-Al[sub 2]O[sub 3] thin films by sputtering using a Cr[sub 2]O[sub 3] template. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 2134.	0.9	103
10	Effect of the Composition on the Structure of Cr-Al-C Investigated by Combinatorial Thin Film Synthesis and ab Initio Calculations. Advanced Engineering Materials, 2004, 6, 903-907.	1.6	94
11	Elastic properties of Feâ€“Mn random alloys studied by ab initio calculations. Applied Physics Letters, 2007, 91, .	1.5	89
12	Experimental and computational study on the phase stability of Al-containing cubic transition metal nitrides. Journal Physics D: Applied Physics, 2010, 43, 035302.	1.3	85
13	Elastic properties of Cr2AlC thin films probed by nanoindentation and ab initio molecular dynamics. Scripta Materialia, 2007, 57, 1137-1140.	2.6	82
14	A proposal for an unusually stiff and moderately ductile hard coating material: Mo₂BC. Journal Physics D: Applied Physics, 2009, 42, 185406.	1.3	75
15	Elastic properties of MFe3N (M=Ni, Pd, Pt) studied by ab initio calculations. Applied Physics Letters, 2006, 88, 031914.	1.5	73
16	Combinatorial thin film materials science: From alloy discovery and optimization to alloy design. Thin Solid Films, 2012, 520, 5491-5499.	0.8	73
17	Systematic study of the pressure dependence of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi>M</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="normal">Al</mml:mi><mml:mi mathvariant="normal">C</mml:mi></mml:mrow></mml:math>phases<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"		

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19	Electronic structure and mechanical properties of Cr7C3. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 326, 473-476.	0.9	69
20	Experimental and ab initio study of the mechanical properties of hydroxyapatite. Applied Physics Letters, 2007, 90, 193902.	1.5	68
21	Combinatorial synthesis of high entropy alloys: Introduction of a novel, single phase, body-centered-cubic FeMnCoCrAl solid solution. Journal of Alloys and Compounds, 2017, 691, 683-689.	2.8	60
22	Experimental and computational study on the effect of yttrium on the phase stability of sputtered Crâ€“Alâ€“Yâ€“N hard coatings. Acta Materialia, 2010, 58, 2708-2715.	3.8	59
23	Effect of transition metal additives on electronic structure and elastic properties of TiAl andTi3Al. Physical Review B, 2006, 74, .	1.1	58
24	Structure of the Geâ€“Sbâ€“Te phase-change materials studied by theory and experiment. Solid State Communications, 2007, 143, 240-244.	0.9	57
25	Recent progress and new directions in density functional theory based design of hard coatings. Surface and Coatings Technology, 2016, 286, 178-190.	2.2	56
26	Elastic properties of fcc Feâ€“Mnâ€“X (X=Al, Si) alloys studied by theory and experiment. Acta Materialia, 2011, 59, 3145-3155.	3.8	55
27	Structure of V2AlC studied by theory and experiment. Journal of Applied Physics, 2006, 99, 013501.	1.1	53
28	Effect of Ion Energy on Structure and Composition of Cathodic Arc Deposited Alumina Thin Films. Plasma Chemistry and Plasma Processing, 2005, 25, 303-317.	1.1	51
29	Electronic origin of shearing in M2AC (M = Ti,V,Cr,A = Al,Ga). Journal of Physics Condensed Matter, 2005, 17, 7169-7176.	0.7	51
30	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. Journal of Applied Physics, 2014, 116, .	1.1	51
31	Coupling in nanolaminated ternary carbides studied by theoretical means: The influence of electronic potential approximations. Physical Review B, 2006, 73, .	1.1	50
32	Electronic structure and shearing in nanolaminated ternary carbides. Solid State Communications, 2006, 139, 139-143.	0.9	47
33	Ab initio calculations and thermodynamic modeling for the Feâ€“Mnâ€“Nb system. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2012, 38, 43-58.	0.7	46
34	Ab initiocalculations of the structure and mechanical properties of vanadium oxides. Journal of Physics Condensed Matter, 2009, 21, 145404.	0.7	45
