

Jian Wang

List of Publications by Year in Descending Order

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

311
papers

24,056
citations

71
h-index

150
g-index

319
ext. papers

26,729
ext. citations

6.7
avg, IF

7.29
L-index

#	Paper	IF	Citations
311	Visualization and validation of twin nucleation and early-stage growth in magnesium.. <i>Nature Communications</i> , 2022 , 13, 20	17.4	0
310	Atomic-level study of AuSn ₂ /Au ₅ Sn eutectic interfaces. <i>Applied Physics Letters</i> , 2022 , 120, 011603	3.4	
309	Atomistic modeling of interface strengthening in Al-Si eutectic alloys. <i>Acta Materialia</i> , 2022 , 225, 117588	8.4	2
308	Type III and IV deformation twins in minerals and metals.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022 , 119, e2118253119	11.5	
307	Uncovering the crystal defects within aragonite CaCO ₃ .. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022 , 119, e2122218119	11.5	0
306	Enhancing strength and ductility via crystalline-amorphous nanoarchitectures in TiZr-based alloys.. <i>Science Advances</i> , 2022 , 8, eabm2884	14.3	2
305	Deformation twins stimulated by {112̄} twinning in adjacent grain in titanium. <i>Acta Materialia</i> , 2022 , 229, 117805	8.4	0
304	{101̄} twinning induced by the interaction between {112̄} twin and β phase in Ti alloys. <i>Acta Materialia</i> , 2022 , 231, 117900	8.4	0
303	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
302	Dynamically reversible shear transformations in a CrMnFeCoNi high-entropy alloy at cryogenic temperature. <i>Acta Materialia</i> , 2022 , 117937	8.4	1
301	Effects of structure relaxation and surface oxidation on nanoscopic wear behaviors of metallic glass. <i>Acta Materialia</i> , 2022 , 232, 117934	8.4	6
300	Plastic deformation induced microstructure transition in nano-fibrous Al-Si eutectics. <i>Materials and Design</i> , 2022 , 218, 110701	8.1	0
299	Effect of Cooling Rate on Nano-Eutectic Formation in Laser Surface Remelted and Rare Earth Modified Hypereutectic Al-20Si Alloys. <i>Crystals</i> , 2022 , 12, 750	2.3	0
298	Twinning-assisted dynamic adjustment of grain boundary mobility. <i>Nature Communications</i> , 2021 , 12, 6695	17.4	2
297	In situ characterization of tensile behavior of laser rapid solidified AlSi heterogeneous microstructures. <i>Materials Research Letters</i> , 2021 , 9, 507-515	7.4	2
296	Strength and plasticity of lamellar vs. fibrous eutectic Mg-Al nanocomposites: An in-situ microcompression study. <i>Acta Materialia</i> , 2021 , 206, 116624	8.4	1
295	Recent trends on studies of nanostructured metals. <i>MRS Bulletin</i> , 2021 , 46, 217-224	3.2	2

