

Christian Mitterer

List of Publications by Year in Descending Order

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

366
papers

12,198
citations

58
h-index

90
g-index

375
ext. papers

13,381
ext. citations

4.1
avg, IF

6.34
L-index

#	Paper	IF	Citations
366	Impact of Si on the high-temperature oxidation of AlCr(Si)N coatings. <i>Journal of Materials Science and Technology</i> , 2022 , 100, 91-100	9.1	4
365	Nanoporous polymer-derived activated carbon for hydrogen adsorption and electrochemical energy storage. <i>Chemical Engineering Journal</i> , 2022 , 427, 131730	14.7	10
364	Reactive interdiffusion of an Al film and a CoCrFeNi high-entropy alloy. <i>Materials and Design</i> , 2022 , 216, 110530	8.1	0
363	Film thickness and architecture effects in biaxially strained polymer supported Al/Mo bilayers. <i>Materials Today Communications</i> , 2022 , 31, 103455	2.5	1
362	Influence of matrix composition and MC carbide content on damage behaviour of TiN-coated high speed steel due to cyclic shear and compression load. <i>Surface and Coatings Technology</i> , 2022 , 128546	4.4	
361	Hard coatings for cutting applications: Physical vs. chemical vapor deposition and future challenges for the coatings community. <i>Surface and Coatings Technology</i> , 2021 , 127949	4.4	3
360	Bond strength between TiN coating and microstructural constituents of a high speed steel determined by first principle calculations. <i>Acta Materialia</i> , 2021 , 117439	8.4	0
359	Microstructural Effects on the Interfacial Adhesion of Nanometer-Thick Cu Films on Glass Substrates: Implications for Microelectronic Devices. <i>ACS Applied Nano Materials</i> , 2021 , 4, 61-70	5.6	1
358	Strength ranking for interfaces between a TiN hard coating and microstructural constituents of high speed steel determined by micromechanical testing. <i>Materials and Design</i> , 2021 , 204, 109690	8.1	6
357	Role of layer order on the equi-biaxial behavior of Al/Mo bilayers. <i>Scripta Materialia</i> , 2021 , 194, 113656	5.6	6
356	Evolution of stress fields during crack growth and arrest in a brittle-ductile CrN-Cr clamped-cantilever analysed by X-ray nanodiffraction and modelling. <i>Materials and Design</i> , 2021 , 198, 109365	8.1	3
355	Synthesis of bulk reactive NiAl composites using high pressure torsion. <i>Journal of Alloys and Compounds</i> , 2021 , 857, 157503	5.7	4
354	Effect of Pt nanoparticle decoration on the H ₂ storage performance of plasma-derived nanoporous graphene. <i>Carbon</i> , 2021 , 171, 294-305	10.4	8
353	Improved electro-mechanical reliability of flexible systems with alloyed Mo-Ta adhesion layers. <i>Thin Solid Films</i> , 2021 , 720, 138533	2.2	1
352	Adhesion evaluation of thin films to dielectrics in multilayer stacks: A comparison of four-point bending and stressed overlayer technique.. <i>Materials and Design</i> , 2021 , 200, 109451	8.1	7
351	Morphology of cracks and shear bands in polymer-supported thin film metallic glasses. <i>Materials Today Communications</i> , 2021 , 28, 102547	2.5	
350	Improved fracture resistance of Cu/Mo bilayers with thickness tailoring. <i>Scripta Materialia</i> , 2021 , 202, 113994	5.6	6

