

Hai-Yan Wang

List of Publications by Citations

Source: <https://exaly.com/author-pdf/5333061/hai-yan-wang-publications-by-citations.pdf>
Version: 2024-04-10

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Strongly enhanced current densities in superconducting coated conductors of YBa ₂ Cu ₃ O _{7-x} + BaZrO ₃ . <i>Nature Materials</i> , 2004 , 3, 439-43	27	1034
655	Highly anisotropic and robust excitons in monolayer black phosphorus. <i>Nature Nanotechnology</i> , 2015 , 10, 517-21	28.7	999
654	Materials science challenges for high-temperature superconducting wire. <i>Nature Materials</i> , 2007 , 6, 631-42	27	596
653	Stainless steel as bipolar plate material for polymer electrolyte membrane fuel cells. <i>Journal of Power Sources</i> , 2003 , 115, 243-251	8.9	507
652	Deformation behavior and plastic instabilities of ultrafine-grained titanium. <i>Applied Physics Letters</i> , 2001 , 79, 611-613	3.4	378
651	Strain control and spontaneous phase ordering in vertical nanocomposite heteroepitaxial thin films. <i>Nature Materials</i> , 2008 , 7, 314-20	27	297
650	Polymer-assisted deposition of metal-oxide films. <i>Nature Materials</i> , 2004 , 3, 529-32	27	283
649	Strain hardening and large tensile elongation in ultrahigh-strength nano-twinned copper. <i>Applied Physics Letters</i> , 2004 , 85, 4932-4934	3.4	278
648	Angular-dependent vortex pinning mechanisms in YBa ₂ Cu ₃ O ₇ coated conductors and thin films. <i>Applied Physics Letters</i> , 2004 , 84, 2121-2123	3.4	246
647	Enhanced tensile ductility and toughness in nanostructured Cu. <i>Applied Physics Letters</i> , 2002 , 80, 2395-2397	3.7	223
646	Enhanced hardening in Cu/330 stainless steel multilayers by nanoscale twinning. <i>Acta Materialia</i> , 2004 , 52, 995-1002	8.4	222
645	Thick lead-free ferroelectric films with high Curie temperatures through nanocomposite-induced strain. <i>Nature Nanotechnology</i> , 2011 , 6, 491-5	28.7	191
644	Thermal stability of sputtered Cu films with nanoscale growth twins. <i>Journal of Applied Physics</i> , 2008 , 103, 094322	2.5	188
643	Nanoscale-twinning-induced strengthening in austenitic stainless steel thin films. <i>Applied Physics Letters</i> , 2004 , 84, 1096-1098	3.4	183
642	Radiation damage in nanostructured materials. <i>Progress in Materials Science</i> , 2018 , 96, 217-321	42.2	178
641	Mechanical properties of highly textured Cu/Ni multilayers. <i>Acta Materialia</i> , 2011 , 59, 1924-1933	8.4	172
640	High-strength sputter-deposited Cu foils with preferred orientation of nanoscale growth twins. <i>Applied Physics Letters</i> , 2006 , 88, 173116	3.4	172

639	Overcoming the barrier to 1000Åm width superconducting coatings. <i>Applied Physics Letters</i> , 2005 , 87, 162505	3.4	167
638	Rectifying current-voltage characteristics of BiFeO ₃ /Nb-doped SrTiO ₃ heterojunction. <i>Applied Physics Letters</i> , 2008 , 92, 102113	3.4	166
637	Interface enabled defects reduction in helium ion irradiated Cu/V nanolayers. <i>Journal of Nuclear Materials</i> , 2010 , 407, 178-188	3.3	163
636	Epitaxial nanotwinned Cu films with high strength and high conductivity. <i>Applied Physics Letters</i> , 2008 , 93, 083108	3.4	159
635	Tunable Low-Field Magnetoresistance in (La _{0.7} Sr _{0.3} MnO ₃) _{0.5} :(ZnO) _{0.5} Self-Assembled Vertically Aligned Nanocomposite Thin Films. <i>Advanced Functional Materials</i> , 2011 , 21, 2423-2429	15.6	158
634	Temperature and strain rate effects on the strength and ductility of nanostructured copper. <i>Applied Physics Letters</i> , 2003 , 83, 3165-3167	3.4	155
633	He ion irradiation damage in Fe/W nanolayer films. <i>Journal of Nuclear Materials</i> , 2009 , 389, 233-238	3.3	152
632	Preferential thermal nitridation to form pin-hole free Cr-nitrides to protect proton exchange membrane fuel cell metallic bipolar plates. <i>Scripta Materialia</i> , 2004 , 50, 1017-1022	5.6	152
631	Giant optical anisotropy in a quasi-one-dimensional crystal. <i>Nature Photonics</i> , 2018 , 12, 392-396	33.9	148
630	A ferroelectric semiconductor field-effect transistor. <i>Nature Electronics</i> , 2019 , 2, 580-586	28.4	144
629	Structural, electrical, and terahertz transmission properties of VO ₂ thin films grown on c-, r-, and m-plane sapphire substrates. <i>Journal of Applied Physics</i> , 2012 , 111, 053533	2.5	142
628	Reviewing Metallic PEMFC Bipolar Plates. <i>Fuel Cells</i> , 2010 , 10, 510-519	2.9	142
627	Removal of stacking-fault tetrahedra by twin boundaries in nanotwinned metals. <i>Nature Communications</i> , 2013 , 4, 1377	17.4	136
626	Microstructure, vertical strain control and tunable functionalities in self-assembled, vertically aligned nanocomposite thin films. <i>Acta Materialia</i> , 2013 , 61, 2783-2792	8.4	132
625	Radiation damage in helium ion irradiated nanocrystalline Fe. <i>Journal of Nuclear Materials</i> , 2012 , 425, 140-146	3.3	129
624	Controlled Growth of a Large-Size 2D Selenium Nanosheet and Its Electronic and Optoelectronic Applications. <i>ACS Nano</i> , 2017 , 11, 10222-10229	16.7	128
623	Mechanical properties of sputtered Cu/V and Al/Nb multilayer films. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 493, 283-287	5.3	128
622	On the origin of ultrahigh cryogenic strength of nanocrystalline metals. <i>Applied Physics Letters</i> , 2004 , 85, 2750-2752	3.4	125

621	Systematic enhancement of in-field critical current density with rare-earth ion size variance in superconducting rare-earth barium cuprate films. <i>Applied Physics Letters</i> , 2004 , 84, 5329-5331	3.4	117
620	Strongly enhanced oxygen ion transport through samarium-doped CeO ₂ nanopillars in nanocomposite films. <i>Nature Communications</i> , 2015 , 6, 8588	17.4	116
619	Oxygen concentration and its effect on the leakage current in BiFeO ₃ thin films. <i>Applied Physics Letters</i> , 2010 , 96, 012909	3.4	116
618	Nanostructured Cu/Nb multilayers subjected to helium ion-irradiation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007 , 261, 1129-1132	1.2	113
617	Thermally nitrided stainless steels for polymer electrolyte membrane fuel cell bipolar plates. <i>Journal of Power Sources</i> , 2004 , 138, 86-93	8.9	113
616	High strength, epitaxial nanotwinned Ag films. <i>Acta Materialia</i> , 2011 , 59, 93-101	8.4	110
615	Thermally nitrided stainless steels for polymer electrolyte membrane fuel cell bipolar plates. <i>Journal of Power Sources</i> , 2004 , 138, 79-85	8.9	109
614	Strongly coupled critical current density values achieved in YBa ₂ Cu ₃ O _{7-x} coated conductors with near-single-crystal texture. <i>Applied Physics Letters</i> , 2003 , 82, 4519-4521	3.4	109
613	Self-assembled, rare earth tantalate pyrochlore nanoparticles for superior flux pinning in YBa ₂ Cu ₃ O _{7-x} films. <i>Superconductor Science and Technology</i> , 2009 , 22, 022001	3.1	105
612	Studies of deformation mechanisms in ultra-fine-grained and nanostructured Zn. <i>Acta Materialia</i> , 2002 , 50, 4823-4830	8.4	96
611	Identification of intrinsic ab-plane pinning in YBa ₂ /sub 2/Cu/sub 3/O/sub 7/ thin films and coated conductors. <i>IEEE Transactions on Applied Superconductivity</i> , 2005 , 15, 2808-2811	1.8	95
610	Stacking fault and partial dislocation dominated strengthening mechanisms in highly textured Cu/Co multilayers. <i>International Journal of Plasticity</i> , 2013 , 49, 152-163	7.6	91
609	Size dependent enhancement of helium ion irradiation tolerance in sputtered Cu/V nanolaminates. <i>Journal of Nuclear Materials</i> , 2009 , 385, 629-632	3.3	90
608	Microstructure and strengthening mechanisms in Cu/Fe multilayers. <i>Acta Materialia</i> , 2012 , 60, 6312-6321	8.4	89
607	Vertically Aligned Nanocomposite Thin Films as a Cathode/Electrolyte Interface Layer for Thin-Film Solid Oxide Fuel Cells. <i>Advanced Functional Materials</i> , 2009 , 19, 3868-3873	15.6	88
606	Interfacial coupling in heteroepitaxial vertically aligned nanocomposite thin films: From lateral to vertical control. <i>Current Opinion in Solid State and Materials Science</i> , 2014 , 18, 6-18	12	87
605	Vertical Interface Effect on the Physical Properties of Self-Assembled Nanocomposite Epitaxial Films. <i>Advanced Materials</i> , 2009 , 21, 3794-3798	24	82
604	In situ nanoindentation study on plasticity and work hardening in aluminium with incoherent twin boundaries. <i>Nature Communications</i> , 2014 , 5, 4864	17.4	81

603	In situ Evidence of Defect Cluster Absorption by Grain Boundaries in Kr Ion Irradiated Nanocrystalline Ni. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013 , 44, 1966-1974	2.3	81
602	Understanding High Critical Currents in YBa ₂ Cu ₃ O ₇ Thin Films and Coated Conductors. <i>Journal of Low Temperature Physics</i> , 2004 , 135, 87-98	1.3	81
601	Damage-tolerant nanotwinned metals with nanovoids under radiation environments. <i>Nature Communications</i> , 2015 , 6, 7036	17.4	79
600	In situ study of defect migration kinetics and self-healing of twin boundaries in heavy ion irradiated nanotwinned metals. <i>Nano Letters</i> , 2015 , 15, 2922-7	11.5	78
599	Nanotwins and stacking faults in high-strength epitaxial Ag/Al multilayer films. <i>Applied Physics Letters</i> , 2012 , 101, 223112	3.4	78
598	Evidence for the formation mechanism of nanoscale microstructures in cryomilled Zn powder. <i>Acta Materialia</i> , 2001 , 49, 1319-1326	8.4	78
597	Thick YBa ₂ Cu ₃ O _{7-x} /BaSnO ₃ films with enhanced critical current density at high magnetic fields. <i>Applied Physics Letters</i> , 2008 , 93, 092501	3.4	77
596	Strong oxygen pressure dependence of ferroelectricity in BaTiO ₃ /SrRuO ₃ /SrTiO ₃ epitaxial heterostructures. <i>Journal of Applied Physics</i> , 2013 , 114, 124101	2.5	76
595	Influence of crystalline texture on vortex pinning near the ab-plane in YBa ₂ Cu ₃ O ₇ thin films and coated conductors. <i>Physica C: Superconductivity and Its Applications</i> , 2004 , 412-414, 976-982	1.3	75
594	Self-Assembled Epitaxial Au-Oxide Vertically Aligned Nanocomposites for Nanoscale Metamaterials. <i>Nano Letters</i> , 2016 , 16, 3936-43	11.5	75
593	Ionic Conductivity Increased by Two Orders of Magnitude in Micrometer-Thick Vertical Yttria-Stabilized ZrO ₂ Nanocomposite Films. <i>Nano Letters</i> , 2015 , 15, 7362-9	11.5	73
592	Interface lattice displacement measurement to 1pm by geometric phase analysis on aberration-corrected HAADF STEM images. <i>Acta Materialia</i> , 2013 , 61, 5646-5663	8.4	73
591	High power density thin film SOFCs with YSZ/GDC bilayer electrolyte. <i>Electrochimica Acta</i> , 2011 , 56, 5472-5477	6.5	71
590	Role of scaffold network in controlling strain and functionalities of nanocomposite films. <i>Science Advances</i> , 2016 , 2, e1600245	14.3	70
589	Enhanced radiation tolerance of ultrafine grained Fe-Cr-Ni alloy. <i>Journal of Nuclear Materials</i> , 2012 , 420, 235-240	3.3	68
588	New epitaxy paradigm in epitaxial self-assembled oxide vertically aligned nanocomposite thin films. <i>Journal of Materials Research</i> , 2017 , 32, 4054-4066	2.5	68
587	Self-assembled oxide films with tailored nanoscale ionic and electronic channels for controlled resistive switching. <i>Nature Communications</i> , 2016 , 7, 12373	17.4	67
586	Formation Mechanisms of High-density Growth Twins in Aluminum with High Stacking-Fault Energy. <i>Materials Research Letters</i> , 2013 , 1, 51-60	7.4	67

- 585 A new class of room-temperature multiferroic thin films with bismuth-based supercell structure. *Advanced Materials*, **2013**, 25, 1028-32 24 66
- 584 VO₂ multidomain heteroepitaxial growth and terahertz transmission modulation. *Applied Physics Letters*, **2010**, 97, 211905 3.4 66
- 583 He ion irradiation damage in Al_{0.5}Ni_{0.5} multilayers. *Journal of Applied Physics*, **2009**, 105, 123522 2.5 66
- 582 Superior radiation-resistant nanoengineered austenitic 304L stainless steel for applications in extreme radiation environments. *Scientific Reports*, **2015**, 5, 7801 4.9 65
- 581 Tensile elongation (110%) observed in ultrafine-grained Zn at room temperature. *Applied Physics Letters*, **2002**, 81, 823-825 3.4 65
- 580 In situ nanoindentation study of plastic co-deformation in Al-TiN nanocomposites. *Scientific Reports*, **2014**, 4, 6633 4.9 63
- 579 In situ studies of irradiation-induced twin boundary migration in nanotwinned Ag. *Scripta Materialia*, **2013**, 69, 385-388 5.6 63
- 578 Continuous Tuning of Phase Transition Temperature in VO Thin Films on c-Cut Sapphire Substrates via Strain Variation. *ACS Applied Materials & Interfaces*, **2017**, 9, 5319-5327 9.5 62
- 577 Novel electroforming-free nanoscaffold memristor with very high uniformity, tunability, and density. *Advanced Materials*, **2014**, 26, 6284-9 24 62
- 576 Multifunctional, self-assembled oxide nanocomposite thin films and devices. *MRS Bulletin*, **2015**, 40, 736-745 3.45 62
- 575 The influence of interfaces on the formation of bubbles in He-ion-irradiated Cu/Mo nanolayers. *Philosophical Magazine Letters*, **2011**, 91, 18-28 1 62
- 574 Unusual size-dependent strengthening mechanisms in helium ion-irradiated immiscible coherent Cu/Co nanolayers. *Acta Materialia*, **2015**, 84, 393-404 8.4 61
- 573 High-Strength Nanotwinned Al Alloys with 9R Phase. *Advanced Materials*, **2018**, 30, 1704629 24 60
- 572 State-of-the-art flux pinning in YBa₂Cu₃O_{7-x} by the creation of highly linear, segmented nanorods of Ba₂(Y/Gd)(Nb/Ta)O₆ together with nanoparticles of (Y/Gd)₂O₃ and (Y/Gd)Ba₂Cu₄O₈. *Superconductor Science and Technology*, **2011**, 24, 095012 3.1 60
- 571 Response of nanocrystalline 3C silicon carbide to heavy-ion irradiation. *Physical Review B*, **2009**, 80, 3.3 60
- 570 Ion irradiation effects in nanocrystalline TiN coatings. *Nuclear Instruments & Methods in Physics Research B*, **2007**, 261, 1162-1166 1.2 60
- 569 Low field magnetotransport properties of (La_{0.7}Sr_{0.3}MnO₃)_{0.5}:(ZnO)_{0.5} nanocomposite films. *Applied Physics Letters*, **2006**, 88, 192514 3.4 60
- 568 Enhancement and angular dependence of transport critical current density in pulsed laser deposited YBa₂Cu₃O_{7-x}/BaSnO₃ films in applied magnetic fields. *Journal of Applied Physics*, **2007**, 102, 063909 2.5 60

