Weifeng He

List of Publications by Year
in descending order

63	1,435	279798	330143
papers	citations	23 h-index	37 g-index

64	64	64	764
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Experiment investigation of laser shock peening on TC6 titanium alloy to improve high cycle fatigue performance. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 594, 161-167.	5.6	134
2	Effect study and application to improve high cycle fatigue resistance of TC11 titanium alloy by laser shock peening with multiple impacts. Surface and Coatings Technology, 2014, 253, 68-75.	4.8	115
3	Deforming TC6 titanium alloys at ultrahigh strain rates during multiple laser shock peening. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 578, 181-186.	5.6	79
4	Laser shock peening induced surface nanocrystallization and martensite transformation in austenitic stainless steel. Journal of Alloys and Compounds, 2016, 655, 66-70.	5.5	78
5	Regain the fatigue strength of laser additive manufactured Ti alloy via laser shock peening. Journal of Alloys and Compounds, 2018, 750, 626-635.	5.5	77
6	Effect of dynamic recrystallization on texture orientation and grain refinement of Ti6Al4V titanium alloy subjected to laser shock peening. Journal of Alloys and Compounds, 2021, 850, 156672.	5.5	71
7	New layer-structured ferroelectric polycrystalline materials, Na_{0.5}Nd_xBi_{4.5â"x}Ti₄O₁₅: crystal structures, electrical properties and conduction behaviors. Journal of Materials Chemistry C, 2015, 3, 8852-8864.	5.5	60
8	Damage evolution and mechanism of TiN/Ti multilayer coatings in sand erosion condition. Surface and Coatings Technology, 2018, 353, 210-220.	4.8	47
9	The strengthening mechanism of a nickel-based alloy after laser shock processing at high temperatures. Science and Technology of Advanced Materials, 2013, 14, 055010.	6.1	45
10	Plastic deformation behavior of titanium alloy by warm laser shock peening: Microstructure evolution and mechanical properties. Surface and Coatings Technology, 2021, 405, 126670.	4.8	45
11	Sand particle erosion resistance of the multilayer gradient TiN/Ti coatings on Ti6Al4V alloy. Surface and Coatings Technology, 2019, 365, 214-221.	4.8	44
12	The compound process of laser shock peening and vibratory finishing and its effect on fatigue strength of Ti-3.5Mo-6.5Al-1.5Zr-0.25Si titanium alloy. Journal of Alloys and Compounds, 2019, 783, 828-835.	5.5	43
13	Investigations in the fabrication of surface patterns for wettability modification on a Zr-based bulk metallic glass by nanosecond laser surface texturing. Journal of Materials Processing Technology, 2020, 283, 116714.	6.3	35
14	Investigations on femtosecond laser-induced surface modification and periodic micropatterning with anti-friction properties on Ti6Al4V titanium alloy. Chinese Journal of Aeronautics, 2022, 35, 521-537.	5.3	33
15	Improving high cycle fatigue performance of gas tungsten arc welded Ti6Al4V titanium alloy by warm laser shock peening. International Journal of Fatigue, 2021, 149, 106270.	5.7	32
16	Fatigue strength improvement in Ti-6Al-4V subjected to foreign object damage by combined treatment of laser shock peening and shot peening. International Journal of Fatigue, 2022, 155, 106581.	5.7	32
17	Experiment investigation on microstructure and mechanical properties of TC17 titanium alloy treated by laser shock peening with different laser fluence. Journal of Laser Applications, 2013, 25, .	1.7	31
18	High Cycle Fatigue Performance in Laser Shock Peened TC4 Titanium Alloys Subjected to Foreign Object Damage. Journal of Materials Engineering and Performance, 2018, 27, 1466-1474.	2.5	30

#	Article	IF	Citations
19	Thermal stability of surface nanostructure produced by laser shock peening in a Ni-based superalloy. Surface and Coatings Technology, 2017, 311, 337-343.	4.8	29
20	Aluminizing mechanism on a nickel-based alloy with surface nanostructure produced by laser shock peening and its effect on fatigue strength. Surface and Coatings Technology, 2018, 342, 29-36.	4.8	27
21	In vitro cytocompatibility of a Zr-based metallic glass modified by laser surface texturing for potential implant applications. Applied Surface Science, 2021, 547, 149194.	6.1	26
22	Experimental study and fatigue life prediction on high cycle fatigue performance of laser-peened TC4 titanium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 822, 141658.	5.6	24
23	Sand erosion resistance improvement and damage mechanism of TiAlN coating via the bias-graded voltage in FCVA deposition. Surface and Coatings Technology, 2019, 378, 125009.	4.8	23
24	Simulation and Experimental Study on Residual Stress Distribution in Titanium Alloy Treated by Laser Shock Peening with Flat-Top and Gaussian Laser Beams. Materials, 2019, 12, 1343.	2.9	23
25	Effect of TiN/Ti coating combined with laser shock peening pre-treatment on the fatigue strength of Ti-6Al-4V titanium alloy. Surface and Coatings Technology, 2020, 403, 126393.	4.8	23
26	Damage mechanisms evolution of TiN/Ti multilayer films with different modulation periods in cyclic impact conditions. Applied Surface Science, 2021, 540, 148366.	6.1	20
27	Tribological performance of GLC, WC/GLC and TiN films on the carburized M50NiL steel. Surface and Coatings Technology, 2019, 361, 1-8.	4.8	18
28	Enhance Fatigue Resistance of Nanocrystalline NiTi by Laser Shock Peening. Shape Memory and Superelasticity, 2019, 5, 436-443.	2.2	18
29	The anti-sand erosion performance of TiN films fabricated by filtered cathodic vacuum arc technique at different nitrogen flow rates. Ceramics International, 2019, 45, 10819-10825.	4.8	17
30	Surface Nanocrystallization and Amorphization of Dual-Phase TC11 Titanium Alloys under Laser Induced Ultrahigh Strain-Rate Plastic Deformation. Materials, 2018, 11, 563.	2.9	16
31	Molecular dynamics simulation of crack growth in pure titanium under uniaxial tension. Molecular Simulation, 2018, 44, 1252-1260.	2.0	15
32	Mechanical modification and damage mechanism evolution of TiN films subjected to cyclic nano-impact by adjusting N/Ti ratios. Journal of Alloys and Compounds, 2019, 809, 151816.	5.5	14
33	Effect of Residual Stress on Sâ€“N Curves and Fracture Morphology of Ti6Al4V Titanium Alloy after Laser Shock Peening without Protective Coating. Materials, 2019, 12, 3799.	2.9	14
34	Tribological performance of a novel wide-temperature applicable a-C/(WC/a-C) film against M50 steel. Tribology International, 2020, 145, 106189.	5.9	14
35	Research on surface integrity of Ti-6Al-4V alloy with compound treatment of laser shock peening and shot peening. Vacuum, 2022, 196, 110717.	3.5	12
36	Study on the Damage Mechanism of TiN/Ti Coatings Based on Multi-Directional Impact. Coatings, 2019, 9, 765.	2.6	11

