

Papken Hovsepien

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2896387/publications.pdf>

Version: 2024-02-01

96
papers

2,918
citations

136950

32
h-index

197818

49
g-index

96
all docs

96
docs citations

96
times ranked

1703
citing authors

#	ARTICLE	IF	CITATIONS
1	A novel plasma nitriding process utilising HIPIMS discharge for enhanced tribological and barrier properties of medical grade alloy surfaces. <i>Materials Letters</i> , 2022, 313, 131782.	2.6	4
2	Microstructure and load bearing capacity of TiN/NbN superlattice coatings deposited on medical grade CoCrMo alloy by HIPIMS. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 132, 105267.	3.1	11
3	Improving the Quality of Friction Stir Welds in Aluminium Alloys. <i>Coatings</i> , 2021, 11, 539.	2.6	3
4	TiN/NbN Nanoscale Multilayer Coatings Deposited by High Power Impulse Magnetron Sputtering to Protect Medical-Grade CoCrMo Alloys. <i>Coatings</i> , 2021, 11, 867.	2.6	6
5	Correlation between the microstructure and corrosion performance of the HIPIMS nitrided bio-grade CoCrMo alloy. <i>Journal of Alloys and Compounds</i> , 2021, 879, 160429.	5.5	4
6	Investigation of High Power Impulse Magnetron Sputtering deposited nanoscale CrN/NbN multilayer coating for tribocorrosion resistance. <i>Wear</i> , 2020, 452-453, 203312.	3.1	6
7	Characterisation of a High-Power Impulse Magnetron Sputtered C/Mo/W wear resistant coating by transmission electron microscopy. <i>Surface and Coatings Technology</i> , 2019, 377, 124853.	4.8	4
8	Six strategies to produce application tailored nanoscale multilayer structured PVD coatings by conventional and High Power Impulse Magnetron Sputtering (HIPIMS). <i>Thin Solid Films</i> , 2019, 688, 137409.	1.8	20
9	Cavitation erosion performance of CrAlN/CrN nanoscale multilayer coatings deposited on Ti6Al4V by HIPIMS. <i>Journal of Alloys and Compounds</i> , 2019, 788, 719-728.	5.5	26
10	Effect of substrate bias voltage on defect generation and their influence on corrosion and tribological properties of HIPIMS deposited CrN/NbN coatings. <i>Surface and Coatings Technology</i> , 2018, 344, 383-393.	4.8	24
11	Novel HIPIMS deposited nanostructured CrN/NbN coatings for environmental protection of steam turbine components. <i>Journal of Alloys and Compounds</i> , 2018, 746, 583-593.	5.5	21
12	Long-term behaviour of Nb and Cr nitrides nanostructured coatings under steam at 650°C. Mechanistic considerations. <i>Journal of Alloys and Compounds</i> , 2018, 739, 549-558.	5.5	7
13	Technical Note: Corrosion Behavior of Post-Deposition Polished Droplet-Embedded Arc Evaporated and Droplet-Free High Power Impulse Magnetron Sputtering/Direct Current Magnetron Sputtering Coatings. <i>Corrosion</i> , 2017, 73, 685-693.	1.1	4
14	Substrate Finishing and Niobium Content Effects on the High-Temperature Corrosion Resistance in Steam Atmosphere of CrN/NbN Superlattice Coatings Deposited by PVD-HIPIMS. <i>Oxidation of Metals</i> , 2017, 87, 455-467.	2.1	3
15	Tribological response and characterization of Mo-W doped DLC coating. <i>Wear</i> , 2017, 376-377, 1622-1629.	3.1	37
16	Defect growth in multilayer chromium nitride/niobium nitride coatings produced by combined high power impulse magnetron sputtering and unbalance magnetron sputtering technique. <i>Thin Solid Films</i> , 2017, 636, 558-566.	1.8	12
17	Performance of HIPIMS deposited CrN/NbN nanostructured coatings exposed to 650°C in pure steam environment. <i>Materials Chemistry and Physics</i> , 2016, 179, 110-119.	4.0	26
18	Development of superlattice CrN/NbN coatings for joint replacements deposited by high power impulse magnetron sputtering. <i>Journal of Materials Science: Materials in Medicine</i> , 2016, 27, 147.	3.6	19

