

Lars Hultman

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

838
papers

45,978
citations

89
h-index

185
g-index

866
ext. papers

53,130
ext. citations

3.9
avg, IF

7.89
L-index

#	Paper	IF	Citations
838	Oxidation resistance and mechanical properties of sputter-deposited Ti _{0.9} Al _{0.1} B _{2-y} thin films. <i>Surface and Coatings Technology</i> , 2022 , 128187	4.4	1
837	Synthesis and characterization of TiB _x (1.2 x 1.8) thin films grown by DC magnetron co-sputtering from TiB ₂ and Ti targets. <i>Surface and Coatings Technology</i> , 2022 , 433, 128110	4.4	0
836	Dense, single-phase, hard, and stress-free TiAlWN films grown by magnetron sputtering with dramatically reduced energy consumption.. <i>Scientific Reports</i> , 2022 , 12, 2166	4.9	2
835	Undressing the myth of apparent constant binding energy of the C 1 s peak from adventitious carbon in x-ray photoelectron spectroscopy 2022 , 1, 100007		2
834	Improving oxidation and wear resistance of TiB ₂ films by nano-multilayering with Cr. <i>Surface and Coatings Technology</i> , 2022 , 436, 128337	4.4	0
833	Atomistic mechanisms underlying plasticity and crack growth in ceramics: a case study of AlN/TiN superlattices. <i>Acta Materialia</i> , 2022 , 229, 117809	8.4	3
832	Microstructure, mechanical, and corrosion properties of Zr _{1-x} Cr _x By diboride alloy thin films grown by hybrid high power impulse/DC magnetron co-sputtering. <i>Applied Surface Science</i> , 2022 , 591, 153164	6.7	0
831	High-entropy transition metal nitride thin films alloyed with Al: Microstructure, phase composition and mechanical properties. <i>Materials and Design</i> , 2022 , 110798	8.1	0
830	Effect of low-energy ion assistance on the properties of sputtered ZrB ₂ films. <i>Vacuum</i> , 2021 , 195, 110688	3.7	0
829	Electron irradiation induced modifications of Ti(1-x)Al _x N coatings and related buffer layers on steel substrates. <i>Vacuum</i> , 2021 , 185, 110028	3.7	0
828	Exploring MXenes and their MAX phase precursors by electron microscopy. <i>Materials Today Advances</i> , 2021 , 9, 100123	7.4	8
827	X-ray photoelectron spectroscopy analysis of TiB _x (1.3 x 2.0) thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 023403	2.9	4
826	Dense Ti _{0.67} Hf _{0.33} B _{1.7} thin films grown by hybrid HfB ₂ -HiPIMS/TiB ₂ -DCMS co-sputtering without external heating. <i>Vacuum</i> , 2021 , 186, 110057	3.7	4
825	The same chemical state of carbon gives rise to two peaks in X-ray photoelectron spectroscopy. <i>Scientific Reports</i> , 2021 , 11, 11195	4.9	105
824	Toward energy-efficient physical vapor deposition: Routes for replacing substrate heating during magnetron sputter deposition by employing metal ion irradiation. <i>Surface and Coatings Technology</i> , 2021 , 415, 127120	4.4	7
823	Synthesis and characterization of CrB ₂ thin films grown by DC magnetron sputtering. <i>Scripta Materialia</i> , 2021 , 200, 113915	5.6	3
822	Age hardening in superhard ZrB ₂ -rich Zr _{1-x} Ta _x By thin films. <i>Scripta Materialia</i> , 2021 , 191, 120-125	5.6	9

