

Paul H Mayrhofer

List of Publications by Year in descending order

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296
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25014

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36008

97
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303
all docs

303
docs citations

303
times ranked

4824
citing authors

#	ARTICLE	IF	CITATIONS
1	Microstructural design of hard coatings. Progress in Materials Science, 2006, 51, 1032-1114.	16.0	793
2	Self-organized nanostructures in the Ti-Al-N system. Applied Physics Letters, 2003, 83, 2049-2051.	1.5	529
3	Thermal stability of Al-Cr-N hard coatings. Scripta Materialia, 2006, 54, 1847-1851.	2.6	224
4	Microstructure and mechanical/thermal properties of Cr-N coatings deposited by reactive unbalanced magnetron sputtering. Surface and Coatings Technology, 2001, 142-144, 78-84.	2.2	207
5	Influence of the Al distribution on the structure, elastic properties, and phase stability of supersaturated Ti _{1-x} Al _x N. Journal of Applied Physics, 2006, 100, 094906.	1.1	202
6	Thermal stability and oxidation resistance of Ti-Al-N coatings. Surface and Coatings Technology, 2012, 206, 2954-2960.	2.2	202
7	ZrN/Cu nanocomposite film—a novel superhard material. Surface and Coatings Technology, 1999, 120-121, 179-183.	2.2	200
8	Self-organized nanocolumnar structure in superhard TiB ₂ thin films. Applied Physics Letters, 2005, 86, 131909.	1.5	192
9	A comparative study on reactive and non-reactive unbalanced magnetron sputter deposition of TiN coatings. Thin Solid Films, 2002, 415, 151-159.	0.8	190
10	Structure, mechanical and tribological properties of sputtered Ti _{1-x} Al _x N coatings with 0.5 ≤ x ≤ 0.75. Surface and Coatings Technology, 2005, 200, 2358-2365.	2.2	181
11	Microstructure and properties of nanocomposite Ti-B-N and Ti-B-C coatings. Surface and Coatings Technology, 1999, 120-121, 405-411.	2.2	170
12	Magnéli phase formation of PVD Mo-N and W-N coatings. Surface and Coatings Technology, 2006, 201, 3335-3341.	2.2	159
13	Decomposition pathways in age hardening of Ti-Al-N films. Journal of Applied Physics, 2011, 110, .	1.1	152
14	High-entropy ceramic thin films; A case study on transition metal diborides. Scripta Materialia, 2018, 149, 93-97.	2.6	152
15	Structure-property relationships in single- and dual-phase nanocrystalline hard coatings. Surface and Coatings Technology, 2003, 174-175, 725-731.	2.2	148
16	Calorimetric evidence for frictional self-adaptation of TiAlN/VN superlattice coatings. Surface and Coatings Technology, 2004, 177-178, 341-347.	2.2	142
17	Structure and properties of hard and superhard Zr-Cu-N nanocomposite coatings. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 289, 189-197.	2.6	139
18	Trends in the elastic response of binary early transition metal nitrides. Physical Review B, 2012, 85, .	1.1	136

