Jun Lu

List of Publications by Year
in descending order

118 papers	22,113 citations	47 h-index	118 g-index
		47006	19190
122 all docs	122 docs citations	122 times ranked	15885 citing authors

#	Article	IF	Citations
1	Ultrafast rectifying counter-directional transport of proton and metal ions in metal-organic frameworkâ€“based nanochannels. Science Advances, 2022, 8, eabl5070.	10.3	48
2	Activation of mitochondrial-associated apoptosis signaling pathway and inhibition of PI3K/Akt/mTOR signaling pathway by voacamine suppress breast cancer progression. Phytomedicine, 2022, 99, 154015.	5.3	23
3	Construction of multi-substituted pyrazoles via potassium carbonate-mediated [3 + 2] cycloaddition of in situ generated nitrile imines with cinnamic aldehydes. RSC Advances, 2022, 12, 13087-13092.	3.6	6
4	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.	4.6	5
5	Ultraselective Monovalent Metal Ion Conduction in a Three-Dimensional Sub-1 nm Nanofluidic Device Constructed by Metalâ€“Organic Frameworks. ACS Nano, 2021, 15, 1240-1249.	14.6	52
6	Phase Transformation and Superstructure Formation in (Ti0.5, Mg0.5)N Thin Films through High-Temperature Annealing. Coatings, 2021, 11, 89.	2.6	2
7	Halogenated Ti₃C₂ MXenes with Electrochemically Active Terminals for High-Performance Zinc Ion Batteries. ACS Nano, 2021, 15, 1077-1085.	14.6	183
8	Triptolide delivery: Nanotechnology-based carrier systems to enhance efficacy and limit toxicity. Pharmacological Research, 2021, 165, 105377.	7.1	33
9	Exosomal transfer of osteoclast-derived miRNAs to chondrocytes contributes to osteoarthritis progression. Nature Aging, 2021, 1, 368-384.	11.6	28
10	Electrochemical Lithium Storage Performance of Molten Salt Derived V2SnC MAX Phase. Nano-Micro Letters, 2021, 13, 158.	27.0	23
11	Outâ€Ofâ€Plane Ordered Laminate Borides and Their 2D Tiâ€Based Derivative from Chemical Exfoliation. Advanced Materials, 2021, 33, e2008361.	21.0	14
12	Emerging porous framework material-based nanofluidic membranes toward ultimate ion separation. Matter, 2021, 4, 2810-2830.	10.0	27
13	Near-room temperature ferromagnetic behavior of single-atom-thick 2D iron in nanolaminated ternary MAX phases. Applied Physics Reviews, 2021, 8, .	11.3	14
14	A Novel Strategy Conjugating PD-L1 Polypeptide With Doxorubicin Alleviates Chemotherapeutic Resistance and Enhances Immune Response in Colon Cancer. Frontiers in Oncology, 2021, 11, 737323.	2.8	2
15	Recent advances of N-heterocyclic carbenes in the applications of constructing carbo- and heterocyclic frameworks with potential biological activity. RSC Advances, 2021, 11, 38060-38078.	3.6	14
16	Multielemental singleâ€“atom-thick A layers in nanolaminated V ₂ (Sn, A) C () Tj ETQq0 0 0 rgBT /Overlock 1 Sciences of the United States of America, 2020, 117, 820-825.	7.1	84
17	Nano-layer based 1T-rich MoS2/g-C3N4 co-catalyst system for enhanced photocatalytic and photoelectrochemical activity. Applied Catalysis B: Environmental, 2020, 268, 118466.	20.2	112
18	Carbon-based materials for photo- and electrocatalytic synthesis of hydrogen peroxide. Nanoscale, 2020, 12, 16008-16027.	5.6	63

