

Bohdan Mordyuk

List of Publications by Year in descending order

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45
g-index

62
all docs

62
docs citations

62
times ranked

1101
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrasonic impact peening for the surface properties™ management. Journal of Sound and Vibration, 2007, 308, 855-866.	3.9	199
2	Effect of structure evolution induced by ultrasonic peening on the corrosion behavior of AISI-321 stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 458, 253-261.	5.6	185
3	Characterization of ultrasonically peened and laser-shock peened surface layers of AISI 321 stainless steel. Surface and Coatings Technology, 2008, 202, 4875-4883.	4.8	155
4	Post-processing of the Inconel 718 alloy parts fabricated by selective laser melting: Effects of mechanical surface treatments on surface topography, porosity, hardness and residual stress. Surface and Coatings Technology, 2020, 381, 125136.	4.8	144
5	Enhanced fatigue behavior of powder metallurgy Ti-6Al-4V alloy by applying ultrasonic impact treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 641, 348-359.	5.6	114
6	Fatigue life improvement of β -titanium by novel ultrasonically assisted technique. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 437, 396-405.	5.6	96
7	Ultrafine-grained textured surface layer on Zr-1%Nb alloy produced by ultrasonic impact peening for enhanced corrosion resistance. Surface and Coatings Technology, 2012, 210, 54-61.	4.8	86
8	Structurally induced enhancement in corrosion resistance of Zr-2.5%Nb alloy in saline solution by applying ultrasonic impact peening. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 559, 453-461.	5.6	72
9	Enhanced fatigue durability of Al-6 Mg alloy by applying ultrasonic impact peening: Effects of surface hardening and reinforcement with AlCuFe quasicrystalline particles. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 563, 138-146.	5.6	57
10	Improved fatigue behavior of low-carbon steel 20GL by applying ultrasonic impact treatment combined with the electric discharge surface alloying. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 659, 119-129.	5.6	56
11	Microstructure related enhancement in wear resistance of tool steel AISI D2 by applying laser heat treatment followed by ultrasonic impact treatment. Surface and Coatings Technology, 2017, 328, 344-354.	4.8	56
12	Wear assessment of composite surface layers in Al-6Mg alloy reinforced with AlCuFe quasicrystalline particles: Effects of particle size, microstructure and hardness. Wear, 2014, 319, 84-95.	3.1	55
13	Structure, microhardness and damping characteristics of Al matrix composite reinforced with AlCuFe or Ti using ultrasonic impact peening. Surface and Coatings Technology, 2010, 204, 1590-1598.	4.8	54
14	Influence of microstructural features and deformation-induced martensite on hardening of stainless steel by cryogenic ultrasonic impact treatment. Surface and Coatings Technology, 2018, 343, 57-68.	4.8	52
15	Influence of microstructural modifications induced by ultrasonic impact treatment on hardening and corrosion behavior of wrought Co-Cr-Mo biomedical alloy. Materials Science and Engineering C, 2016, 58, 1024-1035.	7.3	50
16	Effects of laser heat treatment combined with ultrasonic impact treatment on the surface topography and hardness of carbon steel AISI 1045. Optics and Laser Technology, 2019, 111, 424-438.	4.6	50
17	Surface microrelief and hardness of laser hardened and ultrasonically peened AISI D2 tool steel. Surface and Coatings Technology, 2015, 278, 108-120.	4.8	41
18	Mechanical Surface Treatments of AISI 304 Stainless Steel: Effects on Surface Microrelief, Residual Stress, and Microstructure. Journal of Materials Engineering and Performance, 2019, 28, 5307-5322.	2.5	37

