

Paul H Mayrhofer

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/1114688/paul-h-mayrhofer-publications-by-year.pdf>

Version: 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

290
papers

10,529
citations

53
h-index

89
g-index

303
ext. papers

11,696
ext. citations

4.4
avg, IF

6.45
L-index

#	Paper	IF	Citations
290	Tuning of structure, grain orientation and mechanical properties in reactively sputtered (Al,Mo,Ta,V,W)N. <i>Materials and Design</i> , 2022 , 213, 110346	8.1	1
289	Impact of oxygen content on the thermal stability of Ti-Al-O-N coatings based on computational and experimental studies. <i>Acta Materialia</i> , 2022 , 227, 117706	8.4	1
288	Strain-stabilized Al-containing high-entropy sublattice nitrides. <i>Acta Materialia</i> , 2022 , 224, 117483	8.4	2
287	TGO formation and oxygen diffusion in Al-rich gamma-TiAl PVD-coatings on TiN alloys. <i>Scripta Materialia</i> , 2022 , 210, 114455	5.6	0
286	Atomistic mechanisms underlying plasticity and crack growth in ceramics: a case study of AlN/TiN superlattices. <i>Acta Materialia</i> , 2022 , 229, 117809	8.4	3
285	Ab initio supported development of TiN/MoN superlattice thin films with improved hardness and toughness. <i>Acta Materialia</i> , 2022 , 231, 117871	8.4	
284	Heavy-element-alloying for toughness enhancement of hard nitrides on the example Ti-W-N. <i>Acta Materialia</i> , 2022 , 231, 117897	8.4	0
283	Atomic-scale understanding of the structural evolution in TiN/AlN superlattice during nanoindentation Part 2: Strengthening. <i>Acta Materialia</i> , 2022 , 118009	8.4	1
282	Atomic-scale understanding of the structural evolution of TiN/AlN superlattice during nanoindentation Part 1: Deformation. <i>Acta Materialia</i> , 2022 , 234, 118008	8.4	2
281	Magnetron sputtered NiAl/TiB _x multilayer thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2022 , 40, 033410	2.9	
280	High-entropy alloy inspired development of compositionally complex superhard (Hf,Ta,Ti,V,Zr)-B-N coatings. <i>Materials and Design</i> , 2022 , 218, 110695	8.1	0
279	Effect of Si-addition on structure and thermal stability of Ti-Al-N coatings. <i>Journal of Alloys and Compounds</i> , 2022 , 917, 165483	5.7	1
278	High-throughput first-principles search for ceramic superlattices with improved ductility and fracture resistance. <i>Acta Materialia</i> , 2021 , 206, 116615	8.4	7
277	Ultra-high oxidation resistance of nano-structured thin films. <i>Materials and Design</i> , 2021 , 201, 109499	8.1	4
276	The MoN-TaN system: Role of vacancies in phase stability and mechanical properties. <i>Materials and Design</i> , 2021 , 202, 109568	8.1	2
275	Enhanced fracture toughness in ceramic superlattice thin films: On the role of coherency stresses and misfit dislocations. <i>Materials and Design</i> , 2021 , 202, 109517	8.1	4
274	Influence of Ta on the oxidation resistance of WB ₂ coatings. <i>Journal of Alloys and Compounds</i> , 2021 , 864, 158121	5.7	9

273	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	4.4	11
272	Fracture toughness trends of modulus-matched TiN/(Cr,Al)N thin film superlattices. <i>Acta Materialia</i> , 2021 , 202, 376-386	8.4	11
271	Reactive in-situ formation and self-assembly of MoS ₂ nanoflakes in carbon tribofilms for low friction. <i>Materials and Design</i> , 2021 , 199, 109427	8.1	5
270	Phase formation and mechanical properties of reactively and non-reactively sputtered Ti-B-N hard coatings. <i>Surface and Coatings Technology</i> , 2021 , 420, 127327	4.4	2
269	Atomic insights on intermixing of nanoscale nitride multilayer triggered by nanoindentation. <i>Acta Materialia</i> , 2021 , 214, 117004	8.4	7
268	Correlating point defects with mechanical properties in nanocrystalline TiN thin films. <i>Materials and Design</i> , 2021 , 207, 109844	8.1	4
267	Reactive HiPIMS deposition of Al-oxide thin films using W-alloyed Al targets. <i>Surface and Coatings Technology</i> , 2021 , 422, 127467	4.4	0
266	Time-averaged and time-resolved ion fluxes related to reactive HiPIMS deposition of Ti-Al-N films. <i>Surface and Coatings Technology</i> , 2021 , 424, 127638	4.4	1
265	Mechanical properties of CrN-based superlattices: Impact of magnetism. <i>Acta Materialia</i> , 2021 , 218, 117095	8.1	1
264	Wear in hard metal check valves: In-situ surface modification through tribolayer formation in dry contact. <i>Vacuum</i> , 2021 , 192, 110482	3.7	0
263	Synthesis and electrochemical properties of nanoporous CrN thin film electrodes for supercapacitor applications. <i>Materials and Design</i> , 2021 , 209, 109949	8.1	1
262	Indentation response of a superlattice thin film revealed by in-situ scanning X-ray nanodiffraction. <i>Acta Materialia</i> , 2020 , 195, 425-432	8.4	5
261	Fracture properties of thin film TiN at elevated temperatures. <i>Materials and Design</i> , 2020 , 194, 108885	8.1	18
260	Thermally stable superhard diborides: An ab initio guided case study for V-W-diboride thin films. <i>Acta Materialia</i> , 2020 , 186, 487-493	8.4	10
259	How to get noWear? A new take on the design of in-situ formed high performing low-friction tribofilms. <i>Materials and Design</i> , 2020 , 190, 108519	8.1	12
258	Structure and mechanical properties of architecturally designed Ti-Al-N and Ti-Al-Ta-N-based multilayers. <i>Surface and Coatings Technology</i> , 2020 , 385, 125355	4.4	1
257	Mechanical properties and thermal stability of reactively sputtered multi-principal-metal Hf-Ta-Ti-V-Zr nitrides. <i>Surface and Coatings Technology</i> , 2020 , 389, 125674	4.4	32
256	How microalloying of the Al target can improve process and film characteristics of sputtered alumina. <i>Surface and Coatings Technology</i> , 2020 , 393, 125762	4.4	2

