Hai-Yan Wang

List of Publications by Year in Descending Order

656 papers	23,010 citations	68 h-index	122 g-index
680 ext. papers	25,993 ext. citations	6.5 avg, IF	7.03 L-index

#	Paper	IF	Citations
656	Thermal Safety Analysis of Disordered Li-Rich Rock salt Li1.3Mn0.4Nb0.3O2 Cathode. *ACS Applied Energy Materials*, **2022**, 5, 516-523	6.1	
655	Enabling coherent BaZrO3 nanorods/YBa2Cu3O7⊠ interface through dynamic lattice enlargement in vertical epitaxy of BaZrO3/YBa2Cu3O7⊠ nanocomposites. *Superconductor Science and Technology*, **2022**, 35, 034001	3.1	3
654	Preparation and characterization of multifunctional piezoenergetic polyvinylidene fluoride/aluminum nanocomposite films. *Journal of Applied Physics*, **2022**, 131, 055108	2.5	0
653	Surface chemistry and porosity engineering through etching reveal ultrafast oxygen reduction kinetics below 400 °C in B-site exposed (La,Sr)(Co,Fe)O3 thin-films. *Journal of Power Sources*, **2022**, 523, 230983	8.9	0
652	Low voltage control of magnetism in BaFe10.2Sc1.8O19/BaTiO3 bilayer epitaxial thin film at temperatures up to 390 K. *Applied Physics Letters*, **2022**, 120, 062401	3.4	1
651	Self-assembled vertically aligned nanocomposite systems integrated on silicon substrate: Progress and future perspectives. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2022**, 40, 010802	2.9	2
650	Advances in synthesis and applications of boron nitride nanotubes: A review. *Chemical Engineering Journal*, **2022**, 431, 134118	14.7	4
649	High stability of flexible perovskite transparent conductive oxide film via van der Waals heteroepitaxy. *Journal of Alloys and Compounds*, **2022**, 890, 161897	5.7	4
648	Effects of incubation on microstructure gradient in flash-sintered TiO2. *Scripta Materialia*, **2022**, 207, 114270	5.6	0
647	Scaled indium oxide transistors fabricated using atomic layer deposition. *Nature Electronics*, **2022**, 5, 164-170	28.4	14
646	Laser-Assisted Nanotexturing and Silver Immobilization on Titanium Implant Surfaces to Enhance Bone Cell Mineralization and Antimicrobial Properties.. *Langmuir*, **2022**,	4	1
645	Epitaxial (110)-oriented La0.7Sr0.3MnO3 film directly on flexible mica substrate. *Journal Physics D: Applied Physics*, **2022**, 55, 224002	3	1
644	ZnO-AuCu Alloy and ZnO-AuAl Alloy Vertically Aligned Nanocomposites for Low-Loss Plasmonic Metamaterials.. *Molecules*, **2022**, 27,	4.8	1
643	Freestanding La0.7Sr0.3MnO3:NiO vertically aligned nanocomposite thin films for flexible perpendicular interfacial exchange coupling. *Materials Research Letters*, **2022**, 10, 287-294	7.4	0
642	A generalized 3D elastic model for nanoscale, self-assembled oxide-metal thin films with pillar-in-matrix configurations. *Acta Materialia*, **2022**, 228, 117779	8.4	
641	Deformation mechanism in nanolaminate FeCrAl alloys by in situ micromechanical strain rate jump tests at elevated temperatures. *Scripta Materialia*, **2022**, 215, 114698	5.6	2
640	Integration of Self-Assembled BaZrO3-Co Vertically Aligned Nanocomposites on Mica Substrates toward Flexible Spintronics. *Crystal Growth and Design*, **2022**, 22, 718-725	3.5	0

639	Emergent multiferroism with magnetodielectric coupling in EuTiO created by a negative pressure control of strong spin-phonon coupling.. *Nature Communications*, **2022**, 13, 2364	17.4	3
638	Optical dielectric properties of HfO2-based films. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2022**, 40, 033412	2.9	1
637	Lithium-based vertically aligned nancomposite films incorporating LixLa0.32(Nb0.7Ti0.32)O3 electrolyte with high Li+ ion conductivity. *APL Materials*, **2022**, 10, 051102	5.7	1
636	Vertically stacked multilayer atomic-layer-deposited sub-1-nm In2O3 field-effect transistors with back-end-of-line compatibility. *Applied Physics Letters*, **2022**, 120, 202104	3.4	1