294	Strength, plasticity, thermal stability and strain rate sensitivity of nanograined nickel with amorphous ceramic grain boundaries. <i>Acta Materialia</i> , 2021 , 212, 116918	8.4	6
293	Coupled crystal plasticity finite element-phase field model with kinetics-controlled twinning mechanism for hexagonal metals. <i>Acta Materialia</i> , 2021 , 202, 399-416	8.4	5
292	Deformation behavior of nanoscale Al ₃ Sc eutectics studied by in situ micropillar compression. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 800, 140311	5.3	3
291	Microstructural evolution of nanotwinned Al-Zr alloy with significant 9R phase. <i>Materials Research Letters</i> , 2021 , 9, 91-98	7.4	5
290	Self-patterning screw dislocations in pure Mg. <i>Scripta Materialia</i> , 2021 , 191, 86-89	5.6	1
289	Extension of the classical theory for types I and II twinning. <i>Journal of Materials Research</i> , 2021 , 36, 2615-2622	5.2	3
288	First-principles calculations for understanding microstructures and mechanical properties of co-sputtered Al alloys. <i>Nanoscale</i> , 2021 , 13, 14987-15001	7.7	3
287	Mechanical Behavior of Al ₃ ScCuSi and Al ₃ ScCu Eutectic Alloys. <i>Crystals</i> , 2021 , 11, 194	2.3	3
286	Characterization of the terrace-defect interfaces using in situ straining techniques. <i>Journal of Materials Research</i> , 2021 , 36, 2674-2686	2.5	1
285	Migration kinetics of twinning disconnections in nanotwinned Cu: An in situ HRTEM deformation study. <i>Scripta Materialia</i> , 2021 , 194, 113621	5.6	6
284	High Strength and Low Coercivity of Cobalt with Three-Dimensional Nanoscale Stacking Faults. <i>Nano Letters</i> , 2021 , 21, 6480-6486	11.5	2
283	Ultra-fine-grained and gradient FeCrAl alloys with outstanding work hardening capability. <i>Acta Materialia</i> , 2021 , 215, 117049	8.4	5
282	Crystallographic Orientation Dependence of Mechanical Responses of FeCrAl Micropillars. <i>Crystals</i> , 2020 , 10, 943	2.3	2
281	Strength and plasticity of amorphous ceramics with self-patterned nano-heterogeneities. <i>International Journal of Plasticity</i> , 2020 , 134, 102837	7.6	4
280	Self-organization of various phase-separated nanostructures in a single chemical vapor deposition. <i>Nano Research</i> , 2020 , 13, 1723-1732	10	1
279	Role of interfacial transition zones in the fracture of Cu/V nanolamellar multilayers. <i>Materials Research Letters</i> , 2020 , 8, 299-306	7.4	7
278	Interactions between <a> dislocations and three-dimensional {112} twin in Ti. <i>Acta Materialia</i> , 2020 , 195, 597-610	8.4	4
277	Ultrahigh strength and plasticity in laser rapid solidified AlSi nanoscale eutectics. <i>Materials Research Letters</i> , 2020 , 8, 291-298	7.4	13

276	Deformation behavior and phase transformation of nanotwinned Al/Ti multilayers. <i>Applied Surface Science</i> , 2020 , 527, 146776	6.7	9
275	Quantifying the resistance to dislocation glide in single phase FeCrAl alloy. <i>International Journal of Plasticity</i> , 2020 , 132, 102770	7.6	8
274	Imparities of shear avalanches dynamic evolution in a metallic glass. <i>Materials Research Letters</i> , 2020 , 8, 357-363	7.4	28
273	Amorphous bands induced by low temperature tension in a non-equiatomic CrMnFeCoNi alloy. <i>Acta Materialia</i> , 2020 , 188, 354-365	8.4	21
272	Interface-mediated plasticity of nanoscale AlAl ₂ Cu eutectics. <i>Acta Materialia</i> , 2020 , 186, 443-453	8.4	15
271	Microstructure evolution and high density of nanotwinned ultrafine Si in hypereutectic Al-Si alloy by laser surface remelting. <i>Materials Characterization</i> , 2020 , 161, 110147	3.9	11
270	Mesoscale Modeling of Dislocation-Interactions in Multilayered Materials 2020 , 1049-1078		1
269	Quantifying elastic strain near coherent twin interface in magnesium with nanometric resolution. <i>Materials Characterization</i> , 2020 , 160, 110082	3.9	7
268	Disclinations and disconnections in minerals and metals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 196-204	11.5	21
267	Dislocation arrays, precipitate bands and free zones in forged Mg-Gd-Y-Zr alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 775, 138789	5.3	5
266	Formation and stability of long basal-prismatic facets in Mg. <i>Acta Materialia</i> , 2020 , 185, 119-128	8.4	14
265	Highly deformable MgAlCa alloy with Al ₂ Ca precipitates. <i>Acta Materialia</i> , 2020 , 200, 236-245	8.4	33
264	Characteristic boundaries associated with three-dimensional twins in hexagonal metals. <i>Science Advances</i> , 2020 , 6, eaaz2600	14.3	12
263	Investigating the Interaction between Persistent Slip Bands and Surface Hard Coatings via Crystal Plasticity Simulations. <i>Crystals</i> , 2020 , 10, 1012	2.3	2
262	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
261	Design of super-strong and thermally stable nanotwinned Al alloys solute synergy. <i>Nanoscale</i> , 2020 , 12, 20491-20505	7.7	5
260	High strength, deformable nanotwinned AlCo alloys. <i>Materials Research Letters</i> , 2019 , 7, 33-39	7.4	22
259	Age-hardening and age-softening in nanocrystalline Mg-Gd-Y-Zr alloy. <i>Materials Characterization</i> , 2019 , 156, 109841	3.9	9

