Christian Mitterer

List of Publications by Year
in descending order

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370 papers	14,720 citations	18436 62 h-index	33814 99 g-index
375 all docs	375 docs citations	375 times ranked	6508 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 Tiâ€“Alâ€“N system. Applied Physics Letters, 2003, 83, 2049-2051.	1.5	529
3	Thermal stability of Alâ€“Crâ€“N hard coatings. Scripta Materialia, 2006, 54, 1847-1851.	2.6	224
4	Microstructure and mechanical/thermal properties of Crâ€“N coatings deposited by reactive unbalanced magnetron sputtering. Surface and Coatings Technology, 2001, 142-144, 78-84.	2.2	207
5	Self-organized nanocolumnar structure in superhard TiB2 thin films. Applied Physics Letters, 2005, 86, 131909.	1.5	192
6	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
7	Vanadium containing self-adaptive low-friction hard coatings for high-temperature applications: A review. Surface and Coatings Technology, 2013, 228, 1-13.	2.2	190
8	Oxidation of vanadium nitride and titanium nitride coatings. Surface Science, 2007, 601, 1153-1159.	0.8	186
9	Structure, mechanical and tribological properties of sputtered Ti1â€“xAlxN coatings with 0.5â‰¤xâ‰¤0.75. Surface and Coatings Technology, 2005, 200, 2358-2365.	2.2	181
10	Borides in Thin Film Technology. Journal of Solid State Chemistry, 1997, 133, 279-291.	1.4	180
11	Application of hard coatings in aluminium die casting â€” soldering, erosion and thermal fatigue behaviour. Surface and Coatings Technology, 2000, 125, 233-239.	2.2	175
12	Microstructure and properties of nanocomposite Tiâ€“Bâ€“N and Tiâ€“Bâ€“C coatings. Surface and Coatings Technology, 1999, 120-121, 405-411.	2.2	170
13	Sputter deposition of ultrahard coatings within the system Ti-B-C-N. Surface and Coatings Technology, 1990, 41, 351-363.	2.2	161
14	MagnÃ©li phase formation of PVD Moâ€“N and Wâ€“N coatings. Surface and Coatings Technology, 2006, 201, 3335-3341.	2.2	159
15	The origin of stresses in magnetron-sputtered thin films with zone T structures. Acta Materialia, 2010, 58, 2621-2633.	3.8	152
16	Influence of high-temperature oxide formation on the tribological behaviour of TiN and VN coatings. Wear, 2007, 262, 1152-1158.	1.5	151
17	Structureâ€“property relationships in single- and dual-phase nanocrystalline hard coatings. Surface and Coatings Technology, 2003, 174-175, 725-731.	2.2	148
18	Calorimetric evidence for frictional self-adaptation of TiAlN/VN superlattice coatings. Surface and Coatings Technology, 2004, 177-178, 341-347.	2.2	142

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19	Structure and properties of hard and superhard Zrâ€“Cuâ€“N nanocomposite coatings. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 289, 189-197.	2.6	139
20	Oxidation kinetics of sputtered Crâ€“N hard coatings. Surface and Coatings Technology, 2001, 146-147, 222-228.	2.2	125
21	A new low-friction concept for Ti1âˆ’xAlxN based coatings in high-temperature applications. Surface and Coatings Technology, 2004, 188-189, 358-363.	2.2	120
22	Thermal stability of sputtered Al2O3 coatings. Surface and Coatings Technology, 2010, 204, 1576-1581.	2.2	119
23	High-temperature properties of nanocomposite TiBxNy and TiBxCy coatings. Surface and Coatings Technology, 2000, 133-134, 131-137.	2.2	117
24	Advanced characterization methods for wear resistant hard coatings: A review on recent progress. Surface and Coatings Technology, 2016, 285, 31-46.	2.2	116
25	A New Low Friction Concept for High Temperatures: Lubricious Oxide Formation on Sputtered VN Coatings. Tribology Letters, 2004, 17, 751-756.	1.2	115