821	Where is the unpaired transition metal in substoichiometric diboride line compounds?. <i>Acta Materialia</i> , 2021 , 204, 116510	8.4	9
820	Towards reliable X-ray photoelectron spectroscopy: Sputter-damage effects in transition metal borides, carbides, nitrides, and oxides. <i>Applied Surface Science</i> , 2021 , 542, 148599	6.7	40
819	Multifunctional ZrB ₂ -rich Zr _{1-x} Cr _x By thin films with enhanced mechanical, oxidation, and corrosion properties. <i>Vacuum</i> , 2021 , 185, 109990	3.7	8
818	Orthorhombic Ta _{3-x} N _{5-y} O _y thin films grown by unbalanced magnetron sputtering: The role of oxygen on structure, composition, and optical properties. <i>Surface and Coatings Technology</i> , 2021 , 406, 126665	4.4	3
817	Halogenated TiC MXenes with Electrochemically Active Terminals for High-Performance Zinc Ion Batteries. <i>ACS Nano</i> , 2021 , 15, 1077-1085	16.7	50
816	Electrochemical Lithium Storage Performance of Molten Salt Derived VS _n C MAX Phase. <i>Nano-Micro Letters</i> , 2021 , 13, 158	19.5	4
815	Boridene: Two-dimensional MoB with ordered metal vacancies obtained by chemical exfoliation. <i>Science</i> , 2021 , 373, 801-805	33.3	22
814	Elucidating Pathfinding Elements from the Kubi Gold Mine in Ghana. <i>Minerals (Basel, Switzerland)</i> , 2021 , 11, 912	2.4	
813	Improved oxidation properties from a reduced B content in sputter-deposited TiB _x thin films. <i>Surface and Coatings Technology</i> , 2021 , 420, 127353	4.4	7
812	Out-Of-Plane Ordered Laminate Borides and Their 2D Ti-Based Derivative from Chemical Exfoliation. <i>Advanced Materials</i> , 2021 , 33, e2008361	24	3
811	Near-room temperature ferromagnetic behavior of single-atom-thick 2D iron in nanolaminated ternary MAX phases. <i>Applied Physics Reviews</i> , 2021 , 8, 031418	17.3	2
810	Review of transition-metal diboride thin films. <i>Vacuum</i> , 2021 , 196, 110567	3.7	11
809	Towards energy-efficient physical vapor deposition: Mapping out the effects of W+ energy and concentration on the densification of TiAlWN thin films grown with no external heating. <i>Surface and Coatings Technology</i> , 2021 , 424, 127639	4.4	6
808	Systematic compositional analysis of sputter-deposited boron-containing thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021 , 39, 063408	2.9	8
807	Microstructure and materials properties of understoichiometric TiB _x thin films grown by HiPIMS. <i>Surface and Coatings Technology</i> , 2020 , 404, 126537	4.4	16
806	Reactive sputtering of CS _x thin solid films using CS ₂ as precursor. <i>Vacuum</i> , 2020 , 182, 109775	3.7	6
805	Review of GaN Thin Film and Nanorod Growth Using Magnetron Sputter Epitaxy. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 3050	2.6	10
804	Formation of Ti ₂ AuN from Au-Covered Ti ₂ AlN Thin Films: A General Strategy to Thermally Induce Intercalation of Noble Metals into MAX Phases. <i>Crystal Growth and Design</i> , 2020 , 20, 4077-4081	3.5	7

