

Sara Bagherifard

List of Publications by Year in descending order

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91
papers

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94381

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94
all docs

94
docs citations

94
times ranked

4464
citing authors

#	ARTICLE	IF	CITATIONS
1	Smart Bandage for Monitoring and Treatment of Chronic Wounds. <i>Small</i> , 2018, 14, e1703509.	5.2	257
2	Review of shot peening processes to obtain nanocrystalline surfaces in metal alloys. <i>Surface Engineering</i> , 2009, 25, 3-14.	1.1	233
3	On the fatigue strength enhancement of additive manufactured AlSi10Mg parts by mechanical and thermal post-processing. <i>Materials and Design</i> , 2018, 145, 28-41.	3.3	216
4	Nanoscale surface modification of AISI 316L stainless steel by severe shot peening. <i>Materials and Design</i> , 2016, 102, 68-77.	3.3	204
5	The influence of nanostructured features on bacterial adhesion and bone cell functions on severely shot peened 316L stainless steel. <i>Biomaterials</i> , 2015, 73, 185-197.	5.7	198
6	Fatigue behavior of a low-alloy steel with nanostructured surface obtained by severe shot peening. <i>Engineering Fracture Mechanics</i> , 2012, 81, 56-68.	2.0	190
7	A highly adhesive and naturally derived sealant. <i>Biomaterials</i> , 2017, 140, 115-127.	5.7	188
8	Flexible pH-Sensing Hydrogel Fibers for Epidermal Applications. <i>Advanced Healthcare Materials</i> , 2016, 5, 711-719.	3.9	172
9	Effects of nanofeatures induced by severe shot peening (SSP) on mechanical, corrosion and cytocompatibility properties of magnesium alloy AZ31. <i>Acta Biomaterialia</i> , 2018, 66, 93-108.	4.1	167
10	Textile Technologies and Tissue Engineering: A Path Toward Organ Weaving. <i>Advanced Healthcare Materials</i> , 2016, 5, 751-766.	3.9	161
11	Numerical and experimental analysis of surface roughness generated by shot peening. <i>Applied Surface Science</i> , 2012, 258, 6831-6840.	3.1	160
12	Effect of severe shot peening on microstructure and fatigue strength of cast iron. <i>International Journal of Fatigue</i> , 2014, 65, 64-70.	2.8	157
13	A numerical model of severe shot peening (SSP) to predict the generation of a nanostructured surface layer of material. <i>Surface and Coatings Technology</i> , 2010, 204, 4081-4090.	2.2	153
14	The effects of shot peening, laser shock peening and ultrasonic nanocrystal surface modification on the fatigue strength of Inconel 718. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 810, 141029.	2.6	127
15	Microstructure and fatigue behavior of cold spray coated Al5052. <i>Acta Materialia</i> , 2012, 60, 6555-6561.	3.8	126
16	On the shot peening surface coverage and its assessment by means of finite element simulation: A critical review and some original developments. <i>Applied Surface Science</i> , 2012, 259, 186-194.	3.1	112
17	Cell Response to Nanocrystallized Metallic Substrates Obtained through Severe Plastic Deformation. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 7963-7985.	4.0	109
18	Dermal Patch with Integrated Flexible Heater for on Demand Drug Delivery. <i>Advanced Healthcare Materials</i> , 2016, 5, 175-184.	3.9	109

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19	Surface post-treatments for metal additive manufacturing: Progress, challenges, and opportunities. <i>Additive Manufacturing</i> , 2021, 37, 101619.	1.7	107
20	Fatigue behavior of X70 microalloyed steel after severe shot peening. <i>International Journal of Fatigue</i> , 2013, 55, 33-42.	2.8	98
21	Fatigue behavior of notched steel specimens with nanocrystallized surface obtained by severe shot peening. <i>Materials & Design</i> , 2013, 45, 497-503.	5.1	86
22	Blending Electronics with the Human Body: A Pathway toward a Cybernetic Future. <i>Advanced Science</i> , 2018, 5, 1700931.	5.6	83
23	Cold spray deposition for additive manufacturing of freeform structural components compared to selective laser melting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 721, 339-350.	2.6	78
24	Experimental and numerical study of residual stress evolution in cold spray coating. <i>Applied Surface Science</i> , 2014, 288, 26-33.	3.1	75
25	Numerical simulation of cold spray coating. <i>Surface and Coatings Technology</i> , 2011, 205, 5294-5301.	2.2	74
26	Incorporating the principles of shot peening for a better understanding of surface mechanical attrition treatment (SMAT) by simulations and experiments. <i>Materials and Design</i> , 2017, 116, 365-373.	3.3	59
27	Influence of different shot peening treatments on surface state and fatigue behaviour of Al 6063 alloy. <i>Engineering Fracture Mechanics</i> , 2017, 185, 72-81.	2.0	57
28	Fatigue strength of Al alloy cold sprayed with nanocrystalline powders. <i>International Journal of Fatigue</i> , 2014, 65, 51-57.	2.8	56
29	Fatigue performance of cold spray deposits: Coating, repair and additive manufacturing cases. <i>International Journal of Fatigue</i> , 2020, 139, 105744.	2.8	54
30	Effects of Conventional and Severe Shot Peening on Residual Stress and Fatigue Strength of Steel AISI 1060 and Residual Stress Relaxation Due to Fatigue Loading: Experimental and Numerical Simulation. <i>Metals and Materials International</i> , 2021, 27, 2575-2591.	1.8	51
31	Enhancing the Structural Performance of Lightweight Metals by Shot Peening. <i>Advanced Engineering Materials</i> , 2019, 21, 1801140.	1.6	49
32	Influence of severe shot peening on wear behaviour of an aluminium alloy. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2014, 37, 821-829.	1.7	48
33	Characterization of Ti-HA composite fabricated by mechanical alloying. <i>Materials & Design</i> , 2015, 65, 447-453.	5.1	47
34	Fatigue behaviour of notched laser powder bed fusion AlSi10Mg after thermal and mechanical surface post-processing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 829, 142145.	2.6	44
35	Mediating bone regeneration by means of drug eluting implants: From passive to smart strategies. <i>Materials Science and Engineering C</i> , 2017, 71, 1241-1252.	3.8	43
36	Contribution of ultrasonic surface rolling process to the fatigue properties of TB8 alloy with body-centered cubic structure. <i>Journal of Materials Science and Technology</i> , 2021, 61, 63-74.	5.6	40