26	Thermal stability of PVD hard coatings. Vacuum, 2003, 71, 279-284.	1.6	113
27	Experiment and simulation of the compositional evolution of Tiâ€“B thin films deposited by sputtering of a compound target. Journal of Applied Physics, 2008, 104, .	1.1	112
28	Low-friction TiNâ€“MoS2 coatings produced by dc magnetron co-deposition. Surface and Coatings Technology, 1998, 108-109, 345-351.	2.2	111
29	Energetic balance and kinetics for the decomposition of supersaturated Ti1âˆ’xAlxN. Acta Materialia, 2007, 55, 1441-1446.	3.8	106
30	Influence of oxide phase formation on the tribological behaviour of Tiâ€“Alâ€“Vâ€“N coatings. Surface and Coatings Technology, 2005, 200, 1731-1737.	2.2	103
31	X-ray nanodiffraction reveals strain and microstructure evolution in nanocrystalline thin films. Scripta Materialia, 2012, 67, 748-751.	2.6	103
32	Nanoporous activated carbon cloth as a versatile material for hydrogen adsorption, selective gas separation and electrochemical energy storage. Nano Energy, 2017, 40, 49-64.	8.2	101
33	Low-stress superhard Tiî—¸B films prepared by magnetron sputtering. Surface and Coatings Technology, 2003, 174-175, 744-753.	2.2	97
34	Abrasive wear of high speed steels: Influence of abrasive particles and primary carbides on wear resistance. Tribology International, 2003, 36, 765-770.	3.0	95
35	Industrial applications of PACVD hard coatings. Surface and Coatings Technology, 2003, 163-164, 716-722.	2.2	89
36	Improved oxidation resistance of TiAlN coatings by doping with Si or B. Surface and Coatings Technology, 2009, 203, 3104-3110.	2.2	86

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37	Non-reactively sputtered TiN and TiB2 films: influence of activation energy on film growth. Surface and Coatings Technology, 1997, 97, 567-573.	2.2	84
38	High-Temperature Tribological Behavior of CrN-Ag Self-lubricating Coatings. Advanced Engineering Materials, 2006, 8, 1125-1129.	1.6	81
39	Finite element simulation of the effect of surface roughness on nanoindentation of thin films with spherical indenters. Surface and Coatings Technology, 2007, 202, 1103-1107.	2.2	79
40	Structureâ€“property relations of arc-evaporated Alâ€“Crâ€“Siâ€“N coatings. Surface and Coatings Technology, 2008, 202, 3555-3562.	2.2	78
41	Size effect of thermal expansion and thermal/intrinsic stresses in nanostructured thin films: Experiment and model. Acta Materialia, 2011, 59, 6631-6645.	3.8	77
42	Multifunctional multi-component PVD coatings for cutting tools. Surface and Coatings Technology, 2005, 200, 1867-1871.	2.2	75
43	On the effect of Ta on improved oxidation resistance of Tiâ€“Alâ€“Taâ€“N coatings. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2009, 27, 554-560.	0.9	74
44	Cathodic arc deposition of (Al,Cr)2O3: Macroparticles and cathode surface modifications. Surface and Coatings Technology, 2011, 206, 1454-1460.	2.2	74
45	The Beneficial Effect of High-Temperature Oxidation on the Tribological Behaviour of V and VN Coatings. Tribology Letters, 2007, 28, 1-7.	1.2	72
46	Age hardening of PACVD TiBN thin films. Scripta Materialia, 2005, 53, 241-245.	2.6	71
47	Annealing of intrinsic stresses in sputtered TiN films: The role of thickness-dependent gradients of point defect density. Surface and Coatings Technology, 2007, 201, 4777-4780.	2.2	71
48	Grain boundary design of thin films: Using tilted brittle interfaces for multiple crack deflection toughening. Acta Materialia, 2017, 122, 130-137.	3.8	71
49	Microstructure and properties of nitride and diboride hard coatings deposited under intense mild-energy ion bombardment. Surface and Coatings Technology, 1999, 116-119, 133-140.	2.2	70
