Qiuming Wei

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.

118 papers	5,568 citations	38 h-index	73 g-index
120 ext. papers	6,168 ext. citations	5.3 avg, IF	5.67 L-index

#	Paper	IF	Citations
118	ASB induced phase transformation in high oxygen doped commercial purity Ti. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2022**, 830, 142321	5.3	5
117	Non-conventional hot rolling for improvement of mechanical properties in binary Mg-alloys. *Mechanics of Materials*, **2022**, 164, 104111	3.3	1
116	Comment on "Cryoforged nanotwinned titanium with ultrahigh strength and ductility".. *Science*, **2022**, 376, eabo3440	33.3	1
115	Insights from the MEDE program: An overview of microstructure–property linkages in the dynamic behaviors of magnesium alloys. *Mechanics of Materials*, **2021**, 163, 104084	3.3	3
114	Superb high-temperature strength of aluminum-based nanocomposite with supra-nano stacking faults/twins. *Composites Communications*, **2021**, 25, 100753	6.7	1
113	Adiabatic shear localization of tungsten based heterogeneous multilayer structures. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 801, 140393	5.3	3
112	Microstructural evolution and hydrogen storage proprieties of melt-spun eutectic Mg76.87Ni12.78Y10.35 alloy with low hydrides formation/decomposition enthalpy. *International Journal of Hydrogen Energy*, **2020**, 45, 16644-16653	6.7	5
111	Dynamic failure of titanium: Temperature rise and adiabatic shear band formation. *Journal of the Mechanics and Physics of Solids*, **2020**, 135, 103811	5	25
110	Enhanced hydrogen absorption kinetics by introducing fine eutectic and long-period stacking ordered structure in ternary eutectic Mg[illegible]NiY alloy. *Journal of Alloys and Compounds*, **2020**, 820, 153187	5.7	11
109	Tungsten-based heterogeneous multilayer structures via diffusion bonding. *International Journal of Refractory Metals and Hard Materials*, **2020**, 92, 105308	4.1	4
108	Microstructures and mechanical properties of Mg/Zr nanostructured multilayers with coherent interface. *Thin Solid Films*, **2020**, 712, 138314	2.2	3
107	Dynamic self-strengthening of a bio-nanostructured armor - conch shell. *Materials Science and Engineering C*, **2019**, 103, 109820	8.3	12
106	Mechanical properties and failure of ECAE processed Mg97Y2Zn1 at different strain rates. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2019**, 762, 138094	5.3	3
105	Temperature Rise Associated with Adiabatic Shear Band: Causality Clarified. *Physical Review Letters*, **2019**, 122, 015503	7.4	71
104	Microstructural evolution of AZ31 magnesium alloy subjected to sliding friction treatment. *Philosophical Magazine*, **2018**, 98, 1576-1593	1.6	19
103	A comparative study on the in situ helium irradiation behavior of tungsten: Coarse grain vs. nanocrystalline grain. *Acta Materialia*, **2018**, 147, 100-112	8.4	58
102	Numerical simulations of adiabatic shear localization in textured FCC metal based on crystal plasticity finite element method. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2018**, 737, 348-363	5.3	7

