TiAlN/VN superlattice structured PVD coatings: A new a aluminium alloys for aerospace and automotive compo

Surface and Coatings Technology

201, 265-272

DOI: 10.1016/j.surfcoat.2005.11.106

Citation Report

#	Article	IF	Citations
1	Influence of the Al distribution on the structure, elastic properties, and phase stability of supersaturated Ti1â^'xAlxN. Journal of Applied Physics, 2006, 100, 094906.	1.1	202
2	TEM-EELS study of low-friction superlattice TiAlN/VN coating: the wear mechanisms. Tribology Letters, 2006, 24, 171-178.	1.2	29
3	VmeCN Based Nanoscale Multilayer PVD Coatings Deposited by the Combined High Power Impulse Magnetron Sputtering/Unbalanced Magnetron Sputtering Technology. Plasma Processes and Polymers, 2007, 4, S897-S901.	1.6	8
4	Yttrium-induced structural changes in sputtered Ti1â^'xAlxN thin films. Scripta Materialia, 2007, 57, 357-360.	2.6	42
5	Numerical and experimental study of dry cutting for an aeronautic aluminium alloy (A2024-T351). International Journal of Machine Tools and Manufacture, 2008, 48, 1187-1197.	6.2	245
6	Enhancement of Wet- and MQL-Based Machining of Automotive Alloys Using Cutting Tools with DLC/Polymer Surface Treatments. Journal of Materials Engineering and Performance, 2008, 17, 346-351.	1.2	21
7	Wear behavior of adaptive nano-multilayered TiAlCrN/NbN coatings under dry high performance machining conditions. Surface and Coatings Technology, 2008, 202, 2015-2022.	2.2	58
8	Novel TiAlCN/VCN nanoscale multilayer PVD coatings deposited by the combined high-power impulse magnetron sputtering/unbalanced magnetron sputtering (HIPIMS/UBM) technology. Vacuum, 2008, 82, 1312-1317.	1.6	55
9	Interface structure of epitaxial (111) VN films on (111) MgO substrates. Thin Solid Films, 2008, 517, 1177-1181.	0.8	15
10	Thermal protection of H13 steel by growth of (TiAl)N films by PAPVD pulsed arc technique. Materials Characterization, 2008, 59, 1070-1077.	1.9	18
11	Deposition and Characterization of Hard Coatings in the Material System Vâ€“Alâ€“N by Reactive Magnetron Sputter Deposition. Plasma Processes and Polymers, 2009, 6, S146.	1.6	19
12	Deposition and characterization of non-isostructural (Ti0.7Al0.3N)/(Ti0.3Al0.7N) multilayers. Surface and Coatings Technology, 2009, 203, 1176-1181.	2.2	14
13	CrAlYCN/CrCN nanoscale multilayer PVD coatings deposited by the combined High Power Impulse Magnetron Sputtering/Unbalanced Magnetron Sputtering (HIPIMS/UBM) technology. Surface and Coatings Technology, 2009, 203, 1237-1243.	2.2	25
14	Machine Tools for High Performance Machining. , 2009, , .		98
15	The tribological behavior of bismuth dithiophosphate as waterâ€based additive in aluminium alloy tapping. Industrial Lubrication and Tribology, 2010, 62, 327-331.	0.6	2
16	Pressure-dependent stability of cubic and wurtzite phases within the TiNâ€“AlN and CrNâ€“AlN systems. Scripta Materialia, 2010, 62, 349-352.	2.6	70
17	Influence of Nb on the phase stability of Tiâ€“Alâ€“N. Scripta Materialia, 2010, 63, 807-810.	2.6	44
18	Wear behavior of adaptive nano-multilayered AlTiN/MexN PVD coatings during machining of aerospace alloys. Tribology International, 2010, 43, 1491-1499.	3.0	100