50	The effect of oxide-forming alloying elements on the high temperature wear of a hot work steel. Wear, 2005, 258, 1491-1499.	1.5	70
51	TiAlN based nanoscale multilayer coatings designed to adapt their tribological properties at elevated temperatures. Thin Solid Films, 2005, 485, 160-168.	0.8	70
52	High-temperature low-friction properties of vanadium-alloyed AlCrN coatings. Tribology Letters, 2006, 23, 101-107.	1.2	70
53	Mechanical Size-Effects in Miniaturized and Bulk Materials. Advanced Engineering Materials, 2006, 8, 1033-1045.	1.6	70
54	Structure and properties of TiB2 based coatings prepared by unbalanced DC magnetron sputtering. Surface and Coatings Technology, 1998, 98, 1483-1489.	2.2	69

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55	The influence of bias voltage on structure and mechanical/tribological properties of arc evaporated Tiâ€“Alâ€“Vâ€“N coatings. Surface and Coatings Technology, 2007, 202, 1050-1054.	2.2	68
56	The effect of deposition temperature on microstructure and properties of thermal CVD TiN coatings. International Journal of Refractory Metals and Hard Materials, 2008, 26, 120-126.	1.7	67
57	The effect of droplets in arc evaporated TiAlTaN hard coatings on the wear behavior. Surface and Coatings Technology, 2014, 257, 95-101.	2.2	67
58	Nanocrystalline hard coatings within the quasi-binary system TiNâ€“TiB2. Vacuum, 1998, 50, 313-318.	1.6	66
59	Structureâ€“property relations in ZrCN coatings for tribological applications. Surface and Coatings Technology, 2010, 205, 2134-2141.	2.2	65
60	Electrodeposited Nanostructured CoFe2O4 for Overall Water Splitting and Supercapacitor Applications. Catalysts, 2019, 9, 176.	1.6	65
61	Hard coatings produced by PACVD applied to aluminium die casting. Surface and Coatings Technology, 1999, 116-119, 530-536.	2.2	64
62	Tribological Properties of TiN/Ag Nanocomposite Coatings. Tribology Letters, 2008, 30, 53-60.	1.2	63
63	Low-friction TiN coatings deposited by PACVD. Surface and Coatings Technology, 2003, 163-164, 451-456.	2.2	62
64	Microstructural aspects determining the adhesive wear of tool steels. Wear, 2006, 260, 1028-1034.	1.5	61
65	Nanocomposite Tiâ€“Bâ€“N coatings synthesized by reactive arc evaporation. Acta Materialia, 2006, 54, 4193-4200.	3.8	61
66	A novel approach for determining fracture toughness of hard coatings on the micrometer scale. Scripta Materialia, 2012, 67, 708-711.	2.6	61
67	Oxidation of arc-evaporated Al1â^'xCrxN coatings. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 711-720.	0.9	60
68	Fracture toughness enhancement of brittle nanostructured materials by spatial heterogeneity: A micromechanical proof for CrN/Cr and TiN/SiOx multilayers. Materials and Design, 2016, 104, 227-234.	3.3	60
69	Structureâ€“property relations in Crâ€“C/a-C:H coatings deposited by reactive magnetron sputtering. Surface and Coatings Technology, 2005, 200, 1147-1150.	2.2	59
70	Arc Evaporation of Tiâ€“Alâ€“Taâ€“N Coatings: The Effect of Bias Voltage and Ta on High-temperature Tribological Properties. Tribology Letters, 2008, 30, 91-97.	1.2	59
71	Origins of microstructure and stress gradients in nanocrystalline thin films: The role of growth parameters and self-organization. Acta Materialia, 2013, 61, 6255-6266.	3.8	59
72	Self-Organized Nanostructures in Hard Ceramic Coatings. Advanced Engineering Materials, 2005, 7, 1071-1082.	1.6	58

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73	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
74	Sputter deposition of wear-resistant coatings within the system Zrî—¸Bî—¸N. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 140, 670-675.	2.6	57