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37	Mesh sensitivity assessment of shot peening finite element simulation aimed at surface grain refinement. <i>Surface and Coatings Technology</i> , 2014, 243, 58-64.	2.2	39
38	Accelerated biodegradation and improved mechanical performance of pure iron through surface grain refinement. <i>Acta Biomaterialia</i> , 2019, 98, 88-102.	4.1	39
39	Fatigue behavior of nitrided and shot peened steel with artificial small surface defects. <i>Engineering Fracture Mechanics</i> , 2013, 103, 2-9.	2.0	37
40	Analysing the Fatigue Behaviour and Residual Stress Relaxation of Gradient Nano-Structured 316L Steel Subjected to the Shot Peening via Deep Learning Approach. <i>Metals and Materials International</i> , 2022, 28, 112-131.	1.8	37
41	Fatigue properties of nanocrystallized surfaces obtained by high energy shot peening. <i>Procedia Engineering</i> , 2010, 2, 1683-1690.	1.2	35
42	Application of different fatigue strength criteria to shot peened notched components. Part 1: Fracture Mechanics based approaches. <i>Applied Surface Science</i> , 2014, 289, 180-187.	3.1	35
43	Individual and synergistic effects of thermal and mechanical surface post-treatments on wear and corrosion behavior of laser powder bed fusion AlSi10Mg. <i>Journal of Materials Processing Technology</i> , 2022, 302, 117479.	3.1	35
44	On the effects of laser shock peening on fatigue behavior of V-notched AlSi10Mg manufactured by laser powder bed fusion. <i>International Journal of Fatigue</i> , 2022, 163, 107035.	2.8	35
45	Cold Spray Deposition of Freestanding Inconel Samples and Comparative Analysis with Selective Laser Melting. <i>Journal of Thermal Spray Technology</i> , 2017, 26, 1517-1526.	1.6	33
46	Tailoring cold spray additive manufacturing of steel 316 L for static and cyclic load-bearing applications. <i>Materials and Design</i> , 2021, 203, 109575.	3.3	33
47	Analyzing the mechano-bactericidal effect of nano-patterned surfaces on different bacteria species. <i>Surface and Coatings Technology</i> , 2021, 408, 126782.	2.2	31
48	Breathable hydrogel dressings containing natural antioxidants for management of skin disorders. <i>Journal of Biomaterials Applications</i> , 2019, 33, 1265-1276.	1.2	30
49	A systematic study on the effects of shot peening on a mild carbon steel: Microstructure, mechanical properties, and axial fatigue strength of smooth and notched specimens. <i>Applied Surface Science Advances</i> , 2021, 4, 100071.	2.9	26
50	Hybrid thermal, mechanical and chemical surface post-treatments for improved fatigue behavior of laser powder bed fusion AlSi10Mg notched samples. <i>Surface and Coatings Technology</i> , 2022, 430, 127962.	2.2	26
51	Application of artificial intelligence to optimize the process parameters effects on tensile properties of Ti-6Al-4V fabricated by laser powder-bed fusion. <i>International Journal of Mechanics and Materials in Design</i> , 2022, 18, 199-222.	1.7	24
52	Effects of different mechanical and chemical surface post-treatments on mechanical and surface properties of as-built laser powder bed fusion AlSi10Mg. <i>Surface and Coatings Technology</i> , 2022, 439, 128391.	2.2	24
53	Application of different fatigue strength criteria on shot peened notched parts. Part 2: nominal and local stress approaches. <i>Applied Surface Science</i> , 2014, 289, 173-179.	3.1	23
54	Introducing gradient severe shot peening as a novel mechanical surface treatment. <i>Scientific Reports</i> , 2021, 11, 22035.	1.6	23