255	Mapping the mechanical properties in nitride coatings at the nanometer scale. <i>Acta Materialia</i> , 2020 , 194, 343-353	8.4	2
254	Processing Fiber-Reinforced Polymers: Specific Wear Phenomena Caused by Filler Materials. <i>Polymer Engineering and Science</i> , 2020 , 60, 78-85	2.3	4
253	Point-defect engineering of MoN/TaN superlattice films: A first-principles and experimental study. <i>Materials and Design</i> , 2020 , 186, 108211	8.1	7
252	Laser based analysis of transition metal boride thin films using liquid standards. <i>Microchemical Journal</i> , 2020 , 152, 104449	4.8	5
251	Growth-twins in CrN/AlN multilayers induced by hetero-phase interfaces. <i>Acta Materialia</i> , 2020 , 185, 157-170	8.4	2
250	Thermal stability and mechanical properties of sputtered (Hf,Ta,V,W,Zr)-diborides. <i>Acta Materialia</i> , 2020 , 200, 559-569	8.4	14
249	Thermal stability and oxidation resistance of architecturally designed TiAlN- and TiAlTaN-based multilayers. <i>Surface and Coatings Technology</i> , 2020 , 385, 125444	4.4	2
248	Mechanistic study of superlattice-enabled high toughness and hardness in MoN/TaN coatings. <i>Communications Materials</i> , 2020 , 1,	6	12
247	Reactive HiPIMS deposition of Ti-Al-N: Influence of the deposition parameters on the cubic to hexagonal phase transition. <i>Surface and Coatings Technology</i> , 2020 , 382, 125007	4.4	17
246	Influence of experimental constraints on micromechanical assessment of micromachined hard-tissue samples. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020 , 106, 103741	4.1	1
245	Strain and stress analyses on thermally annealed Ti-Al-N/Mo-Si-B multilayer coatings by synchrotron X-ray diffraction. <i>Surface and Coatings Technology</i> , 2019 , 361, 364-370	4.4	7
244	Adhesive wear formation on PVD coated tools applied in hot forming of Al-Si coated steel sheets. <i>Wear</i> , 2019 , 430-431, 309-316	3.5	7
243	Deformation behaviour of TiN and TiAlN coatings at 295 to 573 K. <i>Thin Solid Films</i> , 2019 , 688, 137363	2.2	7
242	On the oxidation behavior of cathodic arc evaporated Al-Cr-Fe and Al-Cr-Fe-O coatings. I. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019 , 37, 041503	2.9	2
241	On the oxidation behavior of cathodic arc evaporated Al-Cr-Fe and Al-Cr-Fe-O coatings. II. Transmission electron microscopy investigations of Al _{0.675} Cr _{0.275} Fe _{0.05} -based films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019 , 37, 041504	2.9	2
240	Correlating elemental distribution with mechanical properties of TiN/SiN _x nanocomposite coatings. <i>Scripta Materialia</i> , 2019 , 170, 20-23	5.6	16
239	Microstructure of Al-containing magnetron sputtered TiB ₂ thin films. <i>Thin Solid Films</i> , 2019 , 688, 137361	2.2	4
238	Electron-configuration stabilized (W,Al)B ₂ solid solutions. <i>Acta Materialia</i> , 2019 , 174, 398-405	8.4	9

237	Hard TiAlN endowed with high heat-resistance through alloying with Ta and Ce. <i>Surface and Coatings Technology</i> , 2019 , 372, 26-33	4.4	9
236	Guidelines for increasing the oxidation resistance of Ti-Al-N based coatings. <i>Thin Solid Films</i> , 2019 , 688, 137290	2.2	16
235	Toughness of Si alloyed high-entropy nitride coatings. <i>Materials Letters</i> , 2019 , 251, 238-240	3.3	17
234	Thermomechanical properties and oxidation resistance of CeSi alloyed TiAlN thin films. <i>Vacuum</i> , 2019 , 166, 231-238	3.7	1
233	Toughness enhancement in TiN/WN superlattice thin films. <i>Acta Materialia</i> , 2019 , 172, 18-29	8.4	44
232	The influence of synthetic air flow on the properties of arc evaporated Al-Cr-O-N coatings. <i>Thin Solid Films</i> , 2019 , 688, 137252	2.2	4
231	Correlating structural and mechanical properties of AlN/TiN superlattice films. <i>Scripta Materialia</i> , 2019 , 165, 159-163	5.6	21
230	Experimental Chemistry and Structural Stability of AlNb Enabled by Antisite Defects Formation. <i>Materials</i> , 2019 , 12,	3.5	6
229	Impact of lanthanum and boron on the growth, thermomechanical properties and oxidation resistance of TiAlN thin films. <i>Thin Solid Films</i> , 2019 , 688, 137239	2.2	7
228	Crystallographic orientation dependent maximum layer thickness of cubic AlN in CrN/AlN multilayers. <i>Acta Materialia</i> , 2019 , 168, 190-202	8.4	18
227	On the oxidation behaviour of cathodic arc evaporated Al Cr and Al Cr O coatings. <i>Vacuum</i> , 2019 , 163, 1-9	3.7	6
226	Assessment of ductile character in superhard Ta-C-N thin films. <i>Acta Materialia</i> , 2019 , 179, 17-25	8.4	20
225	High-entropy oxide thin films based on AlCrNbTaTi. <i>Vacuum</i> , 2019 , 168, 108850	3.7	24
224	Deformation and Cracking Mechanism in CrN/TiN Multilayer Coatings. <i>Coatings</i> , 2019 , 9, 363	2.9	22
223	Mechanical properties and epitaxial growth of TiN/AlN superlattices. <i>Surface and Coatings Technology</i> , 2019 , 375, 1-7	4.4	12
222	The impact of Ni and Mo on growth-morphology and mechanical properties of arc evaporated Ti-Cr-N hard coatings. <i>Surface and Coatings Technology</i> , 2019 , 377, 124917	4.4	6
221	Progress in the synthesis of Al- and Cr-based sesquioxide coatings for protective applications. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019 , 37, 060802	2.9	2
220	Influence of Tantalum on phase stability and mechanical properties of WB ₂ . <i>MRS Communications</i> , 2019 , 9, 375-380	2.7	19

