

Yuntian T Zhu

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399
papers

33,093
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100
h-index

172
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413
ext. papers

38,158
ext. citations

6.5
avg, IF

7.54
L-index

#	Paper	IF	Citations
399	Producing bulk ultrafine-grained materials by severe plastic deformation. <i>Jom</i> , 2006 , 58, 33-39	2.1	1192
398	Paradox of Strength and Ductility in Metals Processed Bysevere Plastic Deformation. <i>Journal of Materials Research</i> , 2002 , 17, 5-8	2.5	951
397	Deformation twinning in nanocrystalline materials. <i>Progress in Materials Science</i> , 2012 , 57, 1-62	42.2	817
396	Heterogeneous lamella structure unites ultrafine-grain strength with coarse-grain ductility. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 14501-5	11.5	708
395	Microstructures and mechanical properties of ultrafine grained 7075 Al alloy processed by ECAP and their evolutions during annealing. <i>Acta Materialia</i> , 2004 , 52, 4589-4599	8.4	680
394	Extraordinary strain hardening by gradient structure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 7197-201	11.5	644
393	Simultaneously Increasing the Ductility and Strength of Nanostructured Alloys. <i>Advanced Materials</i> , 2006 , 18, 2280-2283	24	617
392	Heterogeneous materials: a new class of materials with unprecedented mechanical properties. <i>Materials Research Letters</i> , 2017 , 5, 527-532	7.4	468
391	Nanostructural hierarchy increases the strength of aluminium alloys. <i>Nature Communications</i> , 2010 , 1, 63	17.4	452
390	Microstructures and dislocation configurations in nanostructured Cu processed by repetitive corrugation and straightening. <i>Acta Materialia</i> , 2001 , 49, 1497-1505	8.4	450
389	Ultralong single-wall carbon nanotubes. <i>Nature Materials</i> , 2004 , 3, 673-6	27	441
388	Review on superior strength and enhanced ductility of metallic nanomaterials. <i>Progress in Materials Science</i> , 2018 , 94, 462-540	42.2	404
387	Back stress strengthening and strain hardening in gradient structure. <i>Materials Research Letters</i> , 2016 , 4, 145-151	7.4	396
386	Influence of ECAP routes on the microstructure and properties of pure Ti. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001 , 299, 59-67	5.3	381
385	Ultrastrong, Stiff, and Lightweight Carbon-Nanotube Fibers. <i>Advanced Materials</i> , 2007 , 19, 4198-4201	24	379
384	Deformation behavior and plastic instabilities of ultrafine-grained titanium. <i>Applied Physics Letters</i> , 2001 , 79, 611-613	3.4	378
383	Deformation twinning in nanocrystalline copper at room temperature and low strain rate. <i>Applied Physics Letters</i> , 2004 , 84, 592-594	3.4	364