635	Investigation of strengthening mechanisms in an additively manufactured Haynes 230 alloy. *Acta Materialia*, **2021**, 117404	8.4	6
634	Double-Exchange Bias Modulation under Horizontal and Perpendicular Field Directions by 3D Nanocomposite Design. *ACS Applied Materials & Interfaces*, **2021**, 13, 50141-50148	9.5	2
633	Why InO Can Make 0.7 nm Atomic Layer Thin Transistors. *Nano Letters*, **2021**, 21, 500-506	11.5	39
632	Field-assisted growth of one-dimensional ZnO nanostructures with high defect density. *Nanotechnology*, **2021**, 32, 095603	3.4	3
631	Self-Assembled MetalDielectric Hybrid Metamaterials in Vertically Aligned Nanocomposite Form with Tailorable Optical Properties and Coupled Multifunctionalities. *Advanced Photonics Research*, **2021**, 2, 2000174	1.9	4
630	Nanocomposite-Seeded Epitaxial Growth of Single-Domain Lithium Niobate Thin Films for Surface Acoustic Wave Devices. *Advanced Photonics Research*, **2021**, 2, 2000149	1.9	4
629	Electrochromic Properties of Perovskite NdNiO3 Thin Films for Smart Windows. *ACS Applied Electronic Materials*, **2021**, 3, 1719-1731	4	1
628	Ferroelectric/multiferroic self-assembled vertically aligned nanocomposites: Current and future status. *APL Materials*, **2021**, 9, 030904	5.7	3
627	Thermal stability of immiscible Cu-Ag/Fe triphase multilayers with triple junctions. *Acta Materialia*, **2021**, 208, 116679	8.4	6
626	Ultrathin epitaxial NbN superconducting films with high upper critical field grown at low temperature. *Materials Research Letters*, **2021**, 9, 336-342	7.4	3
625	Flash sintering of additively manufactured 3YSZ gears. *Journal of the American Ceramic Society*, **2021**, 104, 3828-3832	3.8	3
624	Formation of liquid phase and nanostructures in flash sintered ZnO. *Scripta Materialia*, **2021**, 195, 113719	3.6	2
623	Heavy ion irradiation response of an additively manufactured 316LN stainless steel. *Journal of Nuclear Materials*, **2021**, 546, 152745	3.3	6
622	Bioinspired Dynamic Camouflage from Colloidal Nanocrystals Embedded Electrochromics. *Nano Letters*, **2021**, 21, 4500-4507	11.5	4

621	Heteroepitaxy of flexible piezoelectric Pb(Zr0.53Ti0.47)O3 sensor on inorganic mica substrate for lamb wave-based structural health monitoring. *Ceramics International*, **2021**, 47, 13156-13163	5.1	6
620	Ultra-high heating rate effects on the sintering of ceramic nanoparticles: an in situ TEM study. *Materials Research Letters*, **2021**, 9, 373-381	7.4	2
619	Stress of misfit dislocation at Fe/MgO interface drives the annihilation of radiation induced defects. *Acta Materialia*, **2021**, 210, 116798	8.4	1
618	A high-entropy manganite in an ordered nanocomposite for long-term application in solid oxide cells. *Nature Communications*, **2021**, 12, 2660	17.4	15
617	Self-biased magnetoelectric switching at room temperature in three-phase ferroelectric□antiferromagnetic□ferrimagnetic nanocomposites. *Nature Electronics*, **2021**, 4, 333-341	28.4	8
616	Ultrathin transparent Copper(I) oxide films grown by plasma-enhanced atomic layer deposition for Back-end-of-line p-Type transistors. *Nano Express*, **2021**, 2, 020023	2	2
615	Ellipsometry-based failure analysis on translucent LiMn0.5Ni0.3Co0.2O2 in half-cell thin-film lithium-ion battery on glass substrates. *Materials Today Advances*, **2021**, 10, 100142	7.4	1
614	Recent Advances in Vertically Aligned Nanocomposites with Tunable Optical Anisotropy: Fundamentals and Beyond. *Chemosensors*, **2021**, 9, 145	4	1
613	High-strength nanocrystalline intermetallics with room temperature deformability enabled by nanometer thick grain boundaries. *Science Advances*, **2021**, 7,	14.3	2