35	Origin of the nitrogen over- and understoichiometry in Ti_{0.5}Al_{0.5}N thin films. Journal of Physics Condensed Matter, 2012, 24, 155401.	0.7	45
36	Systematic study on the electronic structure and mechanical properties of X₂BC (X = Mo,) Tj ETQq0 0 0 rgBT /Overlock 10	0.7	45

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37	Elastic properties of Î³â€²-Fe4N probed by nanoindentation and ab initio calculation. Acta Materialia, 2012, 60, 2054-2060.	3.8	44
38	Ab initiostudy of Ti_{0.5}Al_{0.5}N(001)â€"residual and environmental gas interactions. New Journal of Physics, 2013, 15, 073004.	1.2	44
39	Combinatorial evaluation of phase formation and magnetic properties of FeMnCoCrAl high entropy alloy thin film library. Scientific Reports, 2019, 9, 7864.	1.6	44
40	Phase stability of Ti3SiC2 at elevated temperatures. Scripta Materialia, 2006, 54, 105-107.	2.6	43
41	Elastic properties of face-centred cubic Feâ€"Mnâ€"C studied by nanoindentation and ab initio calculations. Acta Materialia, 2012, 60, 6025-6032.	3.8	43
42	Origin of temperature-induced low friction of sputtered Si-containing amorphous carbon coatings. Acta Materialia, 2015, 82, 437-446.	3.8	43
43	Thermodynamic and Electrochemical Properties of the Liâ€"Coâ€"O and Liâ€"Niâ€"O Systems. Chemistry of Materials, 2012, 24, 97-105.	3.2	42
44	MAX phase formation by intercalation upon annealing of TiC /Al (0.4 â©½xâ©½ 1) bilayer thin films. Acta Materialia, 2011, 59, 6168-6175.	3.8	41
45	Temporal evolution of oxygen chemisorption on TiAlN. Applied Surface Science, 2014, 290, 504-508.	3.1	41
46	Estimation of the activation energy for surface diffusion during metastable phase formation. Acta Materialia, 2015, 98, 135-140.	3.8	41
47	Phase stability and elastic properties of Tan+1AlCn(n= 1â€"3) at high pressure and elevated temperature. Journal of Physics Condensed Matter, 2007, 19, 136207.	0.7	39
48	Theoretical study of nitrogen vacancies in Ti4AlN3. Applied Physics Letters, 2005, 86, 031911.	1.5	37
49	Ionized physical vapor deposited Al₂O₃films: Does subplantation favor formation of Î±â€Al₂O₃?. Physica Status Solidi - Rapid Research Letters, 2010, 4, 154-156.	1.2	36
50	Influence of chemical composition and magnetic effects on the elastic properties of fcc Feâ€"Mn alloys. Acta Materialia, 2011, 59, 1493-1501.	3.8	36
51	On the phase formation of sputtered hafnium oxide and oxynitride films. Journal of Applied Physics, 2010, 108, .	1.1	35
52	Electronic structure of Nb2N and NbN thin films. Journal of Applied Physics, 2006, 99, 044911.	1.1	34
53	Ab initio molecular dynamics of Al irradiation-induced processes during Al2O3 growth. Applied Physics Letters, 2011, 98, .	1.5	34
54	Crystallite size-dependent metastable phase formation of TiAlN coatings. Scientific Reports, 2017, 7, 16096.	1.6	34

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55	Modeling of metastable phase formation for sputtered Ti1-xAlxN thin films. Acta Materialia, 2019, 165, 615-625.	3.8	34
56	Efficient supercell design for surface and interface calculations of hexagonal phases: Î±-Al2O3 case study. Computational Materials Science, 2011, 50, 1197-1201.	1.4	33
57	The effect of Si alloying on the thermal stability of Al2O3 films deposited by filtered cathodic arc. Surface and Coatings Technology, 2013, 235, 250-258.	2.2	33
58	Thermodynamic description of the LiNiO2â€“NiO2 pseudo-binary system and extrapolation to the Li(Co,Ni)O2â€“(Co,Ni)O2 system. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2012, 37, 100-107.	0.7	32
59	Development of thin film cathodes for lithium-ion batteries in the material system Liâ€“Mnâ€“O by r.f. magnetron sputtering. Thin Solid Films, 2013, 528, 217-223.	0.8	32
60	Influence of valence electron concentration on elastic properties of RRh3B (R=Y, Zr, and Nb). Applied Physics Letters, 2006, 89, 121914.	1.5	31
61	Ab initiomolecular dynamics model for density, elastic properties and short range order of Coâ€“Feâ€“Taâ€“B metallic glass thin films. Journal of Physics Condensed Matter, 2011, 23, 475401.	0.7	31