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19	Ab initio calculated binodal and spinodal of cubic Ti _{1-x} Al _x N. Applied Physics Letters, 2006, 88, 071922.	1.5	130
20	Superlattice effect for enhanced fracture toughness of hard coatings. Scripta Materialia, 2016, 124, 67-70.	2.6	128
21	Oxidation kinetics of sputtered CrN hard coatings. Surface and Coatings Technology, 2001, 146-147, 222-228.	2.2	125
22	A new low-friction concept for Ti _{1-x} Al _x N based coatings in high-temperature applications. Surface and Coatings Technology, 2004, 188-189, 358-363.	2.2	120
23	High-temperature properties of nanocomposite TiB _x N _y and TiB _x C _y coatings. Surface and Coatings Technology, 2000, 133-134, 131-137.	2.2	117
24	A New Low Friction Concept for High Temperatures: Lubricious Oxide Formation on Sputtered VN Coatings. Tribology Letters, 2004, 17, 751-756.	1.2	115
25	Thermal stability of PVD hard coatings. Vacuum, 2003, 71, 279-284.	1.6	113
26	Structure and phase evolution of CrAlN coatings during annealing. Surface and Coatings Technology, 2008, 202, 4935-4938.	2.2	112
27	Phase stability and alloy-related trends in TiAlN, ZrAlN and HfAlN systems from first principles. Surface and Coatings Technology, 2011, 206, 1698-1704.	2.2	112
28	Structure, elastic properties and phase stability of Cr _{1-x} Al _x N. Acta Materialia, 2008, 56, 2469-2475.	3.8	109
29	Energetic balance and kinetics for the decomposition of supersaturated Ti _{1-x} Al _x N. Acta Materialia, 2007, 55, 1441-1446.	3.8	106
30	Increased thermal stability of TiAlN thin films by Ta alloying. Surface and Coatings Technology, 2012, 211, 98-103.	2.2	104
31	Influence of oxide phase formation on the tribological behaviour of TiAlVN coatings. Surface and Coatings Technology, 2005, 200, 1731-1737.	2.2	103
32	Influence of Zr on structure, mechanical and thermal properties of TiAlN. Thin Solid Films, 2011, 519, 5503-5510.	0.8	102
33	Thermal stability and oxidation resistance of arc evaporated TiAlN, TaAlN, TiAlTaN, and TiAlN/TaAlN coatings. Surface and Coatings Technology, 2014, 259, 599-607.	2.2	102
34	Structure and properties of high power impulse magnetron sputtering and DC magnetron sputtering CrN and TiN films deposited in an industrial scale unit. Thin Solid Films, 2010, 518, 5558-5564.	0.8	98
35	Low-stress superhard Ti _{1-x} B _x films prepared by magnetron sputtering. Surface and Coatings Technology, 2003, 174-175, 744-753.	2.2	97
36	Structural stability and thermodynamics of CrN magnetic phases from ab initio calculations and experiment. Physical Review B, 2014, 90, .	1.1	95

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37	Fracture toughness and structural evolution in the TiAlN system upon annealing. <i>Scientific Reports</i> , 2017, 7, 16476.	1.6	93
38	The effect of yttrium incorporation on the oxidation resistance of Cr-Al-N coatings. <i>Surface and Coatings Technology</i> , 2008, 202, 5870-5875.	2.2	90
39	Three-dimensional atom probe investigations of Ti-Al-N thin films. <i>Scripta Materialia</i> , 2009, 61, 725-728.	2.6	88
40	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.	1.3	85
41	Structure-property relations of arc-evaporated Al-Cr-Si-N coatings. <i>Surface and Coatings Technology</i> , 2008, 202, 3555-3562.	2.2	78
42	Effects of structure and interfaces on fracture toughness of CrN/AlN multilayer coatings. <i>Scripta Materialia</i> , 2013, 68, 917-920.	2.6	77
43	Origin of high temperature oxidation resistance of Ti-Al-Ta-N coatings. <i>Surface and Coatings Technology</i> , 2014, 257, 78-86.	2.2	77
44	The influence of age-hardening on turning and milling performance of Ti-Al-N coated inserts. <i>Surface and Coatings Technology</i> , 2008, 202, 5158-5161.	2.2	76
45	Temperature driven evolution of thermal, electrical, and optical properties of Ti-Al-N coatings. <i>Acta Materialia</i> , 2012, 60, 2091-2096.	3.8	75
46	Surface energies of AlN allotropes from first principles. <i>Scripta Materialia</i> , 2012, 67, 760-762.	2.6	73
47	Toughness enhancement in TiN/WN superlattice thin films. <i>Acta Materialia</i> , 2019, 172, 18-29.	3.8	72
48	Age hardening of PACVD TiBN thin films. <i>Scripta Materialia</i> , 2005, 53, 241-245.	2.6	71
49	TiAlN based nanoscale multilayer coatings designed to adapt their tribological properties at elevated temperatures. <i>Thin Solid Films</i> , 2005, 485, 160-168.	0.8	70
50	Mechanical Size-Effects in Miniaturized and Bulk Materials. <i>Advanced Engineering Materials</i> , 2006, 8, 1033-1045.	1.6	70
51	Pressure-dependent stability of cubic and wurtzite phases within the TiN-AlN and CrN-AlN systems. <i>Scripta Materialia</i> , 2010, 62, 349-352.	2.6	70
52	Structure and mechanical properties of CrN/TiN multilayer coatings prepared by a combined HIPIMS/UBMS deposition technique. <i>Thin Solid Films</i> , 2008, 517, 1239-1244.	0.8	68
53	Thermal stability and oxidation resistance of sputtered Ti Al Cr N hard coatings. <i>Surface and Coatings Technology</i> , 2017, 324, 48-56.	2.2	68
54	Compositional and structural evolution of sputtered Ti-Al-N. <i>Thin Solid Films</i> , 2009, 517, 6635-6641.	0.8	67