803	Metal-ion subplantation: A game changer for controlling nanostructure and phase formation during film growth by physical vapor deposition. <i>Journal of Applied Physics</i> , 2020 , 127, 180901	2.5	16
802	High Si content TiSiN films with superior oxidation resistance. <i>Surface and Coatings Technology</i> , 2020 , 398, 126087	4.4	8
801	Atomic-Scale Tuning of Graphene/Cubic SiC Schottky Junction for Stable Low-Bias Photoelectrochemical Solar-to-Fuel Conversion. <i>ACS Nano</i> , 2020 , 14, 4905-4915	16.7	17
800	Growth of dense, hard yet low-stress Ti _{0.40} Al _{0.27} W _{0.33} N nanocomposite films with rotating substrate and no external substrate heating. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020 , 38, 023006	2.9	8
799	Compromising Science by Ignorant Instrument Calibration-Need to Revisit Half a Century of Published XPS Data. <i>Angewandte Chemie</i> , 2020 , 132, 5034-5038	3.6	65
798	Compromising Science by Ignorant Instrument Calibration-Need to Revisit Half a Century of Published XPS Data. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 5002-5006	16.4	188
797	A general Lewis acidic etching route for preparing MXenes with enhanced electrochemical performance in non-aqueous electrolyte. <i>Nature Materials</i> , 2020 , 19, 894-899	27	368
796	Adaptive hard and tough mechanical response in single-crystal B1 VN _x ceramics via control of anion vacancies. <i>Acta Materialia</i> , 2020 , 192, 78-88	8.4	21
795	Cubic-structure Al-rich TiAlSiN thin films grown by hybrid high-power impulse magnetron co-sputtering with synchronized Al ⁺ irradiation. <i>Surface and Coatings Technology</i> , 2020 , 385, 125364	4.4	5
794	Multielemental single-atom-thick layers in nanolaminated V(Sn,) C (= Fe, Co, Ni, Mn) for tailoring magnetic properties. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 820-825	11.5	42
793	Theoretical Prediction and Experimental Verification of the Chemically Ordered Atomic-Laminate i-MAX Phases (Cr ₂ /3Sc ₁ /3) ₂ GaC and (Mn ₂ /3Sc ₁ /3) ₂ GaC. <i>Crystal Growth and Design</i> , 2020 , 20, 55-61	3.5	9
792	Improving the high-temperature oxidation resistance of TiB ₂ thin films by alloying with Al. <i>Acta Materialia</i> , 2020 , 196, 677-689	8.4	34
791	Self-organized columnar Zr _{0.7} Ta _{0.3} B _{1.5} core/shell-nanostructure thin films. <i>Surface and Coatings Technology</i> , 2020 , 401, 126237	4.4	9
790	High-Selectivity Growth of GaN Nanorod Arrays by Liquid-Target Magnetron Sputter Epitaxy. <i>Coatings</i> , 2020 , 10, 719	2.9	
789	Glancing Angle Deposition and Growth Mechanism of Inclined AlN Nanostructures Using Reactive Magnetron Sputtering. <i>Coatings</i> , 2020 , 10, 768	2.9	2
788	X-ray photoelectron spectroscopy: Towards reliable binding energy referencing. <i>Progress in Materials Science</i> , 2020 , 107, 100591	42.2	597
787	Mechanical properties of VMoNO as a function of oxygen concentration: Toward development of hard and tough refractory oxynitrides. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019 , 37, 061508	2.9	1
786	High-power impulse magnetron sputter deposition of TiB _x thin films: Effects of pressure and growth temperature. <i>Vacuum</i> , 2019 , 169, 108884	3.7	12