62	Bonding and elastic properties of amorphous AlYB. Solid State Communications, 2013, 169, 6-9.	0.9	31
63	Nonmetal sublattice population induced defect structure in transition metal aluminum oxynitrides. Applied Physics Letters, 2013, 103, .	1.5	31
64	Sputtered Si-containing low-friction carbon coatings for elevated temperatures. Tribology International, 2014, 77, 15-23.	3.0	31
65	Revealing the relationships between chemistry, topology and stiffness of ultrastrong Co-based metallic glass thin films: A combinatorial approach. Acta Materialia, 2016, 107, 213-219.	3.8	31
66	Elastic modulus-density relationship for amorphous boron suboxide thin films. Applied Physics A: Materials Science and Processing, 2003, 76, 269-271.	1.1	30
67	Ab initiostudy of M2AlN (M = Ti,V,Cr). Journal of Physics Condensed Matter, 2005, 17, L15-L19.	0.7	30
68	Synthesis and elastic properties of V₂AlC thin films by magnetron sputtering from elemental targets. Journal Physics D: Applied Physics, 2009, 42, 185408.	1.3	30
69	On atomic mechanisms governing the oxidation of Bi₂Te₃. Journal of Physics Condensed Matter, 2017, 29, 485705.	0.7	30
70	From quantum to continuum mechanics: studying the fracture toughness of transition metal nitrides and oxynitrides. Materials Research Letters, 2018, 6, 142-151.	4.1	30
71	Structure and bonding ofM2SbP(M=Ti,Zr,Hf). Physical Review B, 2005, 71, .	1.1	29
72	Alternating covalent-ionic and metallic bonding in perovskite borides studied usingab initiomethods. Physical Review B, 2005, 71, .	1.1	27

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73	Surface energy of M2AC(0001) determined by density functional theory (M=Ti,V,Cr; A=Al,Ga,Ge). Surface Science, 2007, 601, 896-899.	0.8	27
74	Determining the Elasticity of Materials Employing Quantumâ€mechanical Approaches: From the Electronic Ground State to the Limits of Materials Stability. Steel Research International, 2011, 82, 86-100.	1.0	27
75	Modeling of metastable phase formation diagrams for sputtered thin films. Science and Technology of Advanced Materials, 2016, 17, 210-219.	2.8	27
76	Correlative plasma-surface model for metastable Cr-Al-N: Frenkel pair formation and influence of the stress state on the elastic properties. Journal of Applied Physics, 2017, 121, .	1.1	27
77	Thermodynamic evaluation of the Alâ€“Crâ€“C system. International Journal of Materials Research, 2006, 97, 539-542.	0.8	26
78	Reducing the impurity incorporation from residual gas by ion bombardment during high vacuum magnetron sputtering. Applied Physics Letters, 2006, 88, 191905.	1.5	26
79	Synthesis and thermoelectric properties of RuO2 nanorods. Journal of Applied Physics, 2010, 108, 013707.	1.1	26
80	Thermodynamic description of the layered O3 and O2 structural LiCoO2â€“CoO2 pseudo-binary systems. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2013, 41, 6-15.	0.7	26
81	Electronic hybridisation implications for the damage-tolerance of thin film metallic glasses. Scientific Reports, 2016, 6, 36556.	1.6	26
82	Enhanced thermal stability of (Ti,Al)N coatings by oxygen incorporation. Acta Materialia, 2021, 218, 117204.	3.8	26
83	Electronic structure of Sc2AC (A=Al, Ga, In, Tl). Solid State Communications, 2005, 133, 381-383.	0.9	25
84	Energetics of point defects in TiC. Journal of the European Ceramic Society, 2009, 29, 773-777.	2.8	25
85	Ab initiolattice stability of fcc and hcp Feâ€“Mn random alloys. Journal of Physics Condensed Matter, 2010, 22, 295402.	0.7	25
86	Tantalum-doped hydroxyapatite thin films: Synthesis and characterization. Acta Materialia, 2012, 60, 3435-3443.	3.8	25
87	Synthesis and mechanical properties of boron suboxide thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 335-337.	0.9	24
88	Effect of the valence electron concentration on the bulk modulus and chemical bonding in Ta2AC and Zr2AC (A=Al, Si, and P). Journal of Applied Physics, 2005, 97, 066105.	1.1	24