#	Article	IF	Citations
19	Electron energy loss spectroscopy of nano-scale CrAlYN/CrNâ€“CrAlY(O)N/Cr(O)N multilayer coatings deposited by unbalanced magnetron sputtering. Thin Solid Films, 2010, 518, 5121-5127.	0.8	16
20	TiAlCN/VCN nanolayer coatings suitable for machining of Al and Ti alloys deposited by combined high power impulse magnetron sputtering/unbalanced magnetron sputtering. Surface Engineering, 2010, 26, 610-614.	1.1	25
21	Effect of phase transformation on structural, electrical and hydrophobic properties of nanocomposite Ti1â^'xAlxN films. Journal of Alloys and Compounds, 2010, 507, L47-L53.	2.8	10
22	Properties of TiAlCN/VCN Nanoscale Multilayer Coatings Deposited by Mixed High-Power Impulse Magnetron Sputtering (HiPIMS) and Unbalanced Magnetron Sputtering Processesâ€”Impact of HiPIMS During Coating. IEEE Transactions on Plasma Science, 2010, 38, 3062-3070.	0.6	11
23	Structure characterization and tribological study of magnetron sputtered nanocomposite nc-TiAlV(N,C)/a-C coatings. Journal of Materials Chemistry, 2011, 21, 9746.	6.7	32
24	Temperature dependent friction and wear of magnetron sputtered coating TiAlN/VN. Wear, 2011, 271, 2058-2066.	1.5	71
25	Tribological and oxidation behaviour of TiAlCN/VCN nanoscale multilayer coating deposited by the combined HIPIMS/(HIPIMS-UBM) technique. Surface and Coatings Technology, 2011, 205, 2823-2829.	2.2	41
26	Tribology performance and adhesive strength evaluation of TiAlSiN coating. Transactions of Tianjin University, 2011, 17, 248-253.	3.3	3
27	Effect of Al/Ti ratio on the mechanical properties and tribological behaviours of TiAlN coatings deposited by multi-arc ion plating method. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2011, 225, 854-863.	1.0	3
28	Tool life prediction model of uncoated carbide tool in high speed drilling of Al-Si alloy using response surface methodology. International Journal of Surface Science and Engineering, 2012, 6, 112.	0.4	7
29	A non-destructive method for determination of thermal conductivity of YSZ coatings deposited on Si substrates. Materials Chemistry and Physics, 2012, 136, 917-924.	2.0	12
30	Adhesion, atomic structure, and bonding variation at TiN/VN interface by chemical segregation. Surface and Interface Analysis, 2012, 44, 1261-1270.	0.8	6
31	Influence of K2TiF6 in electrolyte on characteristics of the microarc oxidation coating on aluminum alloy. Current Applied Physics, 2012, 12, 1259-1265.	1.1	44
32	Microstructure, chemical states, and mechanical properties of magnetron co-sputtered V1â^'xAlxN coatings. Surface and Coatings Technology, 2013, 232, 311-318.	2.2	24
33	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
34	Novel performance in physical and corrosion resistance HfN/VN coating system. Surface and Coatings Technology, 2013, 221, 182-190.	2.2	21
35	Self-lubricating CrAlN/VN multilayer coatings at room temperature. Applied Surface Science, 2013, 279, 189-196.	3.1	44
36	Diagnostic of corrosionâ€“erosion evolution for [Hf-Nitrides/V-Nitrides] n structures. Thin Solid Films, 2013, 545, 194-199.	0.8	10