#	ARTICLE	IF	CITATIONS
19	Friction and wear behaviour of Mo-W doped carbon-based coating during boundary lubricated sliding. Applied Surface Science, 2016, 366, 260-274.	6.1	34
20	Tribological behaviour of Mo-W doped carbon-based coating at ambient condition. Tribology International, 2015, 90, 135-147.	5.9	13
21	Air oxidation behaviour of standard PVD and novel HIPIMS coatings at 750°C for 1000 h. Corrosion Engineering Science and Technology, 2015, 50, 118-127.	1.4	0
22	Isothermal and dynamic oxidation behaviour of Mo-W doped carbon-based coating. Applied Surface Science, 2015, 353, 1291-1309.	6.1	10
23	Structure evolution and properties of TiAlCN/VCN coatings deposited by reactive HIPIMS. Surface and Coatings Technology, 2014, 257, 38-47.	4.8	26
24	Enhanced sulphidation/oxidation resistance of Ti-45Al-8Nb alloy by nanostructured CrAlYN/CrN coatings at 750°C. Materials and Corrosion - Werkstoffe Und Korrosion, 2014, 65, 45-60.	1.5	2
25	ZrN coatings deposited by high power impulse magnetron sputtering and cathodic arc techniques. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	2.1	27
26	Enhanced sulphidation/oxidation resistance of Ti-45Al-8Nb alloy by multilayered coatings at 850°C for up to 675 h. Corrosion Engineering Science and Technology, 2014, 49, 590-602.	1.4	1
27	Lubricated sliding wear mechanism of chromium-doped graphite-like carbon coating. Tribology International, 2014, 77, 186-195.	5.9	23
28	Effect of the degree of high power impulse magnetron sputtering utilisation on the structure and properties of TiN films. Thin Solid Films, 2014, 562, 132-139.	1.8	36
29	Microstructure, Oxidation and Tribological Properties of TiAlCN/VCN Coatings Deposited by Reactive HIPIMS. IOP Conference Series: Materials Science and Engineering, 2012, 39, 012011.	0.6	1
30	Structure and properties of ZrN coatings deposited by high power impulse magnetron sputtering technology. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, .	2.1	27
31	Amorphous Boron containing silicon carbo-nitrides created by ion sputtering. Surface and Coatings Technology, 2011, 206, 149-154.	4.8	34
32	Wear of hydrogen free C/Cr PVD coating against Al ₂ O ₃ at room temperature. Wear, 2011, 271, 2150-2156.	3.1	12
33	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.	4.8	41
34	C/CrC nanocomposite coating deposited by magnetron sputtering at high ion irradiation conditions. Journal of Applied Physics, 2011, 110, 073301.	2.5	4
35	Oxidation behaviour of TiAlYN/CrN and CrAlYN/CrN nanoscale multilayer coatings with Al ₂ O ₃ topcoat deposited on ³ TiAl alloys. Materials at High Temperatures, 2011, 28, 324-335.	1.0	7
36	Wear and friction of TiAlN/VN coatings against Al ₂ O ₃ in air at room and elevated temperatures. Acta Materialia, 2010, 58, 2912-2925.	7.9	100