219	Influence of Deposition Temperature on the Phase Evolution of HfNbTiVZr High-Entropy Thin Films. <i>Materials</i> , 2019 , 12,	3.5	19
218	In-situ XRD studies of arc evaporated Al-Cr-O coatings during oxidation. <i>Surface and Coatings Technology</i> , 2019 , 358, 934-941	4.4	6
217	Stability and elasticity of metastable solid solutions and superlattices in the MoNiTaN system: First-principles calculations. <i>Materials and Design</i> , 2018 , 144, 310-322	8.1	23
216	Structure, mechanical properties, and thermal stability of arc evaporated (Al _{1-x} Cr _x) ₂ O ₃ coatings. <i>Surface and Coatings Technology</i> , 2018 , 342, 37-47	4.4	11
215	Influence of Ta on the fracture toughness of arc evaporated Ti-Al-N. <i>Vacuum</i> , 2018 , 150, 24-28	3.7	29
214	Fracture toughness of Ti-Si-N thin films. <i>International Journal of Refractory Metals and Hard Materials</i> , 2018 , 72, 78-82	4.1	26
213	Impact of sputter deposition parameters on the microstructural and piezoelectric properties of CrxAl _{1-x} N thin films. <i>Thin Solid Films</i> , 2018 , 648, 76-82	2.2	5
212	Insight into the structural evolution during TiN film growth via atomic resolution TEM. <i>Journal of Alloys and Compounds</i> , 2018 , 754, 257-267	5.7	23
211	Influence of coating thickness and substrate on stresses and mechanical properties of (Ti,Al,Ta)N/(Al,Cr)N multilayers. <i>Surface and Coatings Technology</i> , 2018 , 347, 92-98	4.4	20
210	High-entropy ceramic thin films; A case study on transition metal diborides. <i>Scripta Materialia</i> , 2018 , 149, 93-97	5.6	95
209	Influence of carbon deficiency on phase formation and thermal stability of super-hard TaC _y thin films. <i>Scripta Materialia</i> , 2018 , 149, 150-154	5.6	21
208	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	4.4	17
207	Thermal stability of arc evaporated Al-Cr-O and Al-Cr-O/Al-Cr-N multilayer coatings. <i>Surface and Coatings Technology</i> , 2018 , 352, 213-221	4.4	7
206	Impact of Si and B on the phase stability of cathodic arc evaporated Al _{0.70} Cr _{0.30} -based oxides. <i>Scripta Materialia</i> , 2018 , 152, 107-111	5.6	6
205	Structure, phase evolution, and mechanical properties of DC, pulsed DC, and high power impulse magnetron sputtered Ta _x N films. <i>Surface and Coatings Technology</i> , 2018 , 347, 304-312	4.4	8
204	Nano-structural investigation of Ti-Al-N/Mo-Si-B multilayer coatings: A comparative study by APT and HR-TEM. <i>Vacuum</i> , 2018 , 157, 173-179	3.7	7
203	On the phase formation of cathodic arc evaporated Al _{1-x} Cr _x -based intermetallic coatings and substoichiometric oxides. <i>Surface and Coatings Technology</i> , 2018 , 352, 392-398	4.4	4
202	Influence of phase transformation on the damage tolerance of Ti-Al-N coatings. <i>Vacuum</i> , 2018 , 155, 153-157	3.7	12

201	Substoichiometry and tantalum dependent thermal stability of β -structured W-Ta-B thin films. <i>Scripta Materialia</i> , 2018 , 155, 5-10	5.6	23
200	Ab initio inspired design of ternary boride thin films. <i>Scientific Reports</i> , 2018 , 8, 9288	4.9	40
199	Thermal stability and mechanical properties of Ti-Al-B-N thin films. <i>International Journal of Refractory Metals and Hard Materials</i> , 2018 , 71, 320-324	4.1	10
198	Impact of morphology and phase composition on mechanical properties of β -structured (Cr,Al) ₂ O ₃ /(Al,Cr,X) ₂ O ₃ multilayers. <i>Scripta Materialia</i> , 2018 , 146, 208-212	5.6	6
197	Annealing effect on the fracture toughness of CrN/TiN superlattices. <i>International Journal of Refractory Metals and Hard Materials</i> , 2018 , 71, 352-356	4.1	21
196	Tuning structure and mechanical properties of Ta-C coatings by N-alloying and vacancy population. <i>Scientific Reports</i> , 2018 , 8, 17669	4.9	21
195	Thermal stability of arc evaporated Al-Cr-O-N coatings. <i>Surface and Coatings Technology</i> , 2018 , 356, 64-71.4	4.4	6
194	Oxygen dependent morphology and mechanical properties of AlCr(Fe)-based coatings. <i>Surface and Coatings Technology</i> , 2018 , 349, 103-110	4.4	5
193	Mechanical properties and oxidation resistance of Al-Cr-N/Ti-Al-Ta-N multilayer coatings. <i>Surface and Coatings Technology</i> , 2018 , 347, 427-433	4.4	13
192	Atomic scale investigations of thermally treated nano-structured Ti-Al-N/Mo-Si-B multilayers. <i>Surface and Coatings Technology</i> , 2018 , 349, 480-487	4.4	8
191	Microstructure and phase evolution of gradually-structured arc evaporated Al _{0.25} Cr _{0.75} -based oxide coatings. <i>Vacuum</i> , 2018 , 155, 645-649	3.7	3
190	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	4.4	25
189	Atomistic Modeling-Based Design of Novel Materials . <i>Advanced Engineering Materials</i> , 2017 , 19, 1600688.5	3.5	10
188	Influence of substrate bias on structure and mechanical properties of arc evaporated (Al,Cr) ₂ O ₃ and (Al,Cr,Fe) ₂ O ₃ coatings. <i>Surface and Coatings Technology</i> , 2017 , 319, 386-393	4.4	10
187	Thermal stability and oxidation resistance of sputtered Ti Al Cr N hard coatings. <i>Surface and Coatings Technology</i> , 2017 , 324, 48-56	4.4	52
186	Phase equilibria, thermodynamics and microstructure simulation of metastable spinodal decomposition in $\text{Ti}_{1-x}\text{Al}_x\text{N}$ coatings. <i>Calphad: Computer Coupling of Phase Diagrams and Thermochemistry</i> , 2017 , 56, 92-101	1.9	27
185	Arc evaporated W-alloyed Ti-Al-N coatings for improved thermal stability, mechanical, and tribological properties. <i>Surface and Coatings Technology</i> , 2017 , 332, 275-282	4.4	9
184	Improved Ti-Al-N coatings through Ta alloying and multilayer architecture. <i>Surface and Coatings Technology</i> , 2017 , 328, 428-435	4.4	26