382	Structure-Dependent Electrical Properties of Carbon Nanotube Fibers. <i>Advanced Materials</i> , 2007 , 19, 3358-3363	24	338
381	Optimizing the strength and ductility of fine structured 2024 Al alloy by nano-precipitation. <i>Acta Materialia</i> , 2007 , 55, 5822-5832	8.4	335
380	Deformation mechanism in nanocrystalline Al: Partial dislocation slip. <i>Applied Physics Letters</i> , 2003 , 83, 632-634	3.4	335
379	Strong carbon-nanotube fibers spun from long carbon-nanotube arrays. <i>Small</i> , 2007 , 3, 244-8	11	330
378	Continuous processing of ultrafine grained Al by ECAP. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004 , 382, 30-34	5.3	323
377	Observations and issues on mechanisms of grain refinement during ECAP process. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000 , 291, 46-53	5.3	321
376	Synergetic Strengthening by Gradient Structure. <i>Materials Research Letters</i> , 2014 , 2, 185-191	7.4	309
375	Grain refinement and properties of pure Ti processed by warm ECAP and cold rolling. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003 , 343, 43-50	5.3	309
374	Sustained Growth of Ultralong Carbon Nanotube Arrays for Fiber Spinning. <i>Advanced Materials</i> , 2006 , 18, 3160-3163	24	307
373	Simultaneously Increasing the Ductility and Strength of Ultra-Fine-Grained Pure Copper. <i>Advanced Materials</i> , 2006 , 18, 2949-2953	24	301
372	Electrochromatic carbon nanotube/polydiacetylene nanocomposite fibres. <i>Nature Nanotechnology</i> , 2009 , 4, 738-41	28.7	294
371	Deformation twins in nanocrystalline Al. <i>Applied Physics Letters</i> , 2003 , 83, 5062-5064	3.4	288
370	Microstructural evolution, microhardness and thermal stability of HPT-processed Cu. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000 , 290, 128-138	5.3	282
369	Mechanical properties of copper/bronze laminates: Role of interfaces. <i>Acta Materialia</i> , 2016 , 116, 43-52	8.4	280
368	Producing Bulk Ultrafine-Grained Materials by Severe Plastic Deformation: Ten Years Later. <i>Jom</i> , 2016 , 68, 1216-1226	2.1	268
367	High Tensile Ductility and Strength in Bulk Nanostructured Nickel. <i>Advanced Materials</i> , 2008 , 20, 3028-3033	3.3	267
366	Dislocation-Twin interactions in nanocrystalline fcc metals. <i>Acta Materialia</i> , 2011 , 59, 812-821	8.4	265
365	Tailoring stacking fault energy for high ductility and high strength in ultrafine grained Cu and its alloy. <i>Applied Physics Letters</i> , 2006 , 89, 121906	3.4	258

364	Microstructure and properties of pure Ti processed by ECAP and cold extrusion. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001 , 303, 82-89	5.3	258
363	Perspective on hetero-deformation induced (HDI) hardening and back stress. <i>Materials Research Letters</i> , 2019 , 7, 393-398	7.4	257
362	Performance and applications of nanostructured materials produced by severe plastic deformation. <i>Scripta Materialia</i> , 2004 , 51, 825-830	5.6	257
361	Polymer-embedded carbon nanotube ribbons for stretchable conductors. <i>Advanced Materials</i> , 2010 , 22, 3027-31	24	253
360	Structural evolutions of metallic materials processed by severe plastic deformation. <i>Materials Science and Engineering Reports</i> , 2018 , 133, 1-59	30.9	231
359	Fundamentals of Superior Properties in Bulk NanoSPD Materials. <i>Materials Research Letters</i> , 2016 , 4, 1-21	7.4	230
358	Influence of stacking-fault energy on microstructural characteristics of ultrafine-grain copper and copper/zinc alloys. <i>Acta Materialia</i> , 2008 , 56, 809-820	8.4	219
357	Temperature-mediated growth of single-walled carbon-nanotube intramolecular junctions. <i>Nature Materials</i> , 2007 , 6, 283-6	27	215
356	Microstructure of cryogenic treated M2 tool steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003 , 339, 241-244	5.3	215
355	Influence of specimen dimensions on the tensile behavior of ultrafine-grained Cu. <i>Scripta Materialia</i> , 2008 , 59, 627-630	5.6	199
354	Superhard BCC materials synthesized in nanostructured bulks. <i>Journal of Materials Research</i> , 2002 , 17, 3139-3145	2.5	198
353	Microstructural evolution during recovery and recrystallization of a nanocrystalline Al-Mg alloy prepared by cryogenic ball milling. <i>Acta Materialia</i> , 2003 , 51, 2777-2791	8.4	198
352	Nanostructures in Ti processed by severe plastic deformation. <i>Journal of Materials Research</i> , 2003 , 18, 1908-1917	2.5	193
351	Wavy Ribbons of Carbon Nanotubes for Stretchable Conductors. <i>Advanced Functional Materials</i> , 2012 , 22, 1279-1283	15.6	189
350	A two step SPD processing of ultrafine-grained titanium. <i>Scripta Materialia</i> , 1999 , 11, 947-954		189
349	Combining gradient structure and TRIP effect to produce austenite stainless steel with high strength and ductility. <i>Acta Materialia</i> , 2016 , 112, 337-346	8.4	179
348	Carbon nanotube yarn strain sensors. <i>Nanotechnology</i> , 2010 , 21, 305502	3.4	177
347	Nucleation and growth of deformation twins in nanocrystalline aluminum. <i>Applied Physics Letters</i> , 2004 , 85, 5049-5051	3.4	174