#	Article	IF	Citations
37	MECHANICAL AND TRIBOLOGICAL BEHAVIOR OF VN AND HfN FILMS DEPOSITED VIA REACTIVE MAGNETRON SPUTTERING. Surface Review and Letters, 2013, 20, 1350040.	0.5	15
38	Tribofilm Formation As a Result of Complex Interaction at the Tool/Chip Interface during Cutting. Lubricants, 2014, 2, 113-123.	1.2	22
39	Optical properties of nanostructured Al-rich Al1â^'xTixN films. Surface and Coatings Technology, 2014, 257, 63-69.	2.2	15
40	The effect of interlayer composition and thickness on the stabilization of cubic AlN in AlN/Tiâ€“Alâ€“N superlattices. Thin Solid Films, 2014, 565, 94-100.	0.8	23
41	Numerical Modelling of Multilayered Coatings â€“ Latest Developments and Applications. Manufacturing Review, 2014, 1, 8.	0.9	6
42	Atomic scale onset of Al adhesion on Mo2BC. Thin Solid Films, 2015, 589, 707-711.	0.8	5
43	Silicon Strengthened CrAlVN Coatings. Journal of Iron and Steel Research International, 2015, 22, 1118-1125.	1.4	3
44	Annealing studies and oxidation tests of a hybrid multilayer arrangement of cathodic arc evaporated Tiâ€“Alâ€“N and reactively sputtered Taâ€“Alâ€“N coatings. Surface and Coatings Technology, 2015, 283, 89-95.	2.2	10
45	Interaction of Al with O2 exposed Mo2BC. Applied Surface Science, 2015, 332, 699-703.	3.1	21
46	Investigation of (Ti,V)N and TiN/VN coatings on AZ91D Mg alloys. Surface and Coatings Technology, 2015, 284, 252-257.	2.2	20
47	Towards hard yet self-lubricious CrAlSiN coatings. Journal of Alloys and Compounds, 2015, 618, 132-138.	2.8	23
48	A thermomechanical analysis of sticking-sliding zones at the tool-chip interface in dry high-speed machining of aluminium alloy A2024â€“T351: A hybrid Analytical-Fe model. AIP Conference Proceedings, 2016, , .	0.3	0
49	Mechanical strengthening in self-lubricating CrAlN/VN multilayer coatings for improved high-temperature tribological characteristics. Surface and Coatings Technology, 2016, 303, 12-17.	2.2	43
50	Machining of aluminum alloys: a review. International Journal of Advanced Manufacturing Technology, 2016, 86, 3067-3080.	1.5	212
51	Performance evaluation of PVD coatings due to sequential indentation tests. Surface Engineering, 2017, 33, 597-604.	1.1	6
52	Hybrid organic/inorganic nanolaminate structures with enhanced tribo-mechanical properties for optical applications. Surface and Coatings Technology, 2017, 315, 399-407.	2.2	9
53	Correlation of the Debye sheath thickness and (Cr,Al)N coating properties for HPPMS, dcMS, CAE and PCAE processes. Surface and Coatings Technology, 2017, 332, 233-241.	2.2	5
54	Improved interfacial adhesion between TiAlN/DLC multi-layered coatings by controlling the morphology via bias. Surface and Coatings Technology, 2017, 331, 15-20.	2.2	10

#	Article	IF	Citations
55	Analysis of the Frictional Heat Partition in Sticking-sliding Contact for Dry Machining: An Analytical-Numerical Modelling. Procedia CIRP, 2017, 58, 539-542.	1.0	11
56	An ALE approach for the chip formation process in high speed machining with transient cutting conditions: Modeling and experimental validation. International Journal of Mechanical Sciences, 2017, 130, 546-557.	3.6	16
57	Study on cutting force and hole quality of PCD step reamer for reaming ZL102 alloy in dry and wet conditions. International Journal of Advanced Manufacturing Technology, 2017, 90, 1693-1702.	1.5	6
58	High Wear Resistance of Magnetron Sputtered Cr80Si20N Nanocomposite Coatings: Almost Independent of Hardness. Tribology Letters, 2018, 66, 1.	1.2	4
59	Dry machining of aluminum for proper selection of cutting tool: tool performance and tool wear. International Journal of Advanced Manufacturing Technology, 2018, 98, 55-65.	1.5	41
60	Mechanical properties and tribological behaviour of Mo-N coatings deposited via high power impulse magnetron sputtering on temperature sensitive substrates. Tribology International, 2018, 119, 372-380.	3.0	19
61	Temperature in Machining of Aluminum Alloys. , 0, , .		7
62	A Study on the Turning Characteristics and Optimization of MOS₂p and SiCp-Reinforced Al-Si10Mg Metal Matrix Composites. , 0, , .		2
63	Investigation of wear and diffusion processes on rake faces of carbide inserts with Ti-TiN-(Ti,Al,Si)N composite nanostructured coating. Wear, 2018, 416-417, 72-80.	1.5	65
64	Cutting Parameter Selection for Efficient and Sustainable Repair of Holes Made in Hybrid Mgâ€“Tiâ€“Mg Component Stacks by Dry Drilling Operations. Materials, 2018, 11, 1369.	1.3	9
65	Wear behavior of AlCrSiVN coatings at elevated temperature up to 700â€Â°C. Vacuum, 2019, 169, 108876.	1.6	13
66	Effects of DLC/TiAlN-coated die on friction and wear in sheet-metal forming under dry and oil-lubricated conditions: Experimental and numerical studies. Wear, 2019, 438-439, 203040.	1.5	31
67	Structural investigation of Al₂O₃ coatings by <scp>PECVD</scp> with a high deposition rate. International Journal of Applied Ceramic Technology, 2019, 16, 1356-1363.	1.1	5
68	Nanocomposite Multilayer Binary Nitride Coatings Based on Transition and Refractory Metals: Structure and Properties. Coatings, 2019, 9, 155.	1.2	49
69	Enhancing the machining performance by cutting tool surface modifications: a focused review. Machining Science and Technology, 2019, 23, 477-509.	1.4	40
70	Improved tribological property of VN film with the design of pre-oxidized layer. Ceramics International, 2019, 45, 6051-6057.	2.3	14
71	Tribological Aspects of Cutting Tool Wear during the Turning of Stainless Steels. Materials, 2020, 13, 123.	1.3	10
72	Study on Technological Effects of a Precise Grooving of AlSi13MgCuNi Alloy with a Novel WCCo/PCD (DDCC) Inserts. Materials, 2020, 13, 2467.	1.3	12