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37	Influence of laser shock peening on fatigue performance of LZ50 axle steel for railway wheel set. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 1938-1948.	3.4	7
38	Intelligent damage recognition of composite materials based on deep learning and ultrasonic testing. AIP Advances, 2021, 11, .	1.3	7
39	A Method for Evaluating the Impact Wear Behavior of Multilayer TiN/Ti Coating. Coatings, 2020, 10, 132.	2.6	6
40	A novel acoustic monitoring method of laser peening. Applied Acoustics, 2016, 110, 9-12.	3.3	4
41	Crack resistance enhancement of gradient bias TiN/Ti multilayer coating by Ti sputtering. Surface Engineering, 2021, 37, 1457-1466.	2.2	4
42	Impact-Sliding Tribology Behavior of TC17 Alloy Treated by Laser Shock Peening. Materials, 2018, 11, 1229.	2.9	3
43	Investigations in Anti-Impact Performance of TiN Coatings Prepared by Filtered Cathodic Vacuum Arc Method under Different Substrate Temperatures. Coatings, 2020, 10, 840.	2.6	3
44	Prominent wear resistance of a superlattice composite multilayered WC-enhanced a-C film under boundary lubrication conditions in aviation lubricant. Ceramics International, 2021, 47, 5730-5738.	4.8	3
45	Formation Mechanism and Control Method of Residual Stress Profile by Laser Shock Peening in Thin Titanium Alloy Component. Materials, 2021, 14, 1878.	2.9	3
46	Recognition of the internal situation of aircraft skin based on deep learning. AIP Advances, 2021, 11, 105216.	1.3	3
47	A review of highâ€velocity impact on fiberâ€reinforced textile composites: Potential for aero engine applications. International Journal of Mechanical System Dynamics, 2022, 2, 50-64.	2.8	3
48	Experiment Study on Improving Fatigue Strength of K24 Nickel Based Alloy by Laser Shock Processing without Coating. Rare Metal Materials and Engineering, 2017, 46, 3682-3687.	0.8	2
49	Feasibility study of microscale laser shock processing without absorbing coating to improve high-cycle fatigue performance of DZ17G directionally solidified superalloy. Journal of Laser Applications, 2019, 31, 042007.	1.7	2
50	Research on microstructure deformation mechanism of crack tip in titanium under tension along different orientations. Molecular Simulation, 2020, 46, 440-447.	2.0	2
51	Investigations into the Improvement of the Mechanical Properties of Ti-5Al-4Mo-4Cr-2Sn-2Zr Titanium Alloy by Using Low Energy Laser Peening without Coating. Materials, 2020, 13, 1398.	2.9	2
52	Emissivity measurement based on deep learning and surface roughness. AIP Advances, 2021, 11, 085305.	1.3	2
53	Measurement of two-dimensional residual stress in nanocrystalline superelastic NiTi fabricated with pre-strain laser shock peening. Mathematics and Mechanics of Solids, 2022, 27, 1559-1568.	2.4	2
54	Online Evaluation of Surface Hardness for Aluminum Alloy in LSP Using Modal Acoustic Emission. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	4.7	1

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55	Data-Driven Construction Method of Material Mechanical Behavior Model. Metals, 2022, 12, 1086.	2.3	1
56	Research on dynamic behaviors and residual stress field based on LSP of plate materials. , 2010, , .		0
57	Investigation of Modeling and Simulation of Troposcatter Scatter Channel. , 2010, , .		0
58	Simple nanoindentation-based method for determining linear thermal expansion coefficients of micro-scale materials. Journal of Materials Research, 2020, 35, 3202-3209.	2.6	0
59	Thermal Ablation Damage Analysis of CFRP Suffering from Lightning Based on Principles of Tomography. Materials, 2020, 13, 5159.	2.9	0
60	Gradient Microstructure Characteristics and the Formation Mechanism in Titanium Alloy Subjected to LSP. Springer Series in Materials Science, 2021, , 41-76.	0.6	0
61	Improvement of High Temperature Fatigue Performance in Ni-Based Alloys by LSP-Induced Gradient Microstructures. Springer Series in Materials Science, 2021, , 103-138.	0.6	0
62	Study on the Compound Process of LSP and the Strengthening Mechanism on Aero-Engine Blades. Springer Series in Materials Science, 2021, , 179-227.	0.6	0
63	CompoNet with SFEL: A convolutional neural network for identifying low-emissivity coating damage. AIP Advances, 2021, 11, 055211.	1.3	0