346	Interface affected zone for optimal strength and ductility in heterogeneous laminate. <i>Materials Today</i> , 2018 , 21, 713-719	21.8	173
345	Inverse grain-size effect on twinning in nanocrystalline Ni. <i>Physical Review Letters</i> , 2008 , 101, 025503	7.4	169
344	Influence of specimen dimensions and strain measurement methods on tensile stress-strain curves. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009 , 525, 68-77	5.3	167
343	Mechanical, electrical and thermal properties of aligned carbon nanotube/polyimide composites. <i>Composites Part B: Engineering</i> , 2014 , 56, 408-412	10	164
342	A novel approach to fabricate high volume fraction nanocomposites with long aligned carbon nanotubes. <i>Composites Science and Technology</i> , 2010 , 70, 1980-1985	8.6	162
341	Heterostructured materials: superior properties from hetero-zone interaction. <i>Materials Research Letters</i> , 2021 , 9, 1-31	7.4	160
340	Influence of stacking fault energy on nanostructure formation under high pressure torsion. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 410-411, 188-193	5.3	156
339	Formation mechanism of wide stacking faults in nanocrystalline Al. <i>Applied Physics Letters</i> , 2004 , 84, 3564-3566	5.2	152
338	The fundamentals of nanostructured materials processed by severe plastic deformation. <i>Jom</i> , 2004 , 56, 58-63	2.1	150
337	Grain-size effect on the deformation mechanisms of nanostructured copper processed by high-pressure torsion. <i>Journal of Applied Physics</i> , 2004 , 96, 636-640	2.5	149
336	Determining the optimal stacking fault energy for achieving high ductility in ultrafine-grained Cu-Zn alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 493, 123-129	5.3	146
335	Effect of carbon nanotube length on thermal, electrical and mechanical properties of CNT/bismaleimide composites. <i>Carbon</i> , 2013 , 53, 145-152	10.4	145
334	New deformation twinning mechanism generates zero macroscopic strain in nanocrystalline metals. <i>Physical Review Letters</i> , 2008 , 100, 095701	7.4	142
333	Tougher ultrafine grain Cu via high-angle grain boundaries and low dislocation density. <i>Applied Physics Letters</i> , 2008 , 92, 081903	3.4	135
332	Formation of single and multiple deformation twins in nanocrystalline fcc metals. <i>Acta Materialia</i> , 2009 , 57, 3763-3770	8.4	134
331	Ultrastrong, foldable, and highly conductive carbon nanotube film. <i>ACS Nano</i> , 2012 , 6, 5457-64	16.7	133
330	Strong strain hardening in nanocrystalline nickel. <i>Physical Review Letters</i> , 2009 , 103, 205504	7.4	133
329	A quenchable superhard carbon phase synthesized by cold compression of carbon nanotubes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 13699-702	11.5	133