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55	Thermally induced transitions of CrN thin films. Scripta Materialia, 2007, 57, 249-252.	2.6	66
56	Point defects stabilise cubic Mo-N and Ta-N. Journal Physics D: Applied Physics, 2016, 49, 375303.	1.3	64
57	Microstructure and piezoelectric response of Y Al _{1-x} N thin films. Acta Materialia, 2015, 100, 81-89.	3.8	60
58	Mechanical properties and thermal stability of reactively sputtered multi-principal-metal Hf-Ta-Ti-V-Zr nitrides. Surface and Coatings Technology, 2020, 389, 125674.	2.2	60
59	Structure-property relations in Cr/C/a-C:H coatings deposited by reactive magnetron sputtering. Surface and Coatings Technology, 2005, 200, 1147-1150.	2.2	59
60	Thermal stability of superhard TiB ₂ N coatings. Surface and Coatings Technology, 2007, 201, 6148-6153.	2.2	59
61	Experimental and computational study on the effect of yttrium on the phase stability of sputtered CrAlY hard coatings. Acta Materialia, 2010, 58, 2708-2715.	3.8	59
62	Self-Organized Nanostructures in Hard Ceramic Coatings. Advanced Engineering Materials, 2005, 7, 1071-1082.	1.6	58
63	Thermal decomposition routes of CrN hard coatings synthesized by reactive arc evaporation and magnetron sputtering. Thin Solid Films, 2008, 517, 568-574.	0.8	58
64	Phase stability and decomposition products of TiAlTa ₂ N thin films. Applied Physics Letters, 2010, 97, .	1.5	57
65	Alloying-related trends from first principles: An application to the TiAlX ₂ N system. Journal of Applied Physics, 2013, 113, .	1.1	55
66	First-principles study of elastic properties of cubic Cr _{1-x} Al _x N alloys. Journal of Applied Physics, 2013, 113, .	1.1	55
67	The impact of nitrogen content and vacancies on structure and mechanical properties of Mo ₂ N thin films. Journal of Applied Physics, 2016, 120, .	1.1	55
68	Ab initio inspired design of ternary boride thin films. Scientific Reports, 2018, 8, 9288.	1.6	54
69	Thermally induced self-hardening of nanocrystalline TiB ₂ N thin films. Journal of Applied Physics, 2006, 100, 044301.	1.1	50
70	<i>In situ</i> observation of rapid reactions in nanoscale NiAl multilayer foils using synchrotron radiation. Applied Physics Letters, 2010, 97, .	1.5	50
71	Thermal stability and mechanical properties of sputtered (Hf,Ta,V,W,Zr)-diborides. Acta Materialia, 2020, 200, 559-569.	3.8	50
72	Structure and stability of phases within the NbAlN system. Journal Physics D: Applied Physics, 2010, 43, 145403.	1.3	49

