Xinghang Zhang

List of Publications by Year in Descending Order

322 papers	20,124 citations	60 h-index	133 g-index
331 ext. papers	22,570 ext. citations	6.4 avg, IF	6.99 L-index

#	Paper	IF	Citations
322	Effects of incubation on microstructure gradient in flash-sintered TiO2. *Scripta Materialia*, **2022**, 207, 114270	5.6	0
321	ZnO-AuCu Alloy and ZnO-AuAl Alloy Vertically Aligned Nanocomposites for Low-Loss Plasmonic Metamaterials.. *Molecules*, **2022**, 27,	4.8	1
320	Deformation mechanism in nanolaminate FeCrAl alloys by in situ micromechanical strain rate jump tests at elevated temperatures. *Scripta Materialia*, **2022**, 215, 114698	5.6	2
319	Conversion of stacking fault tetrahedra to bubbles in dual (Kr, He)-beam irradiated copper. *Computational Materials Science*, **2022**, 210, 111437	3.2	0
318	Core-shell metallic alloy nanopillars-in-dielectric hybrid metamaterials with magneto-plasmonic coupling. *Materials Today*, **2021**,	21.8	2
317	Investigation of strengthening mechanisms in an additively manufactured Haynes 230 alloy. *Acta Materialia*, **2021**, 117404	8.4	6
316	Field-assisted growth of one-dimensional ZnO nanostructures with high defect density. *Nanotechnology*, **2021**, 32, 095603	3.4	3
315	Recent trends on studies of nanostructured metals. *MRS Bulletin*, **2021**, 46, 217-224	3.2	2
314	Thermal stability of immiscible Cu-Ag/Fe triphase multilayers with triple junctions. *Acta Materialia*, **2021**, 208, 116679	8.4	6
313	Flash sintering of additively manufactured 3YSZ gears. *Journal of the American Ceramic Society*, **2021**, 104, 3828-3832	3.8	3
312	Heavy ion irradiation response of an additively manufactured 316LN stainless steel. *Journal of Nuclear Materials*, **2021**, 546, 152745	3.3	6
311	Evaluation of the interface stability of Al/AlN multilayered composites under thermal stress. *Surface and Coatings Technology*, **2021**, 414, 127117	4.4	0
310	Ultra-high heating rate effects on the sintering of ceramic nanoparticles: an in situ TEM study. *Materials Research Letters*, **2021**, 9, 373-381	7.4	2
309	High-strength nanocrystalline intermetallics with room temperature deformability enabled by nanometer thick grain boundaries. *Science Advances*, **2021**, 7,	14.3	2
308	Design of 3D Oxide–Metal Hybrid Metamaterial for Tailorable Light–Matter Interactions in Visible and Near-Infrared Region. *Advanced Optical Materials*, **2021**, 9, 2001154	8.1	7
307	Tailoring the formation of twins in Al by introducing epitaxial layer interfaces. *Scripta Materialia*, **2021**, 192, 1-6	5.6	3
306	High-strength and tunable plasticity in sputtered Al–Cr alloys with multistage phase transformations. *International Journal of Plasticity*, **2021**, 137, 102915	7.6	4

305	Ultra-high strength and plasticity mediated by partial dislocations and defect networks: Part II: Layer thickness effect. *Acta Materialia*, **2021**, 204, 116494	8.4	2
304	Microstructural evolution of nanotwinned Al-Zr alloy with significant 9R phase. *Materials Research Letters*, **2021**, 9, 91-98	7.4	5
303	The influence of stacking faults on mechanical behavior of advanced materials. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 803, 140696	5.3	5
302	Nitride-Oxide-Metal Heterostructure with Self-Assembled Core-Shell Nanopillar Arrays: Effect of Ordering on Magneto-Optical Properties. *Small*, **2021**, 17, e2007222	11	6
301	Self-Assembled BaTiO-AuAg Low-Loss Hybrid Plasmonic Metamaterials with an Ordered "Nano-Domino-like" Microstructure. *ACS Applied Materials & Interfaces*, **2021**, 13, 5390-5398	9.5	3
300	Physics Knowledge Discovery via Neural Differential Equation Embedding. *Lecture Notes in Computer Science*, **2021**, 118-134	0.9	0