183	Cerium doping of Ti-Al-N coatings for excellent thermal stability and oxidation resistance. <i>Surface and Coatings Technology</i> , 2017 , 326, 165-172	4.4	11
182	Dislocation densities and alternating strain fields in CrN/AlN nanolayers. <i>Thin Solid Films</i> , 2017 , 638, 189-200		13
181	Vacancy-driven extended stability of cubic metastable Ta-Al-N and Nb-Al-N phases. <i>Surface and Coatings Technology</i> , 2017 , 326, 37-44	4.4	14
180	Ti-Al-N/Mo-Si-B multilayers: An architectural arrangement for high temperature oxidation resistant hard coatings. <i>Surface and Coatings Technology</i> , 2017 , 328, 80-88	4.4	21
179	Oxidation behavior of intermetallic Al-Cr and Al-Cr-Fe macroparticles. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2017 , 35, 061601	2.9	5
178	Fracture toughness and structural evolution in the TiAlN system upon annealing. <i>Scientific Reports</i> , 2017 , 7, 16476	4.9	60
177	On the phase evolution of arc evaporated Al-Cr-based intermetallics and oxides. <i>Thin Solid Films</i> , 2017 , 644, 120-128	2.2	9
176	Ab initio-guided development of super-hard MoAlCrN coatings. <i>Scripta Materialia</i> , 2017 , 140, 27-30	5.6	28
175	Superlattice-induced oscillations of interplanar distances and strain effects in the CrN/AlN system. <i>Physical Review B</i> , 2017 , 95,	3.3	12
174	Interfaces in arc evaporated Al-Cr-N/Al-Cr-O multilayers and their impact on hardness. <i>Surface and Coatings Technology</i> , 2017 , 324, 236-242	4.4	17
173	Selective phase formation in substoichiometric Al-Cr-based oxides. <i>Scripta Materialia</i> , 2017 , 139, 144-147	5.6	13
172	Thermal expansion of Ti-Al-N and Cr-Al-N coatings. <i>Scripta Materialia</i> , 2017 , 127, 182-185	5.6	37
171	Non-reactively sputtered ultra-high temperature Hf-C and Ta-C coatings. <i>Surface and Coatings Technology</i> , 2017 , 309, 436-444	4.4	27
170	Effect of Mo on the thermal stability, oxidation resistance, and tribo-mechanical properties of arc evaporated Ti-Al-N coatings. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2017 , 35, 061515	2.9	11
169	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	8.4	31
168	Triggering the Phase Evolution Within (Al,Cr) ₂ O ₃ -based Coatings by Alloying and Microstructural Concepts. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2016 , 161, 325-329	0.6	5
167	Structural and mechanical properties of nitrogen-deficient cubic Cr _{1-x} Mo _x N and Cr _{1-x} W _x N systems. <i>Scripta Materialia</i> , 2016 , 123, 34-37	5.6	19
166	Interface controlled microstructure evolution in nanolayered thin films. <i>Scripta Materialia</i> , 2016 , 123, 13-16	5.6	8

165	Computational and experimental studies on structure and mechanical properties of MoAlN. <i>Acta Materialia</i> , 2016 , 107, 273-278	8.4	30
164	Influence of oxygen impurities on growth morphology, structure and mechanical properties of TiAlN thin films. <i>Thin Solid Films</i> , 2016 , 603, 39-49	2.2	20
163	Thermally-induced phase transformation sequence of arc evaporated TaAlN coatings. <i>Scripta Materialia</i> , 2016 , 113, 75-78	5.6	16
162	Superlattice effect for enhanced fracture toughness of hard coatings. <i>Scripta Materialia</i> , 2016 , 124, 67-70	9.6	98
161	Controlling microstructure, preferred orientation, and mechanical properties of Cr-Al-N by bombardment and alloying with Ta. <i>Journal of Applied Physics</i> , 2016 , 119, 065304	2.5	14
160	First Principles Study of Water-Based Self-Assembled Nanobearing Effect in CrN/TiN Multilayer Coatings. <i>Solid State Phenomena</i> , 2016 , 258, 373-378	0.4	3
159	Microstructural modifications in powder-metallurgically produced Al _{0.675} Cr _{0.275} Fe _{0.05} targets during cathodic arc evaporation. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2016 , 34, 021603	2.9	13
158	Thermal conductivity and mechanical properties of AlN-based thin films. <i>Journal of Applied Physics</i> , 2016 , 119, 225304	2.5	30
157	The impact of nitrogen content and vacancies on structure and mechanical properties of MoN thin films. <i>Journal of Applied Physics</i> , 2016 , 120, 185301	2.5	42
156	Point defects stabilise cubic Mo-N and Ta-N. <i>Journal Physics D: Applied Physics</i> , 2016 , 49, 375303	3	49
155	First principles studies on the impact of point defects on the phase stability of (Al _x Cr _{1-x}) ₂ O ₃ solid solutions. <i>AIP Advances</i> , 2016 , 6, 025002	1.5	15
154	Impact of bias potential and layer arrangement on thermal stability of arc evaporated Al-Cr-N coatings. <i>Thin Solid Films</i> , 2016 , 610, 26-34	2.2	16
153	Development of a multi-variate calibration approach for quantitative analysis of oxidation resistant MoSiB coatings using laser ablation inductively coupled plasma mass spectrometry. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2016 , 120, 57-62	3.1	10
152	Thermal stability and mechanical properties of arc evaporated TiAlZrN hard coatings. <i>Surface and Coatings Technology</i> , 2015 , 266, 1-9	4.4	27
151	Diffusion behavior of C, Cr, and Fe in arc evaporated TiN- and CrN-based coatings and their influence on thermal stability and hardness. <i>Surface and Coatings Technology</i> , 2015 , 275, 185-192	4.4	14
150	Complementary ab initio and X-ray nanodiffraction studies of TaO. <i>Acta Materialia</i> , 2015 , 83, 276-284	8.4	20
149	Designing thin film materials - Ternary borides from first principles. <i>Thin Solid Films</i> , 2015 , 583, 46-49	2.2	26
148	Thermal stability and mechanical properties of boron enhanced MoSi coatings. <i>Surface and Coatings Technology</i> , 2015 , 280, 282-290	4.4	16