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73	Structure of sputtered nanocomposite CrC[sub x]â•a-C:H thin films. Journal of Vacuum Science & Technology B, 2006, 24, 1837.	1.3	48
74	Thermal stability and thermo-mechanical properties of magnetron sputtered Cr-Al-Y-N coatings. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2008, 26, 29-35.	0.9	48
75	Thermal expansion of Ti-Al-N and Cr-Al-N coatings. Scripta Materialia, 2017, 127, 182-185.	2.6	48
76	Spinodal decomposition of cubic Ti_{1âˆ’x}Al_xN: Comparison between experiments and modeling. International Journal of Materials Research, 2007, 98, 1054-1059.	0.1	47
77	Environmental protection of ³ TiAl based alloy Ti-45Al-8Nb by CrAlYN thin films and thermal barrier coatings. Intermetallics, 2010, 18, 479-486.	1.8	47
78	Effect of Hf on structure and age hardening of Tiâ€“Al-N thin films. Surface and Coatings Technology, 2012, 206, 2667-2672.	2.2	47
79	Influence of CrN and AlN layer thicknesses on structure and mechanical properties of CrN/AlN superlattices. Thin Solid Films, 2013, 545, 375-379.	0.8	47
80	Phase stability, mechanical properties and thermal stability of Y alloyed Tiâ€“Alâ€“N coatings. Surface and Coatings Technology, 2013, 235, 174-180.	2.2	47
81	Influence of deposition conditions on texture development and mechanical properties of TiN coatings. International Journal of Materials Research, 2009, 100, 1052-1058.	0.1	45
82	Solid solution hardening of vacancy stabilized Ti W1âˆ’B2. Acta Materialia, 2015, 101, 55-61.	3.8	45
83	The influence of the ion bombardment on the optical properties of TiNx and ZrNx coatings. Surface and Coatings Technology, 1998, 108-109, 230-235.	2.2	44
84	Thermal stability of nanocomposite CrC/a-C:H thin films. Thin Solid Films, 2007, 515, 5411-5417.	0.8	44
85	Influence of Nb on the phase stability of Tiâ€“Alâ€“N. Scripta Materialia, 2010, 63, 807-810.	2.6	44
86	High-entropy oxide thin films based on Alâ€“Crâ€“Nbâ€“Taâ€“Ti. Vacuum, 2019, 168, 108850.	1.6	44
87	Yttrium-induced structural changes in sputtered Ti1âˆ’xAlxN thin films. Scripta Materialia, 2007, 57, 357-360.	2.6	42
88	Structural and mechanical evolution of reactively and non-reactively sputtered Zrâ€“Alâ€“N thin films during annealing. Surface and Coatings Technology, 2014, 244, 52-56.	2.2	42
89	Influence of Ta on the fracture toughness of arc evaporated Ti-Al-N. Vacuum, 2018, 150, 24-28.	1.6	42
90	Thermal conductivity and mechanical properties of AlN-based thin films. Journal of Applied Physics, 2016, 119, .	1.1	41