#	ARTICLE	IF	CITATIONS
37	CrN/NbN coatings deposited by HIPIMS: A preliminary study of erosion and corrosion performance. <i>Surface and Coatings Technology</i> , 2010, 204, 1158-1162.	4.8	33
38	Electron energy loss spectroscopy of nano-scale CrAlN/CrN-CrAlY(O)N/Cr(O)N multilayer coatings deposited by unbalanced magnetron sputtering. <i>Thin Solid Films</i> , 2010, 518, 5121-5127.	1.8	16
39	Novel CrAlN/CrN nanoscale multilayer PVD coatings produced by the combined High Power Impulse Magnetron Sputtering/Unbalanced Magnetron Sputtering technique for environmental protection of $\hat{3}$ -TiAl alloys. <i>Surface and Coatings Technology</i> , 2010, 204, 2702-2708.	4.8	36
40	Coatings tribology drivers for high density plasma technologies. <i>Surface Engineering</i> , 2010, 26, 80-96.	2.2	29
41	TiAlCN/VCN nanolayer coatings suitable for machining of Al and Ti alloys deposited by combined high power impulse magnetron sputtering/unbalanced magnetron sputtering. <i>Surface Engineering</i> , 2010, 26, 610-614.	2.2	25
42	Properties of TiAlCN/VCN Nanoscale Multilayer Coatings Deposited by Mixed High-Power Impulse Magnetron Sputtering (HiPIMS) and Unbalanced Magnetron Sputtering Processes: Impact of HiPIMS During Coating. <i>IEEE Transactions on Plasma Science</i> , 2010, 38, 3062-3070.	1.3	11
43	Effect of High Ion Irradiation on the Structure, Properties and High Temperature Tribology of Nanoscale CrAlN/CrN Multilayer Coating Deposited by HIPIMS: HiPIMS Technique. <i>Plasma Processes and Polymers</i> , 2009, 6, S118.	3.0	12
44	CrAlYCN/CrCN nanoscale multilayer PVD coatings deposited by the combined High Power Impulse Magnetron Sputtering/Unbalanced Magnetron Sputtering (HIPIMS/UBM) technology. <i>Surface and Coatings Technology</i> , 2009, 203, 1237-1243.	4.8	25
45	High temperature tribological performance of CrAlN/CrN nanoscale multilayer coatings deposited on $\hat{3}$ -TiAl. <i>Wear</i> , 2009, 267, 965-975.	3.1	34
46	Influence of the bias voltage on the structure and mechanical performance of nanoscale multilayer CrAlN-CrN physical vapor deposition coatings. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2009, 27, 174-182.	2.1	16
47	Thermally grown oxide scales on $\hat{3}$ -TiAl coated with thermal protection systems. <i>Materials at High Temperatures</i> , 2009, 26, 305-316.	1.0	13
48	Degradation of a C/CrC PVD coating after annealing in Ar+H ₂ at 700°C studied by Raman spectroscopy and transmission electron microscopy. <i>Materials at High Temperatures</i> , 2009, 26, 169-176.	1.0	3
49	Structure of duplex CrN/NbN coatings and their performance against corrosion and wear. <i>Surface and Coatings Technology</i> , 2008, 202, 1661-1667.	4.8	18
50	Novel TiAlCN/VCN nanoscale multilayer PVD coatings deposited by the combined high-power impulse magnetron sputtering/unbalanced magnetron sputtering (HIPIMS/UBM) technology. <i>Vacuum</i> , 2008, 82, 1312-1317.	3.5	55
51	Deposition of nanoscale multilayer CrN/NbN physical vapor deposition coatings by high power impulse magnetron sputtering. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2008, 26, 288-296.	2.1	53
52	VmeCN Based Nanoscale Multilayer PVD Coatings Deposited by the Combined High Power Impulse Magnetron Sputtering/Unbalanced Magnetron Sputtering Technology. <i>Plasma Processes and Polymers</i> , 2007, 4, S897-S901.	3.0	8
53	Oxidation Behaviour of Nanoscale Multilayer CrAlN/CrN Coatings Deposited by the Combined High Power Impulse Magnetron Sputtering/Unbalanced Magnetron Sputtering Technique. <i>Plasma Processes and Polymers</i> , 2007, 4, S910-S915.	3.0	7
54	Structure and Wear Mechanisms of Nanostructured TiAlCN/VCN Multilayer Coatings. <i>Plasma Processes and Polymers</i> , 2007, 4, S916-S920.	3.0	12