147	Ab initio studies on the adsorption and implantation of Al and Fe to nitride materials. <i>Journal of Applied Physics</i> , 2015 , 118, 125306	2.5	2
146	Solid solution hardening of vacancy stabilized TiW _{1-x} B ₂ . <i>Acta Materialia</i> , 2015 , 101, 55-61	8.4	34
145	Thermal expansion of rock-salt cubic AlN. <i>Applied Physics Letters</i> , 2015 , 107, 071602	3.4	22
144	Microstructure and piezoelectric response of Y _x Al _{1-x} N thin films. <i>Acta Materialia</i> , 2015 , 100, 81-89	8.4	36
143	Corundum-type Fe-doped cathodic arc evaporated AlCrO coatings. <i>Scripta Materialia</i> , 2015 , 97, 49-52	5.6	24
142	Composition driven phase evolution and mechanical properties of MoCrN hard coatings. <i>Journal of Applied Physics</i> , 2015 , 118, 025305	2.5	30
141	Oxidation behavior and tribological properties of multilayered Ti-Al-N/Mo-Si-B thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2015 , 33, 05E129	2.9	11
140	Cross-sectional X-ray nano-diffraction and -reflectivity analysis of multilayered AlTiN _x /SiN thin films: Correlation between residual strain and bi-layer period. <i>Scripta Materialia</i> , 2015 , 107, 153-156	5.6	15
139	Role of droplets and iron on the phase formation of arc evaporated AlCr-oxide coatings. <i>Surface and Coatings Technology</i> , 2015 , 276, 735-742	4.4	24
138	Vacancy-dependent stability of cubic and wurtzite TiAlN. <i>Surface and Coatings Technology</i> , 2015 , 275, 214-218	4.4	31
137	Effect of wavelength modulation of arc evaporated TiAlN/TiAlN _x multilayer coatings on microstructure and mechanical/tribological properties. <i>Thin Solid Films</i> , 2015 , 581, 20-24	2.2	14
136	Annealing studies and oxidation tests of a hybrid multilayer arrangement of cathodic arc evaporated TiAlN and reactively sputtered TaAlN coatings. <i>Surface and Coatings Technology</i> , 2015 , 283, 89-95	4.4	8
135	High-rate deposition of AlTiN and related coatings with dense morphology by central cylindrical direct current magnetron sputtering. <i>Thin Solid Films</i> , 2014 , 556, 361-368	2.2	14
134	Influence of Si on the target oxide poisoning during reactive arc evaporation of (Al,Cr) ₂ O ₃ coatings. <i>Vacuum</i> , 2014 , 100, 29-32	3.7	22
133	Thermal stability of CrN/AlN superlattice coatings. <i>Surface and Coatings Technology</i> , 2014 , 240, 250-254	4.4	18
132	The effect of interlayer composition and thickness on the stabilization of cubic AlN in AlN/TiAlN superlattices. <i>Thin Solid Films</i> , 2014 , 565, 94-100	2.2	20
131	Thermal stability and oxidation resistance of arc evaporated TiAlN, TaAlN, TiAlTaN, and TiAlN/TaAlN coatings. <i>Surface and Coatings Technology</i> , 2014 , 259, 599-607	4.4	86
130	Influence of bias potential and layer arrangement on structure and mechanical properties of arc evaporated AlCrN coatings. <i>Vacuum</i> , 2014 , 106, 49-52	3.7	34

129	Structural and mechanical evolution of reactively and non-reactively sputtered Zr-Al-N thin films during annealing. <i>Surface and Coatings Technology</i> , 2014 , 244, 52-56	4.4	38
128	Protective Transition Metal Nitride Coatings 2014 , 355-388		19
127	Structural stability and thermodynamics of CrN magnetic phases from ab initio calculations and experiment. <i>Physical Review B</i> , 2014 , 90,	3.3	78
126	Macroscopic elastic properties of textured ZrN-AlN polycrystalline aggregates: From ab initio calculations to grain-scale interactions. <i>Physical Review B</i> , 2014 , 90,	3.3	28
125	Origin of high temperature oxidation resistance of TiAlTaN coatings. <i>Surface and Coatings Technology</i> , 2014 , 257, 78-86	4.4	56
124	Crossover of texture and morphology in (Ti _{1-x} Al _x) _{1-y} Y _y N alloy films and the pathway of structure evolution. <i>Surface and Coatings Technology</i> , 2014 , 257, 3-14	4.4	5
123	Influence of CrN and AlN layer thicknesses on structure and mechanical properties of CrN/AlN superlattices. <i>Thin Solid Films</i> , 2013 , 545, 375-379	2.2	38
122	Effects of structure and interfaces on fracture toughness of CrN/AlN multilayer coatings. <i>Scripta Materialia</i> , 2013 , 68, 917-920	5.6	60
121	Phase stability, mechanical properties and thermal stability of Y alloyed TiAlN coatings. <i>Surface and Coatings Technology</i> , 2013 , 235, 174-180	4.4	43
120	Magnetic field strength influence on the reactive magnetron sputter deposition of Ta ₂ O ₅ . <i>Journal Physics D: Applied Physics</i> , 2013 , 46, 335203	3	11
119	Cross-sectional X-ray nanobeam diffraction analysis of a compositionally graded CrN _x thin film. <i>Thin Solid Films</i> , 2013 , 542, 1-4	2.2	26
118	In situ transmission electron microscopy studies of the kinetics of Pt-Mo alloy diffusion in ZrB ₂ thin films. <i>Applied Physics Letters</i> , 2013 , 103, 121601	3.4	6
117	Influence of AlN layers on mechanical properties and thermal stability of Cr-based nitride coatings. <i>Thin Solid Films</i> , 2013 , 531, 113-118	2.2	25
116	Influence of Fe impurities on structure and properties of arc-evaporated AlCrN coatings. <i>Surface and Coatings Technology</i> , 2013 , 215, 96-103	4.4	16
115	Stabilization criteria for cubic AlN in TiN/AlN and CrN/AlN bi-layer systems. <i>Journal Physics D: Applied Physics</i> , 2013 , 46, 045305	3	31
114	Alloying-related trends from first principles: An application to the TiAlN system. <i>Journal of Applied Physics</i> , 2013 , 113, 113510	2.5	49
113	Ab initio 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	3	33
112	Kinetics of Ga droplet decay on thin carbon films. <i>Applied Physics Letters</i> , 2013 , 102, 161601	3.4	9