101	Atomistic Origin of Deformation Twinning in Biomineral Aragonite. *Physical Review Letters*, **2017**, 118, 105501	7.4	22
100	Effect of strain rate on the mechanical properties of a gum metal with various microstructures. *Acta Materialia*, **2017**, 132, 193-208	8.4	16
99	The effect of rolling on the microstructure and compression behavior of AA5083 subjected to large-scale ECAE. *Journal of Alloys and Compounds*, **2017**, 695, 3589-3597	5.7	6
98	Dynamic recrystallization in nanocrystalline AZ31 Mg-alloy. *Vacuum*, **2017**, 143, 236-240	3.7	18
97	On adiabatic shear localization in nanostructured face-centered cubic alloys with different stacking fault energies. *Acta Materialia*, **2017**, 141, 163-182	8.4	23
96	Compressive responses of ultrafine-grained titanium within a broad range of strain rates and temperatures. *Mechanics of Materials*, **2017**, 115, 22-33	3.3	13
95	Gradient shear banding in a magnesium alloy induced by sliding friction treatment. *Vacuum*, **2017**, 143, 95-97	3.7	10
94	Effect of strain rate on the mechanical properties of magnesium alloy AMX602. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 649, 338-348	5.3	29
93	Microstructure and helium irradiation performance of high purity tungsten processed by cold rolling. *Journal of Nuclear Materials*, **2016**, 479, 418-425	3.3	27
92	Quasi-static Tensile and Compressive Behavior of Nanocrystalline Tantalum Based on Miniature Specimen Testing—Part II: Mechanical Properties. *Jom*, **2016**, 68, 2839-2846	2.1	2
91	Quasi-static Tensile and Compressive Behavior of Nanocrystalline Tantalum based on Miniature Specimen Testing—Part I: Materials Processing and Microstructure. *Jom*, **2016**, 68, 2832-2838	2.1	4
90	Residual stress and its effect on the mechanical properties of Y-doped Mg alloy fabricated via back-pressure assisted equal channel angular pressing (ECAP-BP). *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 669, 110-117	5.3	13
89	A comparative study on the microstructure and mechanical behavior of titanium: Ultrafine grain vs. coarse grain. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 669, 226-245	5.3	40
88	Effects of reinforcement morphology on the mechanical behavior of magnesium metal matrix composites based on crystal plasticity modeling. *Mechanics of Materials*, **2016**, 95, 1-14	3.3	12
87	Quasi-static and high-rate mechanical behavior of aluminum-based MMC reinforced with boron carbide of various length scales. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 650, 305-316	5.3	23
86	Atomistic simulations of the effect of embedded hydrogen and helium on the tensile properties of monocrystalline and nanocrystalline tungsten. *Journal of Nuclear Materials*, **2016**, 481, 190-200	3.3	23
85	Microstructure and mechanical behavior of ECAP processed AZ31B over a wide range of loading rates under compression and tension. *Mechanics of Materials*, **2015**, 86, 55-70	3.3	33
84	Morphological and mechanical stability of HCP-based multilayer nanofilms at elevated temperatures. *Surface and Coatings Technology*, **2015**, 275, 142-147	4.4	5

83	Mechanical properties of a high strength Cu□a composite at elevated temperature. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 638, 322-328	5.3	38
82	Design and fabrication of a metastable □type titanium alloy with ultralow elastic modulus and high strength. *Scientific Reports*, **2015**, 5, 14688	4.9	69
81	Examining the Effect of Pileup on the Accuracy of Sharp Indentation Testing. *Advances in Materials Science and Engineering*, **2015**, 2015, 1-10	1.5	7
80	Mechanical behavior of a lanthanum-doped magnesium alloy at different strain rates. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 626, 108-121	5.3	7
79	The microstructure and mechanical behavior of Mg/Ti multilayers as a function of individual layer thickness. *Acta Materialia*, **2014**, 63, 216-231	8.4	74
78	Preface to the special issue on ultrafine-grained materials. *Journal of Materials Science*, **2014**, 49, 6485-6486	4.5	3
77	A rate dependent constitutive model for ECAE Cu based on instrumented nanoindentation results. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2014**, 597, 279-287	5.3	4
76	Formation of nanocrystalline structure in tantalum by sliding friction treatment. *International Journal of Refractory Metals and Hard Materials*, **2014**, 45, 71-75	4.1	42
75	Microstructure and mechanical properties of bulk nanostructured Cu□a alloys consolidated by equal channel angular extrusion. *Acta Materialia*, **2014**, 76, 168-185	8.4	79
74	The nature behind the preferentially embrittling effect of impurities on the ductility of tungsten. *Computational Materials Science*, **2014**, 93, 104-111	3.2	17
73	Hidden energy dissipation mechanism in nacre. *Journal of Materials Research*, **2014**, 29, 1573-1578	2.5	36
72	Statistic derivation of Taylor factors for polycrystalline metals with application to pure magnesium. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2013**, 582, 270-275	5.3	58
71	Effect of low-temperature rolling on the propensity to adiabatic shear banding of commercial purity tungsten. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 578, 394-401	5.3	27
70	Critical issues related to instrumented indentation on non-uniform materials: Application to niobium subjected to high pressure torsion. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 586, 149-159	5.3	6
69	Mechanical behavior of microstructure engineered multi-length-scale titanium over a wide range of strain rates. *Acta Materialia*, **2013**, 61, 3781-3798	8.4	33
68	Effect of ceramic nanoparticle reinforcements on the quasistatic and dynamic mechanical properties of magnesium-based metal matrix composites. *Journal of Materials Research*, **2013**, 28, 1835-1852	2.5	52
67	Transition in the deformation mode of nanocrystalline tantalum processed by high-pressure torsion. *Scripta Materialia*, **2012**, 67, 253-256	5.6	19
66	Microstructural evolution and mechanical properties of niobium processed by equal channel angular extrusion up to 24 passes. *Acta Materialia*, **2012**, 60, 2310-2323	8.4	29