299	Deposition pressure-induced microstructure control and plasmonic property tuning in hybrid ZnO□AgxAu1□ thin films. *Nanoscale Advances*, **2021**, 3, 2870-2878	5.1	3
298	First-principles calculations for understanding microstructures and mechanical properties of co-sputtered Al alloys. *Nanoscale*, **2021**, 13, 14987-15001	7.7	3
297	Defects in flash-sintered ceramics and their effects on mechanical properties. *MRS Bulletin*, **2021**, 46, 44-51	3.2	9
296	Thermal Stability of Nanocrystalline Gradient Inconel 718 Alloy. *Crystals*, **2021**, 11, 53	2.3	0
295	Characterization of precipitation in gradient Inconel 718 superalloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 804, 140718	5.3	7
294	Antidelaminating, Thermally Stable, and Cost-Effective Flexible Kapton Platforms for Nitrate Sensors, Mercury Aptasensors, Protein Sensors, and p-Type Organic Thin-Film Transistors. *ACS Applied Materials & Interfaces*, **2021**, 13, 11369-11384	9.5	1
293	High Strength and Low Coercivity of Cobalt with Three-Dimensional Nanoscale Stacking Faults. *Nano Letters*, **2021**, 21, 6480-6486	11.5	2
292	Ultra-fine-grained and gradient FeCrAl alloys with outstanding work hardening capability. *Acta Materialia*, **2021**, 215, 117049	8.4	5
291	Ordered hybrid metamaterial of La0.7Sr0.3MnO3□Au vertically aligned nanocomposites achieved on templated SrTiO3 substrate. *Materials Today Nano*, **2021**, 15, 100121	9.7	1
290	Strong Interfacial Coupling of Tunable Ni-NiO Nanocomposite Thin Films Formed by Self-Decomposition. *ACS Applied Materials & Interfaces*, **2021**, 13, 39730-39737	9.5	2
289	Enhanced defect annihilation capability of the graphene/copper interface: An in situ study. *Scripta Materialia*, **2021**, 203, 114001	5.6	5
288	Microstructure and defect gradients in DC and AC flash sintered ZnO. *Ceramics International*, **2021**, 47, 28596-28602	5.1	0

287	Temperature effect on mechanical response of flash-sintered ZnO by in-situ compression tests. *Acta Materialia*, **2020**, 200, 699-709	8.4	10
286	Strong and plastic metallic composites with nanolayered architectures. *Acta Materialia*, **2020**, 195, 240-251	8.4	13
285	Deformation behavior and phase transformation of nanotwinned Al/Ti multilayers. *Applied Surface Science*, **2020**, 527, 146776	6.7	9
284	Plastic anisotropy and tension-compression asymmetry in nanotwinned AlBe alloys: An in-situ micromechanical investigation. *International Journal of Plasticity*, **2020**, 132, 102760	7.6	12
283	He ion irradiation response of a gradient T91 steel. *Acta Materialia*, **2020**, 196, 175-190	8.4	10
282	3D Hybrid Plasmonic Framework with Au Nanopillars Embedded in Nitride Multilayers Integrated on Si. *Advanced Materials Interfaces*, **2020**, 7, 2000493	4.6	11
281	Tailoring the thermal stability of nanocrystalline Ni alloy by thick grain boundaries. *Scripta Materialia*, **2020**, 182, 21-26	5.6	11
280	Thermal stability and deformability of annealed nanotwinned Al/Ti multilayers. *Scripta Materialia*, **2020**, 186, 219-224	5.6	8
279	Extrinsic size dependent plastic deformability of ZnS micropillars. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 792, 139706	5.3	1
278	Large-Scale Plasmonic Hybrid Framework with Built-In Nanohole Array as Multifunctional Optical Sensing Platforms. *Small*, **2020**, 16, e1906459	11	8
277	Strain-Driven In-plane Ordering in Vertically Aligned ZnO-Au Nanocomposites with Highly Correlated Metamaterial Properties. *ACS Omega*, **2020**, 5, 2234-2241	3.9	23
276	Thermally Stable AuBaTiO3 Nanoscale Hybrid Metamaterial for High-Temperature Plasmonic Applications. *ACS Applied Nano Materials*, **2020**, 3, 1431-1437	5.6	9
275	Microstructure and tensile behavior of nanostructured gradient TWIP steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 785, 139346	5.3	7
