# 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 | 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 |
| 2 | 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 |
| 3 | 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 |
| 4 | 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 |
| 5 | 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 |
| 6 | 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 |
| 7 | Data-Driven Construction Method of Material Mechanical Behavior Model. Metals, 2022, 12, 1086. | 2.3 | 1 |
| 8 | 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 |
| 9 | 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 |
| 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 | 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 |
| 12 | Gradient Microstructure Characteristics and the Formation Mechanism in Titanium Alloy Subjected to LSP. Springer Series in Materials Science, 2021, , 41-76. | 0.6 | 0 |
| 13 | 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 |
| 14 | 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 |
| 15 | 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 |
| 16 | CompoNet with SFEL: A convolutional neural network for identifying low-emissivity coating damage. AIP Advances, 2021, 11, 055211. | 1.3 | 0 |
| 17 | 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 |
| 18 | Emissivity measurement based on deep learning and surface roughness. AIP Advances, 2021, 11, 085305. | 1.3 | 2 |

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|---|---|---|---|
| 19 | 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 |
| 20 | 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 |
| 21 | Crack resistance enhancement of gradient bias TiN/Ti multilayer coating by Ti sputtering. Surface Engineering, 2021, 37, 1457-1466. | 2.2 | 4 |
| 22 | Recognition of the internal situation of aircraft skin based on deep learning. AIP Advances, 2021, 11, 105216. | 1.3 | 3 |
| 23 | Intelligent damage recognition of composite materials based on deep learning and ultrasonic testing. AIP Advances, 2021, 11, . | 1.3 | 7 |
| 24 | 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 |
| 25 | 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 |
| 26 | Thermal Ablation Damage Analysis of CFRP Suffering from Lightning Based on Principles of Tomography. Materials, 2020, 13, 5159. | 2.9 | 0 |
| 27 | 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 |
| 28 | Research on microstructure deformation mechanism of crack tip in titanium under tension along different orientations. Molecular Simulation, 2020, 46, 440-447. | 2.0 | 2 |
| 29 | 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 |
| 30 | A Method for Evaluating the Impact Wear Behavior of Multilayer TiN/Ti Coating. Coatings, 2020, 10, 132. | 2.6 | 6 |
| 31 | 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 |
| 32 | 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 |
| 33 | 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 |
| 34 | 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 |
| 35 | 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 |
| 36 | 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 |

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|---|---|---|---|
| 37 | 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 |
| 38 | 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 |
| 39 | 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 |
| 40 | 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 |
| 41 | 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 |
| 42 | Study on the Damage Mechanism of TiN/Ti Coatings Based on Multi-Directional Impact. Coatings, 2019, 9, 765. | 2.6 | 11 |
| 43 | Enhance Fatigue Resistance of Nanocrystalline NiTi by Laser Shock Peening. Shape Memory and Superelasticity, 2019, 5, 436-443. | 2.2 | 18 |
| 44 | 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 |
| 45 | 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 |
| 46 | 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 |
| 47 | 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 |
| 48 | Impact-Sliding Tribology Behavior of TC17 Alloy Treated by Laser Shock Peening. Materials, 2018, 11, 1229. | 2.9 | 3 |
| 49 | Damage evolution and mechanism of TiN/Ti multilayer coatings in sand erosion condition. Surface and Coatings Technology, 2018, 353, 210-220. | 4.8 | 47 |
| 50 | Molecular dynamics simulation of crack growth in pure titanium under uniaxial tension. Molecular Simulation, 2018, 44, 1252-1260. | 2.0 | 15 |
| 51 | 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 |
| 52 | 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 |
| 53 | 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 |
| 54 | A novel acoustic monitoring method of laser peening. Applied Acoustics, 2016, 110, 9-12. | 3.3 | 4 |

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| 55 | 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 |
| 56 | New layer-structured ferroelectric polycrystalline materials, Na<sub>0.5</sub>Nd<sub>x</sub>Bi<sub>4.5â^'x</sub>Ti<sub>4</sub>O<sub>15</sub>: crystal structures, electrical properties and conduction behaviors. Journal of Materials Chemistry C, 2015, 3, 8852-8864. | 5.5 | 60 |
| 57 | 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 |
| 58 | 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 |
| 59 | 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 |
| 60 | 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 |
| 61 | 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 |
| 62 | Research on dynamic behaviors and residual stress field based on LSP of plate materials. , 2010, , . | | 0 |
| 63 | Investigation of Modeling and Simulation of Troposcatter Scatter Channel. , 2010, , . | | 0 |