65	Mechanical Properties of Mg Alloys AMX602 and AZXE7111 under Quasi-Static and Dynamic Loading **2012**, 371-375		
64	Microstructure and mechanical properties at different length scales and strain rates of nanocrystalline tantalum produced by high-pressure torsion. *Acta Materialia*, **2011**, 59, 2423-2436	8.4	96
63	Nanocrystalline refractory metals for extreme condition applications. *Jom*, **2011**, 63, 27-31	2.1	24
62	Uncovering high-strain rate protection mechanism in nacre. *Scientific Reports*, **2011**, 1, 148	4.9	73
61	A numerical study of microstructure effect on adiabatic shear instability: Application to nanostructured/ultrafine grained materials. *Mechanics of Materials*, **2010**, 42, 1020-1029	3.3	27
60	A modified criterion for shear band formation in bulk metallic glass under complex stress states. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2010**, 527, 2613-2620	5.3	4
59	High Plasticity and Substantial Deformation in Nanocrystalline NiFe Alloys Under Dynamic Loading. *Advanced Materials*, **2009**, 21, 5001-5004	24	41
58	A critical assessment of high-temperature dynamic mechanical testing of metals. *International Journal of Impact Engineering*, **2009**, 36, 177-184	4	59
57	Influence of specimen dimensions and strain measurement methods on tensile stress–strain curves. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2009**, 525, 68-77	5.3	167
56	Prevalence of shear banding in compression of Zr41Ti14Cu12.5Ni10Be22.5 pillars as small as 150nm in diameter. *Acta Materialia*, **2009**, 57, 3562-3571	8.4	62
55	Ductility of Nanocrystalline Metals: Intrinsic or Extrinsic. *Materials Science Forum*, **2009**, 633-634, 151-164	0.4	
54	Strong strain hardening in nanocrystalline nickel. *Physical Review Letters*, **2009**, 103, 205504	7.4	133
53	Influence of specimen dimensions on the tensile behavior of ultrafine-grained Cu. *Scripta Materialia* , **2008**, 59, 627-630	5.6	199
52	Molecular Dynamics Simulation of Nanocrystalline Tantalum under Uniaxial Tension. *Solid State Phenomena*, **2008**, 139, 83-88	0.4	1
51	Ultrafine and Nanostructured Refractory Metals Processed by SPD: Microstructure and Mechanical Properties. *Materials Science Forum*, **2008**, 579, 75-90	0.4	14
50	Quasi-static and dynamic mechanical properties of commercial-purity tungsten processed by ECAE at low temperatures. *Journal of Materials Science*, **2008**, 43, 7379-7384	4.3	10
49	Dynamic behaviors of body-centered cubic metals with ultrafine grained and nanocrystalline microstructures. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 493, 58-64	5.3	34
48	Effect of low-temperature rolling on the tensile behavior of commercially pure tungsten. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 491, 62-69	5.3	113