258	Segregation of Mo atoms into stacking faults in CrFeCoNiMo alloy. <i>Philosophical Magazine</i> , 2019 , 99, 1014-1024	1.6	5
257	Strength and plasticity of amorphous silicon oxycarbide. <i>Journal of Nuclear Materials</i> , 2019 , 516, 289-296	3.3	10
256	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
255	Twinning and detwinning behaviors of commercially pure titanium sheets. <i>International Journal of Plasticity</i> , 2019 , 121, 261-279	7.6	32
254	Mesoscale crystal plasticity modeling of nanoscale Al ₁₂ Cu eutectic alloy. <i>International Journal of Plasticity</i> , 2019 , 121, 134-152	7.6	12
253	Kinetically Favorable Vapor-Adsorbate-Solid Growth of Rutile Nanowires. <i>Small Methods</i> , 2019 , 3, 1900111	2.8	4
252	Influence of Metal Additives on Microstructure and Properties of Amorphous Metal/SiOC Composites. <i>Jom</i> , 2019 , 71, 2445-2451	2.1	3
251	3D printing of hybrid MoS ₂ -graphene aerogels as highly porous electrode materials for sodium ion battery anodes. <i>Materials and Design</i> , 2019 , 170, 107689	8.1	75
250	Slip transmission for dislocations across incoherent twin boundary. <i>Scripta Materialia</i> , 2019 , 166, 39-43	5.6	17
249	Energetic, structural and mechanical properties of terraced interfaces. <i>Acta Materialia</i> , 2019 , 171, 92-107	8.4	9
248	Interactions between dislocations and three-dimensional annealing twins in face centered cubic metals. <i>Computational Materials Science</i> , 2019 , 161, 371-378	3.2	10
247	Interface Effects on He Ion Irradiation in Nanostructured Materials. <i>Materials</i> , 2019 , 12,	3.5	3
246	Helium irradiation induced ultra-high strength nanotwinned Cu with nanovoids. <i>Acta Materialia</i> , 2019 , 177, 107-120	8.4	18
245	Three-dimensional character of the deformation twin in magnesium. <i>Nature Communications</i> , 2019 , 10, 3308	17.4	27
244	A topological model for defects and interfaces in complex crystal structures. <i>American Mineralogist</i> , 2019 , 104, 966-972	2.9	7
243	Defects in deformation twins in plagioclase. <i>Physics and Chemistry of Minerals</i> , 2019 , 46, 959-975	1.6	6
242	Study of the dislocation activity in a Mg alloy by differential aperture X-ray microscopy. <i>Materials Characterization</i> , 2019 , 156, 109873	3.9	9
241	Twinning and sequential kinking in lamellar Ti-6Al-4V alloy. <i>Acta Materialia</i> , 2019 , 181, 479-490	8.4	37