567	Structural and dielectric properties of epitaxial $\text{Ba}_{1-x}\text{Sr}_x\text{TiO}_3$ films grown on LaAlO_3 substrates by polymer-assisted deposition. <i>Applied Physics Letters</i> , 2004 , 85, 5007-5009	3.4	60
566	Microstructure, magnetic, and low-field magnetotransport properties of self-assembled $(\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3)_{0.5}:(\text{CeO}_2)_{0.5}$ vertically aligned nanocomposite thin films. <i>Nanotechnology</i> , 2011 , 22, 315712	3.4	59
565	High critical current YBCO coated conductors based on IBAD MgO. <i>Physica C: Superconductivity and Its Applications</i> , 2004 , 412-414, 795-800	1.3	59
564	Comparisons of radiation damage in He ion and proton irradiated immiscible Ag/Ni nanolayers. <i>Journal of Nuclear Materials</i> , 2013 , 440, 310-318	3.3	58
563	Extremely high tunability and low loss in nanoscaffold ferroelectric films. <i>Nano Letters</i> , 2012 , 12, 4311-711.5	11.5	58
562	Leakage mechanisms of self-assembled $(\text{BiFeO}_3)_{0.5}:(\text{Sm}_2\text{O}_3)_{0.5}$ nanocomposite films. <i>Applied Physics Letters</i> , 2008 , 93, 142904	3.4	58
561	How $(\text{Ba}_{0.5}\text{Sr}_{0.5})(\text{Fe}_{0.8}\text{Zn}_{0.2})\text{O}_3$ and $(\text{Ba}_{0.5}\text{Sr}_{0.5})(\text{Co}_{0.8}\text{Fe}_{0.2})\text{O}_3$ Perovskites Form via an EDTA/Citric Acid Complexing Method. <i>Advanced Materials</i> , 2007 , 19, 2134-2140	2.4	58
560	Application of weak ferromagnetic BiFeO_3 films as the photoelectrode material under visible-light irradiation. <i>Applied Physics Letters</i> , 2007 , 91, 022114	3.4	58
559	Rare earth ion size effects and enhanced critical current densities in $\text{Y}_{2-x}\text{Sm}_x\text{Ba}_2\text{Cu}_3\text{O}_{7-x}$ coated conductors. <i>Applied Physics Letters</i> , 2005 , 86, 032505	3.4	58
558	In situ study of defect migration kinetics in nanoporous Ag with enhanced radiation tolerance. <i>Scientific Reports</i> , 2014 , 4, 3737	4.9	57
557	Direct observation of Lomer-Cottrell locks during strain hardening in nanocrystalline nickel by in situ TEM. <i>Scientific Reports</i> , 2013 , 3, 1061	4.9	57
556	Growth of $\sim 5 \text{ cm}^2/\text{Vs}$ mobility, p-type Copper(I) oxide (Cu_2O) films by fast atmospheric atomic layer deposition (AALD) at 225°C and below. <i>AIP Advances</i> , 2012 , 2, 042179	1.5	57
555	Green luminescent zinc oxide films prepared by polymer-assisted deposition with rapid thermal process. <i>Thin Solid Films</i> , 2005 , 492, 101-104	2.2	57
554	In situ studies on radiation tolerance of nanotwinned Cu. <i>Acta Materialia</i> , 2016 , 111, 148-156	8.4	56
553	High temperature deformability of ductile flash-sintered ceramics via in-situ compression. <i>Nature Communications</i> , 2018 , 9, 2063	17.4	56
552	Superior corrosion resistance properties of TiN-based coatings on Zircaloy tubes in supercritical water. <i>Journal of Nuclear Materials</i> , 2014 , 451, 346-351	3.3	55
551	Effects of deposition parameters on residual stresses, hardness and electrical resistivity of nanoscale twinned 330 stainless steel thin films. <i>Journal of Applied Physics</i> , 2005 , 97, 094302	2.5	55
550	Self-assembled Co-BaZrO nanocomposite thin films with ultra-fine vertically aligned Co nanopillars. <i>Nanoscale</i> , 2017 , 9, 7970-7976	7.7	54

549	Raman response and transport properties of tellurium atomic chains encapsulated in nanotubes. <i>Nature Electronics</i> , 2020 , 3, 141-147	28.4	54
548	In-situ observation of oxygen mobility and abnormal lattice expansion in ceria during flash sintering. <i>Ceramics International</i> , 2018 , 44, 15362-15369	5.1	54
547	Induced magnetization in La _{0.7} Sr _{0.3} MnO ₃ /BiFeO ₃ superlattices. <i>Physical Review Letters</i> , 2014 , 113, 047204	7.4	52
546	Integration of self-assembled vertically aligned nanocomposite (La _{0.7} Sr _{0.3} MnO ₃)(1-x):(ZnO) _x thin films on silicon substrates. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 3995-9	9.5	51
545	A roadmap for tailoring the strength and ductility of ferritic/martensitic T91 steel via thermo-mechanical treatment. <i>Acta Materialia</i> , 2016 , 112, 361-377	8.4	50
544	Composite epitaxial thin films: A new platform for tuning, probing, and exploiting mesoscale oxides. <i>MRS Bulletin</i> , 2015 , 40, 933-942	3.2	50
543	P-type ZnO thin films achieved by N ⁺ ion implantation through dynamic annealing process. <i>Applied Physics Letters</i> , 2012 , 101, 112101	3.4	50
542	The formation of protective nitride surfaces for PEM fuel cell metallic bipolar plates. <i>Jom</i> , 2006 , 58, 50-57	5.1	50
541	Influence of naturally grown nanoparticles at the buffer layer in the flux pinning in YBa ₂ Cu ₃ O ₇ coated conductors. <i>Superconductor Science and Technology</i> , 2006 , 19, 891-895	3.1	50
540	Design of Radiation Tolerant Nanostructured Metallic Multilayers. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2012 , 134,	1.8	49
539	Preparation of bulk ultrafine-grained and nanostructured Zn, Al and their alloys by in situ consolidation of powders during mechanical attrition. <i>Scripta Materialia</i> , 2002 , 46, 661-665	5.6	48
538	Vertically aligned nanocomposite electrolytes with superior out-of-plane ionic conductivity for solid oxide fuel cells. <i>Journal of Power Sources</i> , 2013 , 242, 455-463	8.9	47
537	Electrochemical Properties of Nanocrystalline La _{0.5} Sr _{0.5} CoO ₃ Thin Films. <i>Chemistry of Materials</i> , 2010 , 22, 776-782	9.6	47
536	Epitaxial growth of ZnO films on Si(111). <i>Journal of Materials Research</i> , 2002 , 17, 2480-2483	2.5	47
535	Unusual size dependent strengthening mechanisms of Cu/amorphous CuNb multilayers. <i>Acta Materialia</i> , 2016 , 120, 327-336	8.4	46
534	Significant enhancement of the strength-to-resistivity ratio by nanotwins in epitaxial Cu films. <i>Journal of Applied Physics</i> , 2009 , 106, 024313	2.5	46
533	Structural and dielectric properties of epitaxial Sm ₂ O ₃ thin films. <i>Applied Physics Letters</i> , 2008 , 92, 062905	9.5	46
532	High-speed atmospheric atomic layer deposition of ultra thin amorphous TiO ₂ blocking layers at 100 °C for inverted bulk heterojunction solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2013 , 21, 393-400	6.8	45

531	Controlling Oxidation States in Uranium Oxides through Epitaxial Stabilization. <i>Advanced Materials</i> , 2007 , 19, 3559-3563	24	45
530	Multifunctional LaSrMnO (LSMO) Thin Films Integrated on Mica Substrates toward Flexible Spintronics and Electronics. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 42698-42705	9.5	45
529	Surface Functionalization of Layered Molybdenum Disulfide for the Selective Detection of Volatile Organic Compounds at Room Temperature. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 34135-34143	14.5	44
528	Three-dimensional strain engineering in epitaxial vertically aligned nanocomposite thin films with tunable magnetotransport properties. <i>Materials Horizons</i> , 2018 , 5, 536-544	14.4	44
527	Mechanical behavior of structurally gradient nickel alloy. <i>Acta Materialia</i> , 2018 , 149, 57-67	8.4	44
526	Nanoscale Artificial Plasmonic Lattice in Self-Assembled Vertically Aligned Nitride-Metal Hybrid Metamaterials. <i>Advanced Science</i> , 2018 , 5, 1800416	13.6	44
525	Thermal stability of twins and strengthening mechanisms in differently oriented epitaxial nanotwinned Ag films. <i>Journal of Materials Research</i> , 2013 , 28, 1729-1739	2.5	44
524	Hysteretic vortex pinning in superconductor-ferromagnet nanocomposites. <i>Physical Review Letters</i> , 2007 , 98, 117003	7.4	44
523	Nanostructured cathode thin films with vertically-aligned nanopores for thin film SOFC and their characteristics. <i>Applied Surface Science</i> , 2007 , 254, 266-269	6.7	44
522	Inhomogeneous reduction and its relation to grain growth of titania during flash sintering. <i>Scripta Materialia</i> , 2018 , 155, 37-40	5.6	43
521	Size-dependent radiation tolerance in ion irradiated TiN/AlN nanolayer films. <i>Journal of Nuclear Materials</i> , 2013 , 441, 47-53	3.3	43
520	Epitaxial superconducting EMoN films grown by a chemical solution method. <i>Journal of the American Chemical Society</i> , 2011 , 133, 20735-7	16.4	43
519	Ultra-smooth glassy graphene thin films for flexible transparent circuits. <i>Science Advances</i> , 2016 , 2, e1601534	14.34	43
518	Strong room temperature exchange bias in self-assembled BiFeO ₃ /Fe ₃ O ₄ nanocomposite heteroepitaxial films. <i>Applied Physics Letters</i> , 2013 , 102, 012905	3.4	42
517	Strain relaxation and enhanced perpendicular magnetic anisotropy in BiFeO ₃ /CoFe ₂ O ₄ vertically aligned nanocomposite thin films. <i>Applied Physics Letters</i> , 2014 , 104, 062402	3.4	42
516	Plasticity and ultra-low stress induced twin boundary migration in nanotwinned Cu by in situ nanoindentation studies. <i>Applied Physics Letters</i> , 2014 , 104, 231910	3.4	42
515	Protective nitride formation on stainless steel alloys for proton exchange membrane fuel cell bipolar plates. <i>Journal of Power Sources</i> , 2007 , 174, 228-236	8.9	42
514	Comparison of size dependent strengthening mechanisms in Ag/Fe and Ag/Ni multilayers. <i>Acta Materialia</i> , 2016 , 114, 154-163	8.4	42

513	Self-Assembled Ordered Three-Phase Au-BaTiO ₃ -ZnO Vertically Aligned Nanocomposites Achieved by a Templating Method. <i>Advanced Materials</i> , 2019 , 31, e1806529	24	42
512	Strain Tuning and Strong Enhancement of Ionic Conductivity in SrZrO ₃ RE ₂ O ₃ (RE = Sm, Eu, Gd, Dy, and Er) Nanocomposite Films. <i>Advanced Functional Materials</i> , 2015 , 25, 4328-4333	15.6	41
511	Controlling factors in tensile deformation of nanocrystalline cobalt and nickel. <i>Physical Review B</i> , 2012 , 85,	3.3	41
510	Fluence-dependent radiation damage in helium (He) ion-irradiated Cu/V multilayers. <i>Philosophical Magazine</i> , 2013 , 93, 883-898	1.6	41
509	Superior tolerance of Ag/Ni multilayers against Kr ion irradiation: an in situ study. <i>Philosophical Magazine</i> , 2013 , 93, 3547-3562	1.6	41
508	Single-Crystalline Thin Films for Studying Intrinsic Properties of BiFeO ₃ /SrTiO ₃ Solid Solution Photoelectrodes in Solar Energy Conversion. <i>Chemistry of Materials</i> , 2015 , 27, 6635-6641	9.6	40
507	Precise Tuning of (YBa ₂ Cu ₃ O _{7-x}) _{1-x} (BaZrO ₃) _x Thin Film Nanocomposite Structures. <i>Advanced Functional Materials</i> , 2014 , 24, 5240-5245	15.6	40
506	Sharp semiconductor-to-metal transition of VO ₂ thin films on glass substrates. <i>Journal of Applied Physics</i> , 2013 , 114, 244301	2.5	40
505	Microstructural and magnetic properties of (La _{0.7} Sr _{0.3} MnO ₃) _{0.7} :(Mn ₃ O ₄) _{0.3} nanocomposite thin films. <i>Journal of Applied Physics</i> , 2011 , 109, 054302	2.5	40
504	Formation of epitaxial Au/Ni/Au ohmic contacts to p-GaN. <i>Applied Physics Letters</i> , 2002 , 81, 3978-3980	3.4	40
503	Ultrafast measurements of polarization switching dynamics on ferroelectric and anti-ferroelectric hafnium zirconium oxide. <i>Applied Physics Letters</i> , 2019 , 115, 072107	3.4	39
502	Chemical solution deposition of epitaxial carbide films. <i>Journal of the American Chemical Society</i> , 2010 , 132, 2516-7	16.4	39
501	Why InO Can Make 0.7 nm Atomic Layer Thin Transistors. <i>Nano Letters</i> , 2021 , 21, 500-506	11.5	39
500	The role of point defects and defect gradients in flash sintering of perovskite oxides. <i>Acta Materialia</i> , 2019 , 165, 398-408	8.4	39
499	Room-Temperature Electrocaloric Effect in Layered Ferroelectric CuInPS for Solid-State Refrigeration. <i>ACS Nano</i> , 2019 , 13, 8760-8765	16.7	38
498	Oxygen-vacancy-induced antiferromagnetism to ferromagnetism transformation in Eu _{1-x} Ba _x MnO ₃ multiferroic thin films. <i>Scientific Reports</i> , 2013 , 3, 2618	4.9	38
497	Ferroelectric properties of vertically aligned nanostructured BaTiO ₃ -CeO ₂ thin films and their integration on silicon. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 12541-7	9.5	38
496	Resonance Raman spectroscopy of G-line and folded phonons in twisted bilayer graphene with large rotation angles. <i>Applied Physics Letters</i> , 2013 , 103, 123101	3.4	38