785	Synthesis of atomically layered and chemically ordered rare-earth (RE) i-MAX phases; (Mo ₂ /3RE ₁ /3) ₂ GaC with RE = Gd, Tb, Dy, Ho, Er, Tm, Yb, and Lu. <i>Materials Research Letters</i> , 2019 , 7, 446-452	7.4	22
784	Synthesis of MAX phases Nb ₂ CuC and Ti ₂ (Al _{0.1} Cu _{0.9})N by A-site replacement reaction in molten salts. <i>Materials Research Letters</i> , 2019 , 7, 510-516	7.4	27
783	Atom probe tomography field evaporation characteristics and compositional corrections of ZrB ₂ . <i>Materials Characterization</i> , 2019 , 156, 109871	3.9	7
782	Quasi-amorphous, nanostructural CoCrMoC/a-C:H coatings deposited by reactive magnetron sputtering. <i>Surface and Coatings Technology</i> , 2019 , 378, 124910	4.4	4
781	Efficient and Tunable Electroluminescence from In Situ Synthesized Perovskite Quantum Dots. <i>Small</i> , 2019 , 15, e1804947	11	17
780	Compositional dependence of epitaxial Ti _{n+1} Si _n MAX-phase thin films grown from a Ti ₃ SiC ₂ compound target. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019 , 37, 021506	2.9	5
779	TiN film growth on misoriented TiN grains with simultaneous low-energy bombardment: Restructuring leading to epitaxy. <i>Thin Solid Films</i> , 2019 , 688, 137380	2.2	3
778	Atomically Layered and Ordered Rare-Earth i-MAX Phases: A New Class of Magnetic Quaternary Compounds. <i>Chemistry of Materials</i> , 2019 , 31, 2476-2485	9.6	53
777	Strategy for simultaneously increasing both hardness and toughness in ZrB ₂ -rich Zr _{1-x} TaxBy thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019 , 37, 031506	2.9	26
776	A review of the intrinsic ductility and toughness of hard transition-metal nitride alloy thin films. <i>Thin Solid Films</i> , 2019 , 688, 137479	2.2	31
775	Single-Atom-Thick Active Layers Realized in Nanolaminated Ti(AlCu)C and Its Artificial Enzyme Behavior. <i>ACS Nano</i> , 2019 , 13, 9198-9205	16.7	31
774	Ti _{n+1} C _n MXenes with fully saturated and thermally stable Cl terminations. <i>Nanoscale Advances</i> , 2019 , 1, 3680-3685	5.1	49
773	Synthesis of (VSc)AlC i-MAX phase and VC MXene scrolls. <i>Nanoscale</i> , 2019 , 11, 14720-14726	7.7	21
772	X-ray photoelectron spectroscopy studies of Ti _{1-x} Al _x N (0 ≤ x ≤ 0.83) high-temperature oxidation: The crucial role of Al concentration. <i>Surface and Coatings Technology</i> , 2019 , 374, 923-934	4.4	37
771	Phase composition and transformations in magnetron-sputtered (Al,V)O ₃ coatings. <i>Thin Solid Films</i> , 2019 , 688, 137369	2.2	2
770	Reactive magnetron sputtering of tungsten target in krypton/trimethylboron atmosphere. <i>Thin Solid Films</i> , 2019 , 688, 137384	2.2	4
769	. <i>IEEE Transactions on Electron Devices</i> , 2019 , 66, 2910-2915	2.9	3
768	Paradigm shift in thin-film growth by magnetron sputtering: From gas-ion to metal-ion irradiation of the growing film. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019 , 37, 060801	2.9	55