349	Evolution of structure, residual stress, thermal stability and wear resistance of nanocrystalline multilayered Al _{0.7} Cr _{0.3} N-Al _{0.67} Ti _{0.33} N coatings. <i>Surface and Coatings Technology</i> , 2021 , 425, 127712	4.4	0
348	Rapid solidification and metastable phase formation during surface modifications of composite Al-Cr cathodes exposed to cathodic arc plasma. <i>Journal of Materials Science and Technology</i> , 2021 , 94, 147-163	9.1	0
347	Boron Nitride Nanotubes Versus Carbon Nanotubes: A Thermal Stability and Oxidation Behavior Study. <i>Nanomaterials</i> , 2020 , 10,	5.4	8
346	Near-interface cracking in a TiN coated high speed steel due to combined shear and compression under cyclic impact loading. <i>Surface and Coatings Technology</i> , 2020 , 394, 125854	4.4	6
345	Angular resolved mass-energy analysis of species emitted from a dc magnetron sputtered NiW-target. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020 , 38, 023401	2.9	1
344	Nanoscale residual stress and microstructure gradients across the cutting edge area of a TiN coating on WCo. <i>Scripta Materialia</i> , 2020 , 182, 11-15	5.6	11
343	Microstructural evolution and thermal stability of AlCr(Si)N hard coatings revealed by in-situ high-temperature high-energy grazing incidence transmission X-ray diffraction. <i>Acta Materialia</i> , 2020 , 186, 545-554	8.4	18
342	Molecular Coverage Determines Sliding Wear Behavior of -Octadecylphosphonic Acid Functionalized Cu-O Coated Steel Disks against Aluminum. <i>Materials</i> , 2020 , 13,	3.5	2
341	Sputter deposition of NiW films from a rotatable target. <i>Applied Surface Science</i> , 2020 , 511, 145616	6.7	2
340	Thermal crack formation in TiCN/Al ₂ O ₃ bilayer coatings grown by thermal CVD on WC-Co substrates with varied Co content. <i>Surface and Coatings Technology</i> , 2020 , 392, 125687	4.4	14
339	Reactively sputtered TiN/SiO ₂ multilayer coatings with designed anisotropic thermal conductivity □ From theoretical conceptualization to experimental validation. <i>Surface and Coatings Technology</i> , 2020 , 393, 125763	4.4	3
338	Influence of spinodal decomposition and fcc-w phase transformation on global and local mechanical properties of nanolamellar CVD fcc-Ti _{1-x} Al _x N coatings. <i>Materialia</i> , 2020 , 11, 100696	3.2	3
337	The sputter performance of an industrial-scale planar Mo-target over its lifetime: Target erosion and film properties. <i>Surface and Coatings Technology</i> , 2020 , 381, 125174	4.4	6
336	Surface oxidation of nanocrystalline CVD TiB ₂ hard coatings revealed by cross-sectional nano-analytics and in-situ micro-cantilever testing. <i>Surface and Coatings Technology</i> , 2020 , 399, 126181	4.4	5
335	Multi-scale interface design of strong and damage resistant hierarchical nanostructured materials. <i>Materials and Design</i> , 2020 , 196, 109169	8.1	6
334	Nanoscale stress distributions and microstructural changes at scratch track cross-sections of a deformed brittle-ductile CrN-Cr bilayer. <i>Materials and Design</i> , 2020 , 195, 109023	8.1	1
333	Balancing the electro-mechanical and interfacial performance of Mo-based alloy films. <i>Materialia</i> , 2020 , 12, 100774	3.2	4
332	Stress relaxation through thermal crack formation in CVD TiCN coatings grown on WC-Co with different Co contents. <i>International Journal of Refractory Metals and Hard Materials</i> , 2020 , 86, 105102	4.1	9