495	Growth of thick YBa ₂ Cu ₃ O _{7-x} films carrying a critical current of over 230 A/cm on single LaMnO ₃ -buffered ion-beam assisted deposition MgO substrates. <i>Journal of Materials Research</i> , 2003 , 18, 2055-2059	2.5	38
494	Copper diffusion characteristics in single-crystal and polycrystalline TaN. <i>Applied Physics Letters</i> , 2002 , 81, 1453-1455	3.4	38
493	Strong perpendicular exchange bias in epitaxial La(0.7)Sr(0.3)MnO ₃ :BiFeO ₃ nanocomposite films through vertical interfacial coupling. <i>Nanoscale</i> , 2015 , 7, 13808-15	7.7	37
492	Perpendicular Exchange-Biased Magnetotransport at the Vertical Heterointerfaces in La(0.7)Sr(0.3)MnO ₃ :NiO Nanocomposites. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 21646-51	9.5	37
491	Very High Surface Area Mesoporous Thin Films of SrTiO ₃ Grown by Pulsed Laser Deposition and Application to Efficient Photoelectrochemical Water Splitting. <i>Nano Letters</i> , 2016 , 16, 7338-7345	11.5	37
490	Orientation-dependent hardness and strain rate sensitivity in nanotwin copper. <i>Applied Physics Letters</i> , 2012 , 100, 261912	3.4	37
489	Role of silver addition in the synthesis of high critical current density MgB ₂ bulk superconductors. <i>Superconductor Science and Technology</i> , 2003 , 16, 455-458	3.1	37
488	Microstructure of SrTiO ₃ buffer layers and its effects on superconducting properties of YBa ₂ Cu ₃ O _{7-x} coated conductors. <i>Journal of Materials Research</i> , 2004 , 19, 1869-1875	2.5	37
487	Epitaxial Growth of 1D Atomic Chain Based Se Nanoplates on Monolayer ReS ₂ for High-Performance Photodetectors. <i>Advanced Functional Materials</i> , 2018 , 28, 1806254	15.6	37
486	The formation mechanisms of growth twins in polycrystalline Al with high stacking fault energy. <i>Acta Materialia</i> , 2015 , 101, 62-70	8.4	36
485	A new method for reliable determination of strain-rate sensitivity of low-dimensional metallic materials by using nanoindentation. <i>Scripta Materialia</i> , 2014 , 77, 5-8	5.6	36
484	Strong room temperature magnetism in highly resistive strained thin films of BiFe _{0.5} Mn _{0.5} O ₃ . <i>Applied Physics Letters</i> , 2011 , 98, 012509	3.4	36
483	Strengthening mechanisms in nanostructured copper/304 stainless steel multilayers. <i>Journal of Materials Research</i> , 2003 , 18, 1600-1606	2.5	36
482	Nanoscale stacking fault-assisted room temperature plasticity in flash-sintered TiO. <i>Science Advances</i> , 2019 , 5, eaaw5519	14.3	35
481	Amorphization of nanocrystalline 3CβC irradiated with Si ⁺ ions. <i>Journal of Materials Research</i> , 2010 , 25, 2341-2348	2.5	35
480	Growth-controlled surface roughness in Al-doped ZnO as transparent conducting oxide. <i>Nanotechnology</i> , 2009 , 20, 395704	3.4	35
479	The role of a superconducting seed layer in the structural and transport properties of EuBa ₂ Cu ₃ O _{7-x} films. <i>Applied Physics Letters</i> , 2003 , 83, 1388-1390	3.4	35
478	In situ study of heavy ion irradiation response of immiscible Cu/Fe multilayers. <i>Journal of Nuclear Materials</i> , 2016 , 475, 274-279	3.3	35

477	Transparent p-type epitaxial thin films of nickel oxide. <i>Chemical Communications</i> , 2014 , 50, 1854-6	5.8	34
476	New strain states and radical property tuning of metal oxides using a nanocomposite thin film approach. <i>APL Materials</i> , 2015 , 3, 062507	5.7	34
475	Pre-oxidized and nitrided stainless steel alloy foil for proton exchange membrane fuel cell bipolar plates: Part 1. Corrosion, interfacial contact resistance, and surface structure. <i>Journal of Power Sources</i> , 2010 , 195, 5610-5618	8.9	34
474	Tunable lattice strain in vertically aligned nanocomposite (BiFeO ₃) _x :(Sm ₂ O ₃) _{1-x} thin films. <i>Journal of Applied Physics</i> , 2009 , 106, 094309	2.5	34
473	Epitaxial growth of Eu ₂ O ₃ thin films on LaAlO ₃ substrates by polymer-assisted deposition. <i>Applied Physics Letters</i> , 2004 , 85, 3426-3428	3.4	34
472	Vertical-interface-manipulated conduction behavior in nanocomposite oxide thin films. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 5356-61	9.5	33
471	Room Temperature Ferrimagnetism and Ferroelectricity in Strained, Thin Films of BiFeMnO. <i>Advanced Functional Materials</i> , 2014 , 24, 7478-7487	15.6	33
470	Textured metastable VO ₂ (B) thin films on SrTiO ₃ substrates with significantly enhanced conductivity. <i>Applied Physics Letters</i> , 2014 , 104, 071909	3.4	33
469	Modulated oscillatory hardening and dynamic recrystallization in cryomilled nanocrystalline Zn. <i>Acta Materialia</i> , 2002 , 50, 3995-4004	8.4	33
468	Mechanical properties of nanocrystalline and epitaxial TiN films on (100) silicon. <i>Journal of Materials Research</i> , 2001 , 16, 2733-2738	2.5	33
467	Self-Assembled Magnetic Metallic Nanopillars in Ceramic Matrix with Anisotropic Magnetic and Electrical Transport Properties. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 20283-91	9.5	33
466	TiN-based coatings on fuel cladding tubes for advanced nuclear reactors. <i>Journal of Nuclear Materials</i> , 2012 , 429, 143-148	3.3	32
465	A formation mechanism for ultra-thin nanotwins in highly textured Cu/Ni multilayers. <i>Journal of Applied Physics</i> , 2012 , 111, 073526	2.5	32
464	Hydrogen sorption in orthorhombic Mg hydride at ultra-low temperature. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 8328-8341	6.7	32
463	Enhanced flux pinning in YBa ₂ Cu ₃ O _{7-x} thin films using Nb-based double perovskite additions. <i>Superconductor Science and Technology</i> , 2010 , 23, 022003	3.1	32
462	Flux pinning in YBa ₂ Cu ₃ O _{7-x} thin film samples linked to stacking fault density. <i>Applied Physics Letters</i> , 2008 , 92, 082507	3.4	32
461	Thermal stability of sputter-deposited 330 austenitic stainless-steel thin films with nanoscale growth twins. <i>Applied Physics Letters</i> , 2005 , 87, 233116	3.4	32
460	Epitaxial growth of TaN thin films on Si(100) and Si(111) using a TiN buffer layer. <i>Applied Physics Letters</i> , 2002 , 80, 2323-2325	3.4	32

459	Microstructure and mechanical behavior of nanotwinned AlTi alloys with 9R phase. <i>Scripta Materialia</i> , 2018 , 148, 5-9	5.6	3 ¹
458	Self-assembled vertically aligned Ni nanopillars in CeO with anisotropic magnetic and transport properties for energy applications. <i>Nanoscale</i> , 2018 , 10, 17182-17188	7.7	3 ¹
457	Controlling Crystal Structure and Oxidation State in Molybdenum Nitrides through Epitaxial Stabilization. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 17880-17883	3.8	3 ¹
456	Electrochemical characterization of YBaCo ₃ ZnO ₇ +Gd _{0.2} Ce _{0.8} O _{1.9} composite cathodes for intermediate temperature solid oxide fuel cells. <i>Electrochimica Acta</i> , 2010 , 55, 5312-5317	6.7	3 ¹
455	Evolution of microstructure and mechanical properties of in situ consolidated bulk ultra-fine-grained and nanocrystalline Zn prepared by ball milling. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003 , 344, 175-181	5.3	3 ¹
454	Electric-field control of ferromagnetism in a nanocomposite via a ZnO phase. <i>Nano Letters</i> , 2013 , 13, 5886-90	11.5	3 ⁰
453	Optical limiting properties in copper oxide thin films under a high-repetition-rate femtosecond laser. <i>Materials Letters</i> , 2013 , 91, 319-322	3.3	3 ⁰
452	Magnetotransport properties of quasi-one-dimensionally channeled vertically aligned heteroepitaxial nanomazes. <i>Applied Physics Letters</i> , 2013 , 102, 093114	3.4	3 ⁰
451	Enhanced critical current in YBa ₂ Cu ₃ O _{7-x} thin films through pinning by ferromagnetic YFeO ₃ nanoparticles. <i>Superconductor Science and Technology</i> , 2010 , 23, 045019	3.1	3 ⁰
450	Enhanced low-field magnetoresistance in La _{0.67} Sr _{0.33} MnO ₃ :MgO composite films. <i>Journal of Applied Physics</i> , 2011 , 110, 113913	2.5	3 ⁰
449	Manipulating Magnetoresistance Near Room Temperature in La _{0.67} Sr _{0.33} MnO ₃ /La _{0.67} Ca _{0.33} MnO ₃ Films Prepared by Polymer Assisted Deposition. <i>Advanced Materials</i> , 2006 , 18, 2695-2698	24	3 ⁰
448	Evolution of microstructure, strain and physical properties in oxide nanocomposite films. <i>Scientific Reports</i> , 2014 , 4, 5426	4.9	29
447	Size and stress dependent hydrogen desorption in metastable Mg hydride films. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 2597-2607	6.7	29
446	Comparison of the grain growth behavior and defect structures of flash sintered ZnO with and without controlled current ramp. <i>Scripta Materialia</i> , 2019 , 162, 251-255	5.6	29
445	Tailorable Au Nanoparticles Embedded in Epitaxial TiO Thin Films for Tunable Optical Properties. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 32895-32902	9.5	29
444	Self-Organized Epitaxial Vertically Aligned Nanocomposites with Long-Range Ordering Enabled by Substrate Nanotemplating. <i>Advanced Materials</i> , 2017 , 29, 1606861	24	28
443	Hybrid plasmonic Au@TiN vertically aligned nanocomposites: a nanoscale platform towards tunable optical sensing. <i>Nanoscale Advances</i> , 2019 , 1, 1045-1054	5.1	28
442	Thermal stability of ultrafine grained Fe _{0.7} Cr _{0.3} alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012 , 542, 64-70	5.3	28

- 441 High-velocity projectile impact induced 9R phase in ultrafine-grained aluminium. *Nature Communications*, **2017**, 8, 1653 17.4 28
- 440 A New Material for High-Temperature Lead-Free Actuators. *Advanced Functional Materials*, **2013**, 23, 5881-5886 15.6 28
- 439 Microstructure and transport properties of Y-rich YBa₂Cu₃O_{7-x} thin films. *Journal of Applied Physics*, **2006**, 100, 053904 2.5 28
- 438 Effect of microstructure on diffusion of copper in TiN films. *Journal of Applied Physics*, **2003**, 93, 5210-5214 1.5 28
- 437 Comparative study of REBa/sub 2/Cu/sub 3/O/sub 7/ films for coated conductors. *IEEE Transactions on Applied Superconductivity*, **2005**, 15, 2723-2726 1.8 28
- 436 Two types of martensitic phase transformations in magnetic shape memory alloys by in-situ nanoindentation studies. *Advanced Materials*, **2014**, 26, 3893-8 24 27
- 435 Strengthening mechanisms of Ag/Ni immiscible multilayers with fcc/fcc interface. *Surface and Coatings Technology*, **2013**, 237, 269-275 4.4 27
- 434 Diffusion barrier properties of nitride-based coatings on fuel cladding. *Journal of Alloys and Compounds*, **2013**, 580, 442-448 5.7 27
- 433 A Chemical Solution Approach to Epitaxial Metal Nitride Thin Films. *Advanced Materials*, **2009**, 21, 193-197 1.4 27
- 432 In situ heavy ion irradiation studies of nanopore shrinkage and enhanced radiation tolerance of nanoporous Au. *Scientific Reports*, **2017**, 7, 39484 4.9 27
- 431 The effects of external fields in ceramic sintering. *Journal of the American Ceramic Society*, **2019**, 102, 5-31 3.8 27
- 430 Plasmonic Cu nanostructures in ZnO as hyperbolic metamaterial thin films. *Materials Today Nano*, **2019**, 8, 100052 9.7 26
- 429 Size dependent strengthening in high strength nanotwinned Al/Ti multilayers. *Acta Materialia*, **2019**, 175, 466-476 8.4 26
- 428 Exchange Bias Effect along Vertical Interfaces in La_{0.7}Sr_{0.3}MnO₃:NiO Vertically Aligned Nanocomposite Thin Films Integrated on Silicon Substrates. *Crystal Growth and Design*, **2018**, 18, 4388-4394 3.5 26
- 427 Strong pinning in very fast grown reactive co-evaporated GdBa₂Cu₃O₇ coated conductors. *APL Materials*, **2014**, 2, 086103 5.7 26
- 426 An experimental and modeling study on the role of damage cascade formation in nanocrystallization of ion-irradiated Ni_{52.5}Nb₁₀Zr₁₅Ti₁₅Pt_{7.5} metallic glass. *Scripta Materialia*, **2010**, 63, 1045-1048 5.6 26
- 425 Vortex pinning landscape in YBa₂Cu₃O₇ films grown by hybrid liquid phase epitaxy. *Superconductor Science and Technology*, **2007**, 20, S223-S229 3.1 26
- 424 Self-Assembled Ag/TiN Hybrid Plasmonic Metamaterial: Tailorable Tilted Nanopillar and Optical Properties. *Advanced Optical Materials*, **2019**, 7, 1801180 8.1 26

423	Enhanced radiation tolerance in immiscible Cu/Fe multilayers with coherent and incoherent layer interfaces. <i>Journal of Materials Research</i> , 2015 , 30, 1300-1309	2.5	25
422	Vertically aligned nanocomposite La _{0.8} Sr _{0.2} MnO ₃ /Zr _{0.92} Y _{0.08} O _{1.96} thin films as electrode/electrolyte interfacial layer for solid oxide reversible fuel cells. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 16320-16327	6.7	25
421	Heterointerface design and strain tuning in epitaxial BiFeO ₃ :CoFe ₂ O ₄ nanocomposite films. <i>Applied Physics Letters</i> , 2015 , 107, 212901	3.4	25
420	In situ studies of radiation induced crystallization in Fe/a-Y ₂ O ₃ nanolayers. <i>Journal of Nuclear Materials</i> , 2014 , 452, 321-327	3.3	25
419	Magnetic properties of (CoFe ₂ O ₄) _x :(CeO ₂) _{1-x} vertically aligned nanocomposites and their pinning properties in YBa ₂ Cu ₃ O _{7-δ} thin films. <i>Journal of Applied Physics</i> , 2014 , 115, 123902	2.5	25
418	Much simplified ion-beam assisted deposition-TiN template for high-performance coated conductors. <i>Journal of Applied Physics</i> , 2010 , 108, 083903	2.5	25
417	Coexistence of strong ferromagnetism and polar switching at room temperature in Fe ₃ O ₄ /BiFeO ₃ nanocomposite thin films. <i>Applied Physics Letters</i> , 2010 , 97, 153121	3.4	25
416	Tilted Aligned Epitaxial La _{0.7} Sr _{0.3} MnO ₃ Nanocolumnar Films with Enhanced Low-Field Magnetoresistance by Pulsed Laser Oblique-Angle Deposition. <i>Crystal Growth and Design</i> , 2011 , 11, 5405-5409	3.5	25
415	Self-assembled multilayers and enhanced superconductivity in (YBa ₂ Cu ₃ O _{7-δ}) _{0.5} :(BaZrO ₃) _{0.5} nanocomposite films. <i>Journal of Applied Physics</i> , 2009 , 106, 093914	2.5	25
414	Effect of thickness variation in high-efficiency InGaN/GaN light-emitting diodes. <i>Applied Physics Letters</i> , 2002 , 81, 841-843	3.4	25
413	High temperature thermal and mechanical stability of high-strength nanotwinned Al alloys. <i>Acta Materialia</i> , 2019 , 165, 142-152	8.4	25
412	Perovskite Transparent Conducting Oxide for the Design of a Transparent, Flexible, and Self-Powered Perovskite Photodetector. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 16462-16468	9.5	24
411	Tailorable Optical Response of Au/InNbO ₃ Hybrid Metamaterial Thin Films for Optical Waveguide Applications. <i>Advanced Optical Materials</i> , 2018 , 6, 1800510	8.1	24
410	Strain-induced suppression of the miscibility gap in nanostructured Mg ₂ Si/Mg ₂ Sn solid solutions. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 17559-17570	13	24
409	Cs-corrected scanning transmission electron microscopy investigation of dislocation core configurations at a SrTiO ₃ /MgO heterogeneous interface. <i>Microscopy and Microanalysis</i> , 2013 , 19, 706-715	9.5	24
408	Electrochemical and structural effects of in situ Li ₂ O extraction from Li ₂ MnO ₃ for Li-Ion batteries. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 2433-8	9.5	24
407	Research Updates: Epitaxial strain relaxation and associated interfacial reconstructions: The driving force for creating new structures with integrated functionality. <i>APL Materials</i> , 2013 , 1, 050702	5.7	24
406	Size dependent strengthening mechanisms in sputtered Fe/W multilayers. <i>Journal of Applied Physics</i> , 2010 , 107, 093503	2.5	24

