Per Eklund

List of Publications by Year
in descending order

211 papers	13,822 citations	29994 54 h-index	23472 111 g-index
214 all docs	214 docs citations	214 times ranked	9227 citing authors

#	Article	IF	Citations
1	X-ray photoelectron spectroscopy of select multi-layered transition metal carbides (MXenes). Applied Surface Science, 2016, 362, 406-417.	3.1	1,369
2	Transparent Conductive Two-Dimensional Titanium Carbide Epitaxial Thin Films. Chemistry of Materials, 2014, 26, 2374-2381.	3.2	1,173
3	The M+1AX phases: Materials science and thin-film processing. Thin Solid Films, 2010, 518, 1851-1878.	0.8	934
4	A general Lewis acidic etching route for preparing MXenes with enhanced electrochemical performance in non-aqueous electrolyte. Nature Materials, 2020, 19, 894-899.	13.3	870
5	Element Replacement Approach by Reaction with Lewis Acidic Molten Salts to Synthesize Nanolaminated MAX Phases and MXenes. Journal of the American Chemical Society, 2019, 141, 4730-4737.	6.6	811
6	A Twoâ€Dimensional Zirconium Carbide by Selective Etching of Al₃C₃ from Nanolaminated Zr₃Al₃C₅. Angewandte Chemie - International Edition, 2016, 55, 5008-5013.	7.2	425
7	Flexible thermoelectric materials and devices. Applied Materials Today, 2018, 12, 366-388.	2.3	415
8	Synthesis and Electrochemical Properties of Two-Dimensional Hafnium Carbide. ACS Nano, 2017, 11, 3841-3850.	7.3	370
9	Experimental and theoretical characterization of ordered MAX phases Mo2TiAlC2 and Mo2Ti2AlC3. Journal of Applied Physics, 2015, 118, .	1.1	217
10	Layered ternary M_{n+1}AX_n phases and their 2D derivative MXene: an overview from a thin-film perspective. Journal Physics D: Applied Physics, 2017, 50, 113001.	1.3	216
11	Deposition and characterization of ternary thin films within the Tiâ€“Alâ€“C system by DC magnetron sputtering. Journal of Crystal Growth, 2006, 291, 290-300.	0.7	212
12	Thermal stability of Ti3SiC2 thin films. Acta Materialia, 2007, 55, 1479-1488.	3.8	198
13	Halogenated Ti₃C₂ MXenes with Electrochemically Active Terminals for High-Performance Zinc Ion Batteries. ACS Nano, 2021, 15, 1077-1085.	7.3	183
14	Growth and characterization of MAX-phase thin films. Surface and Coatings Technology, 2005, 193, 6-10.	2.2	176
15	Synthesis of Two-Dimensional Nb_{1.33}C (MXene) with Randomly Distributed Vacancies by Etching of the Quaternary Solid Solution (Nb_{2/3}Sc_{1/3})₂AlC MAX Phase. ACS Applied Nano Materials, 2018, 1, 2455-2460.	2.4	154
16	Lowâ€Temperature Superionic Conductivity in Strained Yttriaâ€Stabilized Zirconia. Advanced Functional Materials, 2010, 20, 2071-2076.	7.8	150
17	Synthesis of Ti3AuC2, Ti3Au2C2 and Ti3IrC2 by noble metal substitution reaction in Ti3SiC2 for high-temperature-stable Ohmic contacts to SiC. Nature Materials, 2017, 16, 814-818.	13.3	142
18	Mo₂Ga₂C: a new ternary nanolaminated carbide. Chemical Communications, 2015, 51, 6560-6563.	2.2	141

#	Article	IF	Citations
19	Epitaxial Ti2GeC, Ti3GeC2, and Ti4GeC3 MAX-phase thin films grown by magnetron sputtering. Journal of Materials Research, 2005, 20, 779-782.	1.2	125
20	Synthesis of the new MAX phase Zr 2 AlC. Journal of the European Ceramic Society, 2016, 36, 1847-1853.	2.8	116
21	Transition-metal-nitride-based thin films as novel energy harvesting materials. Journal of Materials Chemistry C, 2016, 4, 3905-3914.	2.7	110
22	Structural, mechanical and electrical-contact properties of nanocrystalline-NbC/amorphous-C coatings deposited by magnetron sputtering. Surface and Coatings Technology, 2011, 206, 354-359.	2.2	107
23	Phase tailoring of Ta thin films by highly ionized pulsed magnetron sputtering. Thin Solid Films, 2007, 515, 3434-3438.	0.8	104
24	Tailoring of the thermal expansion of Cr2(Alx,Ge1â^'x)C phases. Journal of the European Ceramic Society, 2013, 33, 897-904.	2.8	99
25	High-power impulse magnetron sputtering of Tiâ€"Siâ€"C thin films from a Ti3SiC2 compound target. Thin Solid Films, 2006, 515, 1731-1736.	0.8	96
26	Anomalously high thermoelectric power factor in epitaxial ScN thin films. Applied Physics Letters, 2011, 99, .	1.5	84
27	Multielemental singleâ€"atom-thick <i>A</i> layers in nanolaminated V ₂ (Sn, <i>A</i>) C () Tj ETQq1 1 0.784314 rgBT / O Sciences of the United States of America, 2020, 117, 820-825.	3.3	84