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91	Characterization of tribo-layers on self-lubricating plasma-assisted chemical-vapor-deposited TiN coatings. <i>Thin Solid Films</i> , 2004, 460, 125-132.	0.8	40
92	Hardness evolution of Al ¹⁰⁰ Cr ¹⁰⁰ N coatings under thermal load. <i>Journal of Materials Research</i> , 2008, 23, 2880-2885.	1.2	40
93	Vacancy-dependent stability of cubic and wurtzite Ti _{1-x} Al _x N. <i>Surface and Coatings Technology</i> , 2015, 275, 214-218.	2.2	40
94	Fracture toughness of Ti-Si-N thin films. <i>International Journal of Refractory Metals and Hard Materials</i> , 2018, 72, 78-82.	1.7	40
95	Low friction CrN/TiN multilayer coatings prepared by a hybrid high power impulse magnetron sputtering/DC magnetron sputtering deposition technique. <i>Thin Solid Films</i> , 2010, 518, 5553-5557.	0.8	39
96	Atom probe specimen preparation and 3D interfacial study of Ti ¹⁰⁰ Al ¹⁰⁰ N thin films. <i>Surface and Coatings Technology</i> , 2010, 204, 1811-1816.	2.2	39
97	Influence of bias potential and layer arrangement on structure and mechanical properties of arc evaporated Al ¹⁰⁰ Cr ¹⁰⁰ N coatings. <i>Vacuum</i> , 2014, 106, 49-52.	1.6	39
98	Computational and experimental studies on structure and mechanical properties of Mo ¹⁰⁰ Al ¹⁰⁰ N. <i>Acta Materialia</i> , 2016, 107, 273-278.	3.8	39
99	Recrystallization and grain growth of nanocomposite Ti ¹⁰⁰ B ¹⁰⁰ N coatings. <i>Thin Solid Films</i> , 2003, 440, 174-179.	0.8	38
100	Impact of yttrium on structure and mechanical properties of Cr ¹⁰⁰ Al ¹⁰⁰ N thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2007, 25, 1336-1340.	0.9	38
101	Effect of nitrogen-incorporation on structure, properties and performance of magnetron sputtered CrB ₂ . <i>Surface and Coatings Technology</i> , 2008, 202, 3088-3093.	2.2	38
102	Influence of Yttrium on the Thermal Stability of Ti-Al-N Thin Films. <i>Materials</i> , 2010, 3, 1573-1592.	1.3	38
103	Electronic origin of structure and mechanical properties in Y and Nb alloyed Ti ¹⁰⁰ Al ¹⁰⁰ N thin films. <i>International Journal of Materials Research</i> , 2011, 102, 735-742.	0.1	38
104	<i>Ab initio</i> study of the alloying effect of transition metals on structure, stability and ductility of CrN. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 365301.	1.3	38
105	Substoichiometry and tantalum dependent thermal stability of $\sqrt{3}$ -structured W-Ta-B thin films. <i>Scripta Materialia</i> , 2018, 155, 5-10.	2.6	38
106	Improved Ti-Al-N coatings through Ta alloying and multilayer architecture. <i>Surface and Coatings Technology</i> , 2017, 328, 428-435.	2.2	37
107	Hard and superhard TiAlBN coatings deposited by twin electron-beam evaporation. <i>Surface and Coatings Technology</i> , 2007, 201, 6078-6083.	2.2	36
108	Towards predictive modeling of near-edge structures in electron energy-loss spectra of AlN-based ternary alloys. <i>Physical Review B</i> , 2011, 83, .	1.1	36

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109	Designing thin film materials – Ternary borides from first principles. <i>Thin Solid Films</i> , 2015, 583, 46-49.	0.8	36
110	Insight into the structural evolution during TiN film growth via atomic resolution TEM. <i>Journal of Alloys and Compounds</i> , 2018, 754, 257-267.	2.8	36
111	Fracture properties of thin film TiN at elevated temperatures. <i>Materials and Design</i> , 2020, 194, 108885.	3.3	36
112	Non-reactively sputtered ultra-high temperature Hf-C and Ta-C coatings. <i>Surface and Coatings Technology</i> , 2017, 309, 436-444.	2.2	35
113	Fracture toughness trends of modulus-matched TiN/(Cr,Al)N thin film superlattices. <i>Acta Materialia</i> , 2021, 202, 376-386.	3.8	35
114	Stabilization criteria for cubic AlN in TiN/AlN and CrN/AlN bi-layer systems. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 045305.	1.3	34
115	Macroscopic elastic properties of textured ZrN-AlN polycrystalline aggregates: From ab initio calculations to grain-scale interactions. <i>Physical Review B</i> , 2014, 90, .	1.1	34
116	Composition driven phase evolution and mechanical properties of Mo-Cr-N hard coatings. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	34
117	Cross-sectional structure-property relationship in a graded nanocrystalline Ti _{1-x} Al _x N thin film. <i>Acta Materialia</i> , 2016, 102, 212-219.	3.8	34
118	Influence of Mo on the structure and the tribomechanical properties of arc evaporated Ti-Al-N. <i>Surface and Coatings Technology</i> , 2017, 311, 330-336.	2.2	34
119	Ab initio-guided development of super-hard Mo-Al-Cr-N coatings. <i>Scripta Materialia</i> , 2017, 140, 27-30.	2.6	34
120	Hard and superhard nanocomposite Al-Cu-N films prepared by magnetron sputtering. <i>Surface and Coatings Technology</i> , 2001, 142-144, 603-609.	2.2	33
121	Comparative study of Ti _{1-x} Al _x N coatings alloyed with Hf, Nb, and B. <i>Surface and Coatings Technology</i> , 2005, 200, 113-117.	2.2	33
122	Phase equilibria, thermodynamics and microstructure simulation of metastable spinodal decomposition in Ti _{1-x} Al _x N coatings. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2017, 56, 92-101.	0.7	33
123	Protective Transition Metal Nitride Coatings. , 2014, , 355-388.		32
124	Thermal stability and mechanical properties of arc evaporated Ti-Al-Zr-N hard coatings. <i>Surface and Coatings Technology</i> , 2015, 266, 1-9.	2.2	32
125	Assessment of ductile character in superhard Ta-C-N thin films. <i>Acta Materialia</i> , 2019, 179, 17-25.	3.8	32
126	Synthesis-structure-property relations for Cr-B-N coatings sputter deposited reactively from a Cr-B target with 20at% B. <i>Vacuum</i> , 2008, 82, 771-776.	1.6	31

