Bohdan Mordyuk

List of Publications by Year
in descending order

58	2,136	236925 25	233421 45
papers	citations	h-index	g-index

62	62	62	1101
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Comparison of Effects of Laser, Ultrasonic, and Combined Laser-Ultrasonic Hardening Treatments on Surface Properties of AISI 1045 Steel Parts. Lecture Notes in Mechanical Engineering, 2022, , 313-322.	0.4	5
2	Twinning-related enhancement in strength and ductility of Cu-37Zn alloy by the cryogenic ultrasonic impact treatment supplemented with ECAP. Materials Letters, 2022, 310, 131512.	2.6	5
3	Tailoring Porosity and Microstructure of Alpha-Titanium by Combining Powder Metallurgy and Ultrasonic Impact Treatment to Control Elastic and Fatigue Properties. Journal of Materials Engineering and Performance, 2022, 31, 5668-5678.	2.5	8
4	Optimization of Ultrasonic Impact Treatment for Surface Finishing and HardeningÂof AISIÂO2 Tool Steel by Experimental Design. Journal of Materials Engineering and Performance, 2022, 31, 8567-8584.	2.5	9
5	Ultrasonic surface post-processing of hot isostatic pressed and heat treated superalloy parts manufactured by laser powder bed fusion. Additive Manufacturing Letters, 2022, 3, 100063.	2.1	4
6	Enhancing hardness in overlapping scanner-based laser area of carbon and tool steel by multi-pin ultrasonic impact peening. Lasers in Manufacturing and Materials Processing, 2022, 9, 292-311.	2.2	1
7	Enhanced Resistance of Ti6Al4V Alloy to High-Temperature Oxidation and Corrosion by Forming Alumina Composite Coating. Journal of Materials Engineering and Performance, 2021, 30, 1780-1795.	2.5	21
8	Surface Shot Peening Post-processing of Inconel 718 Alloy Parts Printed by Laser Powder Bed Fusion Additive Manufacturing. Journal of Materials Engineering and Performance, 2021, 30, 6982-6995.	2.5	31
9	Enhancing Properties of TiZrHfNbTa Alloy by Surface Layers Nanostructuring Using Cryogenic Ultrasonic Impact Treatment. , 2021, , .		0
10	Nanostructured Surface Modification of AISI 304 Stainless Steel by Laser Shock Peening Followed by Ultrasonic Impact Peening. , 2021, , .		0
11	Effects of the Combined Laser-Ultrasonic Surface Hardening Induced Microstructure and Phase State on Mechanical Properties of AISI D2 Tool Steel. Lecture Notes in Mechanical Engineering, 2020, , 188-198.	0.4	9
12	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
13	Ultrasonically nanostructured electric-spark deposited Ti surface layer on Ti6Al4V alloy: enhanced hardness and corrosion resistance. International Journal of Surface Science and Engineering, 2020, 14, 1.	0.4	11
14	Influence of combined laser heat treatment and ultrasonic impact treatment on microstructure and corrosion behavior of AISI 1045 steel. Surface and Coatings Technology, 2020, 401, 126275.	4.8	37
15	Combining laser transformation hardening and ultrasonic impact strain hardening for enhanced wear resistance of AISI 1045 steel. Wear, 2020, 462-463, 203494.	3.1	24
16	Surface Finishing of Complexly Shaped Parts Fabricated by Selective Laser Melting. Lecture Notes in Mechanical Engineering, 2020, , 186-195.	0.4	21
17	Combined Thermo-Mechanical Techniques for Post-processing of the SLM-Printed Ni-Cr-Fe Alloy Parts. Lecture Notes in Mechanical Engineering, 2020, , 295-304.	0.4	10
18	Surface Polishing of Laser Powder Bed Fused Superalloy Components by Magnetic Post-treatment. , 2020, , .		6

