

Yong-Qing Zhao

List of Publications by Year in descending order

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159585

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223800

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docs citations

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times ranked

1143
citing authors

#	ARTICLE	IF	CITATIONS
1	Microstructure and Properties of Titanium Matrix Composites Synergistically Reinforced by Graphene Oxide and Alloying Elements. <i>Advanced Engineering Materials</i> , 2023, 25, .	3.5	3
2	Gradient nanostructure, phase transformation, amorphization and enhanced strength-plasticity synergy of pure titanium manufactured by ultrasonic surface rolling. <i>Journal of Materials Processing Technology</i> , 2022, 299, 117322.	6.3	29
3	New insights in the development of β phase during continuously heating in a β -quenched Ti-5321 alloy. <i>Journal of Materials Science and Technology</i> , 2022, 103, 29-33.	10.7	5
4	Variant selection, coarsening behavior of β phase and associated tensile properties in an β + β titanium alloy. <i>Journal of Materials Science and Technology</i> , 2022, 99, 101-113.	10.7	37
5	Crack propagation behavior of dual-phase steel at low temperature. <i>International Journal of Fatigue</i> , 2022, 155, 106633.	5.7	8
6	A new approach to understand the deformation behavior and strengthening mechanism of molybdenum alloy: From single crystal to polycrystal. <i>International Journal of Refractory Metals and Hard Materials</i> , 2022, 102, 105715.	3.8	6
7	Influence of microstructure on strain controlled low cycle fatigue crack initiation and propagation of Ti-55531 alloy. <i>International Journal of Fatigue</i> , 2022, 156, 106678.	5.7	13
8	Deformation mechanisms in a β -quenched Ti-5321 alloy: In-situ investigation related to slip activity, orientation evolution and stress induced martensite. <i>Journal of Materials Science and Technology</i> , 2022, 112, 36-48.	10.7	24
9	Comparison on Impact Toughness of High-Strength Metastable β Titanium Alloy with Bimodal and Lamellar Microstructures. <i>Metals</i> , 2022, 12, 271.	2.3	6
10	In-Situ Study on Tensile Deformation and Fracture Mechanisms of Metastable β Titanium Alloy with Equiaxed Microstructure. <i>Materials</i> , 2022, 15, 1325.	2.9	6
11	A novel heterogeneous network structure titanium matrix composite with a combination of strength and ductility. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 840, 142954.	5.6	21
12	Synergistic influence mechanism of microstructure type and loading mode on the long crack propagation in Ti-55531 alloy. <i>Engineering Fracture Mechanics</i> , 2022, 266, 108404.	4.3	2
13	High-strength titanium alloys for aerospace engineering applications: A review on melting-forging process. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 845, 143260.	5.6	181
14	Impact characteristic and crack propagation mechanisms of large-size molybdenum alloy single crystal and polycrystal. <i>International Journal of Refractory Metals and Hard Materials</i> , 2022, 107, 105871.	3.8	2
15	Hierarchical transition structure induced by gradient composition distribution in layered Ti-TiNb alloy. <i>Scripta Materialia</i> , 2022, 219, 114854.	5.2	6
16	New insights into the recrystallization behavior of large-size Mo α -3Nb single crystal based on multi-scale characterization. <i>Journal of Materials Research and Technology</i> , 2022, 20, 303-319.	5.8	1
17	In-situ investigation on tensile deformation and fracture behaviors of a new metastable β titanium alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 799, 140187.	5.6	34
18	Impact toughness and deformation modes of Ti α -6Al α -4V alloy with different microstructures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 801, 140411.	5.6	46