28	Ti_{n+1}C_n MXenes with fully saturated and thermally stable Cl terminations. Nanoscale Advances, 2019, 1, 3680-3685.	2.2	81
29	Thermal Stability and Phase Transformations of <i>Î³</i>â€łAmorphousâ€Al₂O₃ Thin Films. Plasma Processes and Polymers, 2009, 6, S907.	1.6	80
30	Sputter deposition from a Ti2AlC target: Process characterization and conditions for growth of Ti2AlC. Thin Solid Films, 2010, 518, 1621-1626.	0.8	77
31	Ta4AlC3: Phase determination, polymorphism and deformation. Acta Materialia, 2007, 55, 4723-4729.	3.8	75
32	Structural and chemical determination of the new nanolaminated carbide Mo2Ga2C from first principles and materials analysis. Acta Materialia, 2015, 99, 157-164.	3.8	75
33	Electronic and optical characterization of 2D Ti₂C and Nb₂C (MXene) thin films. Journal of Physics Condensed Matter, 2019, 31, 165301.	0.7	74
34	Î±-Cr2O3 template-texture effect on Î±-Al2O3 thin-film growth. Thin Solid Films, 2008, 516, 7447-7450.	0.8	73
35	Discovery of the Ternary Nanolaminated Compound<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Nb</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>GeC</mml:mi></mml:math>by a Systematic Theoretical-Experimental Approach. Physical Review Letters, 2012, 109, 035502.	2.9	73
36	Nanostructural Tailoring to Induce Flexibility in Thermoelectric Ca₃Co₄O₉ Thin Films. ACS Applied Materials & Interfaces, 2017, 9, 25308-25316.	4.0	70

#	Article	IF	Citations
37	Structural, electrical, and mechanical properties of nc-TiCâˆ•a-SiC nanocomposite thin films. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 2486.	1.6	69
38	Ohmic contact properties of magnetron sputtered Ti3SiC2 on n- and p-type 4H-silicon carbide. Applied Physics Letters, 2011, 98, .	1.5	67
39	Variable range hopping and thermally activated transport in molybdenum-based MXenes. Physical Review B, 2018, 98, .	1.1	66
40	Effect of point defects on the electronic density of states of ScN studied by first-principles calculations and implications for thermoelectric properties. Physical Review B, 2012, 86, .	1.1	65
41	Structural and mechanical properties of Crâ€“Alâ€“Oâ€“N thin films grown by cathodic arc deposition. Acta Materialia, 2012, 60, 6494-6507.	3.8	65
42	Dirac points with giant spin-orbit splitting in the electronic structure of two-dimensional transition-metal carbides. Physical Review B, 2015, 92, .	1.1	65
43	A Twoâ€Dimensional Zirconium Carbide by Selective Etching of Al₃C₃ from Nanolaminated Zr₃Al₃C₅. Angewandte Chemie, 2016, 128, 5092-5097.	1.6	65
44	Effect of carbide interlayers on the microstructure and properties of graphene-nanoplatelet-reinforced copper matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 708, 311-318.	2.6	65
45	Wet-cleaning of MgO(001): Modification of surface chemistry and effects on thin film growth investigated by x-ray photoelectron spectroscopy and time-of-flight secondary ion mass spectroscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	63
46	Face-centered cubic (Al1âˆ’xCrx)2O3. Thin Solid Films, 2011, 519, 2426-2429.	0.8	60
47	Electronic structure investigation ofTi3AlC2,Ti3SiC2, andTi3GeC2by soft x-ray emission spectroscopy. Physical Review B, 2005, 72, .	1.1	59
48	Texture and microstructure of Cr2O3 and (Cr,Al)2O3 thin films deposited by reactive inductively coupled plasma magnetron sputtering. Thin Solid Films, 2010, 518, 4294-4298.	0.8	59
49	Single-Atom-Thick Active Layers Realized in Nanolaminated Ti₃(Al_{<i>x</i>}Cu_{1â€“<i>x</i>})C₂ and Its Artificial Enzyme Behavior. ACS Nano, 2019, 13, 9198-9205.	7.3	59
50	Magnetron sputtering of Ti3SiC2 thin films from a compound target. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 1381-1388.	0.9	58
51	Structural investigation of substoichiometry and solid solution effects in Ti2Al(Cx,N1âˆ’x)y compounds. Journal of the European Ceramic Society, 2012, 32, 1803-1811.	2.8	58
52	XPS of cold pressed multilayered and freestanding delaminated 2D thin films of Mo2TiC2Tz and Mo2Ti2C3Tz (MXenes). Applied Surface Science, 2019, 494, 1138-1147.	3.1	58
53	Synthesis of MAX phases Nb₂CuC and Ti₂(Al_{0.1}Cu_{0.9})N by A-site replacement reaction in molten salts. Materials Research Letters, 2019, 7, 510-516.	4.1	58