75	3D versus 2D finite element simulation of the effect of surface roughness on nanoindentation of hard coatings. Surface and Coatings Technology, 2009, 203, 3286-3290.	2.2	57
76	Finite element study of the influence of hard coatings on hard metal tool loading during milling. Surface and Coatings Technology, 2016, 304, 134-141.	2.2	57
77	Structural and mechanical properties of dc and pulsed dc reactive magnetron sputtered V₂O₅films. Journal Physics D: Applied Physics, 2007, 40, 7716-7719.	1.3	55
78	The effect of increasing V content on structure, mechanical and tribological properties of arc evaporated Tiâ€“Alâ€“Vâ€“N coatings. International Journal of Refractory Metals and Hard Materials, 2009, 27, 502-506.	1.7	55
79	Structure-hardness relations in sputtered Tiâ€“Alâ€“Vâ€“N films. Thin Solid Films, 2003, 444, 189-198.	0.8	54
80	X-ray nanodiffraction reveals stress distribution across an indented multilayered CrNâ€“Cr thin film. Acta Materialia, 2015, 85, 24-31.	3.8	53
81	A transmission electron microscopy study on sputtered Zrî—¸B and Zrî—¸Bî—¸N films. Thin Solid Films, 1991, 201, 123-135.	0.8	52
82	Annealing studies of nanocomposite Tiâ€“Siâ€“C thin films with respect to phase stability and tribological performance. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 429, 90-95.	2.6	52
83	In-situ Observation of Cross-Sectional Microstructural Changes and Stress Distributions in Fracturing TiN Thin Film during Nanoindentation. Scientific Reports, 2016, 6, 22670.	1.6	52
84	Microstructure and mechanical properties of CVD TiN/TiBN multilayer coatings. Surface and Coatings Technology, 2019, 370, 311-319.	2.2	52
85	Co-sputtered films within the quasi-binary system TiN-TiB2. Surface and Coatings Technology, 1997, 94-95, 297-302.	2.2	51
86	30 nm X-ray focusing correlates oscillatory stress, texture and structural defect gradients across multilayered TiN-SiOx thin film. Acta Materialia, 2018, 144, 862-873.	3.8	51
87	Hard coatings for cutting applications: Physical vs. chemical vapor deposition and future challenges for the coatings community. Surface and Coatings Technology, 2022, 429, 127949.	2.2	51
88	Thermally induced self-hardening of nanocrystalline Tiâ€“Bâ€“N thin films. Journal of Applied Physics, 2006, 100, 044301.	1.1	50
89	Structure and stability of phases within the NbNâ€“AlN system. Journal Physics D: Applied Physics, 2010, 43, 145403.	1.3	49
90	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

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91	Influence of Al and Si content on structure and mechanical properties of arc evaporated Alâ€“Crâ€“Siâ€“N thin films. Thin Solid Films, 2013, 534, 403-409.	0.8	48
92	Radioâ€frequency sputter deposition of boron nitride based thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1989, 7, 2646-2651.	0.9	46
93	Microstructure, mechanical and tribological properties of PACVD Ti(B,N) and TiB2 coatings. Surface and Coatings Technology, 2003, 174-175, 1229-1233.	2.2	46
94	Self-organized periodic soft-hard nanolamellae in polycrystalline TiAlN thin films. Thin Solid Films, 2013, 545, 29-32.	0.8	46
95	Corrosion of zirconium boride and zirconium boron nitride coated steels. Surface and Coatings Technology, 1995, 71, 60-66.	2.2	45
96	Oxidation behaviour and tribological properties of arc-evaporated ZrAlN hard coatings. Surface and Coatings Technology, 2012, 206, 2337-2345.	2.2	45
97	Tribological properties of Al2O3 hard coatings modified by mechanical blasting and polishing post-treatment. Wear, 2012, 289, 9-16.	1.5	45
98	Sputter deposition of decorative boride coatings. Vacuum, 1995, 46, 1281-1294.	1.6	44