331	Thermal crack network on CVD TiCN/Al ₂ O ₃ coated cemented carbide cutting tools. <i>International Journal of Refractory Metals and Hard Materials</i> , 2019 , 81, 1-6	4.1	20
330	Thermal stability of nanolamellar fcc-Ti _{1-x} Al _x N grown by chemical vapor deposition. <i>Acta Materialia</i> , 2019 , 174, 195-205	8.4	13
329	Exceptional fracture resistance of ultrathin metallic glass films due to an intrinsic size effect. <i>Scientific Reports</i> , 2019 , 9, 8281	4.9	7
328	The effect of B and C addition on microstructure and mechanical properties of TiN hard coatings grown by chemical vapor deposition. <i>Thin Solid Films</i> , 2019 , 688, 137283	2.2	16
327	Thermal expansion of magnetron sputtered TiC _x N _{1-x} coatings studied by high-temperature X-ray diffraction. <i>Thin Solid Films</i> , 2019 , 688, 137307	2.2	15
326	Microstructure and mechanical properties of CVD TiN/TiBN multilayer coatings. <i>Surface and Coatings Technology</i> , 2019 , 370, 311-319	4.4	34
325	Tribological testing of leather surface coated with sputter-deposited Ti-Ag-O films. <i>Tribology International</i> , 2019 , 137, 59-65	4.9	2
324	Structure-stress relationships in nanocrystalline multilayered Al _{0.7} Cr _{0.3} N/Al _{0.9} Cr _{0.1} N coatings studied by cross-sectional X-ray nanodiffraction. <i>Materials and Design</i> , 2019 , 170, 107702	8.1	8
323	Antibacterial Silicon Oxide Thin Films Doped with Zinc and Copper Grown by Atmospheric Pressure Plasma Chemical Vapor Deposition. <i>Nanomaterials</i> , 2019 , 9,	5.4	12
322	Plasma-Derived Graphene-Based Materials for Water Purification and Energy Storage. <i>Journal of Carbon Research</i> , 2019 , 5, 16	3.3	3
321	Oxidation and wet-etching behavior of MoAlTi thin films deposited by sputtering from a rotatable MoAlTi compound target. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2019 , 37, 021202	1.3	0
320	Correlation of mechanical damage and electrical behavior of Al/Mo bilayers subjected to bending. <i>Thin Solid Films</i> , 2019 , 687, 137480	2.2	4
319	Nanostructured Fe-Ni Sulfide: A Multifunctional Material for Energy Generation and Storage. <i>Catalysts</i> , 2019 , 9, 597	4	12
318	Arc-produced short-length multi-walled carbon nanotubes as fillstones for the preparation of graphene-like nanoplatelets. <i>Carbon</i> , 2019 , 146, 779-784	10.4	6
317	Electrodeposited Nanostructured CoFe ₂ O ₄ for Overall Water Splitting and Supercapacitor Applications. <i>Catalysts</i> , 2019 , 9, 176	4	40
316	Crack deflecting microstructure for improved electro-mechanical lifetimes of flexible systems. <i>Materials Letters</i> , 2019 , 244, 47-49	3.3	3
315	Stress-controlled decomposition routes in cubic AlCrN films assessed by in-situ high-temperature high-energy grazing incidence transmission X-ray diffraction. <i>Scientific Reports</i> , 2019 , 9, 18027	4.9	5
314	Compressive and tensile bending of sputter deposited Al/Mo bilayers. <i>Scripta Materialia</i> , 2019 , 162, 367-371	3.1	14