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127	Toughness of Si alloyed high-entropy nitride coatings. <i>Materials Letters</i> , 2019, 251, 238-240.	1.3	31
128	Crystallographic orientation dependent maximum layer thickness of cubic AlN in CrN/AlN multilayers. <i>Acta Materialia</i> , 2019, 168, 190-202.	3.8	31
129	Influence of Deposition Temperature on the Phase Evolution of HfNbTiVZr High-Entropy Thin Films. <i>Materials</i> , 2019, 12, 587.	1.3	31
130	Improving phase stability, hardness, and oxidation resistance of reactively magnetron sputtered (Al,Cr,Nb,Ta,Ti)N thin films by Si-alloying. <i>Surface and Coatings Technology</i> , 2021, 416, 127162.	2.2	31
131	Influence of Tantalum on phase stability and mechanical properties of WB2. <i>MRS Communications</i> , 2019, 9, 375-380.	0.8	31
132	Influence of AlN layers on mechanical properties and thermal stability of Cr-based nitride coatings. <i>Thin Solid Films</i> , 2013, 531, 113-118.	0.8	30
133	Guidelines for increasing the oxidation resistance of Ti-Al-N based coatings. <i>Thin Solid Films</i> , 2019, 688, 137290.	0.8	30
134	Cross-sectional X-ray nanobeam diffraction analysis of a compositionally graded CrN _x thin film. <i>Thin Solid Films</i> , 2013, 542, 1-4.	0.8	29
135	Stability and elasticity of metastable solid solutions and superlattices in the MoN-TaN system: First-principles calculations. <i>Materials and Design</i> , 2018, 144, 310-322.	3.3	29
136	Deformation and Cracking Mechanism in CrN/TiN Multilayer Coatings. <i>Coatings</i> , 2019, 9, 363.	1.2	29
137	Correlating structural and mechanical properties of AlN/TiN superlattice films. <i>Scripta Materialia</i> , 2019, 165, 159-163.	2.6	29
138	Atomistic mechanisms underlying plasticity and crack growth in ceramics: a case study of AlN/TiN superlattices. <i>Acta Materialia</i> , 2022, 229, 117809.	3.8	29
139	Improved mechanical properties, thermal stabilities, and oxidation resistance of arc evaporated Ti-Al-N coatings through alloying with Ta. <i>Surface and Coatings Technology</i> , 2018, 344, 244-249.	2.2	28
140	Curvature-induced excess surface energy of fullerenes: Density functional theory and Monte Carlo simulations. <i>Physical Review B</i> , 2010, 81, .	1.1	27
141	Continuum modeling of van der Waals interactions between carbon onion layers. <i>Carbon</i> , 2011, 49, 1620-1627.	5.4	27
142	Tuning structure and mechanical properties of Ta-C coatings by N-alloying and vacancy population. <i>Scientific Reports</i> , 2018, 8, 17669.	1.6	27
143	Mechanistic study of superlattice-enabled high toughness and hardness in MoN/TaN coatings. <i>Communications Materials</i> , 2020, 1, .	2.9	27
144	Interfaces in nanostructured thin films and their influence on hardness. <i>International Journal of Materials Research</i> , 2005, 96, 468-480.	0.8	26