240	Role of local stresses on co-zone twin-twin junction formation in HCP magnesium. <i>Acta Materialia</i> , 2019 , 168, 353-361	8.4	20
239	Interface Facilitated Reorientation of Mg Nanolayers in Mg-Nb Nanolaminates. <i>Jom</i> , 2019 , 71, 1215-1220.	2.1	5
238	Grain boundary decohesion by nanoclustering Ni and Cr separately in CrMnFeCoNi high-entropy alloys. <i>Science Advances</i> , 2019 , 5, eaay0639	14.3	38
237	Shock-induced $\{112\bar{1}\} \rightarrow \{112\bar{2}\}$ double twinning in titanium. <i>International Journal of Plasticity</i> , 2019 , 112, 194-205	7.6	17
236	Investigation into nanoscratching mechanical performance of metallic glass multilayers with improved nano-tribological properties. <i>Journal of Alloys and Compounds</i> , 2019 , 776, 447-459	5.7	38
235	Shock-induced two types of $\{101\bar{2}\}$ sequential twinning in Titanium. <i>Acta Materialia</i> , 2019 , 165, 547-560.	8.4	27
234	Deformation induced FCC lamellae and their interaction in commercial pure Ti. <i>Scripta Materialia</i> , 2019 , 162, 326-330	5.6	44
233	Residual Stresses in Cu/Ni Multilayer Thin Films Measured Using the Sin ² Method. <i>Experimental Mechanics</i> , 2019 , 59, 111-120	2.6	7
232	Steps and $\{112\bar{1}\}$ secondary twinning associated with $\{112\bar{2}\}$ twin in titanium. <i>Acta Materialia</i> , 2019 , 164, 776-787	8.4	19
231	Outstanding tensile properties of a precipitation-strengthened FeCoNiCrTi _{0.2} high-entropy alloy at room and cryogenic temperatures. <i>Acta Materialia</i> , 2019 , 165, 228-240	8.4	178
230	Interface-driven mechanisms in cubic/noncubic nanolaminates at different scales. <i>MRS Bulletin</i> , 2019 , 44, 31-39	3.2	24
229	Structures and Mechanical Properties of Al-Al ₂ Cu Interfaces. <i>Jom</i> , 2019 , 71, 1200-1208	2.1	8
228	Strength and ductility of CrFeCoNiMo alloy with hierarchical microstructures. <i>International Journal of Plasticity</i> , 2019 , 113, 255-268	7.6	75
227	Temperature-Induced Atomic Reconstruction At Au/MgAl ₂ O ₄ Interfaces. <i>Advanced Materials Interfaces</i> , 2018 , 5, 1701664	4.6	5
226	Superior twin stability and radiation resistance of nanotwinned Ag solid solution alloy. <i>Acta Materialia</i> , 2018 , 151, 395-405	8.4	20
225	Secondary twin variant selection in four types of double twins in titanium. <i>Acta Materialia</i> , 2018 , 152, 58-76	8.4	55
224	Insight from in situ microscopy into which precipitate morphology can enable high strength in magnesium alloys. <i>Journal of Materials Science and Technology</i> , 2018 , 34, 1061-1066	9.1	40
223	Eigenstrain as a mechanical set-point of cells. <i>Biomechanics and Modeling in Mechanobiology</i> , 2018 , 17, 951-959	3.8	6