54	Epitaxial growth and electrical transport properties of Cr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>GeC thin films. Physical Review B, 2011, 84, .	1.1	56

#	Article	IF	Citations
55	Structural, electrical and mechanical characterization of magnetron-sputtered Vâ€"Geâ€"C thin films. Acta Materialia, 2008, 56, 2563-2569.	3.8	55
56	Nanoporous Ca₃Co₄O₉ Thin Films for Transferable Thermoelectrics. ACS Applied Energy Materials, 2018, 1, 2261-2268.	2.5	54
57	Ti₂Au₂C and Ti₃Au₂C₂ formed by solid state reaction of gold with Ti₂AlC and Ti₃AlC₂. Chemical Communications, 2017, 53, 9554-9557.	2.2	53
58	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
59	Cold-spray deposition of Ti2AlC coatings. Vacuum, 2013, 94, 69-73.	1.6	52
60	Superhard NbB2âˆ' thin films deposited by dc magnetron sputtering. Surface and Coatings Technology, 2014, 257, 295-300.	2.2	50
61	Sodium hydroxide and vacuum annealing modifications of the surface terminations of a Ti₃C₂(MXene) epitaxial thin film. RSC Advances, 2018, 8, 36785-36790.	1.7	49
62	An upgraded ultra-high vacuum magnetron-sputtering system for high-versatility and software-controlled deposition. Vacuum, 2021, 187, 110137.	1.6	49
63	Ti3SiC2-formation during Tiâ€"Câ€"Si multilayer deposition by magnetron sputtering at 650ÂÂ°C. Vacuum, 2013, 93, 56-59.	1.6	46
64	Contribution of core-loss fine structures to the characterization of ion irradiation damages in the nanolaminated ceramic Ti3AlC2. Acta Materialia, 2013, 61, 7348-7363.	3.8	45
65	Phase stability and initial low-temperature oxidation mechanism of Ti2AlC thin films. Journal of the European Ceramic Society, 2013, 33, 375-382.	2.8	45
66	Phase formation of nanolaminated Mo₂AuC and Mo₂(Au_{1âˆ'x}Ga_x)₂C by a substitutional reaction within Au-capped Mo₂GaC and Mo₂Ga₂C thin films. Nanoscale, 2017, 9, 17681-17687.	2.8	43
67	High-rate deposition of amorphous and nanocomposite Tiâ€"Siâ€"C multifunctional coatings. Surface and Coatings Technology, 2010, 205, 299-305.	2.2	42
68	Homoepitaxial growth of Tiâ€"Siâ€"C MAX-phase thin films on bulk Ti3SiC2 substrates. Journal of Crystal Growth, 2007, 304, 264-269.	0.7	40
69	Anisotropy of the resistivity and charge-carrier sign in nanolaminated Ti<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>AlC: Experiment and<i>ab initio</i>calculations. Physical Review B, 2013, 87, .	1.1	38
70	Microstructure and thermoelectric properties of CrN and CrN/Cr₂N thin films. Journal Physics D: Applied Physics, 2018, 51, 355302.	1.3	38
71	Photoemission studies ofTi3SiC2and nanocrystalline-TiC/amorphous-SiC nanocomposite thin films. Physical Review B, 2006, 74, .	1.1	37
72	Phase transformations in face centered cubic (Al0.32Cr0.68)2O3 thin films. Surface and Coatings Technology, 2012, 206, 3216-3222.	2.2	37

#	Article	IF	Citations
73	Reactive sputtering of NbCx-based nanocomposite coatings: An up-scaling study. Surface and Coatings Technology, 2014, 253, 100-108.	2.2	37
74	Microstructure and mechanical, electrical, and electrochemical properties of sputter-deposited multicomponent (TiNbZrTa)Nx coatings. Surface and Coatings Technology, 2020, 389, 125651.	2.2	37
75	Ionic conductivity and thermal stability of magnetron-sputtered nanocrystalline yttria-stabilized zirconia. Journal of Applied Physics, 2009, 105, 104907.	1.1	36
76	Annealing of Thermally Sprayed Ti2AlC Coatings. International Journal of Applied Ceramic Technology, 2011, 8, 74-84.	1.1	36
77	Micro and macroscale tribological behavior of epitaxial Ti3SiC2 thin films. Wear, 2008, 264, 914-919.	1.5	34
78	Magnetron sputtered gadolinia-doped ceria diffusion barriers for metal-supported solid oxide fuel cells. Journal of Power Sources, 2014, 267, 452-458.	4.0	34
79	Weak electronic anisotropy in the layered nanolaminate Ti 2 GeC. Solid State Communications, 2008, 146, 498-501.	0.9	33
80	Experimental and theoretical investigation of Cr1-xScxN solid solutions for thermoelectrics. Journal of Applied Physics, 2016, 120, .	1.1	33
81	Oxidation behaviour of V2AlC MAX phase coatings. Journal of the European Ceramic Society, 2020, 40, 4436-4444.	2.8	33