89	Influence of the Chemical Composition on the Phase Constitution and the Elastic Properties of RFâ€Sputtered Hydroxyapatite Coatings. Plasma Processes and Polymers, 2008, 5, 168-174.	1.6	24
90	Phase stability and elastic properties of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>X</mml:mi><mml:msub><mml:mrow><mml:mtext>MgB</mml:mtext></mml:mrow><mml:mrow byab initiocalculations<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"		

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91	Thermomechanical response of thermoelectrics. Applied Physics Letters, 2016, 109, 223903.	1.5	23
92	Boride-based nano-laminates with MAX-phase-like behaviour. Journal of Solid State Chemistry, 2006, 179, 2850-2857.	1.4	22
93	Ab initiostudy of effects of substitutional additives on the phase stability of Î³-alumina. Journal of Physics Condensed Matter, 2010, 22, 505502.	0.7	22
94	Interfacial structure of V2AlC thin films deposited on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mo		

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109	Low temperature growth and characterization of (Na,K)NbOx thin films. Journal of Crystal Growth, 2003, 254, 400-404.	0.7	18
110	Elastic modulus of amorphous boron suboxide thin films studied by theoretical and experimental methods. Journal of Applied Physics, 2003, 93, 940-944.	1.1	18
111	Equilibrium structure of Î´-Bi₂O₃from first principles. Journal of Physics Condensed Matter, 2009, 21, 175403.	0.7	18
112	Ab initiostudy of the effect of Si on the phase stability and electronic structure of Î³- and Î±-Al2O3. Journal of Physics Condensed Matter, 2013, 25, 125502.	0.7	18
113	The influence of additions of Al and Si on the lattice stability of fcc and hcp Feâ€“Mn random alloys. Journal of Physics Condensed Matter, 2011, 23, 246003.	0.7	17
114	Phase stability predictions of (M= Ti, Hf, Zr;A= Si,X= B). Journal Physics D: Applied Physics, 2014, 47, 065308.	1.3	17
115	Deformation behavior of Re alloyed Mo thin films on flexible substrates: In situ fragmentation analysis supported by first-principles calculations. Scientific Reports, 2017, 7, 7374.	1.6	17
116	Microstructure/dielectric property relationship of low temperature synthesised (Na,K)NbOx thin films. Journal of Crystal Growth, 2004, 262, 322-326.	0.7	16
117	Influence of Si and N additions on structure and phase stability of Ge₂Sb₂Te₅thin films. Journal of Physics Condensed Matter, 2009, 21, 435501.	0.7	16
118	Quantum Mechanically Guided Design of Transition Metal Alloyed RuO₂ Nanorods. Crystal Growth and Design, 2010, 10, 4531-4536.	1.4	16
119	Enthalpies of formation of layered LiNixMnxCo1â€“2xO2 (0 â‰¤ x â‰¤ 0.5) compounds as lithium ion battery cathode materials. International Journal of Materials Research, 2017, 108, 869-878.	0.1	16
120	Ab initiostudy of basal slip in Nb2AlC. Journal of Physics Condensed Matter, 2006, 18, 4389-4395.	0.7	15
121	Polypropyleneâ€“MAlN (M=Ti, Cr) interface interactions. Surface Science, 2012, 606, 986-989.	0.8	15
122	Density, elastic and magnetic properties of Coâ€“Feâ€“Taâ€“Si metallic glasses by theory and experiment. Scripta Materialia, 2012, 66, 765-768.	2.6	15
123	Amorphous-crystalline transition in thermoelectric NbO₂. Journal Physics D: Applied Physics, 2015, 48, 275301.	1.3	15
124	Theoretical study of elastic properties and phase stability of M0.5Al0.5N1â^'xOx (Mâ€‰=â€‰Sc, Ti,) Tj ETQq0 0 0 rgBT /	1.1	14
125	Towards designing La 1â^'x Sr x Co y Fe 1â^'y O 3â^'d with enhanced phase stability: Role of the defect structure. Solid State Ionics, 2014, 255, 108-112.	1.3	14
126	Designing low thermal conductivity of RuO2 for thermoelectric applications. Applied Physics Letters, 2015, 106, .	1.5	14

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127	Effect of Si additions on thermal stability and the phase transition sequence of sputtered amorphous alumina thin films. Journal of Applied Physics, 2015, 117, .	1.1	14
128	Holistic quantum design of thermoelectric niobium oxynitride. Solid State Communications, 2015, 212, 5-9.	0.9	14
