Yong-Qing Zhao

List of Publications by Year
in descending order

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100	2,741	159585	223800
papers	citations	30	46
		h-index	g-index

100	100	100	1143
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-strength titanium alloys for aerospace engineering applications: A review on melting-forging process. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 845, 143260.	5.6	181
2	Effect of microstructure on tensile properties of Tiâ€“5Alâ€“5Moâ€“5Vâ€“3Crâ€“1Zr alloy. Journal of Alloys and Compounds, 2017, 693, 582-591.	5.5	120
3	Slip transmission behavior across Î±/Î² interface and strength prediction with a modified rule of mixtures in TC21 titanium alloy. Journal of Alloys and Compounds, 2017, 724, 112-120.	5.5	109
4	The effect of microstructure on the mechanical properties of TC4-DT titanium alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 563, 106-111.	5.6	98
5	Microstructural tailoring and mechanical properties of a multi-alloyed near Î² titanium alloy Ti-5321 with various heat treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 711, 553-561.	5.6	86
6	Electrochemical corrosion characteristics and biocompatibility of nanostructured titanium for implants. Applied Surface Science, 2018, 434, 63-72.	6.1	77
7	Effect of microstructure on high cycle fatigue behavior of Tiâ€“5Alâ€“5Moâ€“5Vâ€“3Crâ€“1Zr titanium alloy. International Journal of Fatigue, 2017, 94, 30-40.	5.7	70
8	In-situ SEM observations of tensile deformation of the lamellar microstructure in TC21 titanium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 559, 515-519.	5.6	66
9	Effect of Î±-phase morphology on low-cycle fatigue behavior of TC21 alloy. International Journal of Fatigue, 2015, 75, 1-9.	5.7	65
10	Toughening effects of Mo and Nb addition on impact toughness and crack resistance of titanium alloys. Journal of Materials Science and Technology, 2021, 79, 147-164.	10.7	56
11	Characterization of deformation in primary Î± phase and crack initiation and propagation of TC21 alloy using in-situ SEM experiments. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 725, 33-42.	5.6	55
12	The phase and microstructure of TC21 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 494, 166-172.	5.6	54
13	Microstructure and beta grain growth behavior of Tiâ€“Mo alloys solution treated. Materials Characterization, 2013, 84, 105-111.	4.4	53
14	Electrochemical corrosion behavior and elasticity properties of Tiâ€“6Alâ€“xFe alloys for biomedical applications. Materials Science and Engineering C, 2016, 62, 36-44.	7.3	53
15	High cycle fatigue behavior of Tiâ€“5Alâ€“5Moâ€“5Vâ€“3Crâ€“1Zr titanium alloy with bimodal microstructure. Journal of Alloys and Compounds, 2017, 695, 1966-1975.	5.5	49
16	Effect of microstructure characteristic on mechanical properties and corrosion behavior of new high strength Ti-1300 beta titanium alloy. Journal of Alloys and Compounds, 2017, 727, 1126-1135.	5.5	48
17	Simultaneously enhancing the strength and ductility in titanium matrix composites via discontinuous network structure. Composites Part A: Applied Science and Manufacturing, 2020, 136, 105971.	7.6	48
18	Crack initiation and mechanical properties of TC21 titanium alloy with equiaxed microstructure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 586, 215-222.	5.6	47