111	First-principles study of elastic properties of cubic Cr _{1-x} Al _x N alloys. <i>Journal of Applied Physics</i> , 2013 , 113, 043511	2.5	50
110	Effect of Hf on structure and age hardening of TiAl-N thin films. <i>Surface and Coatings Technology</i> , 2012 , 206, 2667-2672	4.4	37
109	Thermal stability and oxidation resistance of Ti-Al-N coatings. <i>Surface and Coatings Technology</i> , 2012 , 206-318, 2954-2960	4.4	148
108	Interfacial coherency stress distribution in TiN/AlN bilayer and multilayer films studied by FEM analysis. <i>Computational Materials Science</i> , 2012 , 55, 211-216	3.2	8
107	Increased thermal stability of TiAlN thin films by Ta alloying. <i>Surface and Coatings Technology</i> , 2012 , 211, 98-103	4.4	87
106	Surface energies of AlN allotropes from first principles. <i>Scripta Materialia</i> , 2012 , 67, 760-762	5.6	57
105	Trends in the elastic response of binary early transition metal nitrides. <i>Physical Review B</i> , 2012 , 85,	3.3	121
104	Low Friction CrN/TiN Multilayer Coatings. <i>Tribology Letters</i> , 2012 , 46, 87-93	2.8	7
103	Temperature driven evolution of thermal, electrical, and optical properties of Ti-Al-N coatings. <i>Acta Materialia</i> , 2012 , 60, 2091-2096	8.4	52
102	Oxidation behavior of arc evaporated Al-Cr-Si-N thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012 , 30, 061501	2.9	12
101	Electronic origin of structure and mechanical properties in Y and Nb alloyed TiAlN thin films. <i>International Journal of Materials Research</i> , 2011 , 102, 735-742	0.5	32
100	Composition, microstructure and mechanical properties of boron containing multilayer coatings for hot forming tools. <i>Surface and Coatings Technology</i> , 2011 , 205, S24-S28	4.4	18
99	Phase stability and alloy-related trends in TiAlN, ZrAlN and HfAlN systems from first principles. <i>Surface and Coatings Technology</i> , 2011 , 206, 1698-1704	4.4	89
98	High Temperature Oxidation Resistance of CrAlYN-Coated Ti ₄₅ Al ₈ Nb. <i>Oxidation of Metals</i> , 2011 , 75, 359-376	1.6	10
97	Decomposition pathways in age hardening of Ti-Al-N films. <i>Journal of Applied Physics</i> , 2011 , 110, 023515	2.5	131
96	Continuum modeling of van der Waals interactions between carbon onion layers. <i>Carbon</i> , 2011 , 49, 1620-1627	2.3	23
95	Influence of Zr on structure, mechanical and thermal properties of Ti-Al-N. <i>Thin Solid Films</i> , 2011 , 519, 5503-5510	2.2	90
94	Towards predictive modeling of near-edge structures in electron energy-loss spectra of AlN-based ternary alloys. <i>Physical Review B</i> , 2011 , 83,	3.3	33

93	Phase stability and decomposition products of TiAl _{0.5} N thin films. <i>Applied Physics Letters</i> , 2010 , 97, 151901	3-4	53
92	In situ observation of rapid reactions in nanoscale NiAl multilayer foils using synchrotron radiation. <i>Applied Physics Letters</i> , 2010 , 97, 144101	3-4	45
91	Structure and stability of phases within the NbN _{0.5} AlN system. <i>Journal Physics D: Applied Physics</i> , 2010 , 43, 145403	3	43
90	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
89	Influence of Yttrium on the Thermal Stability of Ti-Al-N Thin Films. <i>Materials</i> , 2010 , 3, 1573-1592	3-5	34
88	Curvature-induced excess surface energy of fullerenes: Density functional theory and Monte Carlo simulations. <i>Physical Review B</i> , 2010 , 81,	3-3	24
87	Environmental protection of TiAl based alloy Ti-45Al-8Nb by CrAlYN thin films and thermal barrier coatings. <i>Intermetallics</i> , 2010 , 18, 479-486	3-5	42
86	Pressure-dependent stability of cubic and wurtzite phases within the TiN _{0.5} AlN and CrN _{0.5} AlN systems. <i>Scripta Materialia</i> , 2010 , 62, 349-352	5-6	62
85	Influence of Nb on the phase stability of TiAlN. <i>Scripta Materialia</i> , 2010 , 63, 807-810	5-6	37
84	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	2-2	33
83	Structure and properties of high power impulse magnetron sputtering and DC magnetron sputtering CrN and TiN films deposited in an industrial scale unit. <i>Thin Solid Films</i> , 2010 , 518, 5558-5564	2-2	82
82	Atom probe specimen preparation and 3D interfacial study of TiAlN thin films. <i>Surface and Coatings Technology</i> , 2010 , 204, 1811-1816	4-4	36
81	Experimental and computational study on the effect of yttrium on the phase stability of sputtered CrAl _{0.5} N hard coatings. <i>Acta Materialia</i> , 2010 , 58, 2708-2715	8-4	52
80	Structural properties of wurtzitelike ScGaN films grown by NH ₃ -molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2009 , 106, 113533	2-5	23
79	Influence of deposition conditions on texture development and mechanical properties of TiN coatings. <i>International Journal of Materials Research</i> , 2009 , 100, 1052-1058	0-5	37
78	Three-dimensional atom probe investigations of TiAlN thin films. <i>Scripta Materialia</i> , 2009 , 61, 725-728	5-6	79
77	Compositional and structural evolution of sputtered Ti-Al-N. <i>Thin Solid Films</i> , 2009 , 517, 6635-6641	2-2	57
76	On the influence of coating and oxidation on the mechanical properties of a TiAl based alloy. <i>Intermetallics</i> , 2008 , 16, 1206-1211	3-5	25

