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List of Publications by Year in descending order

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citations

361296

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63
all docs

63
docs citations

63
times ranked

891
citing authors

#	ARTICLE	IF	CITATIONS
1	Strain-stabilized Al-containing high-entropy sublattice nitrides. Acta Materialia, 2022, 224, 117483.	3.8	19
2	Synthesis and oxidation behavior of Ti _{0.35} Al _{0.65} By (y=1.7±2.4) coatings. Surface and Coatings Technology, 2022, 442, 128190.	2.2	4
3	Phase formation, thermal stability and mechanical properties of Nb-B-C coatings prepared by combinatorial magnetron sputtering. Surface and Coatings Technology, 2022, 433, 128137.	2.2	5
4	Orientation dependence of the fracture mechanisms in (V,Al)N coatings determined by micropillar compression. Journal of Materials Research, 2022, 37, 1003.	1.2	1
5	Probing the onset of wurtzite phase formation in (V,Al)N thin films by transmission electron microscopy and atom probe tomography. Surface and Coatings Technology, 2022, 442, 128235.	2.2	7
6	Ag Surface and Bulk Segregations in Sputtered ZrCuAlNi Metallic Glass Thin Films. Materials, 2022, 15, 1635.	1.3	3
7	Isothermal Oxidation of Ti ₃ Al _{0.6} Ga _{0.4} C ₂ MAX Phase Solid Solution in Air at 1000 Å°C to 1300 Å°C. Journal of the Electrochemical Society, 2022, 169, 031510.	1.3	3
8	Strategies for damage tolerance enhancement in metal/ceramic thin films: Lessons learned from Ti/TiN. Acta Materialia, 2022, 228, 117777.	3.8	22
9	High-resolution spectroscopy quantification of Ti vacancies in Ti _{1-x} O _x thin films. Acta Materialia, 2022, 228, 117777.	3.8	2
10	Influence of ion irradiation-induced defects on phase formation and thermal stability of Ti _{0.27} Al _{0.21} N _{0.52} coatings. Acta Materialia, 2022, 237, 118160.	3.8	7
11	Precipitation-based grain boundary design alters Inter- to Trans-granular Fracture in AlCrN Thin Films. Acta Materialia, 2022, 237, 118156.	3.8	10
12	Enhancing the high temperature oxidation behavior of Cr ₂ AlC coatings by reducing grain boundary nanoporosity. Materials Research Letters, 2021, 9, 127-133.	4.1	13
13	Phase Formation and Thermal Stability of Reactively Sputtered YTaO ₄ -ZrO ₂ Coatings. Materials, 2021, 14, 692.	1.3	6
14	Opportunities of combinatorial thin film materials design for the sustainable development of magnesium-based alloys. Scientific Reports, 2021, 11, 17454.	1.6	7
15	Unravelling the ion-energy-dependent structure evolution and its implications for the elastic properties of (V,Al)N thin films. Acta Materialia, 2021, 214, 117003.	3.8	20
16	Enhanced thermal stability of (Ti,Al)N coatings by oxygen incorporation. Acta Materialia, 2021, 218, 117204.	3.8	26
17	Direct MoB MBene domain formation in magnetron sputtered MoAlB thin films. Nanoscale, 2021, 13, 18077-18083.	2.8	18
18	Thermal stability enhancement of Cr ₂ AlC coatings on Zr by utilizing a double layer diffusion barrier. Journal of the European Ceramic Society, 2020, 40, 1119-1124.	2.8	18

#	ARTICLE	IF	CITATIONS
19	Photochromism: Photochromic Mechanism and Dual-Phase Formation in Oxygen-Containing Rare-Earth Hydride Thin Films (Advanced Optical Materials 19/2020). Advanced Optical Materials, 2020, 8, 2070078.	3.6	1
20	Thermal stability and mechanical properties of sputtered (Hf,Ta,V,W,Zr)-diborides. Acta Materialia, 2020, 200, 559-569.	3.8	50
21	A Proposal for a Composite with Temperature-Independent Thermophysical Properties: HfV ₂ -HfV ₂ O ₇ . Materials, 2020, 13, 5021.	1.3	4
22	Boron Concentration Induced Co-Ta-B Composite Formation Observed in the Transition from Metallic to Covalent Glasses. Condensed Matter, 2020, 5, 18.	0.8	1
23	Electronic excitation of transition metal nitrides by light ions with keV energies. Journal of Physics Condensed Matter, 2020, 32, 405502.	0.7	1
24	Oxidation behaviour of V ₂ AlC MAX phase coatings. Journal of the European Ceramic Society, 2020, 40, 4436-4444.	2.8	33
25	Electric field strength-dependent accuracy of TiAlN thin film composition measurements by laser-assisted atom probe tomography. New Journal of Physics, 2020, 22, 033036.	1.2	14
26	Spinodal decomposition of reactively sputtered (V _{0.64} Al _{0.36}) _{0.49} N _{0.51} thin films. Surface and Coatings Technology, 2020, 389, 125641.	2.2	11
27	Low temperature oxidation behavior of Mo ₂ BC coatings. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 023403.	0.9	1
28	Photochromic Mechanism and Dual-Phase Formation in Oxygen-Containing Rare-Earth Hydride Thin Films. Advanced Optical Materials, 2020, 8, 2000822.	3.6	15
29	Stress-dependent prediction of metastable phase formation for magnetron-sputtered V _{1-x} Al _x N and Ti _{1-x} Al _x N thin films. Acta Materialia, 2020, 196, 313-324.	3.8	20
30	Mechanical properties and thermal stability of reactively sputtered multi-principal-metal Hf-Ta-Ti-V-Zr nitrides. Surface and Coatings Technology, 2020, 389, 125674.	2.2	60
31	Ion energy control via the electrical asymmetry effect to tune coating properties in reactive radio frequency sputtering. Plasma Sources Science and Technology, 2019, 28, 114001.	1.3	22
32	Synthesis and Properties of Orthorhombic MoAlB Coatings. Coatings, 2019, 9, 510.	1.2	17
33	Stress-Dependent Elasticity of TiAlN Coatings. Coatings, 2019, 9, 24.	1.2	20
34	Remote Tracking of Phase Changes in Cr ₂ AlC Thin Films by In-situ Resistivity Measurements. Scientific Reports, 2019, 9, 8266.	1.6	28
35	On the chemical composition of TiAlN thin films - Comparison of ion beam analysis and laser-assisted atom probe tomography with varying laser pulse energy. Thin Solid Films, 2019, 688, 137251.	0.8	17
36	Control over the Phase Formation in Metastable Transition Metal Nitride Thin Films by Tuning the Al-Subplantation Depth. Coatings, 2019, 9, 17.	1.2	19