#	Article	IF	Citations
19	Impact toughness and deformation modes of Tiâ€“6Alâ€“4V alloy with different microstructures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 801, 140411.	5.6	46
20	High cycle fatigue behavior of Tiâ€“5Alâ€“5Moâ€“5Vâ€“3Crâ€“1Zr titanium alloy with lamellar microstructure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 682, 107-116.	5.6	44
21	Cyclic deformation and microcrack initiation during stress controlled high cycle fatigue of a titanium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 711, 212-222.	5.6	43
22	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
23	Recent Development of Effect Mechanism of Alloying Elements in Titanium Alloy Design. Rare Metal Materials and Engineering, 2014, 43, 775-779.	0.8	37
24	Underlying burning resistant mechanisms for titanium alloy. Materials and Design, 2018, 156, 588-595.	7.0	37
25	Variant selection, coarsening behavior of Î± phase and associated tensile properties in an Î±+Î² titanium alloy. Journal of Materials Science and Technology, 2022, 99, 101-113.	10.7	37
26	Microstructure tailoring and impact toughness of a newly developed high strength Ti-5Al-3Mo-3V-2Cr-2Zr-1Nb-1Fe alloy. Materials Characterization, 2021, 175, 111103.	4.4	35
27	In-situ investigation on tensile deformation and fracture behaviors of a new metastable Î² titanium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 799, 140187.	5.6	34
28	In-situ investigation of tensile behaviors of Tiâ€“6Al alloy with extra low interstitial. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 809, 140958.	5.6	34
29	Study on the intrinsic factors determining impact toughness of TC21 alloy. Materials Characterization, 2021, 177, 111164.	4.4	34
30	Effects of Î²-stabilizer elements on microstructure formation and mechanical properties of titanium alloys. Journal of Alloys and Compounds, 2021, 876, 160085.	5.5	34
31	Accordance between fracture toughness and strength difference in TC21 titanium alloy with equiaxed microstructure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 664, 10-16.	5.6	32
32	Microstructural morphology effects on fracture toughness and crack growth behaviors in a high strength titanium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 821, 141626.	5.6	32
33	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
34	In-situ study on tensile deformation and damage evolution of metastable Î² titanium alloy with lamellar microstructure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 824, 141790.	5.6	30
35	Effect of processing parameters on hot deformation behavior and microstructural evolution during hot compression of Ti40 titanium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 552, 384-391.	5.6	29
36	In-situ observations of the tensile deformation and fracture behavior of a fine-grained titanium alloy sheet. Journal of Alloys and Compounds, 2018, 740, 660-668.	5.5	29

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37	Gradient nanostructure, phase transformation, amorphization and enhanced strength-plasticity synergy of pure titanium manufactured by ultrasonic surface rolling. Journal of Materials Processing Technology, 2022, 299, 117322.	6.3	29
38	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
39	Effects of cold pre-deformation on aging behavior and mechanical properties of Ti-1300 alloy. Journal of Alloys and Compounds, 2015, 619, 383-388.	5.5	27
40	Precipitation behavior and tensile properties of new high strength beta titanium alloy Ti-1300. Journal of Alloys and Compounds, 2015, 637, 1-4.	5.5	25
41	Calculation of the lattice constant of solids with the use of valence electron structure parameters. Computational Materials Science, 2015, 97, 86-93.	3.0	25
42	Effect of cooling rate on Î± variant selection and microstructure evolution in a near Î² Tiâ€“5Alâ€“3Moâ€“3Vâ€“2Crâ€“2Zrâ€“1Nbâ€“1Fe alloy. Journal of Alloys and Compounds, 2020, 841, 155728.	5.5	25
43	Partition of Nb element on microstructure, tensile and impact properties of a near Î± Tiâ€“4Nb alloy. Journal of Alloys and Compounds, 2020, 826, 154128.	5.5	25
44	Simple models to account for the formation and decomposition of athermal Ï‰ phase in titanium alloys. Scripta Materialia, 2016, 117, 28-31.	5.2	24
45	Enhanced mechanical and tribological properties of graphene nanoplates reinforced TC21 composites using spark plasma sintering. Journal of Alloys and Compounds, 2021, 873, 159764.	5.5	24
46	Deformation mechanisms in a Î²-quenched Ti-5321 alloy: In-situ investigation related to slip activity, orientation evolution and stress induced martensite. Journal of Materials Science and Technology, 2022, 112, 36-48.	10.7	24
47	Kinetics of hydrogen absorption/desorption in TC21 alloy. Journal of Alloys and Compounds, 2010, 490, 562-567.	5.5	23
48	Influence of Cooling Rate and Aging on the Lamellar Microstructure and Fractography of TC21 Titanium Alloy. Metallography, Microstructure, and Analysis, 2013, 2, 35-41.	1.0	23
49	Calculation of the cohesive energy of solids with the use of valence electron structure parameters. Computational Materials Science, 2015, 101, 168-174.	3.0	23
50	Analysis of the effect of alloy elements on allotropic transformation in titanium alloys with the use of cohesive energy. Computational Materials Science, 2016, 111, 41-46.	3.0	23
51	A novel heterogeneous network structure titanium matrix composite with a combination of strength and ductility. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 840, 142954.	5.6	21
52	Effects of oxygen content on Charpy impact properties and crack resistance of Î± titanium alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 818, 141394.	5.6	20
53	Theoretical Research on Phase Transformations in Metastable Î²-Titanium Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 1049-1058.	2.2	19
54	Effect of hydrogen content on superplastic forming/diffusion bonding of TC21 alloys. Journal of Alloys and Compounds, 2010, 503, 151-154.	5.5	19