767	In- and Out-of-Plane Ordered MAX Phases and Their MXene Derivatives 2019 , 37-52		7
766	Materials synthesis, neutron powder diffraction, and first-principles calculations of $(\text{Mo}_x\text{Sc}_{1-x})_2\text{AlC}$ iMAX phase used as parent material for MXene derivation. <i>Physical Review Materials</i> , 2019 , 3,	3.2	8
765	Element Replacement Approach by Reaction with Lewis Acidic Molten Salts to Synthesize Nanolaminated MAX Phases and MXenes. <i>Journal of the American Chemical Society</i> , 2019 , 141, 4730-4737	6.4	355
764	Control over the Phase Formation in Metastable Transition Metal Nitride Thin Films by Tuning the Al ⁺ Subplantation Depth. <i>Coatings</i> , 2019 , 9, 17	2.9	13
763	Transmorphic epitaxial growth of AlN nucleation layers on SiC substrates for high-breakdown thin GaN transistors. <i>Applied Physics Letters</i> , 2019 , 115, 221601	3.4	13
762	Corrosion Resistant TiTaN and TiTaAlN Thin Films Grown by Hybrid HiPIMS/DCMS Using Synchronized Pulsed Substrate Bias with No External Substrate Heating. <i>Coatings</i> , 2019 , 9, 841	2.9	4
761	Influence of Si doping and O ₂ flow on arc-deposited (Al,Cr) ₂ O ₃ coatings. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019 , 37, 061516	2.9	1
760	Phase evolution of radio frequency magnetron sputtered Cr-rich (Cr,Zr) ₂ O ₃ coatings studied by in situ synchrotron X-ray diffraction during annealing in air or vacuum. <i>Journal of Materials Research</i> , 2019 , 34, 3735-3746	2.5	1
759	Electronic structure of Ta films from X-ray photoelectron spectroscopy and first-principles calculations. <i>Applied Surface Science</i> , 2019 , 470, 607-612	6.7	12
758	A Tungsten-Based Nanolaminated Ternary Carbide: (W,Ti)C. <i>Inorganic Chemistry</i> , 2019 , 58, 1100-1106	5.1	5
757	Synthesis and characterization of (Ti _{1-x} Al _x)B ₂ + δ thin films from combinatorial magnetron sputtering. <i>Thin Solid Films</i> , 2019 , 669, 181-187	2.2	15
756	W-Based Atomic Laminates and Their 2D Derivative W C MXene with Vacancy Ordering. <i>Advanced Materials</i> , 2018 , 30, e1706409	24	145
755	Site-controlled growth of GaN nanorod arrays by magnetron sputter epitaxy. <i>Thin Solid Films</i> , 2018 , 660, 950-955	2.2	6
754	Magnetic properties and structural characterization of layered (Cr _{0.5} Mn _{0.5}) ₂ AuC synthesized by thermally induced substitutional reaction in (Cr _{0.5} Mn _{0.5}) ₂ GaC. <i>APL Materials</i> , 2018 , 6, 026104	5.7	20
753	Silicon carbonitride thin films deposited by reactive high power impulse magnetron sputtering. <i>Surface and Coatings Technology</i> , 2018 , 335, 248-256	4.4	9
752	Substantial difference in target surface chemistry between reactive dc and high power impulse magnetron sputtering. <i>Journal Physics D: Applied Physics</i> , 2018 , 51, 05LT01	3	7
751	Effects of surface vibrations on interlayer mass transport: Ab initio molecular dynamics investigation of Ti adatom descent pathways and rates from TiN/TiN(001) islands. <i>Physical Review B</i> , 2018 , 97,	3.3	19
750	Reliable determination of chemical state in x-ray photoelectron spectroscopy based on sample-work-function referencing to adventitious carbon: Resolving the myth of apparent constant binding energy of the C 1s peak. <i>Applied Surface Science</i> , 2018 , 451, 99-103	6.7	332

749	Controlling the B/Ti ratio of TiB _x thin films grown by high-power impulse magnetron sputtering. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018 , 36, 030604	2.9	30
748	Self-Healing in Carbon Nitride Evidenced As Material Inflation and Superlubric Behavior. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 16238-16243	9.5	25
747	Enhanced TiTaN diffusion barriers, grown by a hybrid sputtering technique with no substrate heating, between Si(001) wafers and Cu overlayers. <i>Scientific Reports</i> , 2018 , 8, 5360	4.9	17
746	Long Electron-Hole Diffusion Length in High-Quality Lead-Free Double Perovskite Films. <i>Advanced Materials</i> , 2018 , 30, e1706246	24	175
745	Chemical bonding in epitaxial ZrB ₂ studied by X-ray spectroscopy. <i>Thin Solid Films</i> , 2018 , 649, 89-96	2.2	13
744	Elastic properties and plastic deformation of TiC- and VC-based pseudobinary alloys. <i>Acta Materialia</i> , 2018 , 144, 376-385	8.4	28
743	Resolving mass spectral overlaps in atom probe tomography by isotopic substitutions - case of TiSiN. <i>Ultramicroscopy</i> , 2018 , 184, 51-60	3.1	4
742	Effects of N ₂ Partial Pressure on Growth, Structure, and Optical Properties of GaN Nanorods Deposited by Liquid-Target Reactive Magnetron Sputter Epitaxy. <i>Nanomaterials</i> , 2018 , 8,	5.4	3
741	A GaN/BiC hybrid material for high-frequency and power electronics. <i>Applied Physics Letters</i> , 2018 , 113, 041605	3.4	32
740	Magnetic properties of Cr ₂ AlB ₂ , Cr ₃ AlB ₄ , and CrB powders. <i>Journal of Alloys and Compounds</i> , 2018 , 767, 474-482	5.7	25
739	Influence of InAlN Nanospiral Structures on the Behavior of Reflected Light Polarization. <i>Nanomaterials</i> , 2018 , 8,	5.4	1
738	Origin of Chemically Ordered Atomic Laminates (i-MAX): Expanding the Elemental Space by a Theoretical/Experimental Approach. <i>ACS Nano</i> , 2018 , 12, 7761-7770	16.7	49
737	Micro-tribological performance of fullerene-like carbon and carbon-nitride surfaces. <i>Tribology International</i> , 2018 , 128, 104-112	4.9	10
736	Rare-earth (RE) nanolaminates Mo ₄ RE ₄ Al ₇ C ₃ featuring ferromagnetism and mixed-valence states. <i>Physical Review Materials</i> , 2018 , 2,	3.2	4
735	Tailoring of surface plasmon resonances in TiN/(Al _{0.72} Sc _{0.28})N multilayers by dielectric layer thickness variation. <i>Journal of Materials Science</i> , 2018 , 53, 4001-4009	4.3	15
734	Reference binding energies of transition metal carbides by core-level x-ray photoelectron spectroscopy free from Ar ⁺ etching artefacts. <i>Applied Surface Science</i> , 2018 , 436, 102-110	6.7	41
733	Self-structuring in ZrAlN films as a function of composition and growth temperature. <i>Scientific Reports</i> , 2018 , 8, 16327	4.9	5
732	Growth and mechanical properties of 111-oriented V _{0.5} Mo _{0.5} N _x /Al ₂ O ₃ (0001) thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018 , 36, 051512	2.9	8