405	The role of interfacial defects in enhancing the critical current density of YBa ₂ Cu ₃ O _{7-δ} coatings. <i>Superconductor Science and Technology</i> , 2009 , 22, 125002	3.1	24
404	Grain and grain boundary activities observed in alumina/zirconia/magnesia spinel nanocomposites by in situ nanoindentation using transmission electron microscopy. <i>Acta Materialia</i> , 2010 , 58, 4891-4899	8.4	24
403	Critical current density and microstructure variations in YBa ₂ Cu ₃ O _{7-δ} + BaSnO ₃ films with different concentrations of BaSnO ₃ . <i>Journal of Materials Research</i> , 2008 , 23, 3363-3369	2.5	24
402	Identification of the misfit dislocations at YBa ₂ Cu ₃ O _{7-δ} /SrTiO ₃ interface using moiré fringe contrast. <i>Physica C: Superconductivity and Its Applications</i> , 2006 , 444, 1-4	1.3	24
401	Laser-Induced Mesoporous Nickel Oxide as a Highly Sensitive Nonenzymatic Glucose Sensor. <i>ACS Applied Nano Materials</i> , 2020 , 3, 5260-5270	5.6	23
400	Strain-Driven In-plane Ordering in Vertically Aligned ZnO-Au Nanocomposites with Highly Correlated Metamaterial Properties. <i>ACS Omega</i> , 2020 , 5, 2234-2241	3.9	23
399	Vertically Aligned Nanocomposite BaTiO ₃ :YMnO ₃ Thin Films with Room Temperature Multiferroic Properties toward Nanoscale Memory Devices. <i>ACS Applied Nano Materials</i> , 2018 , 1, 2509-2514	5.6	23
398	Transition from Irradiation-Induced Amorphization to Crystallization in Nanocrystalline Silicon Carbide. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 4127-4130	3.8	23
397	Practical Magnetic Pinning in YBCO. <i>IEEE Transactions on Applied Superconductivity</i> , 2009 , 19, 3148-3151	1.8	23
396	Elevated temperature deformation behavior of spark plasma sintered nanometric nickel with varied grain size distributions. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 528, 663-671	5.3	23
395	Synthesis of bulk nanostructured Zn by combinations of cryomilling and powder consolidation by room temperature milling: optimizing mechanical properties. <i>Scripta Materialia</i> , 2003 , 49, 429-433	5.6	23
394	Self-Assembled Heteroepitaxial Oxide Nanocomposite for Photoelectrochemical Solar Water Oxidation. <i>Chemistry of Materials</i> , 2016 , 28, 3017-3023	9.6	23
393	Tailoring strength and plasticity of Ag/Nb nanolaminates via intrinsic microstructure and extrinsic dimension. <i>International Journal of Plasticity</i> , 2019 , 113, 145-157	7.6	23
392	. <i>IEEE Transactions on Applied Superconductivity</i> , 2017 , 27, 1-5	1.8	22
391	High strength, deformable nanotwinned Al ₉₀ Co alloys. <i>Materials Research Letters</i> , 2019 , 7, 33-39	7.4	22
390	3D strain-induced superconductivity in LaCuO using a simple vertically aligned nanocomposite approach. <i>Science Advances</i> , 2019 , 5, eaav5532	14.3	22
389	Aqueous Solution-Deposited Molybdenum Oxide Films as an Anode Interfacial Layer for Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 18218-24	9.5	22
388	Enhanced tunable magnetoresistance properties over a wide temperature range in epitaxial (La _{0.7} Sr _{0.3} MnO ₃) _{1-x} (CeO ₂) _x nanocomposites. <i>Journal of Applied Physics</i> , 2015 , 118, 065302	2.5	22

387	Magnetic Properties of Self-Assembled Epitaxial Nanocomposite CoFe ₂ O ₄ :SrTiO ₃ and CoFe ₂ O ₄ :MgO Films. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 25338-25342	3.8	22
386	Highly conductive films of layered ternary transition-metal nitrides. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 1490-3	16.4	22
385	Epitaxial ternary nitride thin films prepared by a chemical solution method. <i>Journal of the American Chemical Society</i> , 2008 , 130, 15224-5	16.4	22
384	Mechanical behavior of nanostructured materials symposium honoring Carl Koch. <i>Jom</i> , 2007 , 59, 49-49	2.1	22
383	Thickness effects of SrTiO ₃ buffer layers on superconducting properties of YBa ₂ Cu ₃ O _{7-x} coated conductors. <i>Physica C: Superconductivity and Its Applications</i> , 2005 , 433, 43-49	1.3	22
382	Texture-directed twin formation propensity in Al with high stacking fault energy. <i>Acta Materialia</i> , 2018 , 144, 226-234	8.4	22
381	A simplified superconducting coated conductor design with Fe-based superconductors on glass and flexible metallic substrates. <i>Journal of Alloys and Compounds</i> , 2015 , 647, 380-385	5.7	21
380	In situ measurement of temperature and reduction of rutile titania using energy dispersive x-ray diffraction. <i>Journal of the European Ceramic Society</i> , 2018 , 38, 5503-5511	6	21
379	A new approach to investigate Li ₂ MnO ₃ and Li(Ni _{0.5} Mn _{0.3} Co _{0.2})O ₂ mixed phase cathode materials. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 2283-2289	13	21
378	Role of boundaries on low-field magnetotransport properties of La _{0.7} Sr _{0.3} MnO ₃ -based nanocomposite thin films. <i>Journal of Materials Research</i> , 2013 , 28, 1707-1714	2.5	21
377	Ge ₂ Sb ₂ Se ₅ Glass as High-capacity Promising Lithium-ion Battery Anode. <i>Nano Energy</i> , 2020 , 68, 104326	17.1	21
376	Layer thickness dependent strain rate sensitivity of Cu/amorphous CuNb multilayer. <i>Applied Physics Letters</i> , 2017 , 110, 161905	3.4	20
375	Very high commutation quality factor and dielectric tunability in nanocomposite SrTiO thin films with T enhanced to >300 °C. <i>Nanoscale</i> , 2018 , 10, 3460-3468	7.7	20
374	Superior twin stability and radiation resistance of nanotwinned Ag solid solution alloy. <i>Acta Materialia</i> , 2018 , 151, 395-405	8.4	20
373	Microstructure, Magnetic, and Magnetoresistance Properties of LaSrMnO:CuO Nanocomposite Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 5779-5784	9.5	20
372	In situ studies on irradiation resistance of nanoporous Au through temperature-jump tests. <i>Acta Materialia</i> , 2018 , 143, 30-42	8.4	20
371	Design of a Vertical Composite Thin Film System with Ultralow Leakage To Yield Large Converse Magnetoelectric Effect. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 18237-18245	9.5	20
370	Optimizing Flux Pinning of YBCO Superconductor With $\text{BaSnO}_3 + \text{Y}_2\text{O}_3$ Dual Mixed Phase Additions. <i>IEEE Transactions on Applied Superconductivity</i> , 2013 , 23, 8002104-8002104	1.8	20

- 369 Vertical Interface Induced Dielectric Relaxation in Nanocomposite (BaTiO₃)_{1-x}:(Sm₂O₃)_x Thin Films. *Scientific Reports*, **2015**, 5, 11335 4.9 20
- 368 Basic criteria for formation of growth twins in high stacking fault energy metals. *Applied Physics Letters*, **2013**, 103, 181903 3.4 20
- 367 High tunability of lead strontium titanate thin films using a conductive LaNiO₃ as electrodes. *Applied Physics Letters*, **2007**, 91, 072908 3.4 20
- 366 Influence of deposition rate on the formation of growth twins in sputter-deposited 330 austenitic stainless steel films. *Applied Physics Letters*, **2007**, 90, 153101 3.4 20
- 365 Effect of crystallinity on the transport properties of Nd_{0.67}Sr_{0.33}MnO₃ thin films. *Applied Physics Letters*, **2004**, 84, 1147-1149 3.4 20
- 364 Crossover of thickness dependence of critical current density J_c(T,H) in YBa₂Cu₃O_{7- δ} thick films. *Applied Physics Letters*, **2004**, 84, 3528-3530 3.4 20
- 363 Key microstructural characteristics in flash sintered 3YSZ critical for enhanced sintering process. *Ceramics International*, **2019**, 45, 1251-1257 5.1 20
- 362 An Electronic Synapse Based on 2D Ferroelectric CuInP₂S₆. *Advanced Electronic Materials*, **2020**, 6, 2000760 7.0 19
- 361 Two-Dimensional Layered Oxide Structures Tailored by Self-Assembled Layer Stacking via Interfacial Strain. *ACS Applied Materials & Interfaces*, **2016**, 8, 16845-51 9.5 19
- 360 Influence of layer thickness on mechanical properties of multilayered NiFe samples processed by electrodeposition. *Materials and Design*, **2016**, 90, 389-395 8.1 19
- 359 Radiation induced detwinning in nanotwinned Cu. *Scripta Materialia*, **2017**, 130, 37-41 5.6 19
- 358 A chemical solution approach for superconducting and hard epitaxial NbC film. *Chemical Communications*, **2010**, 46, 7837-9 5.8 19
- 357 The role of stacking faults in the critical current density of MOD films through a thickness dependence study. *Superconductor Science and Technology*, **2009**, 22, 015022 3.1 19
- 356 Mixed-Valence Perovskite Thin Films by Polymer-Assisted Deposition. *Journal of the American Ceramic Society*, **2008**, 91, 1858-1863 3.8 19
- 355 Exchange Bias in a LaSrMnO/NiO Heterointerface Integrated on a Flexible Mica Substrate. *ACS Applied Materials & Interfaces*, **2020**, 12, 39920-39925 9.5 19
- 354 Strong perpendicular exchange bias in epitaxial La_{0.7}Sr_{0.3}MnO₃:LaFeO₃ nanocomposite thin films. *APL Materials*, **2016**, 4, 076105 5.7 19
- 353 Solar-Blind UV Photodetector Based on Atomic Layer-Deposited CuO and Nanomembrane β -Ga₂O₃ pn Oxide Heterojunction. *ACS Omega*, **2019**, 4, 20756-20761 3.9 19
- 352 Novel Layered Supercell Structure from BiAlMnO for Multifunctionalities. *Nano Letters*, **2017**, 17, 6575-6583 6.3 18

351	Response of solidification cellular structures in additively manufactured 316 stainless steel to heavy ion irradiation: an in situ study. <i>Materials Research Letters</i> , 2019 , 7, 290-297	7.4	18
350	In situ Observation of Defect Annihilation in Kr Ion-Irradiated Bulk Fe/Amorphous-Fe ₂ Zr Nanocomposite Alloy. <i>Materials Research Letters</i> , 2015 , 3, 35-42	7.4	18
349	Resilient ZnO nanowires in an irradiation environment: An in situ study. <i>Acta Materialia</i> , 2015 , 95, 156-163	8.4	18
348	Turning antiferromagnetic Sm _{0.34} Sr _{0.66} MnO ₃ into a 140 K ferromagnet using a nanocomposite strain tuning approach. <i>Nanoscale</i> , 2016 , 8, 8083-90	7.7	18
347	Helium irradiation induced ultra-high strength nanotwinned Cu with nanovoids. <i>Acta Materialia</i> , 2019 , 177, 107-120	8.4	18
346	Nanopillar spin filter tunnel junctions with manganite barriers. <i>Nano Letters</i> , 2014 , 14, 2789-93	11.5	18
345	Enhanced ion irradiation tolerance properties in TiN/MgO nanolayer films. <i>Journal of Nuclear Materials</i> , 2013 , 434, 217-222	3.3	18
344	Structure and magnetotransport properties of epitaxial nanocomposite La _{0.67} Ca _{0.33} MnO ₃ :SrTiO ₃ thin films grown by a chemical solution approach. <i>Applied Physics Letters</i> , 2012 , 100, 082403	3.4	18
343	Radiation damage in heteroepitaxial BaTiO ₃ thin films on SrTiO ₃ under Ne ion irradiation. <i>Journal of Applied Physics</i> , 2013 , 113, 023513	2.5	18
342	Improved microstructure and enhanced low-field J _c in (Y _{0.67} Eu _{0.33})Ba ₂ Cu ₃ O ₇ films. <i>Superconductor Science and Technology</i> , 2008 , 21, 025001	3.1	18
341	The role of a ZnO buffer layer in the growth of ZnO thin film on Al ₂ O ₃ substrate. <i>Superlattices and Microstructures</i> , 2006 , 40, 501-506	2.8	18
340	Benefits of current percolation in superconducting coated conductors. <i>Applied Physics Letters</i> , 2005 , 87, 162507	3.4	18
339	Couplings of Polarization with Interfacial Deep Trap and Schottky Interface Controlled Ferroelectric Memristive Switching. <i>Advanced Functional Materials</i> , 2020 , 30, 2000664	15.6	18
338	Strain-driven nanodumbbell structure and enhanced physical properties in hybrid vertically aligned nanocomposite thin films. <i>Applied Materials Today</i> , 2019 , 16, 204-212	6.6	17
337	Strain and interface effects in a novel bismuth-based self-assembled supercell structure. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 11631-6	9.5	17
336	Radiation tolerant nanocrystalline ZrN films under high dose heavy-ion irradiations. <i>Journal of Applied Physics</i> , 2015 , 117, 145901	2.5	17
335	Rapid Upcycling of Waste Polyethylene Terephthalate to Energy Storing Disodium Terephthalate Flowers with DFT Calculations. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 6252-6262	8.3	17
334	Microscopic adaptation of BaHfO ₃ and Y ₂ O ₃ artificial pinning centers for strong and isotropic pinning landscape in YBa ₂ Cu ₃ O _{7-x} thin films. <i>Superconductor Science and Technology</i> , 2018 , 31, 025008	3.1	17