#	ARTICLE	IF	CITATIONS
55	The role of the tribofilm and roll-like debris in the wear of nanoscale nitride PVD coatings. <i>Wear</i> , 2007, 263, 1328-1334.	3.1	36
56	CrN/NbN superlattice structured coatings with enhanced corrosion resistance achieved by high power impulse magnetron sputtering interface pre-treatment. <i>Thin Solid Films</i> , 2007, 515, 3685-3692.	1.8	55
57	Investigating worn surfaces of nanoscale TiAlN/VN multilayer coating using FIB and TEM. <i>Journal of Physics: Conference Series</i> , 2006, 26, 95-98.	0.4	8
58	Microstructure and properties of novel wear and corrosion resistant CrON/NbON nano-scale multilayer coatings. <i>Surface and Coatings Technology</i> , 2006, 200, 2731-2737.	4.8	12
59	TiAlN/VN superlattice structured PVD coatings: A new alternative in machining of aluminium alloys for aerospace and automotive components. <i>Surface and Coatings Technology</i> , 2006, 201, 265-272.	4.8	112
60	Velocity effects on erosion/corrosion of CrN/NbN superlattice PVD coatings. <i>Surface and Coatings Technology</i> , 2006, 201, 361-370.	4.8	36
61	CrAlN/CrN superlattice coatings deposited by the combined high power impulse magnetron sputtering/unbalanced magnetron sputtering technique. <i>Surface and Coatings Technology</i> , 2006, 201, 4105-4110.	4.8	94
62	Resistance of nanoscale multilayer C/Cr coatings against environmental attack. <i>Surface and Coatings Technology</i> , 2006, 201, 3596-3605.	4.8	21
63	Chromium nitride/niobium nitride nano-scale multilayer coatings deposited at low temperature by the combined cathodic arc/unbalanced magnetron technique. <i>Thin Solid Films</i> , 2006, 503, 133-142.	1.8	19
64	Transmission electron microscopy and energy dispersive X-ray spectroscopy on the worn surface of nano-structured TiAlN/VN multilayer coating. <i>Thin Solid Films</i> , 2006, 497, 203-209.	1.8	39
65	TEM-EELS study of low-friction superlattice TiAlN/VN coating: the wear mechanisms. <i>Tribology Letters</i> , 2006, 24, 171-178.	2.6	29
66	The role of the growth defects on the corrosion resistance of CrN/NbN superlattice coatings deposited at low temperatures. <i>Thin Solid Films</i> , 2006, 503, 143-148.	1.8	64
67	Recent progress in the coating protection of gamma titanium-aluminides. <i>Jom</i> , 2006, 58, 17-21.	1.9	67
68	Influence of ion bombardment on structure and tribological performance of nanoscale multilayer C/Cr PVD coatings. <i>Surface Engineering</i> , 2006, 22, 92-98.	2.2	7
69	Synthesis, Structure, and Applications of Nanoscale Multilayer/Superlattice Structured PVD Coatings. <i>Nanostructure Science and Technology</i> , 2006, , 555-644.	0.1	7
70	A study of the erosion/corrosion of PVD CrN/NbN superlattice coatings in aqueous slurries. <i>Wear</i> , 2005, 259, 256-262.	3.1	29
71	Tribocorrosion testing of stainless steel (SS) and PVD coated SS using a modified scanning reference electrode technique. <i>Wear</i> , 2005, 259, 1472-1481.	3.1	38
72	Influence of the bias voltage on the structure and the tribological performance of nanoscale multilayer C/Cr PVD coatings. <i>Thin Solid Films</i> , 2005, 475, 219-226.	1.8	66