612	Design of 3D Oxide□Metal Hybrid Metamaterial for Tailorable Light□Matter Interactions in Visible and Near-Infrared Region. *Advanced Optical Materials*, **2021**, 9, 2001154	8.1	7
611	Tailoring the formation of twins in Al by introducing epitaxial layer interfaces. *Scripta Materialia*, **2021**, 192, 1-6	5.6	3
610	High-strength and tunable plasticity in sputtered Al□Cr alloys with multistage phase transformations. *International Journal of Plasticity*, **2021**, 137, 102915	7.6	4
609	Epitaxial TiN/MgO multilayers with ultrathin TiN and MgO layers as hyperbolic metamaterials in visible region. *Materials Today Physics*, **2021**, 16, 100316	8	4
608	Ultra-high strength and plasticity mediated by partial dislocations and defect networks: Part II: Layer thickness effect. *Acta Materialia*, **2021**, 204, 116494	8.4	2
607	Review on the growth, properties and applications of self-assembled oxide-metal vertically aligned nanocomposite thin films-current and future perspectives. *Materials Horizons*, **2021**, 8, 869-884	14.4	6
606	Microstructural evolution of nanotwinned Al-Zr alloy with significant 9R phase. *Materials Research Letters*, **2021**, 9, 91-98	7.4	5
605	The influence of stacking faults on mechanical behavior of advanced materials. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 803, 140696	5.3	5
604	Nitride-Oxide-Metal Heterostructure with Self-Assembled Core-Shell Nanopillar Arrays: Effect of Ordering on Magneto-Optical Properties. *Small*, **2021**, 17, e2007222	11	6

603	Self-Assembled BaTiO-AuAg Low-Loss Hybrid Plasmonic Metamaterials with an Ordered "Nano-Domino-like" Microstructure. *ACS Applied Materials & Interfaces*, **2021**, 13, 5390-5398	9.5	3
602	Route to High-Performance Micro-solid Oxide Fuel Cells on Metallic Substrates. *ACS Applied Materials & Interfaces*, **2021**, 13, 4117-4125	9.5	5
601	High performance, electroforming-free, thin film memristors using ionic Na0.5Bi0.5TiO3. *Journal of Materials Chemistry C*, **2021**, 9, 4522-4531	7.1	4
600	Deposition pressure-induced microstructure control and plasmonic property tuning in hybrid ZnO□AgxAu1□x thin films. *Nanoscale Advances*, **2021**, 3, 2870-2878	5.1	3
599	Electrical properties and charge compensation mechanisms of Cr-doped rutile, TiO. *Physical Chemistry Chemical Physics*, **2021**, 23, 22133-22146	3.6	1
598	Tailorable multifunctionalities in ultrathin 2D Bi-based layered supercell structures. *Nanoscale*, **2021**, 13, 16672-16679	7.7	1
597	Role of ALD AlO Surface Passivation on the Performance of p-Type CuO Thin Film Transistors. *ACS Applied Materials & Interfaces*, **2021**, 13, 4156-4164	9.5	15
596	Multifunctional Metal-Oxide Nanocomposite Thin Film with Plasmonic Au Nanopillars Embedded in Magnetic LaSrMnO Matrix. *Nano Letters*, **2021**, 21, 1032-1039	11.5	13
595	Defects in flash-sintered ceramics and their effects on mechanical properties. *MRS Bulletin*, **2021**, 46, 44-51	3.2	9
594	Thermal Stability of Nanocrystalline Gradient Inconel 718 Alloy. *Crystals*, **2021**, 11, 53	2.3	0
593	Carbon Nanotube Supported Amorphous MoS2 via Microwave Heating Synthesis for Enhanced Performance of Hydrogen Evolution Reaction. *Energy Material Advances*, **2021**, 2021, 1-8	1	4
592	Creating Ferromagnetic Insulating LaBaMnO Thin Films by Tuning Lateral Coherence Length. *ACS Applied Materials & Interfaces*, **2021**, 13, 8863-8870	9.5	1
591	Strong pinning at high growth rates in rare earth barium cuprate (REBCO) superconductor films grown with liquid-assisted processing (LAP) during pulsed laser deposition. *Superconductor Science and Technology*, **2021**, 34, 045012	3.1	2
590	Characterization of precipitation in gradient Inconel 718 superalloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 804, 140718	5.3	7