274	Vertically Aligned AgAu Alloyed Nanopillars Embedded in ZnO as Nanoengineered Low-Loss Hybrid Plasmonic Metamaterials. *Nano Letters*, **2020**, 20, 3778-3785	11.5	13
273	Role of Interlayer in 3D Vertically Aligned Nanocomposite Frameworks with Tunable Magnetotransport Properties. *Advanced Materials Interfaces*, **2020**, 7, 1901990	4.6	6
272	Recent Studies on the Microstructural Response of Nanotwinned Metals to In Situ Heavy Ion Irradiation. *Jom*, **2020**, 72, 160-169	2.1	1
271	Hierarchical nanotwins in single-crystal-like nickel with high strength and corrosion resistance produced via a hybrid technique. *Nanoscale*, **2020**, 12, 1356-1365	7.7	15
270	Enhancing electrochemical performance of thin film lithium ion battery via introducing tilted metal nanopillars as effective current collectors. *Nano Energy*, **2020**, 69, 104381	17.1	13

269	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
268	Ultra-high strength and plasticity mediated by partial dislocations and defect networks: Part I: Texture effect. *Acta Materialia*, **2020**, 185, 181-192	8.4	15
267	3D Hybrid Trilayer Heterostructure: Tunable Au Nanorods and Optical Properties. *ACS Applied Materials & Interfaces*, **2020**, 12, 45015-45022	9.5	3
266	In-situ studies on the mechanical properties of He ion irradiated nanotwinned Ag. *Journal of Nuclear Materials*, **2020**, 540, 152392	3.3	5
265	Metal-Free Oxide-Nitride Heterostructure as a Tunable Hyperbolic Metamaterial Platform. *Nano Letters*, **2020**, 20, 6614-6622	11.5	17
264	Recent Studies on Void Shrinkage in Metallic Materials Subjected to In Situ Heavy Ion Irradiations. *Jom*, **2020**, 72, 4008-4016	2.1	2
263	Coupled solute effects enable anomalous high-temperature strength and stability in nanotwinned Al alloys. *Acta Materialia*, **2020**, 200, 378-388	8.4	8
262	Irradiation induced void spheroidization, shrinkage and migration in Cu at elevated temperatures: An in situ study. *Acta Materialia*, **2020**, 201, 504-516	8.4	3
261	Thickness effect of graphene film on optimizing the interface and mechanical properties of Cu/Ni multilayer composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 798, 140111	5.3	6
260	Design of super-strong and thermally stable nanotwinned Al alloys solute synergy. *Nanoscale*, **2020**, 12, 20491-20505	7.7	5
259	Bidirectional tuning of phase transition properties in Pt : VO nanocomposite thin films. *Nanoscale*, **2020**, 12, 17886-17894	7.7	3
258	High strength, deformable nanotwinned Al□o alloys. *Materials Research Letters*, **2019**, 7, 33-39	7.4	22
257	Nanoscale stacking fault-assisted room temperature plasticity in flash-sintered TiO. *Science Advances*, **2019**, 5, eaaw5519	14.3	35
256	Hybrid plasmonic Au□iN vertically aligned nanocomposites: a nanoscale platform towards tunable optical sensing. *Nanoscale Advances*, **2019**, 1, 1045-1054	5.1	28
255	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
254	9R phase enabled superior radiation stability of nanotwinned Cu alloys via in situ radiation at elevated temperature. *Acta Materialia*, **2019**, 167, 248-256	8.4	10
253	Strategies to tailor serrated flows in metallic glasses. *Journal of Materials Research*, **2019**, 34, 1595-1607	2.5	5
252	Strain-driven nanodumbbell structure and enhanced physical properties in hybrid vertically aligned nanocomposite thin films. *Applied Materials Today*, **2019**, 16, 204-212	6.6	17

251	Size dependent strengthening in high strength nanotwinned Al/Ti multilayers. *Acta Materialia*, **2019**, 175, 466-476	8.4	26
250	Self-assembled two-dimensional layered oxide supercells with modulated layer stacking and tunable physical properties. *Materials Today Nano*, **2019**, 6, 100037	9.7	10