#	ARTICLE	IF	CITATIONS
73	TiAlN based nanoscale multilayer coatings designed to adapt their tribological properties at elevated temperatures. <i>Thin Solid Films</i> , 2005, 485, 160-168.	1.8	70
74	Tribological properties of unbalanced magnetron sputtered nano-scale multilayer coatings TiAlN/VN and TiAlCrYN deposited on plasma nitrided steels. <i>Surface and Coatings Technology</i> , 2005, 193, 39-45.	4.8	48
75	Performance of nano-structured multilayer PVD coating TiAlN/VN in dry high speed milling of aerospace aluminium 7010-T7651. <i>Surface and Coatings Technology</i> , 2005, 200, 123-127.	4.8	26
76	Raman spectroscopy study of C/Cr coatings deposited by the combined steered cathodic ARC/unbalanced magnetron sputtering technique. <i>Surface and Coatings Technology</i> , 2005, 200, 1117-1122.	4.8	14
77	Phase separation and formation of the self-organised layered nanostructure in C/Cr coatings in conditions of high ion irradiation. <i>Surface and Coatings Technology</i> , 2005, 200, 1572-1579.	4.8	42
78	Corrosion resistance of CrN/NbN superlattice coatings grown by various physical vapour deposition techniques. <i>Thin Solid Films</i> , 2005, 488, 1-8.	1.8	27
79	Transmission Electron Microscopy and X-ray Diffraction Investigation of the Microstructure of Nanoscale Multilayer TiAlN/VN Grown by Unbalanced Magnetron Deposition. <i>Journal of Materials Research</i> , 2004, 19, 1093-1104.	2.6	26
80	Structure and tribological behaviour of nanoscale multilayer C/Cr coatings deposited by the combined steered cathodic arc/unbalanced magnetron sputtering technique. <i>Thin Solid Films</i> , 2004, 447-448, 7-13.	1.8	33
81	Comparison of microstructure and mechanical properties of chromium nitride-based coatings deposited by high power impulse magnetron sputtering and by the combined steered cathodic arc/unbalanced magnetron technique. <i>Thin Solid Films</i> , 2004, 457, 270-277.	1.8	196
82	Influence of ion bombardment on the properties and microstructure of unbalanced magnetron deposited niobium coatings. <i>Thin Solid Films</i> , 2004, 460, 94-100.	1.8	13
83	Elemental distributions and substrate rotation in industrial TiAlN/VN superlattice hard PVD coatings. <i>Surface and Coatings Technology</i> , 2004, 183, 275-282.	4.8	46
84	Interrelationship between atomic species, bias voltage, texture and microstructure of nano-scale multilayers. <i>Surface and Coatings Technology</i> , 2004, 184, 225-232.	4.8	38
85	Influence of steering magnetic field on the time-resolved plasma chemistry in cathodic arc discharges. <i>Journal Physics D: Applied Physics</i> , 2004, 37, 2101-2106.	2.8	13
86	Novel coating systems produced by the combined cathodic arc/unbalanced magnetron sputtering for environmental protection of titanium alloys. <i>Surface and Coatings Technology</i> , 2002, 155, 103-111.	4.8	50
87	Recent progress in large-scale production of nanoscale multilayer/superlattice hard coatings. <i>Vacuum</i> , 2002, 69, 27-36.	3.5	75
88	Title is missing!. <i>Journal of Materials Science Letters</i> , 2001, 20, 547-550.	0.5	2
89	Macroparticle induced corrosion for arc bond sputtering CrN/NbN superlattice coatings. <i>Journal of Materials Science Letters</i> , 2001, 20, 1995-1997.	0.5	6
90	Industrial scale manufactured superlattice hard PVD coatings. <i>Surface Engineering</i> , 2001, 17, 15-27.	2.2	117

#	ARTICLE	IF	CITATIONS
91	The corrosion behaviour of macroparticle defects in arc bond-sputtered CrN/NbN superlattice coatings. <i>Surface and Coatings Technology</i> , 2000, 126, 279-287.	4.8	107
92	Wear associated with growth defects in combined cathodic arc/unbalanced magnetron sputtered CrN/NbN superlattice coatings during erosion in alkaline slurry. <i>Surface and Coatings Technology</i> , 2000, 135, 82-90.	4.8	24
93	Properties of various large-scale fabricated TiAlN- and CrN-based superlattice coatings grown by combined cathodic arc/unbalanced magnetron sputter deposition. <i>Surface and Coatings Technology</i> , 2000, 125, 269-277.	4.8	113
94	Corrosion performance of CrN/NbN superlattice coatings deposited by the combined cathodic arc/unbalanced magnetron technique. <i>Vacuum</i> , 1999, 53, 117-121.	3.5	37
95	Cathode poisoning during reactive arc evaporation of titanium in nitrogen atmosphere. <i>Vacuum</i> , 1994, 45, 603-607.	3.5	15
96	Synthesis, Structure, and Applications of Nanoscale Multilayer/Superlattice Structured PVD Coatings. <i>Journal of Applied Surface Science</i> , 2000, 15, 555-644.		0