731	V0.5Mo0.5Nx/MgO(001): Composition, nanostructure, and mechanical properties as a function of film growth temperature. <i>Acta Materialia</i> , 2017 , 126, 194-201	8.4	16
730	Effects of incident N atom kinetic energy on TiN/TiN(001) film growth dynamics: A molecular dynamics investigation. <i>Journal of Applied Physics</i> , 2017 , 121, 025302	2.5	25
729	Unprecedented Al supersaturation in single-phase rock salt structure VAlN films by Al+ subplantation. <i>Journal of Applied Physics</i> , 2017 , 121, 171907	2.5	28
728	SiNx coatings deposited by reactive high power impulse magnetron sputtering: Process parameters influencing the residual coating stress. <i>Journal of Applied Physics</i> , 2017 , 121, 171904	2.5	13
727	Core-shell formation in self-induced InAlN nanorods. <i>Nanotechnology</i> , 2017 , 28, 115602	3.4	2
726	Amorphous FeCrNi/a-C:H coatings with self-organized nanotubular structure. <i>Scripta Materialia</i> , 2017 , 136, 24-28	5.6	10
725	Synthesis and properties of CS F thin films deposited by reactive magnetron sputtering in an Ar/SF discharge. <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 195701	1.8	6
724	Controlling the boron-to-titanium ratio in magnetron-sputter-deposited TiBx thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2017 , 35, 050601	2.9	29
723	Dislocation-pipe diffusion in nitride superlattices observed in direct atomic resolution. <i>Scientific Reports</i> , 2017 , 7, 46092	4.9	39
722	Synthesis of TiAuC, TiAuC and TiIrC by noble metal substitution reaction in TiSiC for high-temperature-stable Ohmic contacts to SiC. <i>Nature Materials</i> , 2017 , 16, 814-818	27	99
721	Two-dimensional MoC MXene with divacancy ordering prepared from parent 3D laminate with in-plane chemical ordering. <i>Nature Communications</i> , 2017 , 8, 14949	17.4	334
720	Rolling performance of carbon nitride-coated bearing components in different lubrication regimes. <i>Tribology International</i> , 2017 , 114, 141-151	4.9	16
719	Multi-Grid detector for neutron spectroscopy: results obtained on time-of-flight spectrometer CNCS. <i>Journal of Instrumentation</i> , 2017 , 12, P04030-P04030	1	22
718	Structural evolution in reactive RF magnetron sputtered (Cr,Zr)2O3 coatings during annealing. <i>Acta Materialia</i> , 2017 , 131, 543-552	8.4	9
717	C 1s Peak of Adventitious Carbon Aligns to the Vacuum Level: Dire Consequences for Material's Bonding Assignment by Photoelectron Spectroscopy. <i>ChemPhysChem</i> , 2017 , 18, 1507-1512	3.2	349
716	Low-temperature growth of dense and hard Ti0.41Al0.51Ta0.08N films via hybrid HIPIMS/DC magnetron co-sputtering with synchronized metal-ion irradiation. <i>Journal of Applied Physics</i> , 2017 , 121, 171902	2.5	22
715	Direct observation of spinodal decomposition phenomena in InAlN alloys during in-situ STEM heating. <i>Scientific Reports</i> , 2017 , 7, 44390	4.9	13
714	Low-temperature growth of polyethylene glycol-doped BiZn2VO6 nanocompounds with enhanced photoelectrochemical properties. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 1112-1119	13	6