82	Bodycote Prize 2006: Best Technical/Scientific Paper Novel ceramic Tiâ€“Siâ€“C nanocomposite coatings for electrical contact applications. Surface Engineering, 2007, 23, 406-411.	1.1	32
83	Flexible n-Type Tungsten Carbide/Polylactic Acid Thermoelectric Composites Fabricated by Additive Manufacturing. Coatings, 2018, 8, 25.	1.2	32
84	Electronic-structure origin of the anisotropic thermopower of nanolaminated Ti<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>SiC<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>determined by polarized x-ray spectroscopy and Seebeck measurements. Physical Review B, 2012, 85, .	1.1	31
85	Mechanism of Formation of the Thermoelectric Layered Cobaltate Ca₃Co₄O₉ by Annealing of CaOâ€“CoO Thin Films. Advanced Electronic Materials, 2015, 1, 1400022.	2.6	31
86	Effect of ion-implantation-induced defects and Mg dopants on the thermoelectric properties of ScN. Physical Review B, 2018, 98, .	1.1	31
87	Effect of impurities on morphology, growth mode, and thermoelectric properties of (1â€‰1â€‰1) and (0â€‰0â€‰1) epitaxial-like ScN films. Journal Physics D: Applied Physics, 2019, 52, 035302.	1.3	31
88	Microstructure evolution of Tiâ€“Siâ€“Câ€“Ag nanocomposite coatings deposited by DC magnetron sputtering. Acta Materialia, 2010, 58, 6592-6599.	3.8	30
89	Phase stability of ScN-based solid solutions for thermoelectric applications from first-principles calculations. Journal of Applied Physics, 2013, 114, 073512.	1.1	30
90	Single-step synthesis process of Ti 3 SiC 2 ohmic contacts on 4H-SiC by sputter-deposition of Ti. Scripta Materialia, 2015, 99, 53-56.	2.6	30

#	Article	IF	Citations
91	Phonon thermal conductivity of scandium nitride for thermoelectrics from first-principles calculations and thin-film growth. Physical Review B, 2017, 96, .	1.1	30
92	Two-Dimensional Hydroxyl-Functionalized and Carbon-Deficient Scandium Carbide, ScC_{<i>x</i>}OH, a Direct Band Gap Semiconductor. ACS Nano, 2019, 13, 1195-1203.	7.3	30
93	Structural and mechanical properties of corundum and cubic (Al Cr1âˆ’)2+O3âˆ’ coatings grown by reactive cathodic arc evaporation in as-deposited and annealed states. Acta Materialia, 2013, 61, 4811-4822.	3.8	29
94	Highly oriented Î´-Bi2O3 thin films stable at room temperature synthesized by reactive magnetron sputtering. Journal of Applied Physics, 2013, 113, 046101.	1.1	29
95	Reduction of the thermal conductivity of the thermoelectric material ScN by Nb alloying. Journal of Applied Physics, 2017, 122, 025116.	1.1	28
96	Flexible ternary carbon black/Bi2Te3 based alloy/polylactic acid thermoelectric composites fabricated by additive manufacturing. Journal of Materiomics, 2020, 6, 293-299.	2.8	27
97	Ti 2 AlN thin films synthesized by annealing of (Ti+Al)/AlN multilayers. Materials Research Bulletin, 2016, 80, 58-63.	2.7	26
98	Thermally induced substitutional reaction of Fe into Mo₂GaC thin films. Materials Research Letters, 2017, 5, 533-539.	4.1	26
99	Epitaxial growth and electrical-transport properties of Ti7Si2C5 thin films synthesized by reactive sputter-deposition. Scripta Materialia, 2011, 65, 811-814.	2.6	25
100	Tiâ€“Bâ€“C nanocomposite coatings deposited by magnetron sputtering. Applied Surface Science, 2012, 258, 9907-9912.	3.1	25
101	Strontium Diffusion in Magnetron Sputtered Gadoliniaâ€Doped Ceria Thin Film Barrier Coatings for Solid Oxide Fuel Cells. Advanced Energy Materials, 2013, 3, 923-929.	10.2	25
102	Si incorporation in Ti1âˆ’xSixN films grown on TiN(001) and (001)-faceted TiN(111) columns. Surface and Coatings Technology, 2014, 257, 121-128.	2.2	25
103	Magnetic properties and structural characterization of layered (Cr0.5Mn0.5)2AuC synthesized by thermally induced substitutional reaction in (Cr0.5Mn0.5)2GaC. APL Materials, 2018, 6, .	2.2	25
104	Deposition of yttria-stabilized zirconia thin films by high power impulse magnetron sputtering and pulsed magnetron sputtering. Surface and Coatings Technology, 2014, 240, 1-6.	2.2	24
105	Industrial-scale high power impulse magnetron sputtering of yttria-stabilized zirconia on porous NiO/YSZ fuel cell anodes. Surface and Coatings Technology, 2015, 281, 150-156.	2.2	24
106	Microstructure and electrical properties of Tiâ€“Siâ€“Câ€“Ag nanocomposite thin films. Surface and Coatings Technology, 2007, 201, 6465-6469.	2.2	23