222	High-Strength Nanotwinned Al Alloys with 9R Phase. <i>Advanced Materials</i> , 2018 , 30, 1704629	24	60
221	Radiation damage in nanostructured materials. <i>Progress in Materials Science</i> , 2018 , 96, 217-321	42.2	178
220	Atomistic modeling of Mg/Nb interfaces: shear strength and interaction with lattice glide dislocations. <i>Journal of Materials Science</i> , 2018 , 53, 5733-5744	4.3	8
219	Micro-scale modeling of interface-dominated mechanical behavior. <i>Journal of Materials Science</i> , 2018 , 53, 5546-5561	4.3	20
218	Atomistic simulations of plasticity in heterogeneous nanocrystalline Ni lamella. <i>Computational Materials Science</i> , 2018 , 141, 229-234	3.2	4
217	Realizing strength-ductility combination of coarse-grained Al _{0.2} Co _{1.5} CrFeNi _{1.5} Ti _{0.3} alloy via nano-sized, coherent precipitates. <i>International Journal of Plasticity</i> , 2018 , 100, 177-191	7.6	110
216	Frequency dependent deformation reversibility during cyclic loading. <i>Materials Research Letters</i> , 2018 , 6, 390-397	7.4	14
215	Density functional theory study of {101̄h} twin boundaries of Zn under high pressure. <i>Computational Materials Science</i> , 2018 , 151, 106-116	3.2	2
214	Structural characteristics of {1̄0012} non-cozone twin-twin interactions in magnesium. <i>Acta Materialia</i> , 2018 , 159, 65-76	8.4	31
213	In situ TEM Investigation of Mechanically Induced Phase Transformations in Nanoscale Composites. <i>Microscopy and Microanalysis</i> , 2018 , 24, 1828-1829	0.5	1
212	Basal <a> dislocation-{1̄0011} contraction twin interactions in magnesium. <i>Computational Materials Science</i> , 2018 , 155, 11-16	3.2	8
211	Atomistic simulations of interaction between basal dislocations and three-dimensional twins in magnesium. <i>Acta Materialia</i> , 2018 , 155, 187-198	8.4	43
210	Alternative misfit dislocations pattern in semi-coherent FCC {100} interfaces. <i>Acta Materialia</i> , 2018 , 144, 177-186	8.4	25
209	Ultra-strong nanotwinned Al-Ni solid solution alloys with significant plasticity. <i>Nanoscale</i> , 2018 , 10, 22025-22034	7.7	34
208	Mesoscale Modeling of Dislocation-Interactions in Multilayered Materials 2018 , 1-30		
207	Strength and Ductility with Dual Grain-Size and Texture Gradients in AZ31 Mg Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 5333-5338	2.3	4
206	Characteristic orientation relationships in nanoscale Al-AlCu Eutectic. <i>Materials Characterization</i> , 2018 , 142, 170-178	3.9	17
205	Plasticity of laser-processed nanoscale Al Al ₂ Cu eutectic alloy. <i>Acta Materialia</i> , 2018 , 156, 52-63	8.4	29

204	Quasi-periodic variation of Peierls stress of dislocations in face-centered-cubic metals. <i>International Journal of Plasticity</i> , 2017 , 90, 156-166	7.6	13
203	Atomically informed nonlocal semi-discrete variational Peierls-Nabarro model for planar core dislocations. <i>Scientific Reports</i> , 2017 , 7, 43785	4.9	16
202	Misfit dislocation patterns of Mg-Nb interfaces. <i>Acta Materialia</i> , 2017 , 126, 552-563	8.4	33
201	Improvement of nonlocal Peierls-Nabarro models. <i>Computational Materials Science</i> , 2017 , 131, 69-77	3.2	18
200	Mechanically controlling the reversible phase transformation from zinc blende to wurtzite in AlN. <i>Materials Research Letters</i> , 2017 , 5, 426-432	7.4	11
199	Sequential {101 $\bar{2}$ } twinning stimulated by other twins in titanium. <i>Acta Materialia</i> , 2017 , 132, 57-68	8.4	47
198	A three-scale homogenisation approach to the prediction of long-time absorption of radiation induced interstitials by nanovoids at interfaces. <i>Journal of the Mechanics and Physics of Solids</i> , 2017 , 105, 1-20	5	6
197	Precipitation strengthening of ductile Cr 15 Fe 20 Co 35 Ni 20 Mo 10 alloys. <i>Scripta Materialia</i> , 2017 , 137, 88-93	5.6	103
196	Experimentally quantifying critical stresses associated with basal slip and twinning in magnesium using micropillars. <i>Acta Materialia</i> , 2017 , 135, 411-421	8.4	59
195	Interface structures and twinning mechanisms of twins in hexagonal metals. <i>Materials Research Letters</i> , 2017 , 5, 449-464	7.4	56
194	Atomic-scale understanding of stress-induced phase transformation in cold-rolled Hf. <i>Acta Materialia</i> , 2017 , 131, 271-279	8.4	72
193	The Role of Bcc Mg/Nb Interfaces in Nanocomposite Deformation Observed via In-Situ Mechanical Testing in TEM. <i>Microscopy and Microanalysis</i> , 2017 , 23, 754-755	0.5	1
192	Ductile Fracture of Metallic Glass Nanolaminates. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1700510	4.6	16
191	3D Printing Hierarchical Silver Nanowire Aerogel with Highly Compressive Resilience and Tensile Elongation through Tunable Poisson's Ratio. <i>Small</i> , 2017 , 13, 1701756	11	47
190	High-velocity projectile impact induced 9R phase in ultrafine-grained aluminium. <i>Nature Communications</i> , 2017 , 8, 1653	17.4	28
189	Pre-compression effect on microstructure evolution of extruded pure polycrystalline magnesium during reversed tension load. <i>Materials Characterization</i> , 2017 , 134, 41-48	3.9	16
188	Microstructures and deformation mechanisms of Cr ₂₆ Mn ₂₀ Fe ₂₀ Co ₂₀ Ni ₁₄ alloys. <i>Materials Characterization</i> , 2017 , 134, 194-201	3.9	28
187	Clustering on Magnesium Surfaces - Formation and Diffusion Energies. <i>Scientific Reports</i> , 2017 , 7, 5167	4.9	4