- 333 Deformation mechanisms in FCC Co dominated by high-density stacking faults. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2018**, 736, 12-21 5.3 17
- 332 Highly textured Li(Ni_{0.5}Mn_{0.3}Co_{0.2})O₂ thin films on stainless steel as cathode for lithium-ion battery. *Journal of Power Sources*, **2013**, 241, 410-414 8.9 17
- 331 Monolithic Mid-Infrared Integrated Photonics Using Silicon-on-Epitaxial Barium Titanate Thin Films. *ACS Applied Materials & Interfaces*, **2017**, 9, 21848-21855 9.5 17
- 330 Enhanced superconducting properties in epitaxial FeSe thin films with self-assembled Fe₃O₄ nanoparticles. *Physica C: Superconductivity and Its Applications*, **2011**, 471, 515-519 1.3 17
- 329 Understanding nanoparticle self-assembly for a strong improvement in functionality in thin film nanocomposites. *Nanotechnology*, **2010**, 21, 095604 3.4 17
- 328 Guidelines for optimizing random and correlated pinning in rare-earth-based superconducting films. *Superconductor Science and Technology*, **2006**, 19, S55-S59 3.1 17
- 327 Mechanical properties of cryomilled nanocrystalline Zn studied by the miniaturized disk bend test. *Acta Materialia*, **2002**, 50, 3527-3533 8.4 17
- 326 Metal-Free Oxide-Nitride Heterostructure as a Tunable Hyperbolic Metamaterial Platform. *Nano Letters*, **2020**, 20, 6614-6622 11.5 17
- 325 Roles of strain and domain boundaries on the phase transition stability of VO₂ thin films. *Applied Physics Letters*, **2017**, 111, 153102 3.4 16
- 324 Broad Range Tuning of Phase Transition Property in VO₂ Through Metal-Ceramic Nanocomposite Design. *Advanced Functional Materials*, **2019**, 29, 1903690 15.6 16
- 323 Temperature and grain size dependent plastic instability and strain rate sensitivity of ultrafine grained austenitic Fe-4Cr-6Ni alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 597, 415-421 5.3 16
- 322 Transformational dynamics of BZO and BHO nanorods imposed by Y₂O₃ nanoparticles for improved isotropic pinning in YBa₂Cu₃O_{7-x} thin films. *AIP Advances*, **2017**, 7, 075308 1.5 16
- 321 Real-Time and Label-Free Chemical Sensor-on-a-chip using Monolithic Si-on-BaTiO₃ Mid-Infrared waveguides. *Scientific Reports*, **2017**, 7, 5836 4.9 16
- 320 In Situ Studies on Twin-Thickness-Dependent Distribution of Defect Clusters in Heavy Ion-Irradiated Nanotwinned Ag. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2017**, 48, 1466-1473 2.3 16
- 319 High quality p-type Ag-doped ZnO thin films achieved under elevated growth temperatures. *Journal of Physics Condensed Matter*, **2012**, 24, 145802 1.8 16
- 318 . *IEEE Transactions on Applied Superconductivity*, **2007**, 17, 3697-3700 1.8 16
- 317 Origins of stored enthalpy in cryomilled nanocrystalline Zn. *Journal of Materials Research*, **2001**, 16, 3485-3495 16
- 316 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

315	Real-time in situ optical tracking of oxygen vacancy migration in memristors. <i>Nature Electronics</i> , 2020 , 3, 687-693	28.4	16
314	In Situ Studies on the Irradiation-Induced Twin Boundary-Defect Interactions in Cu. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017 , 48, 5172-5180	2.3	15
313	Phase transformation induced plasticity in high-strength hexagonal close packed Co with stacking faults. <i>Scripta Materialia</i> , 2019 , 173, 32-36	5.6	15
312	Four-fold Raman enhancement of 2D band in twisted bilayer graphene: evidence for a doubly degenerate Dirac band and quantum interference. <i>Nanotechnology</i> , 2014 , 25, 335201	3.4	15
311	Tunable flux pinning landscapes achieved by functional ferromagnetic Fe ₂ O ₃ :CeO ₂ vertically aligned nanocomposites in YBa ₂ Cu ₃ O _{7-x} thin films. <i>Physica C: Superconductivity and Its Applications</i> , 2015 , 510, 13-20	1.3	15
310	Room temperature mechanical behaviour of a Ni-Fe multilayered material with modulated grain size distribution. <i>Philosophical Magazine</i> , 2014 , 94, 3549-3559	1.6	15
309	Conduction mechanisms of epitaxial EuTiO ₃ thin films. <i>Applied Physics Letters</i> , 2012 , 101, 102901	3.4	15
308	Amorphous silica nanoparticles embedded in epitaxial SrTiO ₃ and CoFe ₂ O ₄ matrices. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 5768-71	16.4	15
307	Lateral epitaxial growth of (Ba,Sr)TiO ₃ thin films. <i>Applied Physics Letters</i> , 2003 , 83, 5494-5496	3.4	15
306	Advanced Thin Film Cathodes for Lithium Ion Batteries. <i>Research</i> , 2020 , 2020, 2969510	7.8	15
305	Interface Engineered Room-Temperature Ferromagnetic Insulating State in Ultrathin Manganite Films. <i>Advanced Science</i> , 2020 , 7, 1901606	13.6	15
304	Ultra-high strength and plasticity mediated by partial dislocations and defect networks: Part I: Texture effect. <i>Acta Materialia</i> , 2020 , 185, 181-192	8.4	15
303	A high-entropy manganite in an ordered nanocomposite for long-term application in solid oxide cells. <i>Nature Communications</i> , 2021 , 12, 2660	17.4	15
302	Role of ALD AlO Surface Passivation on the Performance of p-Type CuO Thin Film Transistors. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 4156-4164	9.5	15
301	Strain Enhanced Functionality in a Bottom-Up Approach Enabled 3D Super-Nanocomposites. <i>Advanced Functional Materials</i> , 2019 , 29, 1900442	15.6	14
300	Strongly bias-dependent tunnel magnetoresistance in manganite spin filter tunnel junctions. <i>Advanced Materials</i> , 2015 , 27, 3079-84	24	14
299	Spontaneous Ordering of Oxide-Oxide Epitaxial Vertically Aligned Nanocomposite Thin Films. <i>Annual Review of Materials Research</i> , 2020 , 50, 229-253	12.8	14
298	Enhancement of Low-field Magnetoresistance in Self-Assembled Epitaxial La _{0.67} Ca _{0.33} MnO ₃ :NiO and La _{0.67} Ca _{0.33} MnO ₃ :Co ₃ O ₄ Composite Films via Polymer-Assisted Deposition. <i>Scientific Reports</i> , 2016 , 6, 26390	4.9	14

- 297 Superior power density solid oxide fuel cells by enlarging the three-phase boundary region of a NiO-Ce_{0.8}Gd_{0.2}O_{1.9} composite anode through optimized surface structure. *Physical Chemistry Chemical Physics*, **2013**, 15, 14966-72 3.6 14
- 296 Manipulating leakage behavior via distribution of interfaces in oxide thin films. *Applied Physics Letters*, **2014**, 105, 072907 3.4 14
- 295 Microstructure and superconducting properties of YBa₂Cu₃O_{7- δ} thin films incorporated with a self-assembled magnetic vertically aligned nanocomposite. *Superconductor Science and Technology*, **2012**, 25, 075016 3.1 14
- 294 Microstructural and Pinning Properties of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Thin Films Doped With Magnetic Nanoparticles. *IEEE Transactions on Applied Superconductivity*, **2009**, 19, 3503-3506 1.8 14
- 293 Epitaxial GaN Thin Films Prepared by Polymer-Assisted Deposition. *Journal of Physical Chemistry C*, **2008**, 112, 20535-20538 3.8 14
- 292 Microstructural Evolution With the Change in Thickness of Superconducting Films. *IEEE Transactions on Applied Superconductivity*, **2007**, 17, 3243-3246 1.8 14
- 291 Characteristics of Alumina Diffusion Barrier Films on Hastelloy. *Journal of Materials Research*, **2004**, 19, 1175-1180 2.5 14
- 290 High critical current densities in YBa₂Cu₃O_{7- δ} films grown at high rates by hybrid liquid phase epitaxy. *Applied Physics Letters*, **2005**, 87, 252507 3.4 14
- 289 Probing the effect of interface on vortex pinning efficiency of one-dimensional BaZrO₃ and BaHfO₃ artificial pinning centers in YBa₂Cu₃O_{7-x} thin films. *Applied Physics Letters*, **2018**, 113, 212602 3.4 14
- 288 All-Oxide Nanocomposites to Yield Large, Tunable Perpendicular Exchange Bias above Room Temperature. *ACS Applied Materials & Interfaces*, **2018**, 10, 42593-42602 9.5 14
- 287 Scaled indium oxide transistors fabricated using atomic layer deposition. *Nature Electronics*, **2022**, 5, 164-170 28.4 14
- 286 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
- 285 Strong and plastic metallic composites with nanolayered architectures. *Acta Materialia*, **2020**, 195, 240-251 28.1 13
- 284 Vertically Aligned AgAu Alloyed Nanopillars Embedded in ZnO as Nanoengineered Low-Loss Hybrid Plasmonic Metamaterials. *Nano Letters*, **2020**, 20, 3778-3785 11.5 13
- 283 In situ study on surface roughening in radiation-resistant Ag nanowires. *Nanotechnology*, **2018**, 29, 215708 9.4 13
- 282 Tunable magnetic anisotropy of self-assembled Fe nanostructures within a La_{0.5}Sr_{0.5}FeO₃ matrix. *Applied Physics Letters*, **2018**, 112, 013104 3.4 13
- 281 Ferroelectric Sm-doped BiMnO₃ thin films with ferromagnetic transition temperature enhanced to 140 K. *ACS Applied Materials & Interfaces*, **2014**, 6, 14836-43 9.5 13
- 280 Manipulating multiple order parameters via oxygen vacancies: The case of Eu_{0.5}Ba_{0.5}TiO₃. *Physical Review B*, **2017**, 96, 014407 3.3 13

279	Tailoring plasticity of metallic glasses via interfaces in Cu/amorphous CuNb laminates. <i>Journal of Materials Research</i> , 2017 , 32, 2680-2689	2.5	13
278	Interfacial defects distribution and strain coupling in the vertically aligned nanocomposite YBa ₂ Cu ₃ O _{7-X} / BaSnO ₃ thin films. <i>Journal of Materials Research</i> , 2012 , 27, 1763-1769	2.5	13
277	Spontaneous ordering, strain control, and multifunctionality in vertical nanocomposite heteroepitaxial films. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2009 , 56, 1534-8	3.2	13
276	Ferroic metal-oxide films grown by polymer assisted deposition. <i>Thin Solid Films</i> , 2007 , 515, 6411-6415	2.2	13
275	Critical factors that determine face-centered cubic to body-centered cubic phase transformation in sputter-deposited austenitic stainless steel films. <i>Journal of Materials Research</i> , 2004 , 19, 1696-1702	2.5	13
274	Growth and characteristics of TaN/TiN superlattice structures. <i>Applied Physics Letters</i> , 2003 , 83, 3072-3074	3.4	13
273	Tunable, room-temperature multiferroic Fe-BaTiO ₃ vertically aligned nanocomposites with perpendicular magnetic anisotropy. <i>Materials Today Nano</i> , 2020 , 11, 100083	9.7	13
272	Enhancing electrochemical performance of thin film lithium ion battery via introducing tilted metal nanopillars as effective current collectors. <i>Nano Energy</i> , 2020 , 69, 104381	17.1	13
271	Flash sintering incubation kinetics. <i>Npj Computational Materials</i> , 2020 , 6,	10.9	13
270	Measurement of Heavy Ion Irradiation Induced In-Plane Strain in Patterned Face-Centered-Cubic Metal Films: An in Situ Study. <i>Nano Letters</i> , 2016 , 16, 7481-7489	11.5	13
269	Multifunctional Metal-Oxide Nanocomposite Thin Film with Plasmonic Au Nanopillars Embedded in Magnetic LaSrMnO Matrix. <i>Nano Letters</i> , 2021 , 21, 1032-1039	11.5	13
268	Effective magnetic pinning schemes for enhanced superconducting property in high temperature superconductor YBa ₂ Cu ₃ O _{7-x} : a review. <i>Superconductor Science and Technology</i> , 2017 , 30, 114004	3.1	12
267	Study of deformation mechanisms in flash-sintered yttria-stabilized zirconia by in-situ micromechanical testing at elevated temperatures. <i>Materials Research Letters</i> , 2019 , 7, 194-202	7.4	12
266	Plastic anisotropy and tension-compression asymmetry in nanotwinned AlBe alloys: An in-situ micromechanical investigation. <i>International Journal of Plasticity</i> , 2020 , 132, 102760	7.6	12
265	Oxygen-vacancy-mediated dielectric property in perovskite Eu _{0.5} Ba _{0.5} TiO ₃ -epitaxial thin films. <i>Applied Physics Letters</i> , 2018 , 112, 182906	3.4	12
264	Plastic deformation in nanocrystalline TiN at ultra-low stress: An in situ nanoindentation study. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016 , 650, 445-453	5.3	12
263	Microstructure and electrochemical properties of PrBaCo ₂ O _{5+δ} /Ce _{0.9} Gd _{0.1} O _{1.95} vertically aligned nanocomposite thin film as interlayer for thin film solid oxide fuel cells. <i>Electrochimica Acta</i> , 2012 , 62, 147-152	6.7	12
262	Enhanced Flux Pinning Properties in Self-Assembled Magnetic $\text{CoFe}_{1-x}\text{O}_x$ Nanoparticles Doped $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Thin Films. <i>IEEE Transactions on Applied Superconductivity</i> , 2013 , 23, 8001204-8001204	1.8	12

261	Strain dependent ultrafast carrier dynamics in EuTiO ₃ films. <i>Applied Physics Letters</i> , 2014 , 105, 162904	3.4	12
260	Effects of interlayer thickness on the electrochemical and mechanical properties of bi-layer cathodes for solid oxide fuel cells. <i>Journal of Power Sources</i> , 2012 , 218, 261-267	8.9	12
259	Flux Pinning Properties in YBCO Thin Films With Self-Aligned Magnetic Nanoparticles. <i>IEEE Transactions on Applied Superconductivity</i> , 2011 , 21, 2749-2752	1.8	12
258	Nanoporous thin films with controllable nanopores processed from vertically aligned nanocomposites. <i>Nanotechnology</i> , 2010 , 21, 285606	3.4	12
257	Enhanced flux pinning properties in superconducting FeSe _{0.5} Te _{0.5} thin films with secondary phases. <i>Superconductor Science and Technology</i> , 2012 , 25, 025020	3.1	12
256	Thickness dependence of ac losses in circular disks of YBa ₂ Cu ₃ O ₇ films in perpendicular magnetic fields. <i>Journal of Applied Physics</i> , 2004 , 95, 208-213	2.5	12
255	In situ nanomechanical testing of twinned metals in a transmission electron microscope. <i>MRS Bulletin</i> , 2016 , 41, 305-313	3.2	12
254	Tuning magnetic anisotropy in CoBaZrO ₃ vertically aligned nanocomposites for memory device integration. <i>Nanoscale Advances</i> , 2019 , 1, 4450-4458	5.1	12
253	Comparison of temperature dependent deformation mechanisms of 8YSZ thermal barrier coatings prepared by air-plasma-spray and D-gun thermal spray: An in situ study. <i>Journal of the European Ceramic Society</i> , 2019 , 39, 3120-3128	6	11
252	In situ studies on superior thermal stability of bulk FeZr nanocomposites. <i>Acta Materialia</i> , 2015 , 101, 125-135	8.4	11
251	3D Hybrid Plasmonic Framework with Au Nanopillars Embedded in Nitride Multilayers Integrated on Si. <i>Advanced Materials Interfaces</i> , 2020 , 7, 2000493	4.6	11
250	Tailoring the thermal stability of nanocrystalline Ni alloy by thick grain boundaries. <i>Scripta Materialia</i> , 2020 , 182, 21-26	5.6	11
249	In-situ high temperature micromechanical testing of ultrafine grained yttria-stabilized zirconia processed by spark plasma sintering. <i>Acta Materialia</i> , 2018 , 155, 128-137	8.4	11
248	Tunable low-field magnetoresistance properties in (La _{0.7} Ca _{0.3} MnO ₃) _{1-x} (CeO ₂) _x vertically aligned nanocomposite thin films. <i>Applied Physics Letters</i> , 2019 , 115, 053103	3.4	11
247	Strong correlated pinning at high growth rates in YBa ₂ Cu ₃ O _{7-x} thin films with Ba ₂ YNbO ₆ additions. <i>Journal of Applied Physics</i> , 2014 , 116, 033915	2.5	11
246	Magnetic field induced phase transformation in polycrystalline NiCoMnAl thin films. <i>Applied Physics Letters</i> , 2013 , 103, 132404	3.4	11
245	Thermal stability of amorphous SiOC/crystalline Fe composite. <i>Philosophical Magazine</i> , 2015 , 95, 3876-3887	3.8	11
244	Aligned carbon nanotubes sandwiched in epitaxial NbC film for enhanced superconductivity. <i>Nanoscale</i> , 2012 , 4, 2268-71	7.7	11