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19	Ultrasonically nanostructured electric-spark deposited Ti surface layer on Ti6Al4V alloy: enhanced hardness and corrosion resistance. International Journal of Surface Science and Engineering, 2020, 14, 1.	0.4	4
20	New Opportunities to Determine the Rate of Wear of Materials at Friction by the Indentation Data. Progress in Physics of Metals, 2020, 21, 554-579.	1.5	13
21	Influence of surface ultrasonic impact treatment on texture evolution and elastic properties in the volume of Zr1Nb alloy. Surface and Coatings Technology, 2020, 403, 126397.	4.8	9
22	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
23	Surface characterization of a ZrTiNb alloy: Effect of ultrasonic impact treatment. Applied Surface Science, 2019, 470, 44-55.	6.1	32
24	Characterization of ZrN coating low-temperature deposited on the preliminary Ar+ ions treated 2024 Al-alloy. Surface and Coatings Technology, 2019, 361, 413-424.	4.8	28
25	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
26	Laser-Hardened and Ultrasonically Peened Surface Layers on Tool Steel AISI D2: Correlation of the Bearing Curvesâ€™ Parameters, Hardness and Wear. Journal of Materials Engineering and Performance, 2018, 27, 764-776.	2.5	29
27	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
28	Corrosion of 2024 alloy after ultrasonic impact cladding with iron. Surface Engineering, 2018, 34, 324-329.	2.2	24
29	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
30	Surface Layers of Zr-18%Nb Alloy Modified by Ultrasonic Impact Treatment: Microstructure, Hardness and Corrosion. Journal of Materials Engineering and Performance, 2017, 26, 5446-5455.	2.5	18
31	Effects of ultrasonic impact treatment combined with the electric discharge surface alloying by molybdenum on the surface related properties of low-carbon steel G21Mn5. Surface and Coatings Technology, 2017, 309, 969-979.	4.8	24
32	Ultrasonic studies of texture inhomogeneities in pressure vessel steel subjected to ultrasonic impact treatment and shock compression. Surface and Coatings Technology, 2016, 307, 693-701.	4.8	10
33	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
34	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
35	Enhanced fatigue behavior of powder metallurgy Tiâ€“6Alâ€“4V alloy by applying ultrasonic impact treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 641, 348-359.	5.6	114
36	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

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37	Wear assessment of composite surface layers in Alâ€“6Mg alloy reinforced with AlCuFe quasicrystalline particles: Effects of particle size, microstructure and hardness. Wear, 2014, 319, 84-95.	3.1	55
38	Influence of ultrasonic vibrations on the phase transformation and strain hardening of a Zr18Nb alloy in tension. Materials Science, 2013, 48, 546-554.	0.9	3
39	Enhanced fatigue durability of Alâ€“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
40	Structurally induced enhancement in corrosion resistance of Zrâ€“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
41	Ultrafine-grained textured surface layer on Zrâ€“1%Nb alloy produced by ultrasonic impact peening for enhanced corrosion resistance. Surface and Coatings Technology, 2012, 210, 54-61.	4.8	86
42	Structure and wear of Al surface layers reinforced with AlCuFe particles using ultrasonic impact peening: Effect of different particle sizes. Surface and Coatings Technology, 2011, 205, 5278-5284.	4.8	27
43	Ti particle-reinforced surface layers in Al: Effect of particle size on microstructure, hardness and wear. Materials Characterization, 2010, 61, 1126-1134.	4.4	23
44	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
45	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
46	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
47	Ultrasonic impact peening for the surface propertiesâ€™ management. Journal of Sound and Vibration, 2007, 308, 855-866.	3.9	199
48	Effect of graphite on the degree of grinding and the structure of Î±-Fe powder in an ultrasonic mill. Physics of Metals and Metallography, 2007, 104, 415-424.	1.0	1
49	Fatigue life improvement of Î±-titanium by novel ultrasonically assisted technique. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 437, 396-405.	5.6	96
50	MÃ¶ssbauer study of Fe powder mechanically alloyed by power ultrasonics. European Physical Journal D, 2006, 56, E139-E146.	0.4	0
51	Improvement of the fatigue characteristics of VT1-0 titanium alloy by the surface mechanical and rapid thermal treatment. Materials Science, 2006, 42, 376-383.	0.9	9
52	Flow stress behavior of polycrystalline Ni under combined magneto- and acousto-plastic effects. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 397, 322-329.	5.6	4
53	Mechanical alloying of powder materials by ultrasonic milling. Ultrasonics, 2004, 42, 43-46.	3.9	27
54	MÃ¶ssbauer and X-ray studies of Fe-powder mechanically alloyed with C using power ultrasonics. Ultrasonics, 2004, 42, 47-51.	3.9	17

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55	Ultrasonic drawing of tungsten wire for incandescent lamps production. Ultrasonics, 2004, 42, 109-111.	3.9	7
56	Ultrasonic shock treatment of welded joints. Materials Science, 1999, 35, 678-683.	0.9	4
57	On the additivity of acoustoplastic and electroplastic effects. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 190, 75-79.	5.6	20
58	Nickel Superalloy Turbine Blade Parts Printed by Laser Powder Bed Fusion: Thermo-Mechanical Post-processing for Enhanced Surface Integrity and Precipitation Strengthening. Journal of Materials Engineering and Performance, 0, , 1.	2.5	10