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19	Theoretical prediction, synthesis, and crystal structure determination of new MAX phase compound V2SnC. Journal of Advanced Ceramics, 2020, 9, 481-492.	17.4	56
20	Flexible Thermoelectric Doubleâ€Layer Inorganic/Organic Composites Synthesized by Additive Manufacturing. Advanced Electronic Materials, 2020, 6, 2000214.	5.1	12
21	Single Crystal Growth and Structural Characterization of Theoretically Predicted Nanolaminates M2Al2C3, Where M = Sc and Er. Crystal Growth and Design, 2020, 20, 7640-7646.	3.0	3
22	A thermally reduced graphene oxide membrane interlayered with anin situsynthesized nanospacer for water desalination. Journal of Materials Chemistry A, 2020, 8, 25951-25958.	10.3	17
23	Formation of Ti₂AuN from Au-Covered Ti₂AlN Thin Films: A General Strategy to Thermally Induce Intercalation of Noble Metals into MAX Phases. Crystal Growth and Design, 2020, 20, 4077-4081.	3.0	13
24	Advances in the discovery of exosome inhibitors in cancer. Journal of Enzyme Inhibition and Medicinal Chemistry, 2020, 35, 1322-1330.	5.2	74
25	Ultrathin water-stable metal-organic framework membranes for ion separation. Science Advances, 2020, 6, eaay3998.	10.3	179
26	Cathepsin K: The Action in and Beyond Bone. Frontiers in Cell and Developmental Biology, 2020, 8, 433.	3.7	111
27	Efficient metal ion sieving in rectifying subnanochannels enabled by metalâ€“organic frameworks. Nature Materials, 2020, 19, 767-774.	27.5	275
28	Atomic-Scale Tuning of Graphene/Cubic SiC Schottky Junction for Stable Low-Bias Photoelectrochemical Solar-to-Fuel Conversion. ACS Nano, 2020, 14, 4905-4915.	14.6	31
29	Growth of dense, hard yet low-stress Ti0.40Al0.27W0.33N nanocomposite films with rotating substrate and no external substrate heating. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	2.1	13
30	A general Lewis acidic etching route for preparing MXenes with enhanced electrochemical performance in non-aqueous electrolyte. Nature Materials, 2020, 19, 894-899.	27.5	870
31	3D-to-2D Morphology Manipulation of Sputter-Deposited Nanoscale Silver Films on Weakly Interacting Substrates via Selective Nitrogen Deployment for Multifunctional Metal Contacts. ACS Applied Nano Materials, 2020, 3, 4728-4738.	5.0	38
32	Single-Atom-Thick Active Layers Realized in Nanolaminated Ti₃(Al_xCu_{1â€“x})C₂ and Its Artificial Enzyme Behavior. ACS Nano, 2019, 13, 9198-9205.	14.6	59
33	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.	8.7	58
34	Efficient and Tunable Electroluminescence from In Situ Synthesized Perovskite Quantum Dots. Small, 2019, 15, e1804947.	10.0	23
35	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, .	2.1	8
36	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.	4.1	4

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37	Atomically Layered and Ordered Rare-Earth i-MAX Phases: A New Class of Magnetic Quaternary Compounds. Chemistry of Materials, 2019, 31, 2476-2485.	6.7	89
38	Strategy for simultaneously increasing both hardness and toughness in ZrB2-rich Zr1â^'xTaxBy thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	2.1	42
39	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.	3.7	11
40	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.	13.7	811
41	Control over the Phase Formation in Metastable Transition Metal Nitride Thin Films by Tuning the Al+ Subplantation Depth. Coatings, 2019, 9, 17.	2.6	19
42	Transmorphic epitaxial growth of AlN nucleation layers on SiC substrates for high-breakdown thin GaN transistors. Applied Physics Letters, 2019, 115, .	3.3	25
43	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.	2.1	3
44	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.	2.6	2
45	Bioinspired Selfâ€Gating Nanofluidic Devices for Autonomous and Periodic Ion Transport and Cargo Release. Advanced Functional Materials, 2019, 29, 1806416.	14.9	26
46	A Tungsten-Based Nanolaminated Ternary Carbide: (W,Ti)₄C_{4â€“x}. Inorganic Chemistry, 2019, 58, 1100-1106.	4.0	9
47	Wâ€Based Atomic Laminates and Their 2D Derivative W_{1.33}C MXene with Vacancy Ordering. Advanced Materials, 2018, 30, e1706409.	21.0	240
48	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, .	5.1	25
49	Advances in the discovery of cathepsin K inhibitors on bone resorption. Journal of Enzyme Inhibition and Medicinal Chemistry, 2018, 33, 890-904.	5.2	51
50	Nanoporous Ca₃Co₄O₉ Thin Films for Transferable Thermoelectrics. ACS Applied Energy Materials, 2018, 1, 2261-2268.	5.1	54
51	Enhanced Ti0.84Ta0.16N diffusion barriers, grown by a hybrid sputtering technique with no substrate heating, between Si(001) wafers and Cu overlayers. Scientific Reports, 2018, 8, 5360.	3.3	25
52	Long Electronâ€“Hole Diffusion Length in Highâ€Quality Leadâ€Free Double Perovskite Films. Advanced Materials, 2018, 30, e1706246.	21.0	242
53	Effect of ion-implantation-induced defects and Mg dopants on the thermoelectric properties of ScN. Physical Review B, 2018, 98, .	3.2	31
54	Growth and mechanical properties of 111-oriented V0.5Mo0.5Nx/Al2O3(0001) thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, .	2.1	15