589	High Strength and Low Coercivity of Cobalt with Three-Dimensional Nanoscale Stacking Faults. *Nano Letters*, **2021**, 21, 6480-6486	11.5	2
588	Ultra-fine-grained and gradient FeCrAl alloys with outstanding work hardening capability. *Acta Materialia*, **2021**, 215, 117049	8.4	5
587	Highly Conductive Copper□Silver Bimodal Paste for Low-Cost Printed Electronics. *ACS Applied Electronic Materials*, **2021**, 3, 3352-3364	4	7
586	Ramifications of Pulsed Laser Deposition Growth Temperature on BaHfO3 and Y2O3 Doped Y-Ba-Cu-O Thin Films□Microstructure and Performance. *IEEE Transactions on Applied Superconductivity*, **2021**, 31, 1-5	1.8	0

585	Tuning magnetic and optical properties through strain in epitaxial LaCrO3 thin films. *Applied Physics Letters*, **2021**, 119, 071902	3.4	2
584	Strong Interfacial Coupling of Tunable Ni-NiO Nanocomposite Thin Films Formed by Self-Decomposition. *ACS Applied Materials & Interfaces*, **2021**, 13, 39730-39737	9.5	2
583	Ultrafast anchored SnO2 nanoparticles revealed capacity fade and hysteresis abated stable cycling performance for high-rate lithium-ion batteries. *Carbon*, **2021**, 185, 608-608	10.4	0
582	High-Temperature and Flexible Piezoelectric Sensors for Lamb-Wave-Based Structural Health Monitoring. *ACS Applied Materials & Interfaces*, **2021**, 13, 47764-47772	9.5	3
581	Enhancing magnetic pinning by BaZrO3 nanorods forming coherent interface by strain-directed Ca-doping in YBa2Cu3O7 nanocomposite films. *Superconductor Science and Technology*, **2021**, 34, 104002	3.1	5
580	Microstructure and defect gradients in DC and AC flash sintered ZnO. *Ceramics International*, **2021**, 47, 28596-28602	5.1	0
579	Electric field-induced grain boundary degradation mechanism in yttria stabilized zirconia. *Scripta Materialia*, **2021**, 204, 114130	5.6	1
578	Linking far-from-equilibrium defect structures in ceramics to electromagnetic driving forces. *Journal of Materials Chemistry A*, **2021**, 9, 8425-8434	13	0
577	Hybrid Ag LiNbO3 nanocomposite thin films with tailorable optical properties. *Nanoscale Advances*, **2021**, 3, 1121-1126	5.1	0
576	Modeling of flash sintering of ionic ceramics. *MRS Bulletin*, **2021**, 46, 67-75	3.2	2
575	Substrate oxygen sponge effect: A parameter for epitaxial manganite thin film growth. *Applied Physics Letters*, **2020**, 117, 151601	3.4	5
574	An Electronic Synapse Based on 2D Ferroelectric CuInP2S6. *Advanced Electronic Materials*, **2020**, 6, 2000760	6.4	19
573	Origin of unexpected lattice expansion and ferromagnetism in epitaxial EuTiO3 thin films. *Ceramics International*, **2020**, 46, 19990-19995	5.1	5
572	Negative-pressure enhanced ferroelectricity and piezoelectricity in lead-free BaTiO3 ferroelectric nanocomposite films. *Journal of Materials Chemistry C*, **2020**, 8, 8091-8097	7.1	9
571	Nanoengineering room temperature ferroelectricity into orthorhombic SmMnO films. *Nature Communications*, **2020**, 11, 2207	17.4	8
570	Spontaneous Ordering of Oxide-Oxide Epitaxial Vertically Aligned Nanocomposite Thin Films. *Annual Review of Materials Research*, **2020**, 50, 229-253	12.8	14
569	Strong and plastic metallic composites with nanolayered architectures. *Acta Materialia*, **2020**, 195, 240-25	8.1	13
568	Engineering lithium-ion battery cathodes for high-voltage applications using electromagnetic excitation. *Journal of Materials Science*, **2020**, 55, 12177-12190	4.3	8

567	Deformation behavior and phase transformation of nanotwinned Al/Ti multilayers. *Applied Surface Science*, **2020**, 527, 146776	6.7	9
566	Plastic anisotropy and tension-compression asymmetry in nanotwinned AlFe alloys: An in-situ micromechanical investigation. *International Journal of Plasticity*, **2020**, 132, 102760	7.6	12