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37	Microstructural adjustment of carburized steel components towards reducing the quenching-induced distortion. <i>Journal of Materials Processing Technology</i> , 2019, 264, 313-327.	3.1	14
38	Modeling of metastable phase formation for sputtered Ti _{1-x} Al _x N thin films. <i>Acta Materialia</i> , 2019, 165, 615-625.	3.8	34
39	Influence of post-carburizing heat treatment on the core microstructural evolution and the resulting mechanical properties in case-hardened steel components. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 744, 778-789.	2.6	12
40	Experimental quantification of carbon gradients in martensite and its multi-scale effects in a DP steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 718, 250-259.	2.6	14
41	Modifying the nanostructure and the mechanical properties of Mo ₂ BC hard coatings: Influence of substrate temperature during magnetron sputtering. <i>Materials and Design</i> , 2018, 142, 203-211.	3.3	16
42	From quantum to continuum mechanics: studying the fracture toughness of transition metal nitrides and oxynitrides. <i>Materials Research Letters</i> , 2018, 6, 142-151.	4.1	30
43	Electrical resistivity modulation of thermoelectric iron based nanocomposites. <i>Vacuum</i> , 2018, 157, 384-390.	1.6	3
44	Metastable phase formation of Pt-X (X = Ir, Au) thin films. <i>Scientific Reports</i> , 2018, 8, 10198.	1.6	11
45	Ab Initio Guided Low Temperature Synthesis Strategy for Smooth Face-Centred Cubic FeMn Thin Films. <i>Metals</i> , 2018, 8, 384.	1.0	8
46	Unprecedented Al supersaturation in single-phase rock salt structure VAIN films by Al ⁺ subplantation. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	40
47	Electronic energy-loss mechanisms for H, He, and Ne in TiN. <i>Physical Review A</i> , 2017, 96, .	1.0	20
48	HPPMS deposition from composite targets: Effect of two orders of magnitude target power density changes on the composition of sputtered Cr-Al-C thin films. <i>Vacuum</i> , 2017, 145, 285-289.	1.6	20
49	Crystallite size-dependent metastable phase formation of TiAlN coatings. <i>Scientific Reports</i> , 2017, 7, 16096.	1.6	34
50	Extended metastable Al solubility in cubic VAIN by metal-ion bombardment during pulsed magnetron sputtering: film stress vs subplantation. <i>Journal of Applied Physics</i> , 2017, 122, .	1.1	19
51	Phase formation of Nb ₂ AlC investigated by combinatorial thin film synthesis and ab initio calculations. <i>Journal of the European Ceramic Society</i> , 2017, 37, 35-41.	2.8	7
52	Unprecedented thermal stability of inherently metastable titanium aluminum nitride by point defect engineering. <i>Materials Research Letters</i> , 2017, 5, 158-169.	4.1	73
53	High-throughput exploration of thermoelectric and mechanical properties of amorphous NbO ₂ with transition metal additions. <i>Journal of Applied Physics</i> , 2016, 120, .	1.1	11
54	Substrate rotation-induced chemical modulation in Ti-Al-O-N coatings synthesized by cathodic arc in an industrial deposition plant. <i>Surface and Coatings Technology</i> , 2016, 305, 249-253.	2.2	30

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55	Are Mo ₂ BC nanocrystalline coatings damage resistant? Insights from comparative tension experiments. Surface and Coatings Technology, 2016, 289, 213-218.	2.2	29
56	Enhanced thermoelectric performance of amorphous Nb based oxynitrides. Physica B: Condensed Matter, 2015, 479, 96-100.	1.3	10
57	Holistic quantum design of thermoelectric niobium oxynitride. Solid State Communications, 2015, 212, 5-9.	0.9	14
58	Vacancy filling effect in thermoelectric NbO. Journal of Physics Condensed Matter, 2015, 27, 115501.	0.7	10
59	Effect of oxygen incorporation on the structure and elasticity of Ti-Al-O-N coatings synthesized by cathodic arc and high power pulsed magnetron sputtering. Journal of Applied Physics, 2014, 116, .	1.1	51
60	Bonding and elastic properties of amorphous AlYB. Solid State Communications, 2013, 169, 6-9.	0.9	31
61	Surface chemistry of TiAlN and TiAlNO coatings deposited by means of high power pulsed magnetron sputtering. Journal Physics D: Applied Physics, 2013, 46, 084003.	1.3	34
62	Crystallization kinetics of V ₂ AlC. Thin Solid Films, 2012, 520, 1930-1933.	0.8	24
63	Crystallization kinetics of amorphous Cr ₂ AlC thin films. Surface and Coatings Technology, 2011, 206, 599-603.	2.2	78