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55	Microstructure and mechanical properties of a novel titanium alloy with homogeneous (TiHf)5Si3 article-reinforcements. Journal of Alloys and Compounds, 2019, 778, 115-123.	5.5	17
56	Burn-resistant behavior and mechanism of Ti14 alloy. International Journal of Minerals, Metallurgy and Materials, 2016, 23, 215-221.	4.9	16
57	Massive Î± precipitation selectivity and tensile fracture behavior of TC18 alloy. Journal of Alloys and Compounds, 2019, 797, 10-17.	5.5	15
58	Plane strain fracture behavior of a new high strength Tiâ€“5Alâ€“3Moâ€“3Vâ€“2Zrâ€“2Crâ€“1Nbâ€“1Fe alloy during heat treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 797, 140080.	5.6	15
59	The tribological behavior of different carbon nanomaterials-reinforced the titanium (TC21) matrix composite. Journal of Materials Research and Technology, 2021, 15, 3683-3693.	5.8	15
60	A simple model to ascertain the initial formation concentration of athermal Ï‰ phase in titanium alloys. Computational Materials Science, 2016, 123, 263-267.	3.0	14
61	Effect of sintering temperature on microstructure and properties of graphene nanoplatelets reinforced TC21 composites prepared by spark plasma sintering. Journal of Alloys and Compounds, 2021, 879, 160346.	5.5	14
62	Experimental studies on the dynamic tensile behavior of Tiâ€“6Alâ€“2Snâ€“2Zrâ€“3Moâ€“1Crâ€“2Nbâ€“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
63	Modeling the relationship between hydrogen content and mechanical property of Ti600 alloy by using ANFIS. Applied Mathematical Modelling, 2013, 37, 5705-5714.	4.2	13
64	Influence of microstructure on strain controlled low cycle fatigue crack initiation and propagation of Ti-55531 alloy. International Journal of Fatigue, 2022, 156, 106678.	5.7	13
65	Kinetics of dehydrogenation in Ti600, TC21 and Ti40 alloys. Journal of Alloys and Compounds, 2010, 490, 531-536.	5.5	12
66	Microstructures of TC21 alloys after hydrogenation and dehydrogenation. Transactions of Nonferrous Metals Society of China, 2014, 24, 82-88.	4.2	11
67	Tailorable Burning Behavior of Ti14 Alloy by Controlling Semi-Solid Forging Temperature. Materials, 2016, 9, 697.	2.9	11
68	Forgingâ€“microstructureâ€“tensile properties correlation in a new near Î² high-strength titanium alloy. Rare Metals, 2021, 40, 2109-2117.	7.1	11
69	Microstructure evolution and fracture behavior of Ti-5Al-3Mo-3V-2Zr-2Cr-1Nb-1Fe alloy during BASCA heat treatments. Materials Characterization, 2021, 174, 110975.	4.4	11
70	The relationship between slip behavior and dislocation arrangement for large-size Mo-3Nb single crystal at room temperature. Journal of Materials Science and Technology, 2021, 92, 208-213.	10.7	10
71	Effect of Microstructure on the Fatigue Crack Propagation Behavior of TC4-DT Titanium Alloy. Journal of Materials Engineering and Performance, 2015, 24, 1865-1870.	2.5	9
72	Constitutive relationship during isothermal compression of Ti-6Al-4V alloy sheet. Materials Letters, 2019, 255, 126504.	2.6	9