565	He ion irradiation response of a gradient T91 steel. *Acta Materialia*, **2020**, 196, 175-190	8.4	10
564	3D Hybrid Plasmonic Framework with Au Nanopillars Embedded in Nitride Multilayers Integrated on Si. *Advanced Materials Interfaces*, **2020**, 7, 2000493	4.6	11
563	Laser-Induced Mesoporous Nickel Oxide as a Highly Sensitive Nonenzymatic Glucose Sensor. *ACS Applied Nano Materials*, **2020**, 3, 5260-5270	5.6	23
562	Vertically aligned nanocomposite (BaTiO3)0.8 : (La0.7Sr0.3MnO3)0.2 thin films with anisotropic multifunctionalities. *Nanoscale Advances*, **2020**, 2, 3276-3283	5.1	10
561	Dynamic tuning of dielectric permittivity in BaTiO3 via electrical biasing. *Materials Research Letters*, **2020**, 8, 321-327	7.4	2
560	Tailoring the thermal stability of nanocrystalline Ni alloy by thick grain boundaries. *Scripta Materialia*, **2020**, 182, 21-26	5.6	11
559	Rapid Upcycling of Waste Polyethylene Terephthalate to Energy Storing Disodium Terephthalate Flowers with DFT Calculations. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 6252-6262	8.3	17
558	Perovskite Transparent Conducting Oxide for the Design of a Transparent, Flexible, and Self-Powered Perovskite Photodetector. *ACS Applied Materials & Interfaces*, **2020**, 12, 16462-16468	9.5	24
557	Thermal stability and deformability of annealed nanotwinned Al/Ti multilayers. *Scripta Materialia*, **2020**, 186, 219-224	5.6	8
556	Extrinsic size dependent plastic deformability of ZnS micropillars. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 792, 139706	5.3	1
555	Dipotassium terephthalate as promising potassium storing anode with DFT calculations. *Materials Today Energy*, **2020**, 17, 100454	7	7
554	Novel layered BiMoMO (M = Mn, Fe, Co and Ni) thin films with tunable multifunctionalities. *Nanoscale*, **2020**, 12, 5914-5921	7.7	8
553	Large-Scale Plasmonic Hybrid Framework with Built-In Nanohole Array as Multifunctional Optical Sensing Platforms. *Small*, **2020**, 16, e1906459	11	8
552	Raman response and transport properties of tellurium atomic chains encapsulated in nanotubes. *Nature Electronics*, **2020**, 3, 141-147	28.4	54
551	Strain-Driven In-plane Ordering in Vertically Aligned ZnO-Au Nanocomposites with Highly Correlated Metamaterial Properties. *ACS Omega*, **2020**, 5, 2234-2241	3.9	23
550	Vertical Strain-Driven Antiferromagnetic to Ferromagnetic Phase Transition in EuTiO Nanocomposite Thin Films. *ACS Applied Materials & Interfaces*, **2020**, 12, 8513-8521	9.5	7

549	Thermally Stable AuBaTiO3 Nanoscale Hybrid Metamaterial for High-Temperature Plasmonic Applications. *ACS Applied Nano Materials*, **2020**, 3, 1431-1437	5.6	9
548	Magnetic signatures of 120 K superconductivity at interfaces in LaCuO. *Nanoscale*, **2020**, 12, 3157-3165	7.7	4
547	Room-Temperature Ferroelectric LiNbBaTiO Spinel Phase in a Nanocomposite Thin Film Form for Nonlinear Photonics. *ACS Applied Materials & Interfaces*, **2020**, 12, 23076-23083	9.5	6
546	Microstructure and tensile behavior of nanostructured gradient TWIP steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 785, 139346	5.3	7
545	Vertically Aligned AgAu Alloyed Nanopillars Embedded in ZnO as Nanoengineered Low-Loss Hybrid Plasmonic Metamaterials. *Nano Letters*, **2020**, 20, 3778-3785	11.5	13
544	Role of Interlayer in 3D Vertically Aligned Nanocomposite Frameworks with Tunable Magnetotransport Properties. *Advanced Materials Interfaces*, **2020**, 7, 1901990	4.6	6
543	Advanced Thin Film Cathodes for Lithium Ion Batteries. *Research*, **2020**, 2020, 2969510	7.8	15
542	Tunable, room-temperature multiferroic Fe-BaTiO3 vertically aligned nanocomposites with perpendicular magnetic anisotropy. *Materials Today Nano*, **2020**, 11, 100083	9.7	13