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19	Forgingâ€“microstructureâ€“tensile properties correlation in a new near β^2 high-strength titanium alloy. <i>Rare Metals</i> , 2021, 40, 2109-2117.	7.1	11
20	In-situ investigation of tensile behaviors of Tiâ€“6Al alloy with extra low interstitial. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 809, 140958.	5.6	34
21	Microstructure evolution and fracture behavior of Ti-5Al-3Mo-3V-2Zr-2Cr-1Nb-1Fe alloy during BASCA heat treatments. <i>Materials Characterization</i> , 2021, 174, 110975.	4.4	11
22	Microstructure tailoring and impact toughness of a newly developed high strength Ti-5Al-3Mo-3V-2Cr-2Zr-1Nb-1Fe alloy. <i>Materials Characterization</i> , 2021, 175, 111103.	4.4	35
23	Multiscale exploit the role of copper on the burn resistant behavior of Ti-Cu alloy. <i>Journal of Alloys and Compounds</i> , 2021, 863, 158639.	5.5	7
24	Effects of oxygen content on Charpy impact properties and crack resistance of β titanium alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 818, 141394.	5.6	20
25	Microstructural morphology effects on fracture toughness and crack growth behaviors in a high strength titanium alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 821, 141626.	5.6	32
26	Toughening effects of Mo and Nb addition on impact toughness and crack resistance of titanium alloys. <i>Journal of Materials Science and Technology</i> , 2021, 79, 147-164.	10.7	56
27	Study on the intrinsic factors determining impact toughness of TC21 alloy. <i>Materials Characterization</i> , 2021, 177, 111164.	4.4	34
28	The Recovery and Recrystallization Behavior of Cold-Compressed Mo-3Nb Single Crystal. <i>Jom</i> , 2021, 73, 3460-3467.	1.9	3
29	Enhanced mechanical and tribological properties of graphene nanoplates reinforced TC21 composites using spark plasma sintering. <i>Journal of Alloys and Compounds</i> , 2021, 873, 159764.	5.5	24
30	In-situ study on tensile deformation and damage evolution of metastable β^2 titanium alloy with lamellar microstructure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 824, 141790.	5.6	30
31	Effects of β^2 -stabilizer elements on microstructure formation and mechanical properties of titanium alloys. <i>Journal of Alloys and Compounds</i> , 2021, 876, 160085.	5.5	34
32	Effect of sintering temperature on microstructure and properties of graphene nanoplatelets reinforced TC21 composites prepared by spark plasma sintering. <i>Journal of Alloys and Compounds</i> , 2021, 879, 160346.	5.5	14
33	Fatigue crack propagation behaviors in Ti-5Al-3Mo-3V-2Zr-2Cr-1Nb-1Fe alloy with STA and BASCA heat treatments. <i>International Journal of Fatigue</i> , 2021, 151, 106348.	5.7	5
34	The relationship between slip behavior and dislocation arrangement for large-size Mo-3Nb single crystal at room temperature. <i>Journal of Materials Science and Technology</i> , 2021, 92, 208-213.	10.7	10
35	The High-Temperature Deformation Behavior of As-Cast Ti90 Titanium Alloy. <i>Metals</i> , 2021, 11, 1630.	2.3	0
36	The tribological behavior of different carbon nanomaterials-reinforced the titanium (TC21) matrix composite. <i>Journal of Materials Research and Technology</i> , 2021, 15, 3683-3693.	5.8	15

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37	Quasi-Static, Dynamic Compressive Properties and Deformation Mechanisms of Ti-6Al-4V Alloy with Gradient Structure. <i>Metals</i> , 2021, 11, 1928.	2.3	3
38	Morphological evolution of Ti ₂ Cu in Ti-13Cu-Al alloy after cooling from semi-solid state. <i>Journal of Alloys and Compounds</i> , 2020, 848, 156639.	5.5	7
39	Plane strain fracture behavior of a new high strength Ti-5Al-3Mo-3V-2Zr-2Cr-1Nb-1Fe alloy during heat treatment. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 797, 140080.	5.6	15
40	Phase transformation during continuous heating in a β^2 -quenched Ti-5Al-3Mo-3V-2Cr-2Zr-1Nb-1Fe alloy. <i>MATEC Web of Conferences</i> , 2020, 321, 12005.	0.2	2
41	Effect of cooling rate on β variant selection and microstructure evolution in a near β^2 Ti-5Al-3Mo-3V-2Cr-2Zr-1Nb-1Fe alloy. <i>Journal of Alloys and Compounds</i> , 2020, 841, 155728.	5.5	25
42	Partition of Nb element on microstructure, tensile and impact properties of a near β Ti-4Nb alloy. <i>Journal of Alloys and Compounds</i> , 2020, 826, 154128.	5.5	25
43	Simultaneously enhancing the strength and ductility in titanium matrix composites via discontinuous network structure. <i>Composites Part A: Applied Science and Manufacturing</i> , 2020, 136, 105971.	7.6	48
44	Shear-Banding Evolution Dynamics during High Temperature Compression of Martensitic Ti-6Al-4V Alloy*. <i>Chinese Physics Letters</i> , 2020, 37, 116201.	3.3	0
45	Constitutive relationship during isothermal compression of Ti-6Al-4V alloy sheet. <i>Materials Letters</i> , 2019, 255, 126504.	2.6	9
46	Influence of β precipitates on electrochemical performance and mechanical degradation of Ti-1300 alloy. <i>Journal of Alloys and Compounds</i> , 2019, 803, 88-101.	5.5	6
47	Microstructure characteristics of gradient nano-grained Ti-1300 titanium alloy induced by sliding friction treatment. <i>Materials Research Express</i> , 2019, 6, 095004.	1.6	5
48	Massive β precipitation selectivity and tensile fracture behavior of TC18 alloy. <i>Journal of Alloys and Compounds</i> , 2019, 797, 10-17.	5.5	15
49	Electrochemical Corrosion Behavior and Mechanical Properties of Nanocrystalline Ti-6Al-4V Alloy Induced by Sliding Friction Treatment. <i>Materials</i> , 2019, 12, 760.	2.9	7
50	Isothermal Diffusion Behavior and Surface Performance of Cu/Ni Coating on TC4 Alloy. <i>Materials</i> , 2019, 12, 3884.	2.9	4
51	Microstructure and mechanical properties of a novel titanium alloy with homogeneous (TiHf) ₅ Si ₃ particle-reinforcements. <i>Journal of Alloys and Compounds</i> , 2019, 778, 115-123.	5.5	17
52	Characterization of deformation in primary β phase and crack initiation and propagation of TC21 alloy using in-situ SEM experiments. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 725, 33-42.	5.6	55
53	In-situ observations of the tensile deformation and fracture behavior of a fine-grained titanium alloy sheet. <i>Journal of Alloys and Compounds</i> , 2018, 740, 660-668.	5.5	29
54	Electrochemical corrosion characteristics and biocompatibility of nanostructured titanium for implants. <i>Applied Surface Science</i> , 2018, 434, 63-72.	6.1	77