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55	Effects of N2 Partial Pressure on Growth, Structure, and Optical Properties of GaN Nanorods Deposited by Liquid-Target Reactive Magnetron Sputter Epitaxy. Nanomaterials, 2018, 8, 223.	4.1	8
56	A GaNâ€“SiC hybrid material for high-frequency and power electronics. Applied Physics Letters, 2018, 113, .	3.3	56
57	Origin of Chemically Ordered Atomic Laminates (i-MAX): Expanding the Elemental Space by a Theoretical/Experimental Approach. ACS Nano, 2018, 12, 7761-7770.	14.6	99
58	Theoretical Prediction and Synthesis of (Cr_{2/3}Zr_{1/3})₂AlC i-MAX Phase. Inorganic Chemistry, 2018, 57, 6237-6244.	4.0	59
59	Effect of (3â€glycidyloxypropyl)trimethoxysilane (GOPS) on the electrical properties of PEDOT:PSS films. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 814-820.	2.1	190
60	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.	27.5	142
61	Two-dimensional Mo1.33C MXene with divacancy ordering prepared from parent 3D laminate with in-plane chemical ordering. Nature Communications, 2017, 8, 14949.	12.8	525
62	Theoretical stability and materials synthesis of a chemically ordered MAX phase, Mo2ScAlC2, and its two-dimensional derivate Mo2ScC2 MXene. Acta Materialia, 2017, 125, 476-480.	7.9	185
63	Prediction and synthesis of a family of atomic laminate phases with KagomÃ©-like and in-plane chemical ordering. Science Advances, 2017, 3, e1700642.	10.3	156
64	Phonon thermal conductivity of scandium nitride for thermoelectrics from first-principles calculations and thin-film growth. Physical Review B, 2017, 96, .	3.2	30
65	Nanostructural Tailoring to Induce Flexibility in Thermoelectric Ca₃Co₄O₉ Thin Films. ACS Applied Materials & Interfaces, 2017, 9, 25308-25316.	8.0	70
66	Thermally induced substitutional reaction of Fe into Mo₂GaC thin films. Materials Research Letters, 2017, 5, 533-539.	8.7	26
67	Atomic structure and lattice defects in nanolaminated ternary transition metal borides. Materials Research Letters, 2017, 5, 235-241.	8.7	86
68	Linkers Having a Crucial Role in Antibodyâ€“Drug Conjugates. International Journal of Molecular Sciences, 2016, 17, 561.	4.1	187
69	Present Advances and Future Perspectives of Molecular Targeted Therapy for Osteosarcoma. International Journal of Molecular Sciences, 2016, 17, 506.	4.1	93
70	Highâ€Temperature Neutron Diffraction, Raman Spectroscopy, and Firstâ€Principles Calculations of Ti₃SnC₂ and Ti₂SnC. Journal of the American Ceramic Society, 2016, 99, 2233-2242.	3.8	15
71	Experimental and theoretical investigation of Cr1-xScxN solid solutions for thermoelectrics. Journal of Applied Physics, 2016, 120, .	2.5	33
72	Hard and elastic epitaxial ZrB2 thin films on Al2O3(0001) substrates deposited by magnetron sputtering from a ZrB2 compound target. Acta Materialia, 2016, 111, 166-172.	7.9	47