313	Thermal stability of immiscible sputter-deposited Cu-Mo thin films. <i>Journal of Alloys and Compounds</i> , 2019 , 783, 208-218	5-7	11
312	Effects of reference materials on texture coefficients determined for a CVD Al_2O_3 coating. <i>Surface and Coatings Technology</i> , 2019 , 359, 314-322	4-4	17
311	Evolution of microstructure and mechanical properties of a graded TiAlON thin film investigated by cross-sectional characterization techniques. <i>Surface and Coatings Technology</i> , 2019 , 359, 155-161	4-4	5
310	Anisotropy of fracture toughness in nanostructured ceramics controlled by grain boundary design. <i>Materials and Design</i> , 2019 , 161, 80-85	8-1	19
309	Evolution of structure and residual stress of a fcc/hex-AlCrN multi-layered system upon thermal loading revealed by cross-sectional X-ray nano-diffraction. <i>Acta Materialia</i> , 2019 , 162, 55-66	8-4	22
308	High-temperature tribology and oxidation of $\text{Ti}_{1-x}\text{Al}_x\text{Ta}_y\text{N}$ hard coatings. <i>Surface and Coatings Technology</i> , 2018 , 342, 190-197	4-4	26
307	Oxidation and wet etching behavior of sputtered Mo-Ti-Al films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018 , 36, 021513	2-9	2
306	Novel combustion synthesis of carbon foam-aluminum fluoride nanocomposite materials. <i>Materials and Design</i> , 2018 , 144, 222-228	8-1	6
305	A comparative study on NbOx films reactively sputtered from sintered and cold gas sprayed targets. <i>Applied Surface Science</i> , 2018 , 436, 1157-1162	6-7	5
304	Arc evaporated Ti-Al-N/Cr-Al-N multilayer coating systems for cutting applications. <i>International Journal of Refractory Metals and Hard Materials</i> , 2018 , 72, 83-88	4-1	6
303	Cross-sectional characterization techniques as the basis for knowledge-based design of graded CVD TiN-TiB ₂ coatings. <i>International Journal of Refractory Metals and Hard Materials</i> , 2018 , 71, 280-284	4-1	9
302	Enhanced TiTaN diffusion barriers, grown by a hybrid sputtering technique with no substrate heating, between Si(001) wafers and Cu overlayers. <i>Scientific Reports</i> , 2018 , 8, 5360	4-9	17
301	Microstructure and physical properties of sputter-deposited Cu-Mo thin films. <i>Thin Solid Films</i> , 2018 , 653, 301-308	2-2	7
300	Effects of bias pulse frequencies on reactively sputter deposited NbOx films. <i>Thin Solid Films</i> , 2018 , 660, 335-342	2-2	1
299	Theory-guided metal-decoration of nanoporous carbon for hydrogen storage applications. <i>Surface and Coatings Technology</i> , 2018 , 351, 42-49	4-4	10
298	Linking erosion and sputter performance of a rotatable Mo target to microstructure and properties of the deposited thin films. <i>Surface and Coatings Technology</i> , 2018 , 352, 354-359	4-4	6
297	Sputter deposition of Mo-based multicomponent thin films from rotatable targets: Experiment and simulation. <i>Applied Surface Science</i> , 2018 , 455, 1029-1036	6-7	7
296	Influence of cutting speed and workpiece material on the wear mechanisms of CVD TiCN/ Al_2O_3 coated cutting inserts during turning. <i>Wear</i> , 2018 , 398-399, 90-98	3-5	20