99	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
100	Thermal stability of nanocomposite CrC/a-C:H thin films. Thin Solid Films, 2007, 515, 5411-5417.	0.8	44
101	Origin of temperature-induced low friction of sputtered Si-containing amorphous carbon coatings. Acta Materialia, 2015, 82, 437-446.	3.8	43
102	The electro-mechanical behavior of sputter-deposited Mo thin films on flexible substrates. Thin Solid Films, 2016, 606, 45-50.	0.8	43
103	Al-rich cubic Al0.8Ti0.2N coating with self-organized nano-lamellar microstructure: Thermal and mechanical properties. Surface and Coatings Technology, 2016, 291, 89-93.	2.2	42
104	Characterization of tribo-layers on self-lubricating plasma-assisted chemical-vapor-deposited TiN coatings. Thin Solid Films, 2004, 460, 125-132.	0.8	40
105	Thermal stability of magnetron sputtered Zrâ€“Siâ€“N films. Surface and Coatings Technology, 2006, 201, 3368-3376.	2.2	40
106	Hardness evolution of Alâ€“Crâ€“N coatings under thermal load. Journal of Materials Research, 2008, 23, 2880-2885.	1.2	40
107	Texture development in polycrystalline CrN coatings: the role of growth conditions and a Cr interlayer. Journal Physics D: Applied Physics, 2009, 42, 075401.	1.3	40
108	Sputtered molybdenum films: Structure and property evolution with film thickness. Vacuum, 2014, 99, 149-152.	1.6	39

#	Article	IF	Citations
109	Fatigue properties of Ti-based hard coatings deposited onto tool steels. Surface and Coatings Technology, 2001, 142-144, 117-124.	2.2	38
110	Recrystallization and grain growth of nanocomposite Tiâ€“Bâ€“N coatings. Thin Solid Films, 2003, 440, 174-179.	0.8	38
111	Structureâ€“propertyâ€“performance relations of high-rate reactive arc-evaporated Tiâ€“Bâ€“N nanocomposite coatings. Surface and Coatings Technology, 2006, 201, 2553-2559.	2.2	38
112	High-temperature tribological behaviour of sputtered NbNx thin films. Surface and Coatings Technology, 2007, 202, 1017-1022.	2.2	38
113	Effect of nitrogen-incorporation on structure, properties and performance of magnetron sputtered CrB2. Surface and Coatings Technology, 2008, 202, 3088-3093.	2.2	38
114	Influence of phase transition on the tribological performance of arc-evaporated AlCrVN hard coatings. Surface and Coatings Technology, 2009, 203, 1101-1105.	2.2	38
115	Nanoporous polymer-derived activated carbon for hydrogen adsorption and electrochemical energy storage. Chemical Engineering Journal, 2022, 427, 131730.	6.6	38
116	CO addition in low-pressure chemical vapour deposition of medium-temperature TiCxN1-x based hard coatings. Surface and Coatings Technology, 2011, 206, 1691-1697.	2.2	37
117	Lateral gradients of phases, residual stress and hardness in a laser heated Ti0.52Al0.48N coating on hard metal. Surface and Coatings Technology, 2012, 206, 4502-4510.	2.2	37
118	Residual stress gradients in Î±-Al2O3 hard coatings determined by pencil-beam X-ray nanodiffraction: The influence of blasting media. Surface and Coatings Technology, 2015, 262, 134-140.	2.2	37
119	Few-layer graphene-like flakes derived by plasma treatment: A potential material for hydrogen adsorption and storage. Microporous and Mesoporous Materials, 2016, 225, 482-487.	2.2	37
120	Investigation of the origin of compressive residual stress in CVD TiB 2 hard coatings using synchrotron X-ray nanodiffraction. Surface and Coatings Technology, 2014, 258, 121-126.	2.2	36
121	Cu diffusion in single-crystal and polycrystalline TiN barrier layers: A high-resolution experimental study supported by first-principles calculations. Journal of Applied Physics, 2015, 118, .	1.1	36