186	Dislocations interaction induced structural instability in intermetallic Al ₂ Cu. <i>Npj Computational Materials</i> , 2017 , 3,	10.9	13
185	Radiation induced detwinning in nanotwinned Cu. <i>Scripta Materialia</i> , 2017 , 130, 37-41	5.6	19
184	Strength and plasticity of nanolaminated materials. <i>Materials Research Letters</i> , 2017 , 5, 1-19	7.4	168
183	Crystallographic characters of {11 $\bar{2}$ 2} twin-twin junctions in titanium. <i>Philosophical Magazine Letters</i> , 2017 , 97, 429-441	1	9
182	Interface-Driven Plasticity in Metal/Ceramic Nanolayered Composites: Direct Validation of Multiscale Deformation Modeling via In Situ Indentation in TEM. <i>Jom</i> , 2016 , 68, 143-150	2.1	18
181	Unusual size dependent strengthening mechanisms of Cu/amorphous CuNb multilayers. <i>Acta Materialia</i> , 2016 , 120, 327-336	8.4	46
180	Disconnections and other defects associated with twin interfaces. <i>Progress in Materials Science</i> , 2016 , 83, 417-471	42.2	105
179	Characterizing the boundary lateral to the shear direction of deformation twins in magnesium. <i>Nature Communications</i> , 2016 , 7, 11577	17.4	47
178	Rolling-induced Face Centered Cubic Titanium in Hexagonal Close Packed Titanium at Room Temperature. <i>Scientific Reports</i> , 2016 , 6, 24370	4.9	79
177	Radiation Enhanced Absorption of Frank Loops by Nanovoids in Cu. <i>Jom</i> , 2016 , 68, 235-241	2.1	9
176	Elastic fields of a core-spreading dislocation in anisotropic bimetals. <i>International Journal of Plasticity</i> , 2016 , 81, 231-248	7.6	7
175	Stress and strain relaxation in magnesium AZ31 rolled plate: In-situ neutron measurement and elastic viscoplastic polycrystal modeling. <i>International Journal of Plasticity</i> , 2016 , 79, 275-292	7.6	73
174	Relaxation, Structure, and Properties of Semicohherent Interfaces. <i>Jom</i> , 2016 , 68, 242-252	2.1	18
173	In Situ Nanoindentation Studies on Detwinning and Work Hardening in Nanotwinned Monolithic Metals. <i>Jom</i> , 2016 , 68, 127-135	2.1	10
172	Low-energy, Mobile Grain Boundaries in Magnesium. <i>Scientific Reports</i> , 2016 , 6, 21393	4.9	26
171	Plastic Deformation Modes of CuZr/Cu Multilayers. <i>Scientific Reports</i> , 2016 , 6, 23306	4.9	29
170	Self-patterning Gd nano-fibers in Mg-Gd alloys. <i>Scientific Reports</i> , 2016 , 6, 38537	4.9	10
169	Ab initio modeling of zincblende AlN layer in Al-AlN-TiN multilayers. <i>Journal of Applied Physics</i> , 2016 , 119, 224304	2.5	9