75	Influence of different atmospheres on the thermal decomposition of Al-Cr-N coatings. <i>Journal Physics D: Applied Physics</i> , 2008 , 41, 155316	3	21
74	Hardness evolution of AlCrN coatings under thermal load. <i>Journal of Materials Research</i> , 2008 , 23, 2880-2885	2.5	36
73	Thermal stability and thermo-mechanical properties of magnetron sputtered Cr-Al-Y-N coatings. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2008 , 26, 29-35	2.9	42
72	Effect of nitrogen-incorporation on structure, properties and performance of magnetron sputtered CrB ₂ . <i>Surface and Coatings Technology</i> , 2008 , 202, 3088-3093	4.4	31
71	Structure and phase evolution of CrAlN coatings during annealing. <i>Surface and Coatings Technology</i> , 2008 , 202, 4935-4938	4.4	93
70	Thermal decomposition routes of CrN hard coatings synthesized by reactive arc evaporation and magnetron sputtering. <i>Thin Solid Films</i> , 2008 , 517, 568-574	2.2	51
69	Epitaxial growth of AlCrN thin films on MgO(111). <i>Thin Solid Films</i> , 2008 , 517, 598-602	2.2	14
68	Oxidation Resistance and Ductility of a Coated TiAl Based Alloy. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2008 , 153, 268-272	0.6	3
67	Structure, elastic properties and phase stability of Cr _{1-x} Al _x N. <i>Acta Materialia</i> , 2008 , 56, 2469-2475	8.4	93
66	A model for evolution of shape changing precipitates in multicomponent systems. <i>Acta Materialia</i> , 2008 , 56, 4896-4904	8.4	22
65	Structure-property relations of arc-evaporated AlCrSiN coatings. <i>Surface and Coatings Technology</i> , 2008 , 202, 3555-3562	4.4	73
64	The influence of age-hardening on turning and milling performance of TiAlN coated inserts. <i>Surface and Coatings Technology</i> , 2008 , 202, 5158-5161	4.4	65
63	The effect of yttrium incorporation on the oxidation resistance of CrAlN coatings. <i>Surface and Coatings Technology</i> , 2008 , 202, 5870-5875	4.4	79
62	Influence of bipolar pulsed DC magnetron sputtering on elemental composition and micro-structure of TiAlN thin films. <i>Surface and Coatings Technology</i> , 2008 , 203, 148-155	4.4	21
61	Synthesis-structure-property relations for CrBN coatings sputter deposited reactively from a CrB target with 20at% B. <i>Vacuum</i> , 2008 , 82, 771-776	3.7	26
60	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	2.2	60
59	Hard and superhard TiAlBN coatings deposited by twin electron-beam evaporation. <i>Surface and Coatings Technology</i> , 2007 , 201, 6078-6083	4.4	30
58	Thermal stability of superhard TiBN coatings. <i>Surface and Coatings Technology</i> , 2007 , 201, 6148-6153	4.4	45

57	Thermal stability of nanocomposite CrC/a-C:H thin films. <i>Thin Solid Films</i> , 2007 , 515, 5411-5417	2.2	42
56	Energetic balance and kinetics for the decomposition of supersaturated Ti _{1-x} Al _x N. <i>Acta Materialia</i> , 2007 , 55, 1441-1446	8.4	95
55	Yttrium-induced structural changes in sputtered Ti _{1-x} Al _x N thin films. <i>Scripta Materialia</i> , 2007 , 57, 357-360	6.6	37
54	Single-crystal growth of NaCl-structure AlCrN thin films on MgO(001) by magnetron sputter epitaxy. <i>Scripta Materialia</i> , 2007 , 57, 1089-1092	5.6	9
53	Tribological Properties of Nanocomposite CrC x /a-C:H Thin Films. <i>Tribology Letters</i> , 2007 , 27, 97-104	2.8	18
52	Thermal stability and age hardening of supersaturated AlCrN hard coatings. <i>International Heat Treatment and Surface Engineering</i> , 2007 , 1, 75-79		15
51	Spinodal decomposition of cubic Ti _{1-x} Al _x N: Comparison between experiments and modeling. <i>International Journal of Materials Research</i> , 2007 , 98, 1054-1059	0.5	41
50	Microstructure and mechanical properties of sputtered intermetallic AlAu coatings. <i>Journal of Applied Physics</i> , 2007 , 102, 023523	2.5	8
49	Thermal stability of sputtered intermetallic AlAu coatings. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2007 , 25, 1402	2.9	9
48	Thermally induced transitions of CrN thin films. <i>Scripta Materialia</i> , 2007 , 57, 249-252	5.6	58
47	Impact of yttrium on structure and mechanical properties of CrAlN thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2007 , 25, 1336	2.9	32
46	Thermal stability of AlCrN hard coatings. <i>Scripta Materialia</i> , 2006 , 54, 1847-1851	5.6	201
45	Mechanical Size-Effects in Miniaturized and Bulk Materials. <i>Advanced Engineering Materials</i> , 2006 , 8, 1033-1045	6.4	
44	Magnetron Sputtered Intermetallic Al ₂ Au and Al-Zr-Y Coatings for the Oxidation Protection of TiAl. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 980, 8		
43	Structure Models of Massively Transformed High Niobium Containing TiAl Alloys. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 980, 1		4
42	Structure of sputtered nanocomposite CrC _x -C:H thin films. <i>Journal of Vacuum Science & Technology B</i> , 2006 , 24, 1837		42
41	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
40	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