541	Interface Engineered Room-Temperature Ferromagnetic Insulating State in Ultrathin Manganite Films. *Advanced Science*, **2020**, 7, 1901606	13.6	15
540	Titanium Nitride Modified Photoluminescence from Single Semiconductor Nanoplatelets. *Advanced Functional Materials*, **2020**, 30, 1904179	15.6	4
539	Tunable physical properties in BiAl1−xMnxO3 thin films with novel layered supercell structures. *Nanoscale Advances*, **2020**, 2, 315-322	5.1	6
538	Enhancing electrochemical performance of thin film lithium ion battery via introducing tilted metal nanopillars as effective current collectors. *Nano Energy*, **2020**, 69, 104381	17.1	13
537	Tunable Optical Properties in Self-Assembled Oxide-Metal Hybrid Thin Films via Au-Phase Geometry Control: From Nanopillars to Nanodisks. *Advanced Optical Materials*, **2020**, 8, 1901359	8.1	16
536	Field-assisted heating of Gd-doped ceria thin film. *Journal of the American Ceramic Society*, **2020**, 103, 2309-2314	3.8	8
535	Ultra-high strength and plasticity mediated by partial dislocations and defect networks: Part I: Texture effect. *Acta Materialia*, **2020**, 185, 181-192	8.4	15
534	Ge2Sb2Se5 Glass as High-capacity Promising Lithium-ion Battery Anode. *Nano Energy*, **2020**, 68, 104326	17.1	21
533	3D Hybrid Trilayer Heterostructure: Tunable Au Nanorods and Optical Properties. *ACS Applied Materials & Interfaces*, **2020**, 12, 45015-45022	9.5	3
532	Strain Effects on the Growth of LaSrMnO (LSMO)-NiO Nanocomposite Thin Films via Substrate Control. *ACS Omega*, **2020**, 5, 23793-23798	3.9	0

531	Real-time in situ optical tracking of oxygen vacancy migration in memristors. *Nature Electronics*, **2020**, 3, 687-693	28.4	16
530	Ultrafast, dry microwave superheating for the synthesis of an SbO-GNP hybrid anode to investigate the Na-ion storage compatibility in ester and ether electrolytes. *Chemical Communications*, **2020**, 56, 9663-9666	5.8	3
529	Thermal stability of self-assembled ordered three-phase Au-BaTiO-ZnO nanocomposite thin films heating in TEM. *Nanoscale*, **2020**, 12, 23673-23681	7.7	3
528	Effective doping control in Sm-doped BiFeO thin films deposition temperature.. *RSC Advances*, **2020**, 10, 40229-40233	3.7	2
527	Au-Encapsulated Fe Nanorods in Oxide Matrix with Tunable Magneto-Optic Coupling Properties. *ACS Applied Materials & Interfaces*, **2020**, 12, 51827-51836	9.5	6
526	In-situ studies on the mechanical properties of He ion irradiated nanotwinned Ag. *Journal of Nuclear Materials*, **2020**, 540, 152392	3.3	5
525	Morphology Control of Self-Assembled Three-Phase Au-BaTiO3⁄ZnO Hybrid Metamaterial for Tunable Optical Properties. *Crystal Growth and Design*, **2020**, 20, 6101-6108	3.5	10
524	Metal-Free Oxide-Nitride Heterostructure as a Tunable Hyperbolic Metamaterial Platform. *Nano Letters*, **2020**, 20, 6614-6622	11.5	17
523	Atomic-Scale Control of Electronic Structure and Ferromagnetic Insulating State in Perovskite Oxide Superlattices by Long-Range Tuning of BO6 Octahedra. *Advanced Functional Materials*, **2020**, 30, 2001984	15.6	5
522	Exchange Bias in a LaSrMnO/NiO Heterointerface Integrated on a Flexible Mica Substrate. *ACS Applied Materials & Interfaces*, **2020**, 12, 39920-39925	9.5	19
521	Couplings of Polarization with Interfacial Deep Trap and Schottky Interface Controlled Ferroelectric Memristive Switching. *Advanced Functional Materials*, **2020**, 30, 2000664	15.6	18
520	Recent Studies on Void Shrinkage in Metallic Materials Subjected to In Situ Heavy Ion Irradiations. *Jom*, **2020**, 72, 4008-4016	2.1	2
519	Coupled solute effects enable anomalous high-temperature strength and stability in nanotwinned Al alloys. *Acta Materialia*, **2020**, 200, 378-388	8.4	8