168	Deformation twinning in hexagonal materials. <i>MRS Bulletin</i> , 2016 , 41, 314-319	3.2	54
167	Enhanced thermoelectric properties of topological crystalline insulator PbSnTe nanowires grown by vapor transport. <i>Nano Research</i> , 2016 , 9, 820-830	10	18
166	Peierls stress in face-centered-cubic metals predicted from an improved semi-discrete variation Peierls-Nabarro model. <i>Scripta Materialia</i> , 2016 , 120, 94-97	5.6	29
165	Twinning effects on strength and plasticity of metallic materials. <i>MRS Bulletin</i> , 2016 , 41, 274-281	3.2	57
164	Radiation response of alloy T91 at damage levels up to 1000 peak dpa. <i>Journal of Nuclear Materials</i> , 2016 , 482, 257-265	3.3	45
163	Atomistic study of fundamental character and motion of dislocations in intermetallic Al ₂ Cu. <i>International Journal of Plasticity</i> , 2016 , 87, 100-113	7.6	29
162	Experimental Quantification of Resolved Shear Stresses for Dislocation Motion in TiN. <i>Nano Letters</i> , 2015 , 15, 4434-9	11.5	10
161	Glide dislocation nucleation from dislocation nodes at semi-coherent {1 1 1} Cu ₃ Ni interfaces. <i>Acta Materialia</i> , 2015 , 98, 206-220	8.4	67
160	Effect of plastic incompatibility on the strain hardening behavior of Al ₃ TiN nanolayered composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 636, 430-433	5.3	13
159	Plasticity evolution in nanoscale Cu/Nb single-crystal multilayers as revealed by synchrotron X-ray microdiffraction. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 635, 6-12	5.3	51
158	Numerical Assessment of the Role of Slip and Twinning in Magnesium Alloy AZ31B During Loading Path Reversal. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015 , 46, 3079-3090	2.3	27
157	Atomistic Simulations of Dislocation Pileup: Grain Boundaries Interaction. <i>Jom</i> , 2015 , 67, 1515-1525	2.1	34
156	On the origins of hardness of Cu ₃ TiN nanolayered composites. <i>Scripta Materialia</i> , 2015 , 109, 48-51	5.6	18
155	Tension-compression-tension tertiary twins in coarse-grained polycrystalline pure magnesium at room temperature. <i>Philosophical Magazine Letters</i> , 2015 , 95, 194-201	1	9
154	First-principles study of energy and atomic solubility of twinning-associated boundaries in hexagonal metals. <i>Acta Materialia</i> , 2015 , 85, 144-154	8.4	75
153	Grain size effects on He bubbles distribution and evolution. <i>Journal of Nuclear Materials</i> , 2015 , 457, 182-185	3.85	14
152	Cyclic deformation and fatigue damage in single-crystal magnesium under fully reversed strain-controlled tension-compression in the [1 010] direction. <i>Scripta Materialia</i> , 2015 , 96, 41-44	5.6	44
151	Modelling the role of slips and twins in magnesium alloys under cyclic shear. <i>Computational Materials Science</i> , 2015 , 96, 214-218	3.2	44

150	Growth and Stress-induced Transformation of Zinc blende AlN Layers in Al-AlN-TiN Multilayers. <i>Scientific Reports</i> , 2015 , 5, 18554	4.9	23
149	Structural modifications due to interface chemistry at metal-nitride interfaces. <i>Scientific Reports</i> , 2015 , 5, 17380	4.9	22
148	Measuring and Modeling the Effects of Mechanical Twinning on the Behavior of Magnesium Alloys 2015 , 15-17		
147	Quantification of dislocation nucleation stress in TiN through high-resolution in situ indentation experiments and first principles calculations. <i>Scientific Reports</i> , 2015 , 5, 15813	4.9	18
146	Relaxation Mechanisms, Structure and Properties of Semi-Coherent Interfaces. <i>Metals</i> , 2015 , 5, 1887-1901	3	9
145	Measuring and Modeling the Effects of Mechanical Twinning on the Behavior of Magnesium Alloys 2015 , 15-17		
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