295	Influence of discharge power and bias potential on microstructure and hardness of sputtered amorphous carbon coatings. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018 , 36, 021501	2.9	4
294	Microstructure, mechanical properties and cutting performance of Cr _{1-y} Ta _y N single layer and Ti _{1-x} Al _x N/Cr _{1-y} Ta _y N multilayer coatings. <i>International Journal of Refractory Metals and Hard Materials</i> , 2018 , 71, 211-216	4.1	8
293	30 nm X-ray focusing correlates oscillatory stress, texture and structural defect gradients across multilayered TiN-SiO _x thin film. <i>Acta Materialia</i> , 2018 , 144, 862-873	8.4	36
292	Electro-mechanical behavior of Al/Mo bilayers studied with in situ straining methods. <i>Thin Solid Films</i> , 2018 , 665, 131-136	2.2	16
291	Needle grass array of nanostructured nickel cobalt sulfide electrode for clean energy generation. <i>Surface and Coatings Technology</i> , 2018 , 354, 306-312	4.4	16
290	Complementary High Spatial Resolution Methods in Materials Science and Engineering . <i>Advanced Engineering Materials</i> , 2017 , 19, 1600671	3.5	4
289	Industrial-scale sputter deposition of molybdenum oxide thin films: Microstructure evolution and properties. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2017 , 35, 021504	2.9	13
288	Effect of growth conditions on interface stability and thermophysical properties of sputtered Cu films on Si with and without WTi barrier layers. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2017 , 35, 022201	1.3	4
287	Solvothermal synthesis, nanostructural characterization and gas cryo-adsorption studies in a metal-organic framework (IRMOF-1) material. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 23899-23907	6.7	19
286	Thickness dependence of the electro-mechanical response of sputter-deposited Mo thin films on polyimide: Insights from in situ synchrotron diffraction tensile tests. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 697, 17-23	5.3	28
285	Cold pilgering of duplex steel tubes: The response of austenite and ferrite to excessive cold deformation up to high strains. <i>Materials Characterization</i> , 2017 , 128, 257-268	3.9	6
284	Hierarchical Architectures to Enhance Structural and Functional Properties of Brittle Materials . <i>Advanced Engineering Materials</i> , 2017 , 19, 1600683	3.5	10
283	Phase composition and thermal stability of arc evaporated Ti _{1-x} Al _x N hard coatings with 0.4 x 0.67. <i>Surface and Coatings Technology</i> , 2017 , 309, 687-693	4.4	24
282	Non-reactive dc magnetron sputter deposition of Mo-O thin films from ceramic MoO _x targets. <i>Surface and Coatings Technology</i> , 2017 , 332, 80-85	4.4	8
281	A correlative experimental and ab initio approach to improve the fracture behavior of Mo thin films by alloying with Cu. <i>Applied Physics Letters</i> , 2017 , 111, 134101	3.4	4
280	Influence of Ar ion etching on the surface topography of cemented carbide cutting inserts. <i>International Journal of Refractory Metals and Hard Materials</i> , 2017 , 69, 234-239	4.1	15
279	Tailoring age hardening of Ti _{1-x} Al _x N by Ta alloying. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2017 , 35, 060604	2.9	11
278	Nanoporous activated carbon cloth as a versatile material for hydrogen adsorption, selective gas separation and electrochemical energy storage. <i>Nano Energy</i> , 2017 , 40, 49-64	17.1	63

277	Deformation behavior of Re alloyed Mo thin films on flexible substrates: In situ fragmentation analysis supported by first-principles calculations. <i>Scientific Reports</i> , 2017 , 7, 7374	4.9	14
276	Chemical composition and properties of MoAl thin films deposited by sputtering from MoAl compound targets. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2017 , 35, 041504	2.9	5
275	Grain boundary design of thin films: Using tilted brittle interfaces for multiple crack deflection toughening. <i>Acta Materialia</i> , 2017 , 122, 130-137	8.4	48
274	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
273	Influence of varying nitrogen partial pressures on microstructure, mechanical and optical properties of sputtered TiAlON coatings. <i>Acta Materialia</i> , 2016 , 119, 26-34	8.4	14
272	In-situ Observation of Cross-Sectional Microstructural Changes and Stress Distributions in Fracturing TiN Thin Film during Nanoindentation. <i>Scientific Reports</i> , 2016 , 6, 22670	4.9	38
271	Finite element study of the influence of hard coatings on hard metal tool loading during milling. <i>Surface and Coatings Technology</i> , 2016 , 304, 134-141	4.4	41
270	Microstructure, mechanical and optical properties of TiAlON coatings sputter-deposited with varying oxygen partial pressures. <i>Journal Physics D: Applied Physics</i> , 2016 , 49, 025307	3	9
269	Al-rich cubic Al _{0.8} Ti _{0.2} N coating with self-organized nano-lamellar microstructure: Thermal and mechanical properties. <i>Surface and Coatings Technology</i> , 2016 , 291, 89-93	4.4	32
268	Influence of surface topography on early stages on steel galling of coated WC-Co hard metals. <i>International Journal of Refractory Metals and Hard Materials</i> , 2016 , 57, 24-30	4.1	21
267	Combinatorial synthesis of Cr _{1-x} Al _x N and Ta _{1-x} Al _x N coatings using industrial scale co-sputtering. <i>Surface Engineering</i> , 2016 , 32, 252-257	2.6	6
266	Few-layer graphene-like flakes derived by plasma treatment: A potential material for hydrogen adsorption and storage. <i>Microporous and Mesoporous Materials</i> , 2016 , 225, 482-487	5.3	32
265	Improvement of oxidation and corrosion resistance of Mo thin films by alloying with Ta. <i>Thin Solid Films</i> , 2016 , 599, 1-6	2.2	16
264	Advanced characterization methods for wear resistant hard coatings: A review on recent progress. <i>Surface and Coatings Technology</i> , 2016 , 285, 31-46	4.4	88
263	Structure evolution in reactively sputtered molybdenum oxide thin films. <i>Vacuum</i> , 2016 , 131, 246-251	3.7	26
262	Effect of discharge power on target poisoning and coating properties in reactive magnetron sputter deposition of TiN. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2016 , 34, 041517	2.9	12
261	TiN diffusion barrier failure by the formation of Cu ₃ Si investigated by electron microscopy and atom probe tomography. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2016 , 34, 022202	1.3	9
260	The electro-mechanical behavior of sputter-deposited Mo thin films on flexible substrates. <i>Thin Solid Films</i> , 2016 , 606, 45-50	2.2	36