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145	On the influence of coating and oxidation on the mechanical properties of a $\hat{1}^3$ -TiAl based alloy. Intermetallics, 2008, 16, 1206-1211.	1.8	26
146	Influence of coating thickness and substrate on stresses and mechanical properties of (Ti,Al,Ta)N/(Al,Cr)N multilayers. Surface and Coatings Technology, 2018, 347, 92-98.	2.2	26
147	Surface chemical changes induced by low-energy ion bombardment in chromium nitride layers. Surface and Interface Analysis, 2002, 34, 740-743.	0.8	25
148	Structural properties of wurtzitelike ScGaN films grown by NH ₃ -molecular beam epitaxy. Journal of Applied Physics, 2009, 106, 113533.	1.1	25
149	Thermal expansion of rock-salt cubic AlN. Applied Physics Letters, 2015, 107, .	1.5	25
150	Corundum-type Fe-doped cathodic arc evaporated Al $\hat{1}$ Cr $\hat{1}$ O coatings. Scripta Materialia, 2015, 97, 49-52.	2.6	25
151	Influence of carbon deficiency on phase formation and thermal stability of super-hard TaC _y thin films. Scripta Materialia, 2018, 149, 150-154.	2.6	25
152	Annealing effect on the fracture toughness of CrN/TiN superlattices. International Journal of Refractory Metals and Hard Materials, 2018, 71, 352-356.	1.7	25
153	Mechanical properties and epitaxial growth of TiN/AlN superlattices. Surface and Coatings Technology, 2019, 375, 1-7.	2.2	25
154	How to get noWear? $\hat{1}$ A new take on the design of in-situ formed high performing low-friction tribofilms. Materials and Design, 2020, 190, 108519.	3.3	25
155	A model for evolution of shape changing precipitates in multicomponent systems. Acta Materialia, 2008, 56, 4896-4904.	3.8	24
156	Influence of bipolar pulsed DC magnetron sputtering on elemental composition and micro-structure of Ti $\hat{1}$ Al $\hat{1}$ Y $\hat{1}$ N thin films. Surface and Coatings Technology, 2008, 203, 148-155.	2.2	24
157	Role of droplets and iron on the phase formation of arc evaporated Al $\hat{1}$ Cr-oxide coatings. Surface and Coatings Technology, 2015, 276, 735-742.	2.2	24
158	Complementary ab initio and X-ray nanodiffraction studies of Ta ₂ O ₅ . Acta Materialia, 2015, 83, 276-284.	3.8	24
159	Reactive HiPIMS deposition of Ti-Al-N: Influence of the deposition parameters on the cubic to hexagonal phase transition. Surface and Coatings Technology, 2020, 382, 125007.	2.2	24
160	Thermal stability of CrN/AlN superlattice coatings. Surface and Coatings Technology, 2014, 240, 250-254.	2.2	23
161	The effect of interlayer composition and thickness on the stabilization of cubic AlN in AlN/Ti $\hat{1}$ Al $\hat{1}$ N superlattices. Thin Solid Films, 2014, 565, 94-100.	0.8	23
162	Structural and mechanical properties of nitrogen-deficient cubic Cr $\hat{1}$ Mo $\hat{1}$ N and Cr $\hat{1}$ W $\hat{1}$ N systems. Scripta Materialia, 2016, 123, 34-37.	2.6	23

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163	Correlating elemental distribution with mechanical properties of TiN/SiN _x nanocomposite coatings. Scripta Materialia, 2019, 170, 20-23.	2.6	23
164	Influence of different atmospheres on the thermal decomposition of Al-Cr-N coatings. Journal Physics D: Applied Physics, 2008, 41, 155316.	1.3	22
165	Influence of Si on the target oxide poisoning during reactive arc evaporation of (Al,Cr)2O3 coatings. Vacuum, 2014, 100, 29-32.	1.6	22
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