129	Atomistic Modelingâ€Based Design of Novel Materials. Advanced Engineering Materials, 2017, 19, 1600688.	1.6	14
130	Thermal expansion of Pd-based metallic glasses by ab initio methods and high energy X-ray diffraction. Scientific Reports, 2017, 7, 15744.	1.6	14
131	Role of RuO₃ for the formation of RuO₂ nanorods. Applied Physics Letters, 2012, 100, 033108.	1.5	13
132	Effect of target peak power density on the phase formation, microstructure evolution, and mechanical properties of Cr2AlC MAX-phase coatings. Journal of the European Ceramic Society, 2021, 41, 1841-1847.	2.8	13
133	Epitaxial growth and thermoelectric properties of Mg3Bi2 thin films deposited by magnetron sputtering. Applied Physics Letters, 2022, 120, .	1.5	13
134	Influence of high-energy Si+ ion irradiation on microstructure and mechanical properties of alumina films. Surface and Coatings Technology, 2002, 158-159, 534-537.	2.2	12
135	Extending the rule of mixture to the sub unit-cell level. Scripta Materialia, 2011, 65, 735-738.	2.6	12
136	Intercalation of Al into MC (M= Ti, V, Cr). Journal of the European Ceramic Society, 2009, 29, 2885-2891.	2.8	11
137	Stability, elastic properties and fracture toughness of Al_{0.75}X_{0.75}B₁₄(X=Sc, Ti, V, Cr, Y, Zr, Nb, Mo) investigated usingab initiocalculations. Journal of Physics Condensed Matter, 2013, 25, 335501.	0.7	11
138	High-throughput exploration of thermoelectric and mechanical properties of amorphous NbO2 with transition metal additions. Journal of Applied Physics, 2016, 120, .	1.1	11
139	Ultra-stiff metallic glasses through bond energy density design. Journal of Physics Condensed Matter, 2017, 29, 265502.	0.7	11
140	Spinodal decomposition of reactively sputtered (V0.64Al0.36)0.49N0.51 thin films. Surface and Coatings Technology, 2020, 389, 125641.	2.2	11
141	Role of carbon in boron suboxide thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, 1355-1358.	0.9	10
142	Synthesis and characterization of boronâ€“oxygenâ€“hydrogen thin films at low temperatures. Materials Research Bulletin, 2005, 40, 1345-1352.	2.7	10
143	Multifold Seebeck increase in RuO2 films by quantum-guided lanthanide dilute alloying. Applied Physics Letters, 2014, 104, 053903.	1.5	10
144	Enhanced thermoelectric performance of amorphous Nb based oxynitrides. Physica B: Condensed Matter, 2015, 479, 96-100.	1.3	10

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145	Vacancy filling effect in thermoelectric NbO. Journal of Physics Condensed Matter, 2015, 27, 115501.	0.7	10
146	On thermal conductivity of amorphous niobium monoxide. Journal Physics D: Applied Physics, 2020, 53, 285303.	1.3	10
147	Theoretical investigation of the bonding and solubility in Nb2â^'xWxAlC. Journal of Physics Condensed Matter, 2005, 17, 6047-6056.	0.7	9
148	Phase stability of AlYB₁₄sputtered thin films. Journal of Physics Condensed Matter, 2009, 21, 355006.	0.7	8
149	Î³â€²-ZnFe3N thin films: A proposal for a moderately ductile, corrosion-protective coating on steel. Scripta Materialia, 2011, 65, 380-383.	2.6	8
150	Structural transformation of sputtered o-LiMnO2 thin-film cathodes induced by electrochemical cycling. Thin Solid Films, 2013, 549, 263-267.	0.8	8
151	Elastic properties of fcc Feâ€“Mnâ€“X (X = Cr, Co, Ni, Cu) alloys studied by the combinatorial thin film approach andab initiocalculations. Journal of Physics Condensed Matter, 2013, 25, 245401.	0.7	8
152	Modulation of transport properties of RuO₂with 3d transition metals. Materials Research Express, 2014, 1, 045034.	0.8	8
153	Ab Initio Guided Low Temperature Synthesis Strategy for Smooth Faceâ€“Centred Cubic FeMn Thin Films. Metals, 2018, 8, 384.	1.0	8
154	From qualitative to quantitative description of the anomalous thermoelastic behavior of V, Nb, Ta, Pd and Pt. Journal of Physics Condensed Matter, 2019, 31, 225402.	0.7	8
155	First Principles Investigation of Anomalous Pressure-Dependent Thermal Conductivity of Chalcopyrites. Materials, 2019, 12, 3491.	1.3	8