328	Strategies for Improving Tensile Ductility of Bulk Nanostructured Materials. <i>Advanced Engineering Materials</i> , 2010 , 12, 769-778	3.5	128
327	Strain hardening and ductility in a coarse-grain/nanostructure laminate material. <i>Scripta Materialia</i> , 2015 , 103, 57-60	5.6	124
326	Evolution of defect structures during cold rolling of ultrafine-grained Cu and CuZn alloys: Influence of stacking fault energy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 474, 342-347	5.3	124
325	Effect of lattice strain and defects on the superconductivity of MgB ₂ . <i>Applied Physics Letters</i> , 2001 , 79, 4399-4401	3.4	124
324	Role of stacking fault energy in strengthening due to cryo-deformation of FCC metals. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 7624-7630	5.3	123
323	Development of repetitive corrugation and straightening. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004 , 371, 35-39	5.3	123
322	Tough Nanostructured Metals at Cryogenic Temperatures. <i>Advanced Materials</i> , 2004 , 16, 328-331	2.4	122
321	Hot isostatic pressing of powder in tube MgB ₂ wires. <i>Applied Physics Letters</i> , 2003 , 82, 2847-2849	3.4	122
320	Influence of stacking fault energy on deformation mechanism and dislocation storage capacity in ultrafine-grained materials. <i>Scripta Materialia</i> , 2009 , 60, 52-55	5.6	116
319	Amorphization of TiNi induced by high-pressure torsion. <i>Philosophical Magazine Letters</i> , 2004 , 84, 183-190		114
318	Twinning and stacking fault formation during tensile deformation of nanocrystalline Ni. <i>Scripta Materialia</i> , 2006 , 54, 1685-1690	5.6	113
317	Significant hardening due to the formation of a sigma phase matrix in a high entropy alloy. <i>Intermetallics</i> , 2013 , 33, 81-86	3.5	112
316	Processing nanocrystalline Ti and its nanocomposites from micrometer-sized Ti powder using high pressure torsion. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000 , 282, 78-85	5.3	112
315	The role of stacking faults and twin boundaries in grain refinement of a CuZn alloy processed by high-pressure torsion. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 4959-4966	5.3	111
314	Dry-sliding tribological properties of ultrafine-grained Ti prepared by severe plastic deformation. <i>Acta Materialia</i> , 2005 , 53, 5167-5173	8.4	110
313	Ultrastrong, Stiff and Multifunctional Carbon Nanotube Composites. <i>Materials Research Letters</i> , 2013 , 1, 19-25	7.4	108
312	Basal-plane stacking-fault energies of Mg: A first-principles study of Li- and Al-alloying effects. <i>Scripta Materialia</i> , 2011 , 64, 693-696	5.6	107
311	Mechanical and electrical property improvement in CNT/Nylon composites through drawing and stretching. <i>Composites Science and Technology</i> , 2011 , 71, 1677-1683	8.6	106