107	Thermoelectric transport properties of highly oriented FeSb2 thin films. Journal of Applied Physics, 2009, 106, .	1.1	23
108	Ti3AlC2 coatings deposited by liquid plasma spraying. Surface and Coatings Technology, 2016, 299, 123-128.	2.2	23

#	Article	IF	Citations
109	Donor-doped ZnO thin films on mica for fully-inorganic flexible thermoelectrics. Materials Research Letters, 2019, 7, 239-243.	4.1	23
110	Electrochemical Lithium Storage Performance of Molten Salt Derived V2SnC MAX Phase. Nano-Micro Letters, 2021, 13, 158.	14.4	23
111	Early stages of dissolution corrosion in 316L and DIN 1.4970 austenitic stainless steels with and without anticorrosion coatings in static liquid lead-bismuth eutectic (LBE) at 500â€Â°C. Materials Characterization, 2021, 178, 111234.	1.9	23
112	Growth and Property Characterization of Epitaxial MAX-Phase Thin Films from the Ti_{n+1}(Si, Ge, Sn)C_n Systems. Advances in Science and Technology, 2006, 45, 2648.	0.2	22
113	Electrical resistivity of Ti<i>_n</i>₊₁AC<i>_n</i> (A = Si, Ge, Sn, <i>n) Tj ETQq1 1 0.784314 rgBT /	1.2	22
114	P-type Al-doped Cr-deficient CrN thin films for thermoelectrics. Applied Physics Express, 2018, 11, 051003.	1.1	21
115	Thermoelectric Properties of Reduced Graphene Oxide/Bi2Te3 Nanocomposites. Energies, 2019, 12, 2430.	1.6	21
116	Phase-stabilization and substrate effects on nucleation and growth of (Ti,V)<i>n</i>+1GeC<i>n</i> thin films. Journal of Applied Physics, 2011, 110, .	1.1	20
117	Epitaxial TiC/SiC multilayers. Physica Status Solidi - Rapid Research Letters, 2007, 1, 113-115.	1.2	19
118	Orientation dependence of electron energy loss spectra and dielectric functions of Ti3SiC2 and Ti3AlC2. Ultramicroscopy, 2010, 110, 1054-1058.	0.8	19
119	Nb-B-C thin films for electrical contact applications deposited by magnetron sputtering. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	0.9	19
120	Structural, morphological, and optical properties of Bi2O3 thin films grown by reactive sputtering. Thin Solid Films, 2017, 624, 41-48.	0.8	19
121	One-step synthesis of polycrystalline V2AlC thin films on amorphous substrates by magnetron co-sputtering. Vacuum, 2017, 146, 106-110.	1.6	19
122	Characterization of amorphous and nanocomposite Nbâ€"Siâ€"C thin films deposited by DC magnetron sputtering. Thin Solid Films, 2013, 545, 272-278.	0.8	18
123	Solid state formation of Ti4AlN3 in cathodic arc deposited (Ti1â^'xAlx)Ny alloys. Acta Materialia, 2017, 129, 268-277.	3.8	18
124	Incorporation effects of Si in TiC x thin films. Surface and Coatings Technology, 2014, 258, 392-397.	2.2	17
125	Step-flow growth of nanolaminate Ti3SiC2 epitaxial layers on 4H-SiC(0 0 0 1). Scripta Materialia, 2011, 64, 1141-1144.	2.6	16
126	Microstructural and Chemical Analysis of AgI Coatings Used as a Solid Lubricant in Electrical Sliding Contacts. Tribology Letters, 2012, 46, 187-193.	1.2	16

#	Article	IF	Citations
127	Reactive magnetron sputtering of uniform yttria-stabilized zirconia coatings in an industrial setup. Surface and Coatings Technology, 2012, 206, 4126-4131.	2.2	16
128	Theoretical investigation of cubic B1-like and corundum (Cr1â^’<i>x</i>Al<i>x</i>)2O3 solid solutions. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	16
129	Novel transparent MgSiON thin films with high hardness and refractive index. Vacuum, 2016, 131, 1-4.	1.6	16
130	Passive films on nanocomposite carbide coatings for electrical contact applications. Journal of Materials Science, 2017, 52, 8231-8246.	1.7	16
131	Synthesis and characterization of single-phase epitaxial Cr2N thin films by reactive magnetron sputtering. Journal of Materials Science, 2019, 54, 1434-1442.	1.7	16
132	Effect of nitrogen content on microstructure and corrosion resistance of sputter-deposited multicomponent (TiNbZrTa)Nx films. Surface and Coatings Technology, 2020, 404, 126485.	2.2	16
133	Theoretical study of phase stability, crystal and electronic structure of MeMgN2 (MeÂ=ÂTi, Zr, Hf) compounds. Journal of Materials Science, 2018, 53, 4294-4305.	1.7	15
134	Preparation and Thermoelectric Properties of Graphite/poly(3,4-ethyenedioxythiophene) Nanocomposites. Energies, 2018, 11, 2849.	1.6	15