47	Tensile properties of nanocrystalline tantalum from molecular dynamics simulations. *Acta Materialia*, **2008**, 56, 3470-3480	8.4	75
46	Size-independent strength and deformation mode in compression of a Pd-based metallic glass. *Acta Materialia*, **2008**, 56, 5091-5100	8.4	161
45	In situ synthesis of nanocrystalline intermetallic layer during surface plastic deformation of zirconium. *Surface and Coatings Technology*, **2007**, 202, 583-589	4.4	21
44	Microstructural evolution and formation of nanocrystalline intermetallic compound during surface mechanical attrition treatment of cobalt. *Acta Materialia*, **2007**, 55, 5768-5779	8.4	41
43	Grain size engineering of bcc refractory metals: Top-down and bottom-up Application to tungsten. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 467, 33-43	5.3	86
42	Bulk and microscale compressive properties of a Pd-based metallic glass. *Scripta Materialia*, **2007**, 57, 517-520	5.6	92
41	Strain rate effects in the ultrafine grain and nanocrystalline regimes Influence on some constitutive responses. *Journal of Materials Science*, **2007**, 42, 1709-1727	4.3	257
40	Nanoengineering opens a new era for tungsten as well. *Jom*, **2006**, 58, 40-44	2.1	33
39	The design of accurate micro-compression experiments. *Scripta Materialia*, **2006**, 54, 181-186	5.6	332
38	Microcompression of nanocrystalline nickel. *Applied Physics Letters*, **2006**, 88, 103112	3.4	42
37	Microstructure and mechanical properties of super-strong nanocrystalline tungsten processed by high-pressure torsion. *Acta Materialia*, **2006**, 54, 4079-4089	8.4	264
36	Mechanical behavior and dynamic failure of high-strength ultrafine grained tungsten under uniaxial compression. *Acta Materialia*, **2005**,	8.4	19
35	Plastic flow localization in bulk tungsten with ultrafine microstructure. *Applied Physics Letters*, **2005** , 86, 101907	3.4	90
34	Nano-structured vanadium: processing and mechanical properties under quasi-static and dynamic compression. *Scripta Materialia*, **2004**, 50, 359-364	5.6	72
33	Effect of nanocrystalline and ultrafine grain sizes on the strain rate sensitivity and activation volume: fcc versus bcc metals. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 381, 71-79	5.3	666
32	Adiabatic shear banding in ultrafine-grained Fe processed by severe plastic deformation. *Acta Materialia*, **2004**, 52, 1859-1869	8.4	224
31	Microstructure and mechanical properties of tantalum after equal channel angular extrusion (ECAE). *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2003**, 358, 266-272	5.3	108
30	Evolution and microstructure of shear bands in nanostructured Fe. *Applied Physics Letters*, **2002**, 81, 1240-1242	3.4	247