243	Biopolymer mediated synthesis of plate-like YBCO with enhanced grain connectivity and intragranular critical current. <i>CrystEngComm</i> , 2012 , 14, 5765	3.3	11
242	High current, low cost YBCO conductors—what's next?. <i>Superconductor Science and Technology</i> , 2010 , 23, 034009	3.1	11
241	. <i>IEEE Transactions on Applied Superconductivity</i> , 2009 , 19, 3270-3274	1.8	11
240	Enhanced electrochemical properties of Bi-layer La _{0.5} Sr _{0.5} CoO ₃ cathode prepared by a hybrid method. <i>Electrochimica Acta</i> , 2011 , 56, 3969-3974	6.7	11
239	Microstructural and electrical properties of Ce _{0.9} Gd _{0.1} O _{1.95} thin-film electrolyte in solid-oxide fuel cells. <i>Journal of Materials Research</i> , 2011 , 26, 854-859	2.5	11
238	Growth of high-quality carbon nanotubes on free-standing diamond substrates. <i>Carbon</i> , 2010 , 48, 2442-2446	2.4	11
237	Strain tuning of ferroelectric and optical properties of rhombohedral-like BiFeO ₃ thin films on SrRuO ₃ -buffered substrates. <i>Materials Research Bulletin</i> , 2019 , 110, 120-125	5.1	11
236	Strengthening mechanisms and deformability of nanotwinned AlMg alloys. <i>Journal of Materials Research</i> , 2018 , 33, 3739-3749	2.5	11
235	9R phase enabled superior radiation stability of nanotwinned Cu alloys via in situ radiation at elevated temperature. <i>Acta Materialia</i> , 2019 , 167, 248-256	8.4	10
234	Multiferroic vertically aligned nanocomposite with CoFe ₂ O ₄ nanocones embedded in layered Bi ₂ WO ₆ matrix. <i>Materials Research Letters</i> , 2019 , 7, 418-425	7.4	10
233	Self-assembled two-dimensional layered oxide supercells with modulated layer stacking and tunable physical properties. <i>Materials Today Nano</i> , 2019 , 6, 100037	9.7	10
232	Photoluminescence study of p-type vs. n-type Ag-doped ZnO films. <i>Journal of Applied Physics</i> , 2015 , 118, 065702	2.5	10
231	He ion irradiation response of a gradient T91 steel. <i>Acta Materialia</i> , 2020 , 196, 175-190	8.4	10
230	Vertically aligned nanocomposite (BaTiO ₃) _{0.8} : (La _{0.7} Sr _{0.3} MnO ₃) _{0.2} thin films with anisotropic multifunctionalities. <i>Nanoscale Advances</i> , 2020 , 2, 3276-3283	5.1	10
229	Upper Critical Field and Kondo Effects in Fe(Te _{0.9} Se _{0.1}) Thin Films by Pulsed Field Measurements. <i>Scientific Reports</i> , 2016 , 6, 21469	4.9	10
228	In Situ Nanoindentation Studies on Detwinning and Work Hardening in Nanotwinned Monolithic Metals. <i>Jom</i> , 2016 , 68, 127-135	2.1	10
227	Nanostructured pinning centers in FeSe _{0.1} Te _{0.9} thin films for enhanced superconducting properties. <i>Superconductor Science and Technology</i> , 2014 , 27, 105006	3.1	10
226	Significant enhancement in the thermal stability of nanocrystalline metals via immiscible tri-phases. <i>Scripta Materialia</i> , 2012 , 67, 177-180	5.6	10

225	Repetitive Ultra-low Stress Induced Nanocrystallization in Amorphous Cu-Zr-Al Alloy Evidenced by in situ Nanoindentation. <i>Materials Research Letters</i> , 2014 , 2, 209-216	7.4	10
224	Cubic TaN diffusion barrier for Cu interconnects using an ultra-thin TiN seed layer. <i>Thin Solid Films</i> , 2008 , 516, 5103-5106	2.2	10
223	Morphology Control of Self-Assembled Three-Phase Au-BaTiO ₃ /ZnO Hybrid Metamaterial for Tunable Optical Properties. <i>Crystal Growth and Design</i> , 2020 , 20, 6101-6108	3.5	10
222	Thick grain boundary induced strengthening in nanocrystalline Ni alloy. <i>Nanoscale</i> , 2019 , 11, 23449-23458	5.7	10
221	In situ study on enhanced heavy ion irradiation tolerance of porous Mg. <i>Scripta Materialia</i> , 2018 , 144, 13-17	5.6	10
220	A Review on the Radiation Response of Nanoporous Metallic Materials. <i>Jom</i> , 2018 , 70, 2753-2764	2.1	10
219	Giant Enhancement of Polarization and Strong Improvement of Retention in Epitaxial Ba _{0.6} Sr _{0.4} TiO ₃ -Based Nanocomposites. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1700336	4.6	9
218	Defect evolution in heavy ion irradiated nanotwinned Cu with nanovoids. <i>Journal of Nuclear Materials</i> , 2017 , 496, 293-300	3.3	9
217	An in situ study on Kr ion irradiated crystalline Cu/amorphous-CuNb nanolaminates. <i>Journal of Materials Research</i> , 2019 , 34, 2218-2228	2.5	9
216	Negative-pressure enhanced ferroelectricity and piezoelectricity in lead-free BaTiO ₃ ferroelectric nanocomposite films. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 8091-8097	7.1	9
215	Deformation behavior and phase transformation of nanotwinned Al/Ti multilayers. <i>Applied Surface Science</i> , 2020 , 527, 146776	6.7	9
214	Thermally Stable Au/BaTiO ₃ Nanoscale Hybrid Metamaterial for High-Temperature Plasmonic Applications. <i>ACS Applied Nano Materials</i> , 2020 , 3, 1431-1437	5.6	9
213	Use of Mesoscopic Host Matrix to Induce Ferrimagnetism in Antiferromagnetic Spinel Oxide. <i>Advanced Functional Materials</i> , 2018 , 28, 1706220	15.6	9
212	Magnetic (CoFe ₂ O ₄) _{0.1} (CeO ₂) _{0.9} nanocomposite as effective pinning centers in FeSe _{0.1} Te _{0.9} thin films. <i>Journal of Physics Condensed Matter</i> , 2016 , 28, 025702	1.8	9
211	Highly stable non-polar p-type Ag-doped ZnO thin films grown on r-cut sapphire. <i>Materials Letters</i> , 2013 , 100, 78-81	3.3	9
210	Self-separated PZT thick films with bulk-like piezoelectric and electromechanical properties. <i>Journal of Materials Research</i> , 2011 , 26, 1431-1435	2.5	9
209	Correlation Between Flux Pinning Properties and Interfacial Defects in $\text{YBa}_{2}\text{Cu}_{3}\text{O}_{7-\delta}/\text{CeO}_{2}$ Multilayer Thin Films. <i>IEEE Transactions on Applied Superconductivity</i> , 2011 , 21, 2758-2761	1.8	9
208	Influence of SrTiO ₃ substrate miscut angle on the transport properties of LaAlO ₃ /SrTiO ₃ interfaces. <i>Applied Physics Letters</i> , 2011 , 99, 022103	3.4	9

207	Magnetotransport properties of Pr _{0.5} Ca _{0.5} MnO ₃ thin films grown by a solution route. <i>Journal of Applied Physics</i> , 2011 , 110, 013921	2.5	9
206	Study of $\text{Sm}_{1-x}\text{Zr}_x\text{O}_y$ Buffer Layer and Its Effects on YBCO Properties. <i>IEEE Transactions on Applied Superconductivity</i> , 2007 , 17, 3409-3412	1.8	9
205	TaN-TiN binary alloys and superlattices as diffusion barriers for copper interconnects. <i>Journal of Electronic Materials</i> , 2003 , 32, 994-999	1.9	9
204	Formation of misfit dislocations in strained-layer GaAs/InGaAs/GaAs heterostructures during postfabrication thermal processing. <i>Journal of Applied Physics</i> , 2003 , 94, 7496	2.5	9
203	Study of BaCe _{0.4} Zr _{0.4} Y _{0.2} O _{3-δ} /BaCe _{0.8} Pr _{0.2} O _{3-δ} (BCZY/BCP) bilayer membrane for Protonic Conductor Solid Oxide Fuel Cells (PC-SOFC). <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 5481-5490	6.7	9
202	Defects in flash-sintered ceramics and their effects on mechanical properties. <i>MRS Bulletin</i> , 2021 , 46, 44-51	3.2	9
201	Room temperature magnetodielectric effects in epitaxial hexaferrite BaFe _{10.2} Sc _{1.8} O ₁₉ thin film. <i>Applied Physics Letters</i> , 2017 , 110, 242901	3.4	8
200	Li ₂ MnO ₃ Thin Films with Tilted Domain Structure as Cathode for Li-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2019 , 2, 3461-3468	6.1	8
199	Nanoengineering room temperature ferroelectricity into orthorhombic SmMnO films. <i>Nature Communications</i> , 2020 , 11, 2207	17.4	8
198	Engineering lithium-ion battery cathodes for high-voltage applications using electromagnetic excitation. <i>Journal of Materials Science</i> , 2020 , 55, 12177-12190	4.3	8
197	Thermal stability and deformability of annealed nanotwinned Al/Ti multilayers. <i>Scripta Materialia</i> , 2020 , 186, 219-224	5.6	8
196	Novel layered BiMoMO (M = Mn, Fe, Co and Ni) thin films with tunable multifunctionalities. <i>Nanoscale</i> , 2020 , 12, 5914-5921	7.7	8
195	Large-Scale Plasmonic Hybrid Framework with Built-In Nanohole Array as Multifunctional Optical Sensing Platforms. <i>Small</i> , 2020 , 16, e1906459	11	8
194	Deformation behavior of multilayered NiFe with bimodal grain size distribution at room and elevated temperature. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016 , 656, 174-183	5.3	8
193	In situ neutron diffraction study on temperature dependent deformation mechanisms of ultrafine grained austenitic Fe ₈₄ Cr ₁₆ Ni alloy. <i>International Journal of Plasticity</i> , 2014 , 53, 125-134	7.6	8
192	Atomic interface sequence, misfit strain relaxation and intrinsic flux-pinning defects in different YBa ₂ Cu ₃ O _{7-δ} heterogeneous systems. <i>Superconductor Science and Technology</i> , 2013 , 26, 025009	3.1	8
191	Atomic-Scale Investigations of Intrinsic Chemical Inhomogeneity in Superconducting Fe _{1+y} Se _{1-x} Te _x Epitaxial Films. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 7170-7177	3.8	8
190	Attenuation of interfacial pinning enhancement in YBCO using a PrBCO buffer layer. <i>Physica C: Superconductivity and Its Applications</i> , 2009 , 469, 2033-2036	1.3	8

189	Synthesis and characterization of Cu-doped SrTiO ₃ /sub 3/ powders and sol-gel processed buffer layers on IBAD MgO templates. <i>IEEE Transactions on Applied Superconductivity</i> , 2005 , 15, 2703-2706	1.8	8
188	Field-assisted heating of Gd-doped ceria thin film. <i>Journal of the American Ceramic Society</i> , 2020 , 103, 2309-2314	3.8	8
187	Coupled solute effects enable anomalous high-temperature strength and stability in nanotwinned Al alloys. <i>Acta Materialia</i> , 2020 , 200, 378-388	8.4	8
186	Self-biased magnetoelectric switching at room temperature in three-phase ferroelectric/antiferromagnetic/ferromagnetic nanocomposites. <i>Nature Electronics</i> , 2021 , 4, 333-341	28.4	8
185	Dipotassium terephthalate as promising potassium storing anode with DFT calculations. <i>Materials Today Energy</i> , 2020 , 17, 100454	7	7
184	Vertical Strain-Driven Antiferromagnetic to Ferromagnetic Phase Transition in EuTiO Nanocomposite Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 8513-8521	9.5	7
183	Microstructure and tensile behavior of nanostructured gradient TWIP steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 785, 139346	5.3	7
182	Dual Beam In Situ Radiation Studies of Nanocrystalline Cu. <i>Materials</i> , 2019 , 12,	3.5	7
181	Growth of Al-doped ZnO films with tilted nano-columns on r-cut sapphire substrates by pulsed laser deposition. <i>Thin Solid Films</i> , 2012 , 524, 320-327	2.2	7
180	Thermal diffusivity measurement of YBa ₂ Cu ₃ O _{7-x} thin film with a picosecond thermoreflectance technique. <i>Physica C: Superconductivity and Its Applications</i> , 2010 , 470, 365-368	1.3	7
179	Epitaxial cubic HfN diffusion barriers deposited on Si (001) by using a TiN buffer layer. <i>Journal of Vacuum Science & Technology B</i> , 2008 , 26, 1871-1874		7
178	Cubic HfN Thin Films with Low Resistivity on Si (001) and MgO (001) Substrates. <i>Journal of Electronic Materials</i> , 2008 , 37, 1828-1831	1.9	7
177	Thermal stability of sputtered Cu ₂ O stainless steel multilayer films. <i>Journal of Applied Physics</i> , 2007 , 101, 124311	2.5	7
176	Microstructure and electronic properties of Cu/Mo multilayers and three-dimensional arrays of nanocrystalline Cu precipitates embedded in a Mo matrix. <i>Journal of Applied Physics</i> , 2004 , 95, 3644-3648	2.5	7
175	Stabilizing new bismuth compounds in thin film form. <i>Journal of Materials Research</i> , 2016 , 31, 3530-3537	2.5	7
174	Achieving ferromagnetic insulating properties in LaBaMnO thin films through nanoengineering. <i>Nanoscale</i> , 2020 , 12, 9255-9265	7.7	7
173	Design of 3D Oxide/Metal Hybrid Metamaterial for Tailorable Light/Matter Interactions in Visible and Near-Infrared Region. <i>Advanced Optical Materials</i> , 2021 , 9, 2001154	8.1	7
172	Characterization of precipitation in gradient Inconel 718 superalloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 804, 140718	5.3	7