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55	Cyclic deformation and microcrack initiation during stress controlled high cycle fatigue of a titanium alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 711, 212-222.	5.6	43
56	Microstructural tailoring and mechanical properties of a multi-alloyed near β^2 titanium alloy Ti-5321 with various heat treatment. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 711, 553-561.	5.6	86
57	Underlying burning resistant mechanisms for titanium alloy. <i>Materials and Design</i> , 2018, 156, 588-595.	7.0	37
58	In Situ Notched Tensile Fracture of TC21 Alloy with Different Microstructures. , 2018, , 521-530.		1
59	Effect of microstructure characteristic on mechanical properties and corrosion behavior of new high strength Ti-1300 beta titanium alloy. <i>Journal of Alloys and Compounds</i> , 2017, 727, 1126-1135.	5.5	48
60	Slip transmission behavior across β/β^2 interface and strength prediction with a modified rule of mixtures in TC21 titanium alloy. <i>Journal of Alloys and Compounds</i> , 2017, 724, 112-120.	5.5	109
61	High cycle fatigue behavior of Ti-5Al-5Mo-5V-3Cr-1Zr titanium alloy with bimodal microstructure. <i>Journal of Alloys and Compounds</i> , 2017, 695, 1966-1975.	5.5	49
62	High cycle fatigue behavior of Ti-5Al-5Mo-5V-3Cr-1Zr titanium alloy with lamellar microstructure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 682, 107-116.	5.6	44
63	Effect of microstructure on tensile properties of Ti-5Al-5Mo-5V-3Cr-1Zr alloy. <i>Journal of Alloys and Compounds</i> , 2017, 693, 582-591.	5.5	120
64	Effect of microstructure on high cycle fatigue behavior of Ti-5Al-5Mo-5V-3Cr-1Zr titanium alloy. <i>International Journal of Fatigue</i> , 2017, 94, 30-40.	5.7	70
65	Tailorable Burning Behavior of Ti14 Alloy by Controlling Semi-Solid Forging Temperature. <i>Materials</i> , 2016, 9, 697.	2.9	11
66	Recrystallization behavior of Ti40 burn-resistant titanium alloy during hot working process. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2016, 23, 581-587.	4.9	4
67	A simple model to ascertain the initial formation concentration of athermal β' phase in titanium alloys. <i>Computational Materials Science</i> , 2016, 123, 263-267.	3.0	14
68	Burn-resistant behavior and mechanism of Ti14 alloy. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2016, 23, 215-221.	4.9	16
69	Accordance between fracture toughness and strength difference in TC21 titanium alloy with equiaxed microstructure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 664, 10-16.	5.6	32
70	Simple models to account for the formation and decomposition of athermal β' phase in titanium alloys. <i>Scripta Materialia</i> , 2016, 117, 28-31.	5.2	24
71	Research on the Semi-Solid Compressive Deformation Behavior of Ti-7Cu Alloy. <i>High Temperature Materials and Processes</i> , 2016, 35, 29-35.	1.4	5
72	Electrochemical corrosion behavior and elasticity properties of Ti-6Al-xFe alloys for biomedical applications. <i>Materials Science and Engineering C</i> , 2016, 62, 36-44.	7.3	53