122	Thickness dependence of the electro-mechanical response of sputter-deposited Mo thin films on polyimide: Insights from in situ synchrotron diffraction tensile tests. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 697, 17-23.	2.6	36
123	PACVD TiN/Tiâ€“Bâ€“N multilayers: from micro- to nano-scale. Surface and Coatings Technology, 2004, 177-178, 348-354.	2.2	35
124	High-temperature tribology and oxidation of Ti1âˆ’xâˆ’yAlxTayN hard coatings. Surface and Coatings Technology, 2018, 342, 190-197.	2.2	35
125	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. Acta Materialia, 2019, 162, 55-66.	3.8	35
126	Experimental studies on epitaxially grown TiN and VN films. Thin Solid Films, 2007, 516, 369-373.	0.8	34

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127	Tribological Properties of Reactive Magnetron Sputtered V2O5 and VNâ€“V2O5 Coatings. Tribology Letters, 2008, 30, 21-26.	1.2	34
128	Cross-sectional structure-property relationship in a graded nanocrystalline Ti1â^'xAlxN thin film. Acta Materialia, 2016, 102, 212-219.	3.8	34
129	Effects of reference materials on texture coefficients determined for a CVD Î±-Al2O3 coating. Surface and Coatings Technology, 2019, 359, 314-322.	2.2	34
130	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. Acta Materialia, 2020, 186, 545-554.	3.8	34
131	Hard and superhard nanocomposite Alâ€“Cuâ€“N films prepared by magnetron sputtering. Surface and Coatings Technology, 2001, 142-144, 603-609.	2.2	33
132	Comparative study of Ti1â^'xAlxN coatings alloyed with Hf, Nb, and B. Surface and Coatings Technology, 2005, 200, 113-117.	2.2	33
133	The nanostructure, wear and corrosion performance of arc-evaporated CrBxNy nanocomposite coatings. Surface and Coatings Technology, 2009, 204, 246-255.	2.2	33
134	Microstructure and thermal stability of corundum-type (Al0.5Cr0.5)2O3 solid solution coatings grown by cathodic arc evaporation. Thin Solid Films, 2013, 534, 373-379.	0.8	33
135	Seed layer stimulated growth of crystalline high Al containing (Al,Cr)2O3 coatings deposited by cathodic arc evaporation. Thin Solid Films, 2014, 550, 95-104.	0.8	33
136	Phase composition and thermal stability of arc evaporated Ti1â^'xAlxN hard coatings with 0.4 â‰¤ x â‰¤ 0.67. Surface and Coatings Technology, 2017, 309, 687-693.	2.2	33
137	Tribological behavior of PACVD TiN coatings in the temperature range up to 500 Â°C. Surface and Coatings Technology, 2003, 163-164, 585-590.	2.2	32
138	Structural investigations of aluminum-chromium-nitride hard coatings by Raman micro-spectroscopy. Thin Solid Films, 2006, 515, 2197-2202.	0.8	32
139	Formation mechanisms of low-friction tribo-layers on arc-evaporated TiC1â^'xNx hard coatings. Wear, 2008, 265, 525-532.	1.5	32
140	Thermal crack network on CVD TiCN/Î±-Al2O3 coated cemented carbide cutting tools. International Journal of Refractory Metals and Hard Materials, 2019, 81, 1-6.	1.7	32
141	Thermal crack formation in TiCN/Î±-Al2O3 bilayer coatings grown by thermal CVD on WC-Co substrates with varied Co content. Surface and Coatings Technology, 2020, 392, 125687.	2.2	32
142	Synthesisâ€“structureâ€“property relations for Crâ€“Bâ€“N coatings sputter deposited reactively from a Crâ€“B target with 20at% B. Vacuum, 2008, 82, 771-776.	1.6	31
143	Structural and mechanical properties of diamond-like carbon films deposited by an anode layer source. Thin Solid Films, 2009, 517, 6502-6507.	0.8	31
144	Abrasive and Adhesive Wear Behavior of Arc-Evaporated Al1â^'x CrxN Hard Coatings. Tribology Letters, 2010, 37, 605-611.	1.2	31

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145	Microstructureâ€“property relations of reactively magnetron sputtered VCxNy films. Surface and Coatings Technology, 2011, 205, 3805-3809.	2.2	31