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73	Synthesis of MAX Phases in the Hfâ€“Alâ€“C System. Inorganic Chemistry, 2016, 55, 10922-10927.	4.0	57
74	ZrB2 thin films deposited on GaN(0001) by magnetron sputtering from a ZrB2 target. Journal of Crystal Growth, 2016, 453, 71-76.	1.5	9
75	High-temperature nanoindentation of epitaxial ZrB2 thin films. Scripta Materialia, 2016, 124, 117-120.	5.2	25
76	Synthesis and Characterization of an Alumina Forming Nanolaminated Boride: MoAlB. Scientific Reports, 2016, 6, 26475.	3.3	141
77	Theoretical stability, thin film synthesis and transport properties of the Mo_{n+1}GaC_n MAX phase. Physica Status Solidi - Rapid Research Letters, 2015, 9, 197-201.	2.4	28
78	Experimental and theoretical characterization of ordered MAX phases Mo2TiAlC2 and Mo2Ti2AlC3. Journal of Applied Physics, 2015, 118, .	2.5	217
79	Progress and Challenges in Developing Aptamer-Functionalized Targeted Drug Delivery Systems. International Journal of Molecular Sciences, 2015, 16, 23784-23822.	4.1	75
80	Mechanism of Formation of the Thermoelectric Layered Cobaltate Ca₃Co₄O₉ by Annealing of CaOâ€“CoO Thin Films. Advanced Electronic Materials, 2015, 1, 1400022.	5.1	31
81	Two-Dimensional, Ordered, Double Transition Metals Carbides (MXenes). ACS Nano, 2015, 9, 9507-9516.	14.6	1,395
82	Novel hard, tough HfAlSiN multilayers, defined by alternating Si bond structure, deposited using modulated high-flux, low-energy ion irradiation of the growing film. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	2.1	7
83	Mo2TiAlC2: A new ordered layered ternary carbide. Scripta Materialia, 2015, 101, 5-7.	5.2	153
84	Synthesis and characterization of magnetic (Cr0.5Mn0.5)2GaC thin films. Journal of Materials Science, 2015, 50, 4495-4502.	3.7	55
85	Stoichiometric, epitaxial ZrB2 thin films with low oxygen-content deposited by magnetron sputtering from a compound target: Effects of deposition temperature and sputtering power. Journal of Crystal Growth, 2015, 430, 55-62.	1.5	33
86	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.	2.6	8
87	Cathodoluminescence characterization of ZnO nanorods synthesized by chemical solution and of its conversion to ellipsoidal morphology. Journal of Materials Research, 2014, 29, 2425-2431.	2.6	3
88	Decoration of ZnO Nanorods with Coral Reefs like NiO Nanostructures by the Hydrothermal Growth Method and Their Luminescence Study. Materials, 2014, 7, 430-440.	2.9	15
89	Reactive sputtering of Î´-ZrH2 thin films by high power impulse magnetron sputtering and direct current magnetron sputtering. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	2.1	7
90	Novel strategy for low-temperature, high-rate growth of dense, hard, and stress-free refractory ceramic thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	2.1	45