39	Thermally induced self-hardening of nanocrystalline TiBN thin films. <i>Journal of Applied Physics</i> , 2006 , 100, 044301	2.5	44
38	Self-hardening of Nanocrystalline Ti-B-N Thin Films. <i>Microscopy and Microanalysis</i> , 2006 , 12, 720-721	0.5	3
37	Microstructural design of hard coatings. <i>Progress in Materials Science</i> , 2006 , 51, 1032-1114	42.2	682
36	Magn β phase formation of PVD Mo β and W β coatings. <i>Surface and Coatings Technology</i> , 2006 , 201, 3335-3341	4.4	130
35	Interfaces in nanostructured thin films and their influence on hardness. <i>International Journal of Materials Research</i> , 2005 , 96, 468-480		24
34	TiAlN based nanoscale multilayer coatings designed to adapt their tribological properties at elevated temperatures. <i>Thin Solid Films</i> , 2005 , 485, 160-168	2.2	61
33	Structure, mechanical and tribological properties of sputtered Ti $_{1-x}$ Al $_x$ N coatings with 0.5 $\leq x \leq$ 0.75. <i>Surface and Coatings Technology</i> , 2005 , 200, 2358-2365	4.4	155
32	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	4.4	30
31	Structure-property relations in Cr $_2$ /a-C:H coatings deposited by reactive magnetron sputtering. <i>Surface and Coatings Technology</i> , 2005 , 200, 1147-1150	4.4	53
30	Influence of oxide phase formation on the tribological behaviour of TiAl $_2$ N coatings. <i>Surface and Coatings Technology</i> , 2005 , 200, 1731-1737	4.4	83
29	Age hardening of PACVD TiBN thin films. <i>Scripta Materialia</i> , 2005 , 53, 241-245	5.6	64
28	Self-Organized Nanostructures in Hard Ceramic Coatings. <i>Advanced Engineering Materials</i> , 2005 , 7, 1071-1082	3.9	52
27	Self-organized nanocolumnar structure in superhard TiB $_2$ thin films. <i>Applied Physics Letters</i> , 2005 , 86, 131909	3.4	148
26	Sputtered Coatings Based on the Al $_2$ AU Phase. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 842, 333		
25	Thermal Stability and Self-Arrangement of Nanocrystalline Hard Coatings 2004 , 57-68		7
24	A New Low Friction Concept for High Temperatures: Lubricious Oxide Formation on Sputtered VN Coatings. <i>Tribology Letters</i> , 2004 , 17, 751-756	2.8	103
23	Characterization of tribo-layers on self-lubricating plasma-assisted chemical-vapor-deposited TiN coatings. <i>Thin Solid Films</i> , 2004 , 460, 125-132	2.2	36
22	Calorimetric evidence for frictional self-adaptation of TiAlN/VN superlattice coatings. <i>Surface and Coatings Technology</i> , 2004 , 177-178, 341-347	4.4	131

21	A new low-friction concept for Ti _{1-x} Al _x N based coatings in high-temperature applications. <i>Surface and Coatings Technology</i> , 2004 , 188-189, 358-363	4.4	108
20	Sputter-deposited Al ₂ O ₃ coatings. <i>Intermetallics</i> , 2004 , 12, 579-587	3.5	14
19	Thermal Stability of Nanostructured TiN-TiB ₂ Thin Films. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 854, U6.2.1		
18	Recrystallization and grain growth of nanocomposite TiB ₂ coatings. <i>Thin Solid Films</i> , 2003 , 440, 174-179	2.2	34
17	Thermal annealing of sputtered Al _{0.5} Ti _{0.5} N films. <i>Vacuum</i> , 2003 , 72, 21-28	3.7	12
16	Low-stress superhard Ti ₂ B films prepared by magnetron sputtering. <i>Surface and Coatings Technology</i> , 2003 , 174-175, 744-753	4.4	85
15	Structure-property relationships in single- and dual-phase nanocrystalline hard coatings. <i>Surface and Coatings Technology</i> , 2003 , 174-175, 725-731	4.4	120
14	Self-organized nanostructures in the Ti ₂ AlN system. <i>Applied Physics Letters</i> , 2003 , 83, 2049-2051	3.4	477
13	Thermal stability of PVD hard coatings. <i>Vacuum</i> , 2003 , 71, 279-284	3.7	105
12	Surface chemical changes induced by low-energy ion bombardment in chromium nitride layers. <i>Surface and Interface Analysis</i> , 2002 , 34, 740-743	1.5	23
11	A comparative study on reactive and non-reactive unbalanced magnetron sputter deposition of TiN coatings. <i>Thin Solid Films</i> , 2002 , 415, 151-159	2.2	168
10	Microstructure and mechanical/thermal properties of Cr ₂ coatings deposited by reactive unbalanced magnetron sputtering. <i>Surface and Coatings Technology</i> , 2001 , 142-144, 78-84	4.4	189
9	Hard and superhard nanocomposite Al ₂ O ₃ /TiN films prepared by magnetron sputtering. <i>Surface and Coatings Technology</i> , 2001 , 142-144, 603-609	4.4	31
8	Oxidation kinetics of sputtered Cr ₂ hard coatings. <i>Surface and Coatings Technology</i> , 2001 , 146-147, 222-228	4.4	106
7	Some Materials Science Aspects of PVD Hard Coatings 2001 , 263-274		5
6	Structure and properties of hard and superhard Zr ₂ Ni ₂ nanocomposite coatings. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000 , 289, 189-197	5.3	123
5	High-temperature properties of nanocomposite TiB ₂ N _y and TiB ₂ C _y coatings. <i>Surface and Coatings Technology</i> , 2000 , 133-134, 131-137	4.4	111
4	ZrN/Cu nanocomposite film—novel superhard material. <i>Surface and Coatings Technology</i> , 1999 , 120-121, 179-183	4.4	178

3	Microstructure and properties of nanocomposite TiBN and TiBC coatings. <i>Surface and Coatings Technology</i> , 1999 , 120-121, 405-411	4-4	158
2	The influence of the ion bombardment on the optical properties of TiNx and ZrNx coatings. <i>Surface and Coatings Technology</i> , 1998 , 108-109, 230-235	4-4	41
1	Thermal Stability and Mechanical Properties of Sputtered (Hf,Ta,V,W,Zr)-Diborides. <i>SSRN Electronic Journal</i> ,	1	2