713	Comparative study of macro- and microtribological properties of carbon nitride thin films deposited by HiPIMS. <i>Wear</i> , 2017 , 370-371, 1-8	3.5	9
712	Theoretical stability and materials synthesis of a chemically ordered MAX phase, Mo ₂ ScAlC ₂ , and its two-dimensional derivate Mo ₂ ScC ₂ MXene. <i>Acta Materialia</i> , 2017 , 125, 476-480	8.4	114
711	Bonding Structures of ZrHx Thin Films by X-ray Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 25750-25758	3.8	10
710	Unprecedented Thermoelectric Power Factor in SiGe Nanowires Field-Effect Transistors. <i>ECS Journal of Solid State Science and Technology</i> , 2017 , 6, Q114-Q119	2	2
709	Electronic properties and bonding in ZrHx thin films investigated by valence-band x-ray photoelectron spectroscopy. <i>Physical Review B</i> , 2017 , 96,	3.3	7
708	Selective-area growth of single-crystal wurtzite GaN nanorods on SiO/Si(001) substrates by reactive magnetron sputter epitaxy exhibiting single-mode lasing. <i>Scientific Reports</i> , 2017 , 7, 12701	4.9	9
707	Phase formation of nanolaminated MoAuC and Mo(AuGa)C by a substitutional reaction within Au-capped MoGaC and MoGaC thin films. <i>Nanoscale</i> , 2017 , 9, 17681-17687	7.7	30
706	Prediction and synthesis of a family of atomic laminate phases with KagomÉlike and in-plane chemical ordering. <i>Science Advances</i> , 2017 , 3, e1700642	14.3	104
705	Native target chemistry during reactive dc magnetron sputtering studied by ex-situ x-ray photoelectron spectroscopy. <i>Applied Physics Letters</i> , 2017 , 111, 021604	3.4	6
704	TiAuC and TiAlC formed by solid state reaction of gold with TiAlC and TiAlC. <i>Chemical Communications</i> , 2017 , 53, 9554-9557	5.8	35
703	Compensation of native donor doping in ScN: Carrier concentration control and p-type ScN. <i>Applied Physics Letters</i> , 2017 , 110, 252104	3.4	42
702	Extended metastable Al solubility in cubic VAlN by metal-ion bombardment during pulsed magnetron sputtering: film stress vs subplantation. <i>Journal of Applied Physics</i> , 2017 , 122, 025304	2.5	15
701	Thermally induced substitutional reaction of Fe into Mo ₂ GaC thin films. <i>Materials Research Letters</i> , 2017 , 5, 533-539	7.4	19
700	Atomic structure and lattice defects in nanolaminated ternary transition metal borides. <i>Materials Research Letters</i> , 2017 , 5, 235-241	7.4	58
699	Core-level spectra and binding energies of transition metal nitrides by non-destructive x-ray photoelectron spectroscopy through capping layers. <i>Applied Surface Science</i> , 2017 , 396, 347-358	6.7	74
698	Age hardening in (Ti _{1-x} Al _x)B ₂ + B thin films. <i>Scripta Materialia</i> , 2017 , 127, 122-126	5.6	25
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