259	Fracture toughness enhancement of brittle nanostructured materials by spatial heterogeneity: A micromechanical proof for CrN/Cr and TiN/SiO _x multilayers. <i>Materials and Design</i> , 2016 , 104, 227-234	8.1	43
258	Energy consumption and material fluxes in hard coating deposition processes. <i>Surface and Coatings Technology</i> , 2016 , 299, 49-55	4.4	9
257	Few-step synthesis, thermal purification and structural characterization of porous boron nitride nanoplatelets. <i>Materials and Design</i> , 2016 , 110, 540-548	8.1	19
256	Nanoporous spongy graphene: Potential applications for hydrogen adsorption and selective gas separation. <i>Thin Solid Films</i> , 2015 , 596, 242-249	2.2	17
255	Nitrogen atom shift and the structural change in chromium nitride. <i>Acta Materialia</i> , 2015 , 98, 119-127	8.4	4
254	The peculiarity of the metal-ceramic interface. <i>Scientific Reports</i> , 2015 , 5, 11460	4.9	18
253	Restrictions of stress measurements using the curvature method by thermally induced plastic deformation of silicon substrates. <i>Surface and Coatings Technology</i> , 2015 , 274, 68-75	4.4	11
252	Mechanical property enhancement in laminates through control of morphology and crystal orientation. <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 295303	3	14
251	Synthesis of nanoporous graphene oxide adsorbents by freeze-drying or microwave radiation: Characterization and hydrogen storage properties. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 6844-6852	6.7	27
250	Functional Thin Films for Display and Microelectronics Applications. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2015 , 160, 231-234	0.6	7
249	Influence of pulsed bias duty cycle variations on structural and mechanical properties of arc evaporated (Al,Cr) ₂ O ₃ coatings. <i>Surface and Coatings Technology</i> , 2015 , 282, 43-51	4.4	21
248	Microstructure-controlled depth gradients of mechanical properties in thin nanocrystalline films: Towards structure-property gradient functionalization. <i>Journal of Applied Physics</i> , 2015 , 117, 235301	2.5	12
247	Copper diffusion into single-crystalline TiN studied by transmission electron microscopy and atom probe tomography. <i>Thin Solid Films</i> , 2015 , 574, 103-109	2.2	13
246	X-ray nanodiffraction reveals stress distribution across an indented multilayered CrN/Cr thin film. <i>Acta Materialia</i> , 2015 , 85, 24-31	8.4	48
245	Origin of temperature-induced low friction of sputtered Si-containing amorphous carbon coatings. <i>Acta Materialia</i> , 2015 , 82, 437-446	8.4	30
244	Resolving depth evolution of microstructure and hardness in sputtered CrN film. <i>Thin Solid Films</i> , 2015 , 581, 75-79	2.2	12
243	Cu diffusion in single-crystal and polycrystalline TiN barrier layers: A high-resolution experimental study supported by first-principles calculations. <i>Journal of Applied Physics</i> , 2015 , 118, 085307	2.5	28
242	Effect of wavelength modulation of arc evaporated TiAlN/TiAl _{0.5} N multilayer coatings on microstructure and mechanical/tribological properties. <i>Thin Solid Films</i> , 2015 , 581, 20-24	2.2	14