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19	Influence of combined laser heat treatment and ultrasonic impact treatment on microstructure and corrosion behavior of AISI 1045 steel. <i>Surface and Coatings Technology</i> , 2020, 401, 126275.	4.8	37
20	Surface characterization of a ZrTiNb alloy: Effect of ultrasonic impact treatment. <i>Applied Surface Science</i> , 2019, 470, 44-55.	6.1	32
21	Surface Shot Peening Post-processing of Inconel 718 Alloy Parts Printed by Laser Powder Bed Fusion Additive Manufacturing. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 6982-6995.	2.5	31
22	Laser-Hardened and Ultrasonically Peened Surface Layers on Tool Steel AISI D2: Correlation of the Bearing Curves™ Parameters, Hardness and Wear. <i>Journal of Materials Engineering and Performance</i> , 2018, 27, 764-776.	2.5	29
23	Characterization of ZrN coating low-temperature deposited on the preliminary Ar+ ions treated 2024 Al-alloy. <i>Surface and Coatings Technology</i> , 2019, 361, 413-424.	4.8	28
24	Mechanical alloying of powder materials by ultrasonic milling. <i>Ultrasonics</i> , 2004, 42, 43-46.	3.9	27
25	Structure and wear of Al surface layers reinforced with AlCuFe particles using ultrasonic impact peening: Effect of different particle sizes. <i>Surface and Coatings Technology</i> , 2011, 205, 5278-5284.	4.8	27
26	Effects of ultrasonic impact treatment combined with the electric discharge surface alloying by molybdenum on the surface related properties of low-carbon steel G21Mn5. <i>Surface and Coatings Technology</i> , 2017, 309, 969-979.	4.8	24
27	Combining laser transformation hardening and ultrasonic impact strain hardening for enhanced wear resistance of AISI 1045 steel. <i>Wear</i> , 2020, 462-463, 203494.	3.1	24
28	Corrosion of 2024 alloy after ultrasonic impact cladding with iron. <i>Surface Engineering</i> , 2018, 34, 324-329.	2.2	24
29	Ti particle-reinforced surface layers in Al: Effect of particle size on microstructure, hardness and wear. <i>Materials Characterization</i> , 2010, 61, 1126-1134.	4.4	23
30	Enhanced Resistance of Ti6Al4V Alloy to High-Temperature Oxidation and Corrosion by Forming Alumina Composite Coating. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 1780-1795.	2.5	21
31	Surface Finishing of Complexly Shaped Parts Fabricated by Selective Laser Melting. <i>Lecture Notes in Mechanical Engineering</i> , 2020, , 186-195.	0.4	21
32	On the additivity of acoustoplastic and electroplastic effects. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1995, 190, 75-79.	5.6	20
33	Surface Layers of Zr-18%Nb Alloy Modified by Ultrasonic Impact Treatment: Microstructure, Hardness and Corrosion. <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 5446-5455.	2.5	18
34	Mössbauer and X-ray studies of Fe-powder mechanically alloyed with C using power ultrasonics. <i>Ultrasonics</i> , 2004, 42, 47-51.	3.9	17
35	New Opportunities to Determine the Rate of Wear of Materials at Friction by the Indentation Data. <i>Progress in Physics of Metals</i> , 2020, 21, 554-579.	1.5	13
36	Ultrasonically nanostructured electric-spark deposited Ti surface layer on Ti6Al4V alloy: enhanced hardness and corrosion resistance. <i>International Journal of Surface Science and Engineering</i> , 2020, 14, 1.	0.4	11