249	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. *Journal of the European Ceramic Society*, **2019**, 39, 3120-3128	6	11
248	Response of solidification cellular structures in additively manufactured 316 stainless steel to heavy ion irradiation: an in situ study. *Materials Research Letters*, **2019**, 7, 290-297	7.4	18
247	Tailoring the strength and ductility of T91 steel by partial tempering treatment. *Acta Materialia*, **2019**, 169, 209-224	8.4	29
246	An in situ study on Kr ion□irradiated crystalline Cu/amorphous-CuNb nanolaminates. *Journal of Materials Research*, **2019**, 34, 2218-2228	2.5	9
245	Radiation induced nanovoid shrinkage in Cu at room temperature: An in situ study. *Scripta Materialia*, **2019**, 166, 112-116	5.6	5
244	Grain refinement mechanisms and strength-hardness correlation of ultra-fine grained grade 91 steel processed by equal channel angular extrusion. *International Journal of Pressure Vessels and Piping*, **2019**, 172, 212-219	2.4	17
243	Helium Tribology of Inconel 617 at Elevated Temperatures up to 950°C: Parametric Study. *Nuclear Science and Engineering*, **2019**, 193, 998-1012	1.2	12
242	Study of deformation mechanisms in flash-sintered yttria-stabilized zirconia by in-situ micromechanical testing at elevated temperatures. *Materials Research Letters*, **2019**, 7, 194-202	7.4	12
241	Phase transformation induced plasticity in high-strength hexagonal close packed Co with stacking faults. *Scripta Materialia*, **2019**, 173, 32-36	5.6	15
240	Interface Effects on He Ion Irradiation in Nanostructured Materials. *Materials*, **2019**, 12,	3.5	3
239	Helium irradiation induced ultra-high strength nanotwinned Cu with nanovoids. *Acta Materialia*, **2019**, 177, 107-120	8.4	18
238	Staged microstructural study of flash sintered titania. *Materialia*, **2019**, 8, 100451	3.2	6
237	Dual Beam In Situ Radiation Studies of Nanocrystalline Cu. *Materials*, **2019**, 12,	3.5	7
236	Thick grain boundary induced strengthening in nanocrystalline Ni alloy. *Nanoscale*, **2019**, 11, 23449-23458	7	10
235	Self-Assembled Ordered Three-Phase Au-BaTiO -ZnO Vertically Aligned Nanocomposites Achieved by a Templating Method. *Advanced Materials*, **2019**, 31, e1806529	24	42
234	The effect of coherent interface on strain-rate sensitivity of highly textured Cu/Ni and Cu/V multilayers. *Scripta Materialia*, **2019**, 162, 33-37	5.6	18

233	High temperature thermal and mechanical stability of high-strength nanotwinned Al alloys. *Acta Materialia*, **2019**, 165, 142-152	8.4	25
232	Comparison of the grain growth behavior and defect structures of flash sintered ZnO with and without controlled current ramp. *Scripta Materialia*, **2019**, 162, 251-255	5.6	29
231	Self-Assembled Ag□TiN Hybrid Plasmonic Metamaterial: Tailorable Tilted Nanopillar and Optical Properties. *Advanced Optical Materials*, **2019**, 7, 1801180	8.1	26
230	Key microstructural characteristics in flash sintered 3YSZ critical for enhanced sintering process. *Ceramics International*, **2019**, 45, 1251-1257	5.1	20
229	Tailoring strength and plasticity of Ag/Nb nanolaminates via intrinsic microstructure and extrinsic dimension. *International Journal of Plasticity*, **2019**, 113, 145-157	7.6	23
228	In situ study on surface roughening in radiation-resistant Ag nanowires. *Nanotechnology*, **2018**, 29, 215708	3.4	13
227	Superior twin stability and radiation resistance of nanotwinned Ag solid solution alloy. *Acta Materialia*, **2018**, 151, 395-405	8.4	20
226	Three-dimensional strain engineering in epitaxial vertically aligned nanocomposite thin films with tunable magnetotransport properties. *Materials Horizons*, **2018**, 5, 536-544	14.4	44
225	Mechanical behavior of structurally gradient nickel alloy. *Acta Materialia*, **2018**, 149, 57-67	8.4	44