241	Nanoindentation of chemical-vapor deposited Al ₂ O ₃ hard coatings at elevated temperatures. <i>Thin Solid Films</i> , 2015 , 578, 20-24	2.2	27
240	Residual stress gradients in Al ₂ O ₃ hard coatings determined by pencil-beam X-ray nanodiffraction: The influence of blasting media. <i>Surface and Coatings Technology</i> , 2015 , 262, 134-140	4.4	29
239	Seed layer stimulated growth of crystalline high Al containing (Al,Cr) ₂ O ₃ coatings deposited by cathodic arc evaporation. <i>Thin Solid Films</i> , 2014 , 550, 95-104	2.2	31
238	Sputtered molybdenum films: Structure and property evolution with film thickness. <i>Vacuum</i> , 2014 , 99, 149-152	3.7	33
237	Investigation of the origin of compressive residual stress in CVD TiB ₂ hard coatings using synchrotron X-ray nanodiffraction. <i>Surface and Coatings Technology</i> , 2014 , 258, 121-126	4.4	27
236	Temperature-dependent wear mechanisms for magnetron-sputtered AlTiTaN hard coatings. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 15403-11	9.5	11
235	Sputtered Si-containing low-friction carbon coatings for elevated temperatures. <i>Tribology International</i> , 2014 , 77, 15-23	4.9	25
234	Substitution of ThO ₂ by La ₂ O ₃ additions in tungsten electrodes for atmospheric plasma spraying. <i>International Journal of Refractory Metals and Hard Materials</i> , 2014 , 43, 181-185	4.1	5
233	Mechanical and tribological properties of AlTiN/AlCrBN multilayer films synthesized by cathodic arc evaporation. <i>Surface and Coatings Technology</i> , 2014 , 246, 57-63	4.4	12
232	PVD and CVD Hard Coatings 2014 , 449-467		14
231	Mono-textured nanocrystalline thin films with pronounced stress-gradients: On the role of grain boundaries in the stress evolution. <i>Journal of Applied Physics</i> , 2014 , 115, 203507	2.5	10
230	Increased thermal stability of Ti _{1-x} Al _x N/TiN multilayer coatings through high temperature sputter deposition on powder-metallurgical high-speed steels. <i>Surface and Coatings Technology</i> , 2014 , 257, 48-57	4.4	13
229	A combinatorial X-ray sub-micron diffraction study of microstructure, residual stress and phase stability in TiAlN coatings. <i>Surface and Coatings Technology</i> , 2014 , 257, 108-113	4.4	8
228	The effect of droplets in arc evaporated TiAlTaN hard coatings on the wear behavior. <i>Surface and Coatings Technology</i> , 2014 , 257, 95-101	4.4	53
227	Dry-Blasting of Al ₂ O ₃ CVD Hard Coatings: Friction Behaviour and Thermal Stress Relaxation. <i>Tribology Letters</i> , 2013 , 52, 147-154	2.8	21
226	Self-organized periodic soft-hard nanolamellae in polycrystalline TiAlN thin films. <i>Thin Solid Films</i> , 2013 , 545, 29-32	2.2	38
225	C ₂ H ₆ as precursor for low pressure chemical vapor deposition of TiCN hard coatings. <i>Surface and Coatings Technology</i> , 2013 , 215, 127-132	4.4	3
224	Influence of Al and Si content on structure and mechanical properties of arc evaporated AlCrSiN thin films. <i>Thin Solid Films</i> , 2013 , 534, 403-409	2.2	39