#	Article	IF	Citations
73	Structure and mechanical properties of architecturally designed Ti-Al-N and Ti-Al-Ta-N-based multilayers. Surface and Coatings Technology, 2020, 385, 125355.	2.2	4
74	Current understanding of surface effects in microcutting. Materials and Design, 2020, 192, 108688.	3.3	37
75	Advances in conventional and nonconventional high-speed machining. , 2021, , 253-286.		0
76	Comparative performance analysis of cemented carbide, TiN, TiAlN, and PCD coated inserts in dry machining of Al 2024 alloy. International Journal of Advanced Manufacturing Technology, 2021, 112, 1461-1481.	1.5	27
77	Performance and wear mechanisms of uncoated, TiAlN, and AlTiN-coated carbide tools in high-speed drilling of Al-Si alloy. International Journal of Advanced Manufacturing Technology, 2021, 113, 2671-2684.	1.5	12
78	Characteristics and Wear Mechanisms of TiAlN-Based Coatings for Machining Applications: A Comprehensive Review. Metals, 2021, 11, 260.	1.0	63
79	High Sensitivity of Fluorine Gas-Assisted FIB-TOF-SIMS for Chemical Characterization of Buried Sublayers in Thin Films. ACS Applied Materials & Interfaces, 2021, 13, 15890-15900.	4.0	11
80	Statistical analysis and modeling of temperature distribution during various milling operations of thin walled aircraft parts. Physica A: Statistical Mechanics and Its Applications, 2021, 570, 125842.	1.2	5
81	Extension and Limits of Depolarization-Fringe Contrast Roughness Method in Sub-Micron Domain. Sensors, 2021, 21, 5572.	2.1	0
82	Al 7075-T651 AlaÅŸÄ±mÄ±nÄ±n TornalanmasÄ±nda Elmas Benzeri Karbon (DLC) Kaplama PerformansÄ±nÄ±n Ä°ncelenmesi. Bitlis Eren Ãœniversitesi Fen Bilimleri Dergisi, 0, , .	0.1	0
83	Modeling of a continuous physical vapor deposition process: Mass transfer limitations by evaporation rate and sonic choking. Applied Thermal Engineering, 2021, 195, 117099.	3.0	2
84	Electrolytic Deposition ofNanocomposite Coatings:Processing, Properties,and Applications. , 2010, , 257-304.		7
85	Carbide Milling Cutter Blades Durability during Machining of AL-SI Casting Alloy. Multidisciplinary Aspects of Production Engineering, 2018, 1, 169-175.	0.2	4
86	Effect of OHâ^' Concentration on the Mechanical andMicrostructural Properties of Microarc OxidatoinCoating Produced on Al7075 Alloy. Korean Journal of Materials Research, 2015, 25, 503-508.	0.1	6
87	Corrosion Properties of Heterostructured [8YSZ/Al2O3]N Coatings as a Function of the Bilayer Number. Journal of Materials Engineering and Performance, 2022, 31, 1679-1692.	1.2	5
88	Transition MetalNitrideâ€“Based NanolayeredMultilayer Coatings andNanocomposite Coatings asNovel Superhard Materials. , 2010, , 439-492.		1
89	Transition Metal Nitrideâ€“Based Nanolayered Multilayer Coatings and Nanocomposite Coatings as Novel Superhard. , 2010, , 427-480.		2
91	Structures, mechanical and tribological properties of (Zr,V)N composite films. Wuli Xuebao/Acta Physica Sinica, 2013, 62, 076202.	0.2	1