310	The effective interfacial shear strength of carbon nanotube fibers in an epoxy matrix characterized by a microdroplet test. <i>Carbon</i> , 2012 , 50, 1271-1279	10.4	104
309	Self-organization of carbon nanotubes in evaporating droplets. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 13926-30	3.4	103
308	A new route to bulk nanostructured metals. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2001 , 32, 1559-1562	2.3	103
307	Superior strength and ductility of 316L stainless steel with heterogeneous lamella structure. <i>Journal of Materials Science</i> , 2018 , 53, 10442-10456	4.3	102
306	Formation mechanism of fivefold deformation twins in nanocrystalline face-centered-cubic metals. <i>Applied Physics Letters</i> , 2005 , 86, 103112	3.4	102
305	The effect of dislocation density on the interactions between dislocations and twin boundaries in nanocrystalline materials. <i>Acta Materialia</i> , 2012 , 60, 3181-3189	8.4	101
304	Influence of stacking fault energy on the minimum grain size achieved in severe plastic deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 463, 22-26	5.3	101
303	Deformation twinning in a nanocrystalline hcp Mg alloy. <i>Scripta Materialia</i> , 2011 , 64, 213-216	5.6	100
302	Producing superior composites by winding carbon nanotubes onto a mandrel under a poly(vinyl alcohol) spray. <i>Carbon</i> , 2011 , 49, 4786-4791	10.4	100
301	Strain rate dependence of properties of cryomilled bimodal 5083 Al alloys. <i>Acta Materialia</i> , 2006 , 54, 3015-3024	8.4	100
300	Nanostructured TiNi-based shape memory alloys processed by severe plastic deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 410-411, 386-389	5.3	97
299	Carbon nanotube yarn electrodes for enhanced detection of neurotransmitter dynamics in live brain tissue. <i>ACS Nano</i> , 2013 , 7, 7864-73	16.7	95
298	Three-dimensional shear-strain patterns induced by high-pressure torsion and their impact on hardness evolution. <i>Acta Materialia</i> , 2011 , 59, 3903-3914	8.4	92
297	Simultaneously enhancing strength and ductility of a high-entropy alloy via gradient hierarchical microstructures. <i>International Journal of Plasticity</i> , 2019 , 123, 178-195	7.6	90
296	Influence of grain size on deformation mechanisms: An extension to nanocrystalline materials. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 409, 234-242	5.3	87
295	Influence of gradient structure volume fraction on the mechanical properties of pure copper. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 645, 280-285	5.3	85
294	Consolidation of nanometer sized powders using severe plastic torsional straining. <i>Scripta Materialia</i> , 1998 , 10, 45-54		85
293	Tailoring the morphology of carbon nanotube arrays: from spinnable forests to undulating foams. <i>ACS Nano</i> , 2009 , 3, 2157-62	16.7	83

292	In-situ atomic-scale observation of irradiation-induced void formation. <i>Nature Communications</i> , 2013 , 4, 2288	17.4	81
291	Mechanism of grain growth during severe plastic deformation of a nanocrystalline NiBe alloy. <i>Applied Physics Letters</i> , 2009 , 94, 011908	3.4	80
290	Tuning the compressive mechanical properties of carbon nanotube foam. <i>Carbon</i> , 2011 , 49, 2834-2841	10.4	80
289	Reduction of friction coefficient of ultrafine-grained CP titanium. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004 , 371, 313-317	5.3	80
288	An Ideal Ultrafine-Grained Structure for High Strength and High Ductility. <i>Materials Research Letters</i> , 2015 , 3, 88-94	7.4	79
287	Grain growth and dislocation density evolution in a nanocrystalline NiBe alloy induced by high-pressure torsion. <i>Scripta Materialia</i> , 2011 , 64, 327-330	5.6	79
286	Vertically aligned pearl-like carbon nanotube arrays for fiber spinning. <i>Journal of the American Chemical Society</i> , 2008 , 130, 1130-1	16.4	79
285	Length-dependent thermal conductivity of an individual single-wall carbon nanotube. <i>Applied Physics Letters</i> , 2007 , 91, 123119	3.4	78
284	Processing of nanostructured metals and alloys via plastic deformation. <i>MRS Bulletin</i> , 2010 , 35, 977-981	3.2	76
283	Processing and characterization of nanostructured Cu-carbon nanotube composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009 , 523, 60-64	5.3	76
282	Deformation twins in pure titanium processed by equal channel angular pressing. <i>Scripta Materialia</i> , 2003 , 48, 813-817	5.6	75
281	Strength and ductility of gradient structured copper obtained by surface mechanical attrition treatment. <i>Materials and Design</i> , 2016 , 105, 89-95	8.1	74
280	Negative Strain-rate Sensitivity in a Nanostructured Aluminum Alloy. <i>Advanced Engineering Materials</i> , 2006 , 8, 945-947	3.5	74
279	Gradient Structured Copper by Rotationally Accelerated Shot Peening. <i>Journal of Materials Science and Technology</i> , 2017 , 33, 758-761	9.1	71
278	Effect of Ag on interfacial segregation in Mg ₉₂ Cu ₈ (Ag) _z Zr alloy. <i>Acta Materialia</i> , 2015 , 95, 20-29	8.4	70
277	Composite carbon nanotube/silica fibers with improved mechanical strengths and electrical conductivities. <i>Small</i> , 2008 , 4, 1964-7	11	67
276	Partial-dislocation-mediated processes in nanocrystalline Ni with nonequilibrium grain boundaries. <i>Applied Physics Letters</i> , 2006 , 89, 031922	3.4	67
275	Concurrent microstructural evolution of ferrite and austenite in a duplex stainless steel processed by high-pressure torsion. <i>Acta Materialia</i> , 2014 , 63, 16-29	8.4	66