135	Near-room temperature ferromagnetic behavior of single-atom-thick 2D iron in nanolaminated ternary MAX phases. Applied Physics Reviews, 2021, 8, .	5.5	14
136	Intrusion-type deformation in epitaxial Ti3SiC2â^•TiC0.67 nanolaminates. Applied Physics Letters, 2007, 91, .	1.5	13
137	A combinatorial comparison of DC and high power impulse magnetron sputtered Cr2AlC. Surface and Coatings Technology, 2014, 259, 746-750.	2.2	13
138	Mechanochemical Formation of Protein Nanofibril: Graphene Nanoplatelet Hybrids and Their Thermoelectric Properties. ACS Sustainable Chemistry and Engineering, 2020, 8, 17368-17378.	3.2	13
139	Epitaxial growth and thermoelectric properties of Mg3Bi2 thin films deposited by magnetron sputtering. Applied Physics Letters, 2022, 120, .	1.5	13
140	Chromium oxide-based multilayer coatings deposited by reactive magnetron sputtering in an industrial setup. Surface and Coatings Technology, 2008, 203, 156-159.	2.2	12
141	Concentration-dependent ionic conductivity and thermal stability of magnetron-sputtered nanocrystalline scandia-stabilized zirconia. Solid State Ionics, 2010, 181, 1140-1145.	1.3	12
142	High-temperature stability of Î±-Ta4AlC3. Materials Research Bulletin, 2011, 46, 1088-1091.	2.7	12
143	Comment on â€œ<scp><scp>Ti</scp></scp>₅<scp><scp>Al</scp></scp>₂<scp><scp>C</scp></scp>₃: A New Ternary Carbide Belonging to <scp>MAX</scp> Phases in the <scp><scp>Ti</scp></scp>â€"<scp><scp>Al</scp></scp>â€"<scp><scp>C</scp></scp> Systemâ€. Journal of the American Ceramic Society, 2012, 95, 2352-2354.	1.9	12
144	Structural evolution in reactive RF magnetron sputtered (Cr,Zr)2O3 coatings during annealing. Acta Materialia, 2017, 131, 543-552.	3.8	12

#	Article	IF	Citations
145	Non-MAX Phase Precursors for MXenes. , 2019, , 53-68.		12
146	Optical and mechanical properties of amorphous Mg-Si-O-N thin films deposited by reactive magnetron sputtering. Surface and Coatings Technology, 2019, 372, 9-15.	2.2	12
147	Dislocation structure and microstrain evolution during spinodal decomposition of reactive magnetron sputtered heteroepixatial c-(Ti0.37,Al0.63)N/c-TiN films grown on MgO(001) and (111) substrates. Journal of Applied Physics, 2019, 125, .	1.1	12
148	Flexible Thermoelectric Doubleâ€Layer Inorganic/Organic Composites Synthesized by Additive Manufacturing. Advanced Electronic Materials, 2020, 6, 2000214.	2.6	12
149	Electron-phonon coupling and quantum correction to topological magnetoconductivity in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mm Physical Review B, 2022, 105, .	1.1	12
150	Solidâ€State Janus Nanoprecipitation Enables Amorphousâ€Like Heat Conduction in Crystalline Mg₃Sb₂â€Based Thermoelectric Materials. Advanced Science, 2022, 9, .	5.6	12
151	Comment on ?Pulsed Laser Deposition and Properties of M n+1AX x Phase Formulated Ti3SiC2 Thin Films?. Tribology Letters, 2004, 17, 977-978.	1.2	11
152	Beam-induced crystallization of amorphous Meâ€"Siâ€"C (Me = Nb or Zr) thin films during transmission electron microscopy. MRS Communications, 2013, 3, 151-155.	0.8	11
153	Synthesis and characterization of the mechanical and optical properties of Ca-Si-O-N thin films deposited by RF magnetron sputtering. Surface and Coatings Technology, 2017, 315, 88-94.	2.2	11
154	Microstructural evolution of epitaxial Ti3AlC2 film on sapphire under ion irradiation and nanoindentation-induced deformation. Journal of Nuclear Materials, 2018, 509, 181-187.	1.3	11
155	Formation mechanism and thermoelectric properties of CaMnO3 thin films synthesized by annealing of Ca0.5Mn0.5O films. Journal of Materials Science, 2019, 54, 8482-8491.	1.7	11
156	Theoretical study of the phase transitions and electronic structure of (Zr0.5, Mg0.5)N and (Hf0.5,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.7	11
157	Effects of A-elements (A Si, Ge or Sn) on the structure and electrical contact properties of Tiâ€"Aâ€"Câ€"Ag nanocomposites. Thin Solid Films, 2012, 520, 5128-5136.	0.8	10
158	Synthesis and characterization of Zr2Al3C4 thin films. Thin Solid Films, 2015, 595, 142-147.	0.8	10
159	The Mn+1AXn Phases: The Precursors for MXenes. , 2019, , 15-35.		10
160	Deposition of MAX phase-containing thin films from a (Ti,Zr)2AlC compound target. Applied Surface Science, 2021, 551, 149370.	3.1	10