224	Microstructure and mechanical behavior of nanotwinned AlTi alloys with 9R phase. *Scripta Materialia*, **2018**, 148, 5-9	5.6	31
223	High-Strength Nanotwinned Al Alloys with 9R Phase. *Advanced Materials*, **2018**, 30, 1704629	24	60
222	Nanoscale Artificial Plasmonic Lattice in Self-Assembled Vertically Aligned Nitride-Metal Hybrid Metamaterials. *Advanced Science*, **2018**, 5, 1800416	13.6	44
221	Radiation damage in nanostructured materials. *Progress in Materials Science*, **2018**, 96, 217-321	42.2	178
220	Elevated temperature tribology of Ni alloys under helium environment for nuclear reactor applications. *Tribology International*, **2018**, 123, 372-384	4.9	38
219	In situ studies on irradiation resistance of nanoporous Au through temperature-jump tests. *Acta Materialia*, **2018**, 143, 30-42	8.4	20
218	Tailorable Optical Response of Au□TiNbO3 Hybrid Metamaterial Thin Films for Optical Waveguide Applications. *Advanced Optical Materials*, **2018**, 6, 1800510	8.1	24
217	Self-assembled vertically aligned Ni nanopillars in CeO with anisotropic magnetic and transport properties for energy applications. *Nanoscale*, **2018**, 10, 17182-17188	7.7	31
216	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

215	In-situ high temperature micromechanical testing of ultrafine grained yttria-stabilized zirconia processed by spark plasma sintering. *Acta Materialia*, **2018**, 155, 128-137	8.4	11
214	In situ study on enhanced heavy ion irradiation tolerance of porous Mg. *Scripta Materialia*, **2018**, 144, 13-17	5.6	10
213	Texture-directed twin formation propensity in Al with high stacking fault energy. *Acta Materialia*, **2018**, 144, 226-234	8.4	22
212	Ultra-strong nanotwinned Al-Ni solid solution alloys with significant plasticity. *Nanoscale*, **2018**, 10, 22025-22034	7.7	19
211	Strengthening mechanisms and deformability of nanotwinned AlMg alloys. *Journal of Materials Research*, **2018**, 33, 3739-3749	2.5	11
210	Ultrastrong nanocrystalline steel with exceptional thermal stability and radiation tolerance. *Nature Communications*, **2018**, 9, 5389	17.4	53
209	Thickness-Dependent Strain Rate Sensitivity of Nanolayers via the Nanoindentation Technique. *Crystals*, **2018**, 8, 128	2.3	2
208	A Review on the Radiation Response of Nanoporous Metallic Materials. *Jom*, **2018**, 70, 2753-2764	2.1	10
207	High temperature deformability of ductile flash-sintered ceramics via in-situ compression. *Nature Communications*, **2018**, 9, 2063	17.4	56
206	The temperature and size effect on the electrical resistivity of Cu/V multilayer films. *Acta Materialia* , **2017**, 126, 294-301	8.4	31
205	Self-Organized Epitaxial Vertically Aligned Nanocomposites with Long-Range Ordering Enabled by Substrate Nanotemplating. *Advanced Materials*, **2017**, 29, 1606861	24	28
204	Layer thickness dependent strain rate sensitivity of Cu/amorphous CuNb multilayer. *Applied Physics Letters*, **2017**, 110, 161905	3.4	20
203	Self-assembled Co-BaZrO nanocomposite thin films with ultra-fine vertically aligned Co nanopillars. *Nanoscale*, **2017**, 9, 7970-7976	7.7	54
202	Influence of injected interstitials on the void swelling in two structural variants of 304L stainless steel induced by self-ion irradiation at 500 °C. *Nuclear Instruments & Methods in Physics Research B*, **2017**, 409, 323-327	1.2	17
201	In Situ Studies on the Irradiation-Induced Twin Boundary-Defect Interactions in Cu. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2017**, 48, 5172-5180	2.3	15
200	Novel Layered Supercell Structure from BiAlMnO for Multifunctionalities. *Nano Letters*, **2017**, 17, 6575-6583	12.3	18
199	Defect evolution in heavy ion irradiated nanotwinned Cu with nanovoids. *Journal of Nuclear Materials*, **2017**, 496, 293-300	3.3	9