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73	Analysis of the effect of alloy elements on allotropic transformation in titanium alloys with the use of cohesive energy. <i>Computational Materials Science</i> , 2016, 111, 41-46.	3.0	23
74	Effect of β -phase morphology on low-cycle fatigue behavior of TC21 alloy. <i>International Journal of Fatigue</i> , 2015, 75, 1-9.	5.7	65
75	Calculation of the cohesive energy of solids with the use of valence electron structure parameters. <i>Computational Materials Science</i> , 2015, 101, 168-174.	3.0	23
76	Precipitation behavior and tensile properties of new high strength beta titanium alloy Ti-1300. <i>Journal of Alloys and Compounds</i> , 2015, 637, 1-4.	5.5	25
77	Effect of Microstructure on the Fatigue Crack Propagation Behavior of TC4-DT Titanium Alloy. <i>Journal of Materials Engineering and Performance</i> , 2015, 24, 1865-1870.	2.5	9
78	Characterization of semisolid deformation behavior and constitutive analysis of Ti230 alloy. <i>Mechanics of Time-Dependent Materials</i> , 2015, 19, 325-334.	4.4	4
79	Calculation of the lattice constant of solids with the use of valence electron structure parameters. <i>Computational Materials Science</i> , 2015, 97, 86-93.	3.0	25
80	Effects of cold pre-deformation on aging behavior and mechanical properties of Ti-1300 alloy. <i>Journal of Alloys and Compounds</i> , 2015, 619, 383-388.	5.5	27
81	Effect of Compressing Deformation on the Crystal Structure of Stress-Induced Martensitic in Ti-10V-2Fe-3Al Titanium Alloy. <i>Rare Metal Materials and Engineering</i> , 2014, 43, 1850-1854.	0.8	2
82	Microstructures of TC21 alloys after hydrogenation and dehydrogenation. <i>Transactions of Nonferrous Metals Society of China</i> , 2014, 24, 82-88.	4.2	11
83	Recent Development of Effect Mechanism of Alloying Elements in Titanium Alloy Design. <i>Rare Metal Materials and Engineering</i> , 2014, 43, 775-779.	0.8	37
84	Influence of Cooling Rate and Aging on the Lamellar Microstructure and Fractography of TC21 Titanium Alloy. <i>Metallography, Microstructure, and Analysis</i> , 2013, 2, 35-41.	1.0	23
85	Crack initiation and mechanical properties of TC21 titanium alloy with equiaxed microstructure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 586, 215-222.	5.6	47
86	Microstructure and beta grain growth behavior of Ti-Mo alloys solution treated. <i>Materials Characterization</i> , 2013, 84, 105-111.	4.4	53
87	Modeling the relationship between hydrogen content and mechanical property of Ti600 alloy by using ANFIS. <i>Applied Mathematical Modelling</i> , 2013, 37, 5705-5714.	4.2	13
88	The effect of microstructure on the mechanical properties of TC4-DT titanium alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 563, 106-111.	5.6	98
89	In-situ SEM observations of tensile deformation of the lamellar microstructure in TC21 titanium alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 559, 515-519.	5.6	66
90	Effect of processing parameters on hot deformation behavior and microstructural evolution during hot compression of Ti40 titanium alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 552, 384-391.	5.6	29

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91	A new methodology for prediction of fracture initiation in hot compression of Ti40 titanium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 553, 112-118.	5.6	31
92	Optimization of forging process parameters of Ti600 alloy by using processing map. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 529, 393-400.	5.6	41
93	Effect of hydrogen on the superplasticity of Ti40 alloy with large grains. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 3489-3492.	5.6	27
94	Kinetics of dehydrogenation in Ti600, TC21 and Ti40 alloys. Journal of Alloys and Compounds, 2010, 490, 531-536.	5.5	12
95	Kinetics of hydrogen absorption/desorption in TC21 alloy. Journal of Alloys and Compounds, 2010, 490, 562-567.	5.5	23
96	Effect of hydrogen content on superplastic forming/diffusion bonding of TC21 alloys. Journal of Alloys and Compounds, 2010, 503, 151-154.	5.5	19
97	Theoretical Research on Phase Transformations in Metastable β^2 -Titanium Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 1049-1058.	2.2	19
98	Fatigue crack growth behaviors of a new burn-resistant highly-stabilized beta titanium alloy. Rare Metals, 2009, 28, 545-549.	7.1	2
99	Experimental studies on the dynamic tensile behavior of Ti-6Al-2Sn-2Zr-3Mo-1Cr-2Nb-Si alloy with Widmanstatten microstructure at elevated temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 523, 53-59.	5.6	13
100	The phase and microstructure of TC21 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 494, 166-172.	5.6	54