171	Highly Conductive CopperSilver Bimodal Paste for Low-Cost Printed Electronics. <i>ACS Applied Electronic Materials</i> , 2021 , 3, 3352-3364	4	7
170	Superconducting Iron Chalcogenide Thin Films Integrated on Flexible Mica Substrates. <i>IEEE Transactions on Applied Superconductivity</i> , 2019 , 29, 1-4	1.8	6
169	Room-Temperature Ferroelectric LiNbBaTiO Spinel Phase in a Nanocomposite Thin Film Form for Nonlinear Photonics. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 23076-23083	9.5	6
168	Role of Interlayer in 3D Vertically Aligned Nanocomposite Frameworks with Tunable Magnetotransport Properties. <i>Advanced Materials Interfaces</i> , 2020 , 7, 1901990	4.6	6
167	Staged microstructural study of flash sintered titania. <i>Materialia</i> , 2019 , 8, 100451	3.2	6
166	Growth and Pinning Properties of Superconducting Nanostructured $\text{FeSe}_{0.5}\text{Te}_{0.5}$ Thin Films on Amorphous Substrates. <i>IEEE Transactions on Applied Superconductivity</i> , 2013 , 23, 7500904-7500904	1.8	6
165	Highly Textured Superconducting $\text{FeSe}_{0.5}\text{Te}_{0.5}$ Thin Films on Glass Substrates. <i>Japanese Journal of Applied Physics</i> , 2013 , 52, 020201	1.4	6
164	Interfacial Defects and Flux-Pinning Effects in Nanostructured $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Thin Films. <i>IEEE Transactions on Applied Superconductivity</i> , 2009 , 19, 3395-3398	1.8	6
163	BaTiO ₃ -RELATED FERROELECTRIC THIN FILMS BY POLYMER ASSISTED DEPOSITION. <i>Integrated Ferroelectrics</i> , 2008 , 100, 132-139	0.8	6
162	A magnetic field sensitive interfacial metallic state in a crystalline insulator. <i>Nanotechnology</i> , 2008 , 19, 305401	3.4	6
161	Comparative study of microstructural properties for YBa ₂ Cu ₃ O ₇ films on single-crystal and Ni-based metal substrates. <i>Journal of Materials Research</i> , 2005 , 20, 2055-2060	2.5	6
160	Investigation of strengthening mechanisms in an additively manufactured Haynes 230 alloy. <i>Acta Materialia</i> , 2021 , 117404	8.4	6
159	Tunable physical properties in BiAl _{1-x} MnxO ₃ thin films with novel layered supercell structures. <i>Nanoscale Advances</i> , 2020 , 2, 315-322	5.1	6
158	Au-Encapsulated Fe Nanorods in Oxide Matrix with Tunable Magneto-Optic Coupling Properties. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 51827-51836	9.5	6
157	Multifunctional self-assembled BaTiO ₃ -Au nanocomposite thin films on flexible mica substrates with tunable optical properties. <i>Applied Materials Today</i> , 2020 , 21, 100856	6.6	6
156	Integration of highly anisotropic multiferroic BaTiO ₃ Be nanocomposite thin films on Si towards device applications. <i>Nanoscale Advances</i> , 2020 , 2, 4172-4178	5.1	6
155	Induced ferroelectric phases in SrTiO by a nanocomposite approach. <i>Nanoscale</i> , 2020 , 12, 18193-18199	7.7	6
154	Thermal stability of immiscible Cu-Ag/Fe triphase multilayers with triple junctions. <i>Acta Materialia</i> , 2021 , 208, 116679	8.4	6

153	Heavy ion irradiation response of an additively manufactured 316LN stainless steel. <i>Journal of Nuclear Materials</i> , 2021 , 546, 152745	3.3	6
152	Heteroepitaxy of flexible piezoelectric Pb(Zr _{0.53} Ti _{0.47})O ₃ sensor on inorganic mica substrate for lamb wave-based structural health monitoring. <i>Ceramics International</i> , 2021 , 47, 13156-13163	5.1	6
151	Review on the growth, properties and applications of self-assembled oxide-metal vertically aligned nanocomposite thin films-current and future perspectives. <i>Materials Horizons</i> , 2021 , 8, 869-884	14.4	6
150	Nitride-Oxide-Metal Heterostructure with Self-Assembled Core-Shell Nanopillar Arrays: Effect of Ordering on Magneto-Optical Properties. <i>Small</i> , 2021 , 17, e2007222	11	6
149	Laser-induced atmospheric Cu ₂ O formation on copper surface with enhanced electrochemical performance for non-enzymatic glucose sensing. <i>Journal of Materials Chemistry C</i> ,	7.1	6
148	Enhanced Flux Pinning Properties of YBCO Thin Films With Various Pinning Landscapes. <i>IEEE Transactions on Applied Superconductivity</i> , 2017 , 27, 1-5	1.8	5
147	AlN-based hybrid thin films with self-assembled plasmonic Au and Ag nanoinclusions. <i>Applied Physics Letters</i> , 2019 , 114, 023103	3.4	5
146	Optical and electrical properties of (111)-oriented epitaxial SrVO ₃ thin films. <i>Ceramics International</i> , 2019 , 45, 11304-11308	5.1	5
145	Radiation induced nanovoid shrinkage in Cu at room temperature: An in situ study. <i>Scripta Materialia</i> , 2019 , 166, 112-116	5.6	5
144	Substrate oxygen sponge effect: A parameter for epitaxial manganite thin film growth. <i>Applied Physics Letters</i> , 2020 , 117, 151601	3.4	5
143	Origin of unexpected lattice expansion and ferromagnetism in epitaxial EuTiO ₃ thin films. <i>Ceramics International</i> , 2020 , 46, 19990-19995	5.1	5
142	Superconducting FeSe _{0.1} Te _{0.9} thin films integrated on Si-based substrates. <i>Journal Physics D: Applied Physics</i> , 2018 , 51, 205301	3	5
141	Controllable conduction and hidden phase transitions revealed via vertical strain. <i>Applied Physics Letters</i> , 2019 , 114, 252901	3.4	5
140	Microstructural and electrical properties of Ce _{0.9} Gd _{0.1} O _{1.95} thin film electrolyte in solid oxide fuel cells. CORRIGENDUM. <i>Journal of Materials Research</i> , 2011 , 26, 1	2.5	5
139	Highly conductive YBa ₂ Cu ₃ O _{7-x} films grown at very high rates by liquid assisted growth incorporating lightly Au-doped SrTiO ₃ buffers. <i>Superconductor Science and Technology</i> , 2009 , 22, 015009	3.1	5
138	Highly Conductive Films of Layered Ternary Transition-Metal Nitrides. <i>Angewandte Chemie</i> , 2009 , 121, 1518-1521	3.6	5
137	High J_c in YBCO Films Grown at Very High Rates by Liquid Mediated Growth. <i>IEEE Transactions on Applied Superconductivity</i> , 2009 , 19, 3180-3183	1.8	5
136	$\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Coated Conductor Grown by Hybrid Liquid Phase Epitaxy. <i>IEEE Transactions on Applied Superconductivity</i> , 2007 , 17, 2537-2541	1.8	5

135	Synthesis and ferroelectric properties of SrBi ₂ Ta ₂ O ₉ /Bi ₄ Ti ₃ O ₁₂ /p-Si multilayer thin films by Sol-Gel. <i>Journal of Materials Science: Materials in Electronics</i> , 2006 , 17, 165-169	2.1	5
134	J/sub c/(H) crossover in YBCO thick films and Bi ₂₂₂₃ /Ag tapes with columnar defects. <i>IEEE Transactions on Applied Superconductivity</i> , 2005 , 15, 2787-2789	1.8	5
133	In-situ studies on the mechanical properties of He ion irradiated nanotwinned Ag. <i>Journal of Nuclear Materials</i> , 2020 , 540, 152392	3.3	5
132	Atomic-Scale Control of Electronic Structure and Ferromagnetic Insulating State in Perovskite Oxide Superlattices by Long-Range Tuning of BO ₆ Octahedra. <i>Advanced Functional Materials</i> , 2020 , 30, 2001984	15.6	5
131	Design of super-strong and thermally stable nanotwinned Al alloys solute synergy. <i>Nanoscale</i> , 2020 , 12, 20491-20505	7.7	5
130	Self-assembled nitride-metal nanocomposites: recent progress and future prospects. <i>Nanoscale</i> , 2020 , 12, 20564-20579	7.7	5
129	In Situ TEM Nanoindentation Studies on Stress-Induced Phase Transformations in Metallic Materials. <i>Jom</i> , 2016 , 68, 226-234	2.1	5
128	Microstructural evolution of nanotwinned Al-Zr alloy with significant 9R phase. <i>Materials Research Letters</i> , 2021 , 9, 91-98	7.4	5
127	The influence of stacking faults on mechanical behavior of advanced materials. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 803, 140696	5.3	5
126	Route to High-Performance Micro-solid Oxide Fuel Cells on Metallic Substrates. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 4117-4125	9.5	5
125	Ultra-fine-grained and gradient FeCrAl alloys with outstanding work hardening capability. <i>Acta Materialia</i> , 2021 , 215, 117049	8.4	5
124	Enhancing magnetic pinning by BaZrO ₃ nanorods forming coherent interface by strain-directed Ca-doping in YBa ₂ Cu ₃ O _{7-x} nanocomposite films. <i>Superconductor Science and Technology</i> , 2021 , 34, 104002	3.1	5
123	Comparison Study of the Flux Pinning Enhancement of YBa ₂ Cu ₃ O _{7-x} Thin Films With BaHfO ₃ + Y ₂ O ₃ Single- and Mixed-Phase Additions. <i>IEEE Transactions on Applied Superconductivity</i> , 2019 , 29, 1-5	1.8	4
122	Pinning Efficiency of One-Dimensional Artificial Pinning Centers in YBa ₂ Cu ₃ O _{7-x} Thin Films. <i>IEEE Transactions on Applied Superconductivity</i> , 2019 , 29, 1-5	1.8	4
121	Magnetic signatures of 120 K superconductivity at interfaces in LaCuO. <i>Nanoscale</i> , 2020 , 12, 3157-3165	7.7	4
120	Investigation of KBiFe ₂ O ₅ as a Photovoltaic Absorber. <i>ACS Applied Energy Materials</i> , 2019 , 2, 8039-8044	6.1	4
119	Interfacial Engineering Enabled Novel Bi-Based Layered Oxide Supercells with Modulated Microstructures and Tunable Physical Properties. <i>Crystal Growth and Design</i> , 2019 , 19, 7088-7095	3.5	4
118	Defect-Mediated Anisotropic Lattice Expansion in Ceramics as Evidence for Nonthermal Coupling between Electromagnetic Fields and Matter. <i>Advanced Engineering Materials</i> , 2019 , 21, 1900762	3.5	4

117	Superconducting properties of FeSe _x Te _{1-x} thin film with a composition close to antiferromagnetic ordering. <i>Superconductor Science and Technology</i> , 2013 , 26, 112001	3.1	4
116	Direct observation of twin deformation in YBa ₂ Cu ₃ O _{7-x} thin films by in situ nanoindentation in TEM. <i>Journal of Applied Physics</i> , 2011 , 109, 083510	2.5	4
115	Role of columnar grain size in magnetization of La _{0.8} MnO ₃ thin films grown by pulsed laser deposition. <i>Applied Physics A: Materials Science and Processing</i> , 2005 , 81, 1423-1426	2.6	4
114	WEAK-LOCALIZATION EFFECT IN SINGLE CRYSTAL TaN(001) FILMS. <i>Modern Physics Letters B</i> , 2002 , 16, 1143-1149	1.6	4
113	Electroforming-Free HfO ₂ :CeO ₂ Vertically Aligned Nanocomposite Memristors with Anisotropic Dielectric Response. <i>ACS Applied Electronic Materials</i> ,	4	4
112	Advances in synthesis and applications of boron nitride nanotubes: A review. <i>Chemical Engineering Journal</i> , 2022 , 431, 134118	14.7	4
111	Titanium Nitride Modified Photoluminescence from Single Semiconductor Nanoplatelets. <i>Advanced Functional Materials</i> , 2020 , 30, 1904179	15.6	4
110	Self-Assembled Metal-Dielectric Hybrid Metamaterials in Vertically Aligned Nanocomposite Form with Tailorable Optical Properties and Coupled Multifunctionalities. <i>Advanced Photonics Research</i> , 2021 , 2, 2000174	1.9	4
109	Nanocomposite-Seeded Epitaxial Growth of Single-Domain Lithium Niobate Thin Films for Surface Acoustic Wave Devices. <i>Advanced Photonics Research</i> , 2021 , 2, 2000149	1.9	4
108	Bioinspired Dynamic Camouflage from Colloidal Nanocrystals Embedded Electrochromics. <i>Nano Letters</i> , 2021 , 21, 4500-4507	11.5	4
107	High-strength and tunable plasticity in sputtered Al _{1-x} Cr alloys with multistage phase transformations. <i>International Journal of Plasticity</i> , 2021 , 137, 102915	7.6	4
106	Epitaxial TiN/MgO multilayers with ultrathin TiN and MgO layers as hyperbolic metamaterials in visible region. <i>Materials Today Physics</i> , 2021 , 16, 100316	8	4
105	High performance, electroforming-free, thin film memristors using ionic Na _{0.5} Bi _{0.5} TiO ₃ . <i>Journal of Materials Chemistry C</i> , 2021 , 9, 4522-4531	7.1	4
104	Carbon Nanotube Supported Amorphous MoS ₂ via Microwave Heating Synthesis for Enhanced Performance of Hydrogen Evolution Reaction. <i>Energy Material Advances</i> , 2021 , 2021, 1-8	1	4
103	Nanoporous Films and Nanostructure Arrays Created by Selective Dissolution of Water-Soluble Materials. <i>Advanced Science</i> , 2018 , 5, 1800851	13.6	4
102	High stability of flexible perovskite transparent conductive oxide film via van der Waals heteroepitaxy. <i>Journal of Alloys and Compounds</i> , 2022 , 890, 161897	5.7	4
101	Grain growth of nanocrystalline 3C-SiC under Au ion irradiation at elevated temperatures. <i>Journal Physics D: Applied Physics</i> , 2016 , 49, 035304	3	3
100	Interlayer Effects on Oxygen Reduction Kinetics in Porous Electrodes of La _{0.5} Sr _{0.5} CoO _{3-δ} . <i>Journal of the Electrochemical Society</i> , 2014 , 161, F398-F404	3.9	3

99	Comparative Study Between Similarly Processed $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Films With $\text{Y}_{2}\text{BaCuO}_5$ or BaSnO_3 Additions. <i>IEEE Transactions on Applied Superconductivity</i> , 2009 , 19, 3152-3155	1.8	3
98	The effect of growth rates on the microstructures of $\text{EuBa}_2\text{Cu}_3\text{O}_7$ films on SrTiO_3 substrates. <i>Applied Physics Letters</i> , 2005 , 86, 192508	3.4	3
97	TaN-TiN binary alloys and superlattices as diffusion barriers for copper interconnections. <i>Journal of Electronic Materials</i> , 2004 , 33, L5-L5	1.9	3
96	Enabling coherent BaZrO_3 nanorods/ $\text{YBa}_2\text{Cu}_3\text{O}_7$ interface through dynamic lattice enlargement in vertical epitaxy of BaZrO_3 / $\text{YBa}_2\text{Cu}_3\text{O}_7$ nanocomposites. <i>Superconductor Science and Technology</i> , 2022 , 35, 034001	3.1	3
95	Wireless Humidity Sensor for Smart Packaging via One-step Laser-Induced Patterning and Nanoparticle Formation on Metallized Paper. <i>Advanced Electronic Materials</i> , 2101149	6.4	3
94	Field-assisted growth of one-dimensional ZnO nanostructures with high defect density. <i>Nanotechnology</i> , 2021 , 32, 095603	3.4	3
93	3D Hybrid Trilayer Heterostructure: Tunable Au Nanorods and Optical Properties. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 45015-45022	9.5	3
92	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. <i>Chemical Communications</i> , 2020 , 56, 9663-9666	5.8	3
91	Thermal stability of self-assembled ordered three-phase Au - BaTiO - ZnO nanocomposite thin films heating in TEM. <i>Nanoscale</i> , 2020 , 12, 23673-23681	7.7	3
90	Irradiation induced void spheroidization, shrinkage and migration in Cu at elevated temperatures: An in situ study. <i>Acta Materialia</i> , 2020 , 201, 504-516	8.4	3
89	Anisotropic domains and antiferrodistortive-transition controlled magnetization in epitaxial manganite films on vicinal SrTiO_3 substrates. <i>Applied Physics Letters</i> , 2020 , 117, 081903	3.4	3
88	Bidirectional tuning of phase transition properties in Pt : VO nanocomposite thin films. <i>Nanoscale</i> , 2020 , 12, 17886-17894	7.7	3
87	Ferroelectric/multiferroic self-assembled vertically aligned nanocomposites: Current and future status. <i>APL Materials</i> , 2021 , 9, 030904	5.7	3
86	Ultrathin epitaxial NbN superconducting films with high upper critical field grown at low temperature. <i>Materials Research Letters</i> , 2021 , 9, 336-342	7.4	3
85	Flash sintering of additively manufactured 3YSZ gears. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 3828-3832	3.8	3
84	Breaking Lattice Symmetry in Highly Strained Epitaxial VO Films on Faceted Nanosurface. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 44905-44912	9.5	3
83	Tailoring the formation of twins in Al by introducing epitaxial layer interfaces. <i>Scripta Materialia</i> , 2021 , 192, 1-6	5.6	3
82	Self-Assembled BaTiO - AuAg Low-Loss Hybrid Plasmonic Metamaterials with an Ordered "Nano-Domino-like" Microstructure. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 5390-5398	9.5	3