29	Microstructural changes due to heat-treatment of annealing and their effect on the creep behavior of self-reinforced silicon nitride ceramics. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 299, 141-151	5.3	3
28	Structure and properties of novel functional diamond-like carbon coatings produced by laser ablation. *Surface and Coatings Technology*, **2001**, 146-147, 250-257	4.4	35
27	Mechanical properties of nanocrystalline and epitaxial TiN films on (100) silicon. *Journal of Materials Research*, **2001**, 16, 2733-2738	2.5	33
26	Effect of chamber pressure and atmosphere on the microstructure and nanomechanical properties of amorphous carbon films prepared by pulsed laser deposition. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2001**, 19, 311-316	2.9	14
25	Microstructure and Nanomechanical Properties of Amorphous Carbon Thin Films Prepared by Pulsed Laser Deposition in Various Atmospheres. *Materials Research Society Symposia Proceedings*, **2000**, 616, 217		
24	Preparation of Superhard Functionally Graded Tetrahedral Amorphous Carbon Coatings by Pulsed Laser Deposition. *Materials Research Society Symposia Proceedings*, **2000**, 617, 771		2
23	Novel Tungsten Carbide Nanocrystalline Composites by Pulsed Laser Deposition. *Materials Research Society Symposia Proceedings*, **2000**, 634, 611		2
22	Effect of Film Thickness on the Nanoindentation Measurements of Hard Diamondlike Carbon Films Prepared by Pulsed Laser Deposition. *Materials Research Society Symposia Proceedings*, **2000**, 649, 7201		
21	Superhard diamondlike carbon: preparation, theory, and properties. *International Materials Reviews* , **2000**, 45, 133-164	16.1	75
20	Atomic structure, electrical properties, and infrared range optical properties of diamondlike carbon films containing foreign atoms prepared by pulsed laser deposition. *Journal of Materials Research*, **2000**, 15, 633-641	2.5	26
19	Mechanical properties of diamond-like carbon composite thin films prepared by pulsed laser deposition. *Composites Part B: Engineering*, **1999**, 30, 675-684	10	85
18	Microstructure evolution accompanying high temperature; uniaxial tensile creep of self-reinforced silicon nitride ceramics. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1999**, 272, 380-388	5.3	6
17	Preparation and mechanical properties of composite diamond-like carbon thin films. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **1999**, 17, 3406-3414	2.9	77
16	Fabrication and Characterization of Functionally Gradient Diamond-Like Carbon Coatings. *Materials Research Society Symposia Proceedings*, **1999**, 593, 323		
15	Electrical Behavior of Pure and Cu Doped Diamondlike Carbon Prepared by Pulsed Laser Deposition. *Materials Research Society Symposia Proceedings*, **1999**, 593, 377		
14	Fabrication and Characterization of Functionally Gradient Diamondlike Carbon Coatings. *Materials Research Society Symposia Proceedings*, **1999**, 594, 313		
13	Improvement of wear resistance of pulsed laser deposited diamond-like carbon films through incorporation of metals. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **1998**, 53, 262-266	3.1	54
12	Structural characteristics of AlN films deposited by pulsed laser deposition and reactive magnetron sputtering: A comparative study. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **1998**, 16, 2804-2815	2.9	100

11	Microstructure and IR Range Optical Properties of Pure DLC and DLC Containing Dopants Prepared by Pulsed Laser Deposition. *Materials Research Society Symposia Proceedings*, **1998**, 526, 331		1
10	Diamondlike Carbon, Carbon Nitride, and Titanium Nitride Coatings on Metal and Polymer Substrates. *Materials Research Society Symposia Proceedings*, **1998**, 526, 355		1
9	Micro- and Nano-Mechanical Behavior of Diamondlike Carbon Containing Foreign Atoms Prepared by Pulsed Laser Deposition. *Materials Research Society Symposia Proceedings*, **1998**, 555, 303		1
8	Doping Induced Internal Stress Reduction in Diamondlike Carbon Films Deposited by Pulsed Laser Ablation. *Materials Research Society Symposia Proceedings*, **1997**, 498, 61		3
7	Microstructure and Wear Resistance of Doped Diamondlike Carbon Prepared by Pulsed Laser Deposition. *Materials Research Society Symposia Proceedings*, **1997**, 505, 331		2
6	Comparison of ALN Films Synthesized by Pulsed Laser Ablation and Magnetron Sputtering Techniques. *Materials Research Society Symposia Proceedings*, **1997**, 505, 469		1
5	Mechanical Properties of Newly Developed Mg-Alloys AMX602 AND AZXE7111 under Quasi-Static and Dynamic Loading371-375		
4	Ballistic Performance of Tungsten-Based Heterogeneous Multilayer Structures. *Journal of Dynamic Behavior of Materials*,1	1.8	
3	The Effect of High Temperature Soaking on the Microstructure and Properties of a Sintered Silicon Nitride. *Ceramic Engineering and Science Proceedings*,3-10	0.1	6
2	High Temperature Uniaxial Creep Behavior of a Sintered in situ Reinforced Silicon Nitride Ceramics. *Ceramic Engineering and Science Proceedings*,463-470	0.1	1
1	Effect of Heat-Treatment on Creep Behavior of a Self-Reinforced Silicon Nitride (Si3N4). *Ceramic Engineering and Science Proceedings*,537-544	0.1	