156	Synthesis, microstructure, and mechanical properties of YPd3B thin films. Journal of Alloys and Compounds, 2012, 540, 75-80.	2.8	7
157	Theoretical and experimental study of NbO₂nanoslice formation. Journal Physics D: Applied Physics, 2015, 48, 305302.	1.3	7
158	Phase formation of Nb2AlC investigated by combinatorial thin film synthesis and ab initio calculations. Journal of the European Ceramic Society, 2017, 37, 35-41.	2.8	7
159	Chemical composition and stress dependence of the elastic properties of Î·-(Fe,Mn)3AlC thin films. Scripta Materialia, 2018, 153, 49-53.	2.6	7
160	Tuneable thermal expansion of poly (3,4-ethylenedioxythiophene) polystyrene sulfonate. Journal of Physics Condensed Matter, 2019, 31, 125101.	0.7	7
161	Effect of chemical composition, defect structure, and stress state on the elastic properties of (V_{1â^'x}Al_x)_{1â^'yâ€Š}N_{yâ€Š}. Journal of Physics Condensed Matter, 2020, 32, 025901.	0.7	7
162	Review on Quantum Mechanically Guided Design of Ultra-Strong Metallic Glasses. Frontiers in Materials, 2020, 7, .	1.2	7

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163	Influence of ion irradiation-induced defects on phase formation and thermal stability of Ti0.27Al0.21N0.52 coatings. Acta Materialia, 2022, 237, 118160.	3.8	7
164	Elastic properties and 2D icosahedral bonding in borides of hexagonal WC type. Scripta Materialia, 2005, 52, 29-31.	2.6	6
165	Critical evaluation of the colossal Seebeck coefficient of nanostructured rutile MnO2. Journal of Physics Condensed Matter, 2015, 27, 115302.	0.7	6
166	Atomistic growth phenomena of reactively sputtered RuO₂ and MnO₂ thin films. Journal of Applied Physics, 2015, 118, 015302.	1.1	6
167	Correlative theoretical and experimental investigation of the formation of AlYB14 and competing phases. Journal of Applied Physics, 2016, 119, .	1.1	6
168	Competitive incorporation of oxygen and nitrogen into amorphous Nbâ€“Ruâ€“Oâ€“N. Vacuum, 2016, 123, 175-178.	1.6	6
169	Decreasing friction during Al cold forming using a nanomolecular layer. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, 020605.	0.9	6
170	Intrinsic Thermal Shock Behavior of Common Rutile Oxides. Physics, 2019, 1, 290-300.	0.5	6
171	Theoretical and Experimental Aspects of Current and Future Research on NbO2 Thin Film Devices. Crystals, 2021, 11, 217.	1.0	6
172	Electronic structure and elastic properties of Yn+1Co3n+5B2n(). Journal of Physics Condensed Matter, 2006, 18, 4071-4076.	0.7	5
173	On the solubility of yttrium in RuO2. Journal of Applied Physics, 2011, 110, 054317.	1.1	5
174	Quantum mechanically guided design of Co₄₃Fe₂₀Ta_{5.5}X_{31.5}(X=B, Si, P, S) metallic glasses. Journal of Physics Condensed Matter, 2012, 24, 175402.	0.7	5
175	Temperature-Induced Short-Range Order Changes in Co67B33 Glassy Thin Films and Elastic Limit Implications. Materials Research Letters, 2015, 3, 82-87.	4.1	5
176	Atomic scale onset of Al adhesion on Mo2BC. Thin Solid Films, 2015, 589, 707-711.	0.8	5
177	Stiffness and toughness prediction of Coâ€“Feâ€“Taâ€“B metallic glasses, alloyed with Y, Zr, Nb, Mo, Hf, W, C, N and O byab initiomolecular dynamics. Journal of Physics Condensed Matter, 2015, 27, 105502.	0.7	5
178	Nanometre-scale 3D defects in Cr2AlC thin films. Scientific Reports, 2017, 7, 984.	1.6	5
179	Quantum mechanically guided design of amorphous Siâ€“Alâ€“M (M = 3d metals) anodes for Li ion batteries. Solid State Ionics, 2017, 303, 47-51.	1.3	5
180	A correlative experimental and ab initio approach to improve the fracture behavior of Mo thin films by alloying with Cu. Applied Physics Letters, 2017, 111, 134101.	1.5	5

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181	Influence of O2 exposure on the interaction between CH4 and amorphous AlYB14. Applied Surface Science, 2017, 392, 1165-1172.	3.1	5
182	Synthesis of Intermetallic (Mg1â^'x,Alx)2Ca by Combinatorial Sputtering. Materials, 2019, 12, 3026.	1.3	5
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