198	Roles of strain and domain boundaries on the phase transition stability of VO2 thin films. *Applied Physics Letters*, **2017**, 111, 153102	3.4	16

197	Tailoring plasticity of metallic glasses via interfaces in Cu/amorphous CuNb laminates. *Journal of Materials Research*, **2017**, 32, 2680-2689	2.5	13
196	Ductile Fracture of Metallic Glass Nanolaminates. *Advanced Materials Interfaces*, **2017**, 4, 1700510	4.6	16
195	High-velocity projectile impact induced 9R phase in ultrafine-grained aluminium. *Nature Communications*, **2017**, 8, 1653	17.4	28
194	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
193	Radiation induced detwinning in nanotwinned Cu. *Scripta Materialia*, **2017**, 130, 37-41	5.6	19
192	In situ heavy ion irradiation studies of nanopore shrinkage and enhanced radiation tolerance of nanoporous Au. *Scientific Reports*, **2017**, 7, 39484	4.9	27
191	Unusual size dependent strengthening mechanisms of Cu/amorphous CuNb multilayers. *Acta Materialia*, **2016**, 120, 327-336	8.4	46
190	In situ studies on radiation tolerance of nanotwinned Cu. *Acta Materialia*, **2016**, 111, 148-156	8.4	56
189	A roadmap for tailoring the strength and ductility of ferritic/martensitic T91 steel via thermo-mechanical treatment. *Acta Materialia*, **2016**, 112, 361-377	8.4	50
188	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
187	Radiation Enhanced Absorption of Frank Loops by Nanovoids in Cu. *Jom*, **2016**, 68, 235-241	2.1	9
186	Plastic deformation in nanocrystalline TiN at ultra-low stress: An in situ nanoindentation study. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2016**, 650, 445-453	5.3	12
185	In Situ Nanoindentation Studies on Detwinning and Work Hardening in Nanotwinned Monolithic Metals. *Jom*, **2016**, 68, 127-135	2.1	10
184	Measurement of Heavy Ion Irradiation Induced In-Plane Strain in Patterned Face-Centered-Cubic Metal Films: An in Situ Study. *Nano Letters*, **2016**, 16, 7481-7489	11.5	13
183	In situ study of heavy ion irradiation response of immiscible Cu/Fe multilayers. *Journal of Nuclear Materials*, **2016**, 475, 274-279	3.3	35
182	Self-Assembled Epitaxial Au-Oxide Vertically Aligned Nanocomposites for Nanoscale Metamaterials. *Nano Letters*, **2016**, 16, 3936-43	11.5	75
181	In Situ TEM Nanoindentation Studies on Stress-Induced Phase Transformations in Metallic Materials. *Jom*, **2016**, 68, 226-234	2.1	5
180	Twinning effects on strength and plasticity of metallic materials. *MRS Bulletin*, **2016**, 41, 274-281	3.2	57

179	Comparison of size dependent strengthening mechanisms in Ag/Fe and Ag/Ni multilayers. *Acta Materialia*, **2016**, 114, 154-163	8.4	42
178	Self-Assembled Magnetic Metallic Nanopillars in Ceramic Matrix with Anisotropic Magnetic and Electrical Transport Properties. *ACS Applied Materials & Interfaces*, **2016**, 8, 20283-91	9.5	33
177	In situ Observation of Defect Annihilation in Kr Ion-Irradiated Bulk Fe/Amorphous-Fe2Zr Nanocomposite Alloy. *Materials Research Letters*, **2015**, 3, 35-42	7.4	18
176	Strain and interface effects in a novel bismuth-based self-assembled supercell structure. *ACS Applied Materials & Interfaces*, **2015**, 7, 11631-6	9.5	17
175	Strong perpendicular exchange bias in epitaxial La(0.7)Sr(0.3)MnO3:BiFeO3 nanocomposite films through vertical interfacial coupling. *Nanoscale*, **2015**, 7, 13808-15	7.7	37
174	Resilient ZnO nanowires in an irradiation environment: An in situ study. *Acta Materialia*, **2015**, 95, 156-168	8.4	18
173	In situ study of defect migration kinetics and self-healing of twin boundaries in heavy ion irradiated nanotwinned metals. *Nano Letters*, **2015**, 15, 2922-7	11.5	78