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91	Thermal stability and mechanical properties of amorphous coatings in the Ti-B-Si-Al-N system grown by cathodic arc evaporation from TiB2, Ti33Al67, and Ti85Si15 cathodes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	2.1	9
92	Epitaxial growth of Î³-Al2O3 on Ti2AlC(0001) by reactive high-power impulse magnetron sputtering. AIP Advances, 2014, 4, 017138.	1.3	4
93	Magnetron sputtering of epitaxial Zr<scp>B</scp>₂ thin films on 4<scp>H</scp>â€<scp>S</scp>i<scp>C</scp>(0001) and Si(111). Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 636-640.	1.8	22
94	Superhard NbB2â˜' thin films deposited by dc magnetron sputtering. Surface and Coatings Technology, 2014, 257, 295-300.	4.8	50
95	Direct current magnetron sputtered ZrB2 thin films on 4H-SiC(0001) and Si(100). Thin Solid Films, 2014, 550, 285-290.	1.8	35
96	Atomic layer deposition of Zr<scp>O</scp>₂ for grapheneâ€based multilayer structures: In situ and ex situ characterization of growth process. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 397-402.	1.8	8
97	Transparent Conductive Two-Dimensional Titanium Carbide Epitaxial Thin Films. Chemistry of Materials, 2014, 26, 2374-2381.	6.7	1,173
98	Synthesis, structural characterization and photocatalytic application of ZnO@ZnS coreâ€“shell nanoparticles. RSC Advances, 2014, 4, 36940-36950.	3.6	117
99	Nanowires-assembled CuO Interpenetrated-leaf Architecture by () Twinning. Materials Research Letters, 2013, 1, 32-38.	8.7	3
100	Crystallization of NiSi_x in a Body-Centered Cubic Structure during Solid-State Reaction between an Ultrathin Ni Film and Si(001) Substrate at 150â€“350 Â°C. Crystal Growth and Design, 2013, 13, 1801-1806.	3.0	7
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.	19.5	25
102	Phase stability of Cr_{n+ 1}GaC_n MAX phases from first principles and Cr₂GaC thinâ€film synthesis using magnetron sputtering from elemental targets. Physica Status Solidi - Rapid Research Letters, 2013, 7, 971-974.	2.4	32
103	Beam-induced crystallization of amorphous Meâ€“Siâ€“C (Me = Nb or Zr) thin films during transmission electron microscopy. MRS Communications, 2013, 3, 151-155.	1.8	11
104	Two-Dimensional Transition Metal Carbides. ACS Nano, 2012, 6, 1322-1331.	14.6	3,453
105	Metal versus rare-gas ion irradiation during Ti1â˜'xAlxN film growth by hybrid high power pulsed magnetron/dc magnetron co-sputtering using synchronized pulsed substrate bias. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	2.1	98
106	Growth, Structural and Optical Characterization of ZnO Nanotubes on Disposable-Flexible Paper Substrates by Low-Temperature Chemical Method. Journal of Nanotechnology, 2012, 2012, 1-6.	3.4	11
107	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, 3352-3354.	3.8	12
108	Thermal Stability and Dopant Segregation for Schottky Diodes With Ultrathin Epitaxial $hbox{NiSi}_{2 - y}$. IEEE Electron Device Letters, 2011, 32, 1029-1031.	3.9	10

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109	Synthesis of a new nanocrystalline titanium aluminum fluoride phase by reaction of Ti2AlC with hydrofluoric acid. RSC Advances, 2011, 1, 1493.	3.6	49
110	On the Topotactic Transformation of <scp><scp>Ti₂AlC</scp></scp> into a <scp><scp>Tiâ€“Câ€“Oâ€“F</scp></scp> Cubic Phase by Heating in Molten Lithium Fluoride in Air. Journal of the American Ceramic Society, 2011, 94, 4556-4561.	3.8	91
111	On Different Process Schemes for MOSFETs With a Controllable NiSi-Based Metallic Source/Drain. IEEE Transactions on Electron Devices, 2011, 58, 1898-1906.	3.0	19
112	Twoâ€Ðimensional Nanocrystals Produced by Exfoliation of Ti₃AlC₂. Advanced Materials, 2011, 23, 4248-4253.	21.0	7,931
113	Anomalously high thermoelectric power factor in epitaxial ScN thin films. Applied Physics Letters, 2011, 99, .	3.3	84
114	Phase-stabilization and substrate effects on nucleation and growth of (Ti,V)n+1GeCn thin films. Journal of Applied Physics, 2011, 110, .	2.5	20
115	Surface-energy triggered phase formation and epitaxy in nanometer-thick Ni1â^'xPtx silicide films. Applied Physics Letters, 2010, 96, .	3.3	51
116	Growth and Structure of ZnO Nanorods on a Sub-Micrometer Glass Pipette and Their Application as Intracellular Potentiometric Selective Ion Sensors. Materials, 2010, 3, 4657-4667.	2.9	21
117	Deposition of Ti-Si-C-Ag Nanocomposite Coatings as Electrical Contact Material. , 2010, , .		1
118	Synthesis of textured discontinuous-nanoisland Ca₃Co₄O₉ thin films. Nanoscale Advances, 0, , .	4.6	1