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73	Crack propagation behavior of dual-phase steel at low temperature. International Journal of Fatigue, 2022, 155, 106633.	5.7	8
74	Electrochemical Corrosion Behavior and Mechanical Properties of Nanocrystalline Tiâ€“6Alâ€“4V Alloy Induced by Sliding Friction Treatment. Materials, 2019, 12, 760.	2.9	7
75	Morphological evolution of Ti2Cu in Ti-13Cu-Al alloy after cooling from semi-solid state. Journal of Alloys and Compounds, 2020, 848, 156639.	5.5	7
76	Multiscale exploit the role of copper on the burn resistant behavior of Ti-Cu alloy. Journal of Alloys and Compounds, 2021, 863, 158639.	5.5	7
77	Influence of Î±s precipitates on electrochemical performance and mechanical degradation of Ti-1300 alloy. Journal of Alloys and Compounds, 2019, 803, 88-101.	5.5	6
78	A new approach to understand the deformation behavior and strengthening mechanism of molybdenum alloy: From single crystal to polycrystal. International Journal of Refractory Metals and Hard Materials, 2022, 102, 105715.	3.8	6
79	Comparison on Impact Toughness of High-Strength Metastable Î² Titanium Alloy with Bimodal and Lamellar Microstructures. Metals, 2022, 12, 271.	2.3	6
80	In-Situ Study on Tensile Deformation and Fracture Mechanisms of Metastable Î² Titanium Alloy with Equiaxed Microstructure. Materials, 2022, 15, 1325.	2.9	6
81	Hierarchical transition structure induced by gradient composition distribution in layered Ti-TiNb alloy. Scripta Materialia, 2022, 219, 114854.	5.2	6
82	Research on the Semi-Solid Compressive Deformation Behavior of Ti-7Cu Alloy. High Temperature Materials and Processes, 2016, 35, 29-35.	1.4	5
83	Microstructure characteristics of gradient nano-grained Ti-1300 titanium alloy induced by sliding friction treatment. Materials Research Express, 2019, 6, 095004.	1.6	5
84	Fatigue crack propagation behaviors in Ti-5Al-3Mo-3V-2Zr-2Cr-1Nb-1Fe alloy with STA and BASCA heat treatments. International Journal of Fatigue, 2021, 151, 106348.	5.7	5
85	New insights in the development of Î± phase during continuously heating in a Î²-quenched Ti-5321 alloy. Journal of Materials Science and Technology, 2022, 103, 29-33.	10.7	5
86	Characterization of semisolid deformation behavior and constitutive analysis of Ti230 alloy. Mechanics of Time-Dependent Materials, 2015, 19, 325-334.	4.4	4
87	Recrystallization behavior of Ti40 burn-resistant titanium alloy during hot working process. International Journal of Minerals, Metallurgy and Materials, 2016, 23, 581-587.	4.9	4
88	Isothermal Diffusion Behavior and Surface Performance of Cu/Ni Coating on TC4 Alloy. Materials, 2019, 12, 3884.	2.9	4
89	The Recovery and Recrystallization Behavior of Cold-Compressed Mo-3Nb Single Crystal. Jom, 2021, 73, 3460-3467.	1.9	3
90	Quasi-Static, Dynamic Compressive Properties and Deformation Mechanisms of Ti-6Al-4V Alloy with Gradient Structure. Metals, 2021, 11, 1928.	2.3	3

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91	Microstructure and Properties of Titanium Matrix Composites Synergistically Reinforced by Graphene Oxide and Alloying Elements. Advanced Engineering Materials, 2023, 25, .	3.5	3
92	Fatigue crack growth behaviors of a new burn-resistant highly-stabilized beta titanium alloy. Rare Metals, 2009, 28, 545-549.	7.1	2
93	Effect of Compressing Deformation on the Crystal Structure of Stress-Induced Martensitic in Ti-10V-2Fe-3Al Titanium Alloy. Rare Metal Materials and Engineering, 2014, 43, 1850-1854.	0.8	2
94	Phase transformation during continuous heating in a Î²-quenched Ti-5Al-3Mo-3V-2Cr-2Zr-1Nb-1Fe alloy. MATEC Web of Conferences, 2020, 321, 12005.	0.2	2
95	Synergistic influence mechanism of microstructure type and loading mode on the long crack propagation in Ti-55531 alloy. Engineering Fracture Mechanics, 2022, 266, 108404.	4.3	2
96	Impact characteristic and crack propagation mechanisms of large-size molybdenum alloy single crystal and polycrystal. International Journal of Refractory Metals and Hard Materials, 2022, 107, 105871.	3.8	2
97	In Situ Notched Tensile Fracture of TC21 Alloy with Different Microstructures. , 2018, , 521-530.		1
98	New insights into the recrystallization behavior of large-size Moâ€“3Nb single crystal based on multi-scale characterization. Journal of Materials Research and Technology, 2022, 20, 303-319.	5.8	1
99	The High-Temperature Deformation Behavior of As-Cast Ti90 Titanium Alloy. Metals, 2021, 11, 1630.	2.3	0
100	Shear-Banding Evolution Dynamics during High Temperature Compression of Martensitic Ti-6Al-4V Alloy*. Chinese Physics Letters, 2020, 37, 116201.	3.3	0