223	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
222	Friction reduction by thermal treatment of arc evaporated TiAlTaN coatings in methane. <i>Tribology International</i> , 2013 , 67, 54-60	4.9	2
221	Vanadium containing self-adaptive low-friction hard coatings for high-temperature applications: A review. <i>Surface and Coatings Technology</i> , 2013 , 228, 1-13	4.4	143
220	Origins of microstructure and stress gradients in nanocrystalline thin films: The role of growth parameters and self-organization. <i>Acta Materialia</i> , 2013 , 61, 6255-6266	8.4	48
219	Insights into the atomic and electronic structure triggered by ordered nitrogen vacancies in CrN. <i>Physical Review B</i> , 2013 , 87,	3.3	18
218	Transmission electron microscopy characterization of CrN films on MgO(001). <i>Thin Solid Films</i> , 2013 , 545, 154-160	2.2	3
217	V-alloyed ZrO ₂ coatings with temperature homogenization function for high-temperature sliding contacts. <i>Surface and Coatings Technology</i> , 2013 , 228, 76-83	4.4	8
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58	Low-friction TiN coatings deposited by PACVD. <i>Surface and Coatings Technology</i> , 2003 , 163-164, 451-456	4.4	61
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56	Low-friction PACVD TiN coatings: influence of Cl-content and testing conditions on the tribological properties. <i>Surface and Coatings Technology</i> , 2003 , 174-175, 450-454	4.4	17
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53	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
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50	Industrial applications of PACVD hard coatings. <i>Surface and Coatings Technology</i> , 2003 , 163-164, 716-722	4.4	76
49	Self-organized nanostructures in the TiAlN system. <i>Applied Physics Letters</i> , 2003 , 83, 2049-2051	3.4	477
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42	Morphology and Microstructure of Hard and Superhard ZrTiN Nanocomposite Coatings. <i>Japanese Journal of Applied Physics</i> , 2002 , 41, 6529-6533	1.4	21
41	Characterization of Nanocomposite Coatings in the System Ti-B-N by Analytical Electron Microscopy and X-Ray Photoelectron Spectroscopy 2002 , 101-112		3
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39	Microstructure and mechanical/thermal properties of CrN coatings deposited by reactive unbalanced magnetron sputtering. <i>Surface and Coatings Technology</i> , 2001 , 142-144, 78-84	4.4	189
38	Hard and superhard nanocomposite AlTiN films prepared by magnetron sputtering. <i>Surface and Coatings Technology</i> , 2001 , 142-144, 603-609	4.4	31
37	Fatigue properties of Ti-based hard coatings deposited onto tool steels. <i>Surface and Coatings Technology</i> , 2001 , 142-144, 117-124	4.4	35
36	Oxidation kinetics of sputtered CrN hard coatings. <i>Surface and Coatings Technology</i> , 2001 , 146-147, 222-228	4.4	106
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25	Identification of cracks generated by indentation experiments in hard-coating systems. <i>Surface and Coatings Technology</i> , 1998 , 107, 65-75	4.4	14
24	Low-friction TiN/MoS ₂ coatings produced by dc magnetron co-deposition. <i>Surface and Coatings Technology</i> , 1998 , 108-109, 345-351	4.4	103
23	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
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20	Co-sputtered films within the quasi-binary system TiN-TiB ₂ . <i>Surface and Coatings Technology</i> , 1997 , 94-95, 297-302	4.4	47
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16	Structure and properties of decorative rare-earth hexaboride coatings. <i>Surface and Coatings Technology</i> , 1996 , 86-87, 715-721	4.4	21
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13	Decorative boride coatings based on LaB ₆ . <i>Surface and Coatings Technology</i> , 1995 , 74-75, 1020-1027	4.4	16
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