146	Sputtered Si-containing low-friction carbon coatings for elevated temperatures. Tribology International, 2014, 77, 15-23.	3.0	31
147	Nanoindentation of chemical-vapor deposited Al2O3 hard coatings at elevated temperatures. Thin Solid Films, 2015, 578, 20-24.	0.8	31
148	Plasma-assisted pre-treatment for PACVD TiN coatings on tool steel. Surface and Coatings Technology, 2003, 174-175, 687-693.	2.2	30
149	Nanocomposite coatings within the system Tiâ€“Bâ€“N deposited by plasma assisted chemical vapor deposition. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 1084.	1.6	30
150	Stress evolution in CrN/Cr coating systems during thermal straining. Thin Solid Films, 2008, 516, 1972-1976.	0.8	30
151	Influence of residual stresses and grain size on the spinodal decomposition of metastable Ti1âˆ’xAlxN coatings. Surface and Coatings Technology, 2012, 209, 190-196.	2.2	30
152	Synthesis of nanoporous graphene oxide adsorbents by freeze-drying or microwave radiation: Characterization and hydrogen storage properties. International Journal of Hydrogen Energy, 2015, 40, 6844-6852.	3.8	30
153	The effect of B and C addition on microstructure and mechanical properties of TiN hard coatings grown by chemical vapor deposition. Thin Solid Films, 2019, 688, 137283.	0.8	30
154	Interlayer thickness influence on the tribological response of bi-layer coatings. Tribology International, 2010, 43, 108-112.	3.0	29
155	Cross-sectional X-ray nanobeam diffraction analysis of a compositionally graded CrNx thin film. Thin Solid Films, 2013, 542, 1-4.	0.8	29
156	Influence of pulsed bias duty cycle variations on structural and mechanical properties of arc evaporated (Al,Cr)2O3 coatings. Surface and Coatings Technology, 2015, 282, 43-51.	2.2	29
157	Structure evolution in reactively sputtered molybdenum oxide thin films. Vacuum, 2016, 131, 246-251.	1.6	29
158	Substrate and coating damage by arcing during sputtering. Surface and Coatings Technology, 1997, 89, 233-238.	2.2	28
159	The influence of boron content on the tribological performance of Tiâ€“Nâ€“B coatings prepared by thermal CVD. Surface and Coatings Technology, 2006, 201, 4247-4252.	2.2	28
160	Solvothermal synthesis, nanostructural characterization and gas cryo-adsorption studies in a metalâ€“organic framework (IRMOF-1) material. International Journal of Hydrogen Energy, 2017, 42, 23899-23907.	3.8	28
161	Influence of cutting speed and workpiece material on the wear mechanisms of CVD TiCN/Î±-Al2O3 coated cutting inserts during turning. Wear, 2018, 398-399, 90-98.	1.5	28
162	Investigations on the effects of plasma-assisted pre-treatment for plasma-assisted chemical vapour deposition TiN coatings on tool steel. Thin Solid Films, 2004, 461, 277-281.	0.8	27

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163	Titanium doped CVD alumina coatings. Surface and Coatings Technology, 2008, 203, 350-356.	2.2	27
164	Structure, mechanical properties and oxidation behaviour of arc-evaporated NbAlN hard coatings. Surface and Coatings Technology, 2010, 204, 2447-2453.	2.2	27
165	Residual stresses and thermal fatigue in CrN hard coatings characterized by high-temperature synchrotron X-ray diffraction. Thin Solid Films, 2010, 518, 2090-2096.	0.8	27
166	Effect of Pt nanoparticle decoration on the H2 storage performance of plasma-derived nanoporous graphene. Carbon, 2021, 171, 294-305.	5.4	27
167	Materials Engineering for Flexible Metallic Thin Film Applications. Materials, 2022, 15, 926.	1.3	27
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