#	Article	IF	Citations
92	Machine Tools for the Automotive Industry. , 2009, , 421-435.		0
93	Functional PVD Hard Coatings for High Temperature Cutting Processes. Lecture Notes in Production Engineering, 2021, , 266-274.	0.3	0
94	Fabrication and anticorrosion behavior of a bi-phase TaNbHfZr/CoCrNi multilayer coating through magnetron sputtering. Corrosion Science, 2022, 196, 110020.	3.0	15
95	Fretting tribological performance of DLC, TiAlN and DLC/TiAlN coatings deposited on carburized 18CrNi4A steel. Surface Topography: Metrology and Properties, 2022, 10, 015009.	0.9	1
96	A facile synthesis of Al-doped BaTiO3 thin films by a hydrothermal-galvanic couple method on TiAlN film electrodes. Surface and Coatings Technology, 2022, 434, 128163.	2.2	1
97	Thermal stability, mechanical properties, and tribological performance of TiAlXN coatings: understanding the effects of alloying additions. Journal of Materials Research and Technology, 2022, 17, 961-1012.	2.6	30
98	A Decision-Making Methodology Based on Expert Systems Applied to Machining Tools Condition Monitoring. Mathematics, 2022, 10, 520.	1.1	11
100	Electrochemical response of (Î²-TCP and HA) individual coatings and [Î²-TCP/HA] multilayers coatings exposed to biocompatible environments. Surface and Coatings Technology, 2022, 435, 128266.	2.2	13
101	Tool Wear in Machining of Wrought and Cast Aluminium Alloys: Literature Review. Ä°malat Teknolojileri Ve UygulamalarÄ±, 2021, 2, 34-46.	0.6	1
102	Challenges and coating solutions for wear and corrosion inside Lead Bismuth Eutectic: A review. Surface and Coatings Technology, 2022, 441, 128542.	2.2	33
103	Factors of inhibition of the development of cracks and brittle fracture in nanolayer structures. , 2022, , .		0
104	Turning Investigations of Al 7075 Alloy with ZrCN-Coated WC Inserts: Parametric Optimization and Cutting Temperature Prediction. Lecture Notes in Mechanical Engineering, 2023, , 531-542.	0.3	2
105	Parametric Optimization and Prediction of Material Removal Rate During Turning Al 7075 Alloy with ZrCN-Coated WC Inserts. Lecture Notes in Mechanical Engineering, 2023, , 561-570.	0.3	1
106	Corrosive response for Ti-Si-C-N coating as a function of applied power. Surface and Coatings Technology, 2022, 450, 129005.	2.2	1
107	Ammonium Metavanadate Fabricated by Selective Precipitation of Impurity Chemicals on Inorganic Flocculants. Journal of Renewable Materials, 2023, 11, 1951-1961.	1.1	0
109	Wear Behavior Analysis of TiN/TiAlN Coated Tools in Milling of Inconel 718. Lecture Notes in Mechanical Engineering, 2024, , 784-795.	0.3	2
111	Review of improvement of machinability and surface integrity in machining on aluminum alloys. International Journal of Advanced Manufacturing Technology, 2023, 129, 4743-4779.	1.5	1