274	Effect of stacking fault energy on strength and ductility of nanostructured alloys: An evaluation with minimum solution hardening. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009 , 525, 83-86	5.3	66
273	The properties of dry-spun carbon nanotube fibers and their interfacial shear strength in an epoxy composite. <i>Carbon</i> , 2011 , 49, 1752-1757	10.4	66
272	Grain size and reversible beta-to-omega phase transformation in a Ti alloy. <i>Scripta Materialia</i> , 2010 , 63, 613-616	5.6	66
271	Raman spectroscopy and imaging of ultralong carbon nanotubes. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 3751-8	3.4	65
270	Morphology, structure and composition of precipitates in Al _{0.3} CoCrCu _{0.5} FeNi high-entropy alloy. <i>Intermetallics</i> , 2013 , 32, 329-336	3.5	64
269	Raman spectral imaging of a carbon nanotube intramolecular junction. <i>Physical Review Letters</i> , 2005 , 94, 016802	7.4	64
268	Critical microstructures and defects in heterostructured materials and their effects on mechanical properties. <i>Acta Materialia</i> , 2020 , 189, 129-144	8.4	63
267	Grain Size Effect on Deformation Mechanisms of Nanocrystalline bcc Metals. <i>Materials Research Letters</i> , 2013 , 1, 26-31	7.4	63
266	Ductility and plasticity of nanostructured metals: differences and issues. <i>Materials Today Nano</i> , 2018 , 2, 15-20	9.7	62
265	Carbon-Nanotube Cotton for Large-Scale Fibers. <i>Advanced Materials</i> , 2007 , 19, 2567-2570	2.4	61
264	Multistage work hardening assisted by multi-type twinning in ultrafine-grained heterostructural eutectic high-entropy alloys. <i>Materials Today</i> , 2020 , 41, 62-71	21.8	61
263	Quantifying the synergetic strengthening in gradient material. <i>Scripta Materialia</i> , 2018 , 150, 22-25	5.6	60
262	Synergetic strengthening far beyond rule of mixtures in gradient structured aluminum rod. <i>Scripta Materialia</i> , 2016 , 122, 106-109	5.6	58
261	Extra strengthening in a coarse/ultrafine grained laminate: Role of gradient interfaces. <i>International Journal of Plasticity</i> , 2019 , 123, 196-207	7.6	57
260	Twin stability in highly nanotwinned Cu under compression, torsion and tension. <i>Scripta Materialia</i> , 2012 , 66, 872-877	5.6	57
259	Optimizing the strength and ductility of AZ91 Mg alloy by ECAP and subsequent aging. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013 , 588, 329-334	5.3	57
258	Formation mechanisms of nanostructures in stainless steel during high-strain-rate severe plastic deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 410-411, 252-256	5.3	57
257	Effect of heterostructure and hetero-deformation induced hardening on the strength and ductility of brass. <i>Acta Materialia</i> , 2020 , 186, 644-655	8.4	56