518	Irradiation induced void spheroidization, shrinkage and migration in Cu at elevated temperatures: An in situ study. *Acta Materialia*, **2020**, 201, 504-516	8.4	3
517	Multifunctional self-assembled BaTiO3-Au nanocomposite thin films on flexible mica substrates with tunable optical properties. *Applied Materials Today*, **2020**, 21, 100856	6.6	6
516	Anisotropic domains and antiferrodistortive-transition controlled magnetization in epitaxial manganite films on vicinal SrTiO3 substrates. *Applied Physics Letters*, **2020**, 117, 081903	3.4	3
515	Design of super-strong and thermally stable nanotwinned Al alloys solute synergy. *Nanoscale*, **2020**, 12, 20491-20505	7.7	5
514	Ceramic Material Processing Towards Future Space Habitat: Electric Current-Assisted Sintering of Lunar Regolith Simulant. *Materials*, **2020**, 13,	3.5	1

513	Integration of highly anisotropic multiferroic BaTiO3 nanocomposite thin films on Si towards device applications. *Nanoscale Advances*, **2020**, 2, 4172-4178	5.1	6
512	Induced ferroelectric phases in SrTiO by a nanocomposite approach. *Nanoscale*, **2020**, 12, 18193-18199	7.7	6
511	Bidirectional tuning of phase transition properties in Pt : VO nanocomposite thin films. *Nanoscale*, **2020**, 12, 17886-17894	7.7	3
510	Flash sintering incubation kinetics. *Npj Computational Materials*, **2020**, 6,	10.9	13
509	Self-assembled nitride-metal nanocomposites: recent progress and future prospects. *Nanoscale*, **2020**, 12, 20564-20579	7.7	5
508	Study of BaCe0.4Zr0.4Y0.2O3-/BaCe0.8Pr0.2O3- (BCZY/BCP) bilayer membrane for Protonic Conductor Solid Oxide Fuel Cells (PC-SOFC). *International Journal of Hydrogen Energy*, **2020**, 45, 5481-5490	6.7	9
507	Achieving ferromagnetic insulating properties in LaBaMnO thin films through nanoengineering. *Nanoscale*, **2020**, 12, 9255-9265	7.7	7
506	High strength, deformable nanotwinned Al o alloys. *Materials Research Letters*, **2019**, 7, 33-39	7.4	22
505	Surface Functionalization of Layered Molybdenum Disulfide for the Selective Detection of Volatile Organic Compounds at Room Temperature. *ACS Applied Materials & Interfaces*, **2019**, 11, 34135-34143	9.5	44
504	Plasmonic Cu nanostructures in ZnO as hyperbolic metamaterial thin films. *Materials Today Nano*, **2019**, 8, 100052	9.7	26
503	Nanoscale stacking fault-assisted room temperature plasticity in flash-sintered TiO. *Science Advances*, **2019**, 5, eaaw5519	14.3	35
502	Hybrid plasmonic Au iN vertically aligned nanocomposites: a nanoscale platform towards tunable optical sensing. *Nanoscale Advances*, **2019**, 1, 1045-1054	5.1	28
501	Strain and property tuning of the 3D framed epitaxial nanocomposite thin films via interlayer thickness variation. *Journal of Applied Physics*, **2019**, 125, 082530	2.5	13
500	9R phase enabled superior radiation stability of nanotwinned Cu alloys via in situ radiation at elevated temperature. *Acta Materialia*, **2019**, 167, 248-256	8.4	10
499	Comparison Study of the Flux Pinning Enhancement of YBa2Cu3O7 Thin Films With BaHfO3 + Y2O3 Single- and Mixed-Phase Additions. *IEEE Transactions on Applied Superconductivity*, **2019**, 29, 1-5	1.8	4
498	AlN-based hybrid thin films with self-assembled plasmonic Au and Ag nanoinclusions. *Applied Physics Letters*, **2019**, 114, 023103	3.4	5
497	Strain-driven nanodumbbell structure and enhanced physical properties in hybrid vertically aligned nanocomposite thin films. *Applied Materials Today*, **2019**, 16, 204-212	6.6	17
496	Multiferroic vertically aligned nanocomposite with CoFe2O4 nanocones embedded in layered Bi2WO6 matrix. *Materials Research Letters*, **2019**, 7, 418-425	7.4	10

495	Size dependent strengthening in high strength nanotwinned Al/Ti multilayers. *Acta Materialia*, **2019**, 175, 466-476	8.4	26
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