161	Growth and optical properties of CaxCoO2 thin films. Materials and Design, 2021, 210, 110033.	3.3	10
162	Xe-ion-irradiation-induced structural transitions and elemental diffusion in high-entropy alloy and nitride thin-film multilayers. Materials and Design, 2022, 219, 110749.	3.3	10

#	Article	IF	Citations
163	Effects of dopant concentration and impurities on the conductivity of magnetron-sputtered nanocrystalline yttria-stabilized zirconia. Solid State Ionics, 2010, 181, 864-867.	1.3	9
164	Growth and characterization of epitaxial Ti3GeC2 thin films on 4H-SiC(0001). Journal of Crystal Growth, 2012, 343, 133-137.	0.7	9
165	The origin of anisotropy and high density of states in the electronic structure of Cr2GeC by means of polarized soft x-ray spectroscopy andab initiocalculations. Journal of Physics Condensed Matter, 2015, 27, 415501.	0.7	9
166	High thermoelectric power factor of pure and vanadium-alloyed chromium nitride thin films. Materials Today Communications, 2021, 28, 102493.	0.9	9
167	Multicomponent TixNbCrAl nitride films deposited by dc and high-power impulse magnetron sputtering. Surface and Coatings Technology, 2021, 426, 127743.	2.2	9
168	Engineering Faceted Nanoporosity by Reactions in Thin-Film Oxide Multilayers in Crystallographically Layered Calcium Cobaltate for Thermoelectrics. ACS Applied Nano Materials, 2021, 4, 9904-9911.	2.4	9
169	Model for electron-beam-induced crystallization of amorphous Meâ€"Siâ€"C (Me = Nb or Zr) thin films. Journal of Materials Research, 2014, 29, 2854-2862.	1.2	8
170	Compositional dependence of epitaxial Tin+1SiCn MAX-phase thin films grown from a Ti3SiC2 compound target. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	0.9	8
171	Cobalt thin films as water-recombination electrocatalysts. Surface and Coatings Technology, 2020, 404, 126643.	2.2	8
172	Influence of Metal Substitution and Ion Energy on Microstructure Evolution of High-Entropy Nitride (TiZrTaMe)N_{1â€"<i>x</i>} (Me = Hf, Nb, Mo, or Cr) Films. ACS Applied Electronic Materials, 2021, 3, 2748-2756.	2.0	8
173	Ni and Ti diffusion barrier layers between Tiâ€"Siâ€"C and Tiâ€"Siâ€"Câ€"Ag nanocomposite coatings and Cu-based substrates. Surface and Coatings Technology, 2012, 206, 2558-2565.	2.2	7
174	Effect of Si on DC arc plasma generation from Al-Cr and Al-Cr-Si cathodes used in oxygen. Journal of Applied Physics, 2017, 121, .	1.1	7
175	The effects of microstructure, Nb content and secondary Ruddlesdenâ€"Popper phase on thermoelectric properties in perovskite CaMn_{1â^'x}Nb_xO₃ (<i>x</i>) Tj ETQq1 1 0.784314 rgBT /	1.7	7
176	The effects of copper addition on phase composition in (CrFeCo)1-yNy multicomponent thin films. Applied Surface Science, 2022, 572, 151315.	3.1	7
177	Effects of alloying and deposition temperature on phase formation and superconducting properties of TiZrTaNb-based high entropy-alloy films. Applied Physics Letters, 2022, 120, .	1.5	7
178	The Effect of Point Defects on the Electronic Density of States of ScMN2-Type (M = V, Nb, Ta) Phases. Condensed Matter, 2019, 4, 70.	0.8	6
179	Characterization and identification of Au pathfinder minerals from an artisanal mine site using X-ray diffraction. Journal of Materials Science, 2021, 56, 7659-7669.	1.7	6
180	Effects of temperature and target power on the sputter-deposition of (Ti,Zr)n+1AlCn MAX-phase thin films. Results in Materials, 2021, 9, 100159.	0.9	6

#	ARTICLE	IF	CITATIONS
181	Thermal, electrical, and mechanical properties of hard nitrogen-alloyed Cr thin films deposited by magnetron sputtering. Surface and Coatings Technology, 2022, 441, 128575.	2.2	6
182	Synthesis of Zr2Al3C4 coatings on zirconium-alloy substrates with Al C/Si interlayers as diffusion barriers. Vacuum, 2019, 160, 128-132.	1.6	5
183	Phase formation and structural evolution of multicomponent (CrFeCo)1-yNy films. Surface and Coatings Technology, 2021, 412, 127059.	2.2	5
184	Structural and mechanical properties of amorphous AlMgB14 thin films deposited by DC magnetron sputtering on Si, Al2O3 and MgO substrates. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	1.1	5
185	Effect of disordered nanoporosity on electrical and thermal properties of layered Ca3Co4O9 films. Applied Physics Letters, 2022, 120, 061904.	1.5	5