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37	Ultrasonic studies of texture inhomogeneities in pressure vessel steel subjected to ultrasonic impact treatment and shock compression. <i>Surface and Coatings Technology</i> , 2016, 307, 693-701.	4.8	10
38	Combined Thermo-Mechanical Techniques for Post-processing of the SLM-Printed Ni-Cr-Fe Alloy Parts. <i>Lecture Notes in Mechanical Engineering</i> , 2020, , 295-304.	0.4	10
39	Nickel Superalloy Turbine Blade Parts Printed by Laser Powder Bed Fusion: Thermo-Mechanical Post-processing for Enhanced Surface Integrity and Precipitation Strengthening. <i>Journal of Materials Engineering and Performance</i> , 0, , 1.	2.5	10
40	Improvement of the fatigue characteristics of VT1-0 titanium alloy by the surface mechanical and rapid thermal treatment. <i>Materials Science</i> , 2006, 42, 376-383.	0.9	9
41	Effects of the Combined Laser-Ultrasonic Surface Hardening Induced Microstructure and Phase State on Mechanical Properties of AISI D2 Tool Steel. <i>Lecture Notes in Mechanical Engineering</i> , 2020, , 188-198.	0.4	9
42	Influence of surface ultrasonic impact treatment on texture evolution and elastic properties in the volume of Zr1Nb alloy. <i>Surface and Coatings Technology</i> , 2020, 403, 126397.	4.8	9
43	Optimization of Ultrasonic Impact Treatment for Surface Finishing and Hardening of AISI A2 Tool Steel by Experimental Design. <i>Journal of Materials Engineering and Performance</i> , 2022, 31, 8567-8584.	2.5	9
44	Tailoring Porosity and Microstructure of Alpha-Titanium by Combining Powder Metallurgy and Ultrasonic Impact Treatment to Control Elastic and Fatigue Properties. <i>Journal of Materials Engineering and Performance</i> , 2022, 31, 5668-5678.	2.5	8
45	Ultrasonic drawing of tungsten wire for incandescent lamps production. <i>Ultrasonics</i> , 2004, 42, 109-111.	3.9	7
46	Surface Polishing of Laser Powder Bed Fused Superalloy Components by Magnetic Post-treatment. , 2020, , .		6
47	Comparison of Effects of Laser, Ultrasonic, and Combined Laser-Ultrasonic Hardening Treatments on Surface Properties of AISI 1045 Steel Parts. <i>Lecture Notes in Mechanical Engineering</i> , 2022, , 313-322.	0.4	5
48	Twinning-related enhancement in strength and ductility of Cu-37Zn alloy by the cryogenic ultrasonic impact treatment supplemented with ECAP. <i>Materials Letters</i> , 2022, 310, 131512.	2.6	5
49	Ultrasonic shock treatment of welded joints. <i>Materials Science</i> , 1999, 35, 678-683.	0.9	4
50	Flow stress behavior of polycrystalline Ni under combined magneto- and acousto-plastic effects. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005, 397, 322-329.	5.6	4
51	Ultrasonically nanostructured electric-spark deposited Ti surface layer on Ti6Al4V alloy: enhanced hardness and corrosion resistance. <i>International Journal of Surface Science and Engineering</i> , 2020, 14, 1.	0.4	4
52	Ultrasonic surface post-processing of hot isostatic pressed and heat treated superalloy parts manufactured by laser powder bed fusion. <i>Additive Manufacturing Letters</i> , 2022, 3, 100063.	2.1	4
53	Influence of ultrasonic vibrations on the phase transformation and strain hardening of a Zr18Nb alloy in tension. <i>Materials Science</i> , 2013, 48, 546-554.	0.9	3
54	Effect of graphite on the degree of grinding and the structure of $\hat{\epsilon}$ -Fe powder in an ultrasonic mill. <i>Physics of Metals and Metallography</i> , 2007, 104, 415-424.	1.0	1

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55	Enhancing hardness in overlapping scanner-based laser area of carbon and tool steel by multi-pin ultrasonic impact peening. <i>Lasers in Manufacturing and Materials Processing</i> , 2022, 9, 292-311.	2.2	1
56	Mössbauer study of Fe powder mechanically alloyed by power ultrasonics. <i>European Physical Journal D</i> , 2006, 56, E139-E146.	0.4	0
57	Enhancing Properties of TiZrHfNbTa Alloy by Surface Layers Nanostructuring Using Cryogenic Ultrasonic Impact Treatment. , 2021, , .		0
58	Nanostructured Surface Modification of AISI 304 Stainless Steel by Laser Shock Peening Followed by Ultrasonic Impact Peening. , 2021, , .		0