256	Strong and ductile nanostructured Cu-carbon nanotube composite. <i>Applied Physics Letters</i> , 2009 , 95, 071907	3.4	56
255	Nanostructuring of TiNi Alloy by SPD Processing for Advanced Properties. <i>Materials Transactions</i> , 2008 , 49, 97-101	1.3	56
254	Predictions for partial-dislocation-mediated processes in nanocrystalline Ni by generalized planar fault energy curves: An experimental evaluation. <i>Applied Physics Letters</i> , 2006 , 88, 121905	3.4	55
253	Effect of processing conditions on the properties of high molecular weight conductive polyaniline fiber 2000 , 38, 194-204		55
252	Hetero-deformation induced (HDI) hardening does not increase linearly with strain gradient. <i>Scripta Materialia</i> , 2020 , 174, 19-23	5.6	55
251	Remarkably enhanced thermal transport based on a flexible horizontally-aligned carbon nanotube array film. <i>Scientific Reports</i> , 2016 , 6, 21014	4.9	54
250	Dry-processable carbon nanotubes for functional devices and composites. <i>Small</i> , 2014 , 10, 4606-25	11	53
249	Using X-ray microdiffraction to determine grain sizes at selected positions in disks processed by high-pressure torsion. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 444, 153-156	5.3	53
248	Grain boundary formation by remnant dislocations from the de-twinning of thin nano-twins. <i>Scripta Materialia</i> , 2015 , 100, 98-101	5.6	51
247	Origins and dissociation of pyramidal dislocations in magnesium and its alloys. <i>Acta Materialia</i> , 2018 , 146, 265-272	8.4	50
246	Effect of grain size on the competition between twinning and detwinning in nanocrystalline metals. <i>Physical Review B</i> , 2011 , 84,	3.3	50
245	Effect of strain rate on the ductility of a nanostructured aluminum alloy. <i>Scripta Materialia</i> , 2006 , 54, 1175-1180	5.6	50
244	Thermal Oxidation Kinetics of MoSi ₂ -Based Powders. <i>Journal of the American Ceramic Society</i> , 2004 , 82, 2785-2790	3.8	50
243	Ductility by shear band delocalization in the nano-layer of gradient structure. <i>Materials Research Letters</i> , 2019 , 7, 12-17	7.4	50
242	Enhanced mechanical properties in ultrafine grained 7075 Al alloy. <i>Journal of Materials Research</i> , 2005 , 20, 288-291	2.5	48
241	Microstructural evolution and phase transformation in twinning-induced plasticity steel induced by high-pressure torsion. <i>Acta Materialia</i> , 2016 , 109, 300-313	8.4	48
240	Ductility and strain hardening in gradient and lamellar structured materials. <i>Scripta Materialia</i> , 2020 , 186, 321-325	5.6	47
239	Length-dependent thermal conductivity of single-wall carbon nanotubes: prediction and measurements. <i>Nanotechnology</i> , 2007 , 18, 475714	3.4	46

238	Optimizing the strength, ductility and electrical conductivity of a Cu-Cr-Zr alloy by rotary swaging and aging treatment. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 746, 211-216	5.3	46
237	In-situ observation of dislocation dynamics near heterostructured interfaces. <i>Materials Research Letters</i> , 2019 , 7, 376-382	7.4	45
236	Superior mechanical properties of ZK60 mg alloy processed by equal channel angular pressing and rolling. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 630, 45-50	5.3	45
235	Strong and Conductive Dry Carbon Nanotube Films by Microcombing. <i>Small</i> , 2015 , 11, 3830-6	11	45
234	Microstructure evolution and strengthening mechanisms of pure titanium with nano-structured surface obtained by high energy shot peening. <i>Vacuum</i> , 2016 , 125, 215-221	3.7	45
233	The formation mechanism of a novel interfacial phase with high thermal stability in a Mg-Gd-Y-Ag-Zr alloy. <i>Acta Materialia</i> , 2019 , 162, 214-225	8.4	44
232	The role of shear strain on texture and microstructural gradients in low carbon steel processed by Surface Mechanical Attrition Treatment. <i>Scripta Materialia</i> , 2015 , 108, 100-103	5.6	43
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