186	Engineering thermoelectric and mechanical properties by nanoporosity in calcium cobaltate films from reactions of Ca(OH)₂/Co₃O₄ multilayers. Nanoscale Advances, 2022, 4, 3353-3361.	2.2	5
187	Plasma diagnostics and film growth of multicomponent nitride thin films with magnetic-field-assisted-dc magnetron sputtering. Vacuum, 2022, 204, 111331.	1.6	5
188	Epitaxial growth of Î3-Al2O3 on Ti2AlC(0001) by reactive high-power impulse magnetron sputtering. AIP Advances, 2014, 4, 017138.	0.6	4
189	Phase composition and transformations in magnetron-sputtered (Al,V)2O3 coatings. Thin Solid Films, 2019, 688, 137369.	0.8	4
190	Growth of CaxCoO2 Thin Films by A Two-Stage Phase Transformation from CaOâ€"CoO Thin Films Deposited by Rf-Magnetron Reactive Cosputtering. Nanomaterials, 2019, 9, 443.	1.9	4
191	Preparation and tunable optical properties of amorphous AlSiO thin films. Vacuum, 2021, 187, 110074.	1.6	4
192	Growth and Property Characterization of Epitaxial MAX-Phase Thin Films from the Ti_{n+1}(Si, Ge, Sn)C_n Systems. Advances in Science and Technology, 0, , 2648-2655.	0.2	4
193	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi></mml:math> -type behavior of CrN thin films via control of point defects. Physical Review B, 2022, 105, .	1.1	4
194	Applicability of MOS structures in monitoring catalytic properties, as exemplified for monolayer-iron-oxide-coated porous platinum films. Journal of Catalysis, 2016, 344, 583-590.	3.1	3
195	Influence of Si doping and O2 flow on arc-deposited (Al,Cr)2O3 coatings. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, 061516.	0.9	3
196	Epitaxial Growth of CaMnO_{3â€"<i>y</i>} Films on LaAlO₃(112Â¯0) by Pulsed Direct Current Reactive Magnetron Sputtering. Physica Status Solidi - Rapid Research Letters, 2022, 16, .	1.2	3
197	Contact Resistance of Ti-Si-C-Ag and Ti-Si-C-Ag-Pd Nanocomposite Coatings. Journal of Electronic Materials, 2012, 41, 560-567.	1.0	2
198	Structure and electrical properties of Nb-Ge-C nanocomposite coatings. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, 041509.	0.9	2

#	Article	IF	Citations
199	Thermodynamic Stability, Thermoelectric, Elastic and Electronic Structure Properties of ScMN2-Type (M = V, Nb, Ta) Phases Studied by ab initio Calculations. Condensed Matter, 2019, 4, 36.	0.8	2
200	Phase evolution of radio frequency magnetron sputtered Cr-rich (Cr,Zr)2O3 coatings studied by in situ synchrotron X-ray diffraction during annealing in air or vacuum. Journal of Materials Research, 2019, 34, 3735-3746.	1.2	2
201	Phase Transformation and Superstructure Formation in (Ti0.5, Mg0.5)N Thin Films through High-Temperature Annealing. Coatings, 2021, 11, 89.	1.2	2
202	First-principles study on the superconductivity of doped zirconium diborides. Physical Review Materials, 2022, 6, .	0.9	2
203	Synthesis and characterization of Ti-Si-C compounds for electrical contact applications. , 0, , .		1
204	Deposition of Ti-Si-C-Ag Nanocomposite Coatings as Electrical Contact Material. , 2010, , .		1
205	Transition-Metal-Nitride-Based Thin Films as Novel Thermoelectric Materials. , 2019, , 121-138.		1
206	Mechanical properties of VMoNO as a function of oxygen concentration: Toward development of hard and tough refractory oxynitrides. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	0.9	1
207	Effects of high pressure on ScMN2-type (Mâ€¯=â€¯V, Nb, Ta) phases studied by density functional theory. Results in Physics, 2019, 13, 102293.	2.0	1
208	Zr2Al3C4 Coatings on Zirconium-alloy Substrates with Enhanced Adhesion and Diffusion Barriers by Al/Mo-C Interlayers. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2021, 36, 541.	0.6	1
209	Synthesis of textured discontinuous-nanoisland Ca₃Co₄O₉ thin films. Nanoscale Advances, 0, , .	2.2	1
210	Mechanically Flexible Thermoelectric Hybrid Thin Films by Introduction of PEDOT:PSS in Nanoporous Ca₃Co₄O₉. ACS Omega, 2022, 7, 23988-23994.	1.6	1
211	Correction to â€œInfluence of Metal Substitution and Ion Energy on Microstructure Evolution of High-Entropy Nitride (TiZrTaMe)N_{1â€“<i>x</i>} (Me = Hf, Nb, Mo, or Cr) Filmsâ€• ACS Applied Electronic Materials, 2022, 4, 1367-1367.	2.0	0