172	Modulation of strength and plasticity of multiscale Ni/Cu laminated composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 636, 216-220	5.3	19
171	Enhanced radiation tolerance in immiscible Cu/Fe multilayers with coherent and incoherent layer interfaces. *Journal of Materials Research*, **2015**, 30, 1300-1309	2.5	25
170	Perpendicular Exchange-Biased Magnetotransport at the Vertical Heterointerfaces in La(0.7)Sr(0.3)MnO3:NiO Nanocomposites. *ACS Applied Materials & Interfaces*, **2015**, 7, 21646-51	9.5	37
169	Radiation tolerant nanocrystalline ZrN films under high dose heavy-ion irradiations. *Journal of Applied Physics*, **2015**, 117, 145901	2.5	17
168	In situ studies on superior thermal stability of bulk FeZr nanocomposites. *Acta Materialia*, **2015**, 101, 125-135	8.4	11
167	Investigation of interfaces in Mg/Nb multilayer thin films. *Computational Materials Science*, **2015**, 108, 212-225	3.2	8
166	An ultrathin invisibility skin cloak for visible light. *Science*, **2015**, 349, 1310-4	33.3	684
165	The formation mechanisms of growth twins in polycrystalline Al with high stacking fault energy. *Acta Materialia*, **2015**, 101, 62-70	8.4	36
164	Unusual size-dependent strengthening mechanisms in helium ion-irradiated immiscible coherent Cu/Co nanolayers. *Acta Materialia*, **2015**, 84, 393-404	8.4	61
163	Damage-tolerant nanotwinned metals with nanovoids under radiation environments. *Nature Communications*, **2015**, 6, 7036	17.4	79
162	A Simple Physically Based Phenomenological Model for the Strengthening/Softening Behavior of Nanotwinned Copper. *Journal of Applied Mechanics, Transactions ASME*, **2015**, 82,	2.7	12

161	Superior radiation-resistant nanoengineered austenitic 304L stainless steel for applications in extreme radiation environments. *Scientific Reports*, **2015**, 5, 7801	4.9	65
160	In situ study of defect migration kinetics in nanoporous Ag with enhanced radiation tolerance. *Scientific Reports*, **2014**, 4, 3737	4.9	57
159	Size and stress dependent hydrogen desorption in metastable Mg hydride films. *International Journal of Hydrogen Energy*, **2014**, 39, 2597-2607	6.7	29
158	In situ neutron diffraction study on temperature dependent deformation mechanisms of ultrafine grained austenitic Fe□14Cr□16Ni alloy. *International Journal of Plasticity*, **2014**, 53, 125-134	7.6	8
157	Temperature and grain size dependent plastic instability and strain rate sensitivity of ultrafine grained austenitic Fe□14Cr□16Ni alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 597, 415-421	5.3	16
156	In situ nanoindentation study on plasticity and work hardening in aluminium with incoherent twin boundaries. *Nature Communications*, **2014**, 5, 4864	17.4	81
155	Growth Twins and Deformation Twins in Metals. *Annual Review of Materials Research*, **2014**, 44, 329-363	12.8	250
154	Quantitative damage and detwinning analysis of nanotwinned copper foil under cyclic loading. *Acta Materialia*, **2014**, 81, 184-193	8.4	26
153	Ab-initio calculations of the elastic and finite-temperature thermodynamic properties of niobium- and magnesium hydrides. *International Journal of Hydrogen Energy*, **2014**, 39, 15530-15539	6.7	8
152	Producing laminated NiAl with bimodal distribution of grain size by solid□liquid reaction treatment. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 590, 318-322	5.3	22
151	Tailoring the formation of metastable Mg through interfacial engineering: A phase stability analysis. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2014**, 45, 145-150	1.9	13
150	A new method for reliable determination of strain-rate sensitivity of low-dimensional metallic materials by using nanoindentation. *Scripta Materialia*, **2014**, 77, 5-8	5.6	36
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