81	Deposition pressure-induced microstructure control and plasmonic property tuning in hybrid ZnO/AgxAu1-x thin films. <i>Nanoscale Advances</i> , 2021 , 3, 2870-2878	5.1	3
80	High-Temperature and Flexible Piezoelectric Sensors for Lamb-Wave-Based Structural Health Monitoring. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 47764-47772	9.5	3
79	Emergent multiferroism with magnetodielectric coupling in EuTiO created by a negative pressure control of strong spin-phonon coupling.. <i>Nature Communications</i> , 2022 , 13, 2364	17.4	3
78	Enhanced Flux Pinning Properties in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}/\text{CoFeO}_{0.3}/\text{CeO}_{0.7}$ Multilayer Thin Films. <i>IEEE Transactions on Applied Superconductivity</i> , 2015 , 25, 1-4	1.8	2
77	Influences of Ag nanoparticles on the microstructure and texture of CeO2 films prepared by chemical solution deposition. <i>Ceramics International</i> , 2015 , 41, 3197-3201	5.1	2
76	Dynamic tuning of dielectric permittivity in BaTiO3 via electrical biasing. <i>Materials Research Letters</i> , 2020 , 8, 321-327	7.4	2
75	Tailoring radiation damage in ZnO by surface modification. <i>Applied Surface Science</i> , 2013 , 276, 129-132	6.7	2
74	Ferroelectric properties of epitaxial Bi3.15Nd0.85Ti3O12 films on SiO2/Si using biaxially oriented MgO as templates. <i>Thin Solid Films</i> , 2011 , 519, 8023-8026	2.2	2
73	Electrical and microstructural properties of N+ ion-implanted ZnO and ZnO:Ag thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2011 , 29, 03A108	2.9	2
72	Magnetotransport properties of epitaxial Pr0.5Ca0.5MnO3 films grown by a solution technique. <i>Journal of Magnetism and Magnetic Materials</i> , 2010 , 322, 2708-2711	2.8	2
71	Engineered reactive cosputtered SmxZr1-xOy thin films as buffer layers for YBa2Cu3O7-coated conductors. <i>Journal of Materials Research</i> , 2007 , 22, 1082-1086	2.5	2
70	Self-assembled vertically aligned nanocomposite systems integrated on silicon substrate: Progress and future perspectives. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2022 , 40, 010802	2.9	2
69	Double-Exchange Bias Modulation under Horizontal and Perpendicular Field Directions by 3D Nanocomposite Design. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 50141-50148	9.5	2
68	Effective doping control in Sm-doped BiFeO thin films deposition temperature.. <i>RSC Advances</i> , 2020 , 10, 40229-40233	3.7	2
67	Recent Studies on Void Shrinkage in Metallic Materials Subjected to In Situ Heavy Ion Irradiations. <i>Jom</i> , 2020 , 72, 4008-4016	2.1	2
66	Formation of liquid phase and nanostructures in flash sintered ZnO. <i>Scripta Materialia</i> , 2021 , 195, 113719	9.6	2
65	Ultra-high heating rate effects on the sintering of ceramic nanoparticles: an in situ TEM study. <i>Materials Research Letters</i> , 2021 , 9, 373-381	7.4	2
64	Ultrathin transparent Copper(I) oxide films grown by plasma-enhanced atomic layer deposition for Back-end-of-line p-Type transistors. <i>Nano Express</i> , 2021 , 2, 020023	2	2

63	High-strength nanocrystalline intermetallics with room temperature deformability enabled by nanometer thick grain boundaries. <i>Science Advances</i> , 2021 , 7,	14.3	2
62	Epitaxial growth and physical properties of ternary nitride thin films by polymer-assisted deposition. <i>Applied Physics Letters</i> , 2016 , 109, 081907	3.4	2
61	Ultra-high strength and plasticity mediated by partial dislocations and defect networks: Part II: Layer thickness effect. <i>Acta Materialia</i> , 2021 , 204, 116494	8.4	2
60	Strong pinning at high growth rates in rare earth barium cuprate (REBCO) superconductor films grown with liquid-assisted processing (LAP) during pulsed laser deposition. <i>Superconductor Science and Technology</i> , 2021 , 34, 045012	3.1	2
59	High Strength and Low Coercivity of Cobalt with Three-Dimensional Nanoscale Stacking Faults. <i>Nano Letters</i> , 2021 , 21, 6480-6486	11.5	2
58	Tuning magnetic and optical properties through strain in epitaxial LaCrO ₃ thin films. <i>Applied Physics Letters</i> , 2021 , 119, 071902	3.4	2
57	Strong Interfacial Coupling of Tunable Ni-NiO Nanocomposite Thin Films Formed by Self-Decomposition. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 39730-39737	9.5	2
56	Modeling of flash sintering of ionic ceramics. <i>MRS Bulletin</i> , 2021 , 46, 67-75	3.2	2
55	Role of Defects and Power Dissipation on Ferroelectric Memristive Switching. <i>Advanced Electronic Materials</i> , 2101392	6.4	2
54	Deformation mechanism in nanolaminate FeCrAl alloys by in situ micromechanical strain rate jump tests at elevated temperatures. <i>Scripta Materialia</i> , 2022 , 215, 114698	5.6	2
53	Optimizing Flux Pinning of $\text{YBa}_{2}\text{Cu}_{3}\text{O}_{7-\delta}$ (YBCO) Thin Films With Unique Large Nanoparticle Size and High Concentration of $\text{Y}_{2}\text{BaCuO}_{5}$ (Y ₂ 11) Additions. <i>IEEE Transactions on Applied Superconductivity</i> , 2015 , 25, 1-5	1.8	1
52	Extrinsic size dependent plastic deformability of ZnS micropillars. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 792, 139706	5.3	1
51	Terahertz transport dynamics in the metal-insulator transition of V ₂ O ₃ thin film. <i>Optics Communications</i> , 2017 , 387, 385-389	2	1
50	Materials science challenges for high-temperature superconducting wire 2010 , 299-310		1
49	Microstructural study of EuBa ₂ /Cu ₃ O ₇ films by high resolution X-ray diffraction. <i>IEEE Transactions on Applied Superconductivity</i> , 2005 , 15, 2731-2734	1.8	1
48	Growth of TiN/AlN Superlattice by Pulsed Laser Deposition. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 750, 1		1
47	Nanostructured DLC-Ag Composites for Biomedical Applications. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 750, 1		1
46	Mechanical and Electrical Properties of Nanocrystalline and Epitaxial TiN Films. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 697, 841		1

45	High ionic conductivity in fluorite Bismuth oxide-based vertically aligned nanocomposite thin films. <i>Journal of Materials Chemistry A</i> ,	13	1
44	Low voltage control of magnetism in BaFe _{10.2} Sc _{1.8} O ₁₉ /BaTiO ₃ bilayer epitaxial thin film at temperatures up to 390 K. <i>Applied Physics Letters</i> , 2022 , 120, 062401	3.4	1
43	Ceramic Material Processing Towards Future Space Habitat: Electric Current-Assisted Sintering of Lunar Regolith Simulant. <i>Materials</i> , 2020 , 13,	3.5	1
42	Electrochromic Properties of Perovskite NdNiO ₃ Thin Films for Smart Windows. <i>ACS Applied Electronic Materials</i> , 2021 , 3, 1719-1731	4	1
41	Stress of misfit dislocation at Fe/MgO interface drives the annihilation of radiation induced defects. <i>Acta Materialia</i> , 2021 , 210, 116798	8.4	1
40	Ellipsometry-based failure analysis on translucent LiMn _{0.5} Ni _{0.3} Co _{0.2} O ₂ in half-cell thin-film lithium-ion battery on glass substrates. <i>Materials Today Advances</i> , 2021 , 10, 100142	7.4	1
39	Recent Advances in Vertically Aligned Nanocomposites with Tunable Optical Anisotropy: Fundamentals and Beyond. <i>Chemosensors</i> , 2021 , 9, 145	4	1
38	Novel vertically aligned nanocomposite of Bi ₂ WO ₆ -Co ₃ O ₄ with room-temperature multiferroic and anisotropic optical response. <i>Nano Research</i> , 1	10	1
37	Electrical properties and charge compensation mechanisms of Cr-doped rutile, TiO. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 22133-22146	3.6	1
36	Tailorable multifunctionalities in ultrathin 2D Bi-based layered supercell structures. <i>Nanoscale</i> , 2021 , 13, 16672-16679	7.7	1
35	Creating Ferromagnetic Insulating LaBaMnO Thin Films by Tuning Lateral Coherence Length. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 8863-8870	9.5	1
34	Electric field-induced grain boundary degradation mechanism in yttria stabilized zirconia. <i>Scripta Materialia</i> , 2021 , 204, 114130	5.6	1
33	Laser-Assisted Nanotexturing and Silver Immobilization on Titanium Implant Surfaces to Enhance Bone Cell Mineralization and Antimicrobial Properties.. <i>Langmuir</i> , 2022 ,	4	1
32	Epitaxial (110)-oriented La _{0.7} Sr _{0.3} MnO ₃ film directly on flexible mica substrate. <i>Journal Physics D: Applied Physics</i> , 2022 , 55, 224002	3	1
31	ZnO-AuCu Alloy and ZnO-AuAl Alloy Vertically Aligned Nanocomposites for Low-Loss Plasmonic Metamaterials.. <i>Molecules</i> , 2022 , 27,	4.8	1
30	Optical dielectric properties of HfO ₂ -based films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2022 , 40, 033412	2.9	1
29	Lithium-based vertically aligned nanocomposite films incorporating Li _x La _{0.32} (Nb _{0.7} Ti _{0.32})O ₃ electrolyte with high Li ⁺ ion conductivity. <i>APL Materials</i> , 2022 , 10, 051102	5.7	1
28	A Biodegradable Hybrid Micro/Nano Conductive Zinc Paste for Paper-Based Flexible Bioelectronics. <i>Advanced Materials Technologies</i> , 2101722	6.8	1

27	Vertically stacked multilayer atomic-layer-deposited sub-1-nm In ₂ O ₃ field-effect transistors with back-end-of-line compatibility. <i>Applied Physics Letters</i> , 2022 , 120, 202104	3.4	1
26	Thermal stability from calorimetric measurements of multilayered NiFe specimens with different layer thickness. <i>Scripta Materialia</i> , 2017 , 137, 100-103	5.6	o
25	Microstructures and Mechanical Properties of Nanostructured Copper-304 Stainless Steel Multilayers Synthesized by Magnetron Sputtering. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 740, 1		o
24	Preparation and characterization of multifunctional piezoenergetic polyvinylidene fluoride/aluminum nanocomposite films. <i>Journal of Applied Physics</i> , 2022 , 131, 055108	2.5	o
23	Surface chemistry and porosity engineering through etching reveal ultrafast oxygen reduction kinetics below 400 °C in B-site exposed (La,Sr)(Co,Fe)O ₃ thin-films. <i>Journal of Power Sources</i> , 2022 , 523, 230983	8.9	o
22	Achieving strong and stable nanocrystalline Al alloys through compositional design. <i>Journal of Materials Research</i> , 1	2.5	o
21	Strain Effects on the Growth of LaSrMnO (LSMO)-NiO Nanocomposite Thin Films via Substrate Control. <i>ACS Omega</i> , 2020 , 5, 23793-23798	3.9	o
20	Thermal Stability of Nanocrystalline Gradient Inconel 718 Alloy. <i>Crystals</i> , 2021 , 11, 53	2.3	o
19	Ramifications of Pulsed Laser Deposition Growth Temperature on BaHfO ₃ and Y ₂ O ₃ Doped Y-Ba-Cu-O Thin Films Microstructure and Performance. <i>IEEE Transactions on Applied Superconductivity</i> , 2021 , 31, 1-5	1.8	o
18	Ultrafast anchored SnO ₂ nanoparticles revealed capacity fade and hysteresis abated stable cycling performance for high-rate lithium-ion batteries. <i>Carbon</i> , 2021 , 185, 608-608	10.4	o
17	Microstructure and defect gradients in DC and AC flash sintered ZnO. <i>Ceramics International</i> , 2021 , 47, 28596-28602	5.1	o
16	Effects of incubation on microstructure gradient in flash-sintered TiO ₂ . <i>Scripta Materialia</i> , 2022 , 207, 114270	5.6	o
15	Linking far-from-equilibrium defect structures in ceramics to electromagnetic driving forces. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 8425-8434	13	o
14	Hybrid Ag ₂ LiNbO ₃ nanocomposite thin films with tailorable optical properties. <i>Nanoscale Advances</i> , 2021 , 3, 1121-1126	5.1	o
13	Freestanding La _{0.7} Sr _{0.3} MnO ₃ :NiO vertically aligned nanocomposite thin films for flexible perpendicular interfacial exchange coupling. <i>Materials Research Letters</i> , 2022 , 10, 287-294	7.4	o
12	Integration of Self-Assembled BaZrO ₃ -Co Vertically Aligned Nanocomposites on Mica Substrates toward Flexible Spintronics. <i>Crystal Growth and Design</i> , 2022 , 22, 718-725	3.5	o
11	Ferroelectric thin films and nanostructures: current and future 2019 , 19-39		
10	Atomic-scale EDS Mapping for Chemical Imaging and Quantification of Interdiffusion in Self-assembled Vertically Aligned Nanocomposite Thin Films. <i>Microscopy and Microanalysis</i> , 2015 , 21, 2249-2250	0.5	

- 9 Strongly enhanced current densities in superconducting coated conductors of YBa₂Cu₃O_{7-x} + BaZrO₃ **2010**, 327-331
- 8 Amorphous Silica Nanoparticles Embedded in Epitaxial SrTiO₃ and CoFe₂O₄ Matrices. *Angewandte Chemie*, **2008**, 120, 5852-5855 3.6
- 7 Effects of Eu interfacial mobility on the growth of epitaxial EuBa₂Cu₃O₇ films. *Applied Physics Letters*, **2005**, 86, 101912 3.4
- 6 Single Crystal TaN Thin Films on TiN/Si Heterostructure. *Materials Research Society Symposia Proceedings*, **2002**, 716, 881
- 5 Studies on Epitaxial Relationship and Interface Structure of AlN/Si(111) and GaN/Si(111) Heterostructures. *Materials Research Society Symposia Proceedings*, **2002**, 743, L3.24.1
- 4 Copper Diffusion Characteristics in Single Crystal and Polycrystalline TaN. *Materials Research Society Symposia Proceedings*, **2002**, 745, 6111
- 3 Thermal Safety Analysis of Disordered Li-Rich Rock salt Li_{1.3}Mn_{0.4}Nb_{0.3}O₂ Cathode. *ACS Applied Energy Materials*, **2022**, 5, 516-523 6.1
- 2 Improving Flux Pinning in YBa₂Cu₃O₇ Coated Conductors by Changing the Buffer Layer Deposition Conditions. *Ceramic Transactions*, 1-13 0.1
- 1 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