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55	Deformation mechanism and in-situ TEM compression behavior of TB8 $\hat{1}^2$ titanium alloy with gradient structure. <i>Journal of Materials Science and Technology</i> , 2021, 84, 105-115.	5.6	22
56	Mechanical characterization and interfacial enzymatic activity of AISI 316L stainless steel after surface nanocrystallization. <i>Surface and Coatings Technology</i> , 2021, 405, 126729.	2.2	21
57	Effect of phosphating time on protection properties of hurealite coating: Differences between ground and shot peened HSLA steel surface. <i>Surface and Coatings Technology</i> , 2019, 375, 608-620.	2.2	17
58	The effects of microstructural and chemical surface gradients on fatigue performance of laser powder bed fusion AISi10Mg. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 840, 142962.	2.6	17
59	Application of shot peening to case-hardened steel gears: the effect of gradient material properties and component geometry. <i>Surface and Coatings Technology</i> , 2020, 398, 126084.	2.2	16
60	Failure analysis of a large ball valve for pipe-lines. <i>Engineering Failure Analysis</i> , 2013, 32, 167-177.	1.8	15
61	3D modelling of the deposit profile in cold spray additive manufacturing. <i>Journal of Manufacturing Processes</i> , 2021, 67, 521-534.	2.8	15
62	Damage tolerance assessment of AM 304L and cold spray fabricated 316L steels and its implications for attritable aircraft. <i>Engineering Fracture Mechanics</i> , 2021, 254, 107916.	2.0	15
63	Design and analysis of additive manufactured bimodal structures obtained by cold spray deposition. <i>Additive Manufacturing</i> , 2020, 33, 101131.	1.7	14
64	Numerical Modeling of Bond Formation in Polymer Surface Metallization Using Cold Spray. <i>Journal of Thermal Spray Technology</i> , 2021, 30, 1765-1776.	1.6	12
65	Numerical analysis of an improved DCDC specimen for investigating mixed mode fracture in ceramic materials. <i>Computational Materials Science</i> , 2009, 46, 180-185.	1.4	11
66	Smart flexible wound dressing with wireless drug delivery. , 2015, , .		11
67	A hybrid framework to estimate the surface state and fatigue performance of laser powder bed fusion materials after shot peening. <i>Applied Surface Science</i> , 2021, 567, 150758.	3.1	11
68	An Energetic Approach to Predict the Effect of Shot Peening-Based Surface Treatments. <i>Metals</i> , 2018, 8, 190.	1.0	10
69	Directing Surface Functions by Inducing Ordered and Irregular Morphologies at Single and Two-Tiered Length Scales. <i>Advanced Engineering Materials</i> , 2021, 23, 2001057.	1.6	9
70	Evaluating the Homogeneity of Surface Features Induced by Impact-Based Surface Treatments. <i>Materials</i> , 2021, 14, 3476.	1.3	8
71	A numerical Approach to design and develop freestanding porous structures through cold spray multi-material deposition. <i>Surface and Coatings Technology</i> , 2021, 421, 127423.	2.2	8
72	Experimental and Numerical Analysis of Fatigue Properties Improvement in a Titanium Alloy by Shot Peening. , 2010, , .		7

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73	Down to the Bone: A Novel Bio-Inspired Design Concept. <i>Materials</i> , 2021, 14, 4226.	1.3	7
74	Inclined and multi-directional surface impacts accelerate biodegradation and improve mechanical properties of pure iron. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 119, 104476.	1.5	7
75	Numerical Investigation of Ti6Al4V Gradient Lattice Structures with Tailored Mechanical Response. <i>Advanced Engineering Materials</i> , 0, , 2101760.	1.6	5
76	Estimating deposition efficiency and chemical composition variation along thickness for cold spraying of composite feedstocks. <i>Surface and Coatings Technology</i> , 2022, 436, 128239.	2.2	5
77	Extending conventional surface roughness ISO parameters using topological data analysis for shot peened surfaces. <i>Scientific Reports</i> , 2022, 12, 5538.	1.6	5
78	pH-Sensing Hydrogel Fibers: Flexible pH-Sensing Hydrogel Fibers for Epidermal Applications (Adv. Tj ETQq0 0 0,rgBT /Overlock 10 Tf	3.9	4
79	Smart Bandages: Smart Bandage for Monitoring and Treatment of Chronic Wounds (Small 33/2018). <i>Small</i> , 2018, 14, 1870150.	5.2	4
80	Nanostructured akermanite glass-ceramic coating on Ti6Al4V for orthopedic applications. <i>Journal of Applied Biomaterials and Functional Materials</i> , 2019, 17, 228080001879381.	0.7	4
81	Dry Sliding Wear and Corrosion Performance of Mg-Sn-Ti Alloys Produced by Casting and Extrusion. <i>Materials</i> , 2022, 15, 3533.	1.3	4
82	Effect of Shot Peening on Residual Stresses and Surface Work-Hardening in Cold Sprayed Coatings. <i>Key Engineering Materials</i> , 0, 417-418, 397-400.	0.4	3
83	Effects of Severe Air Blast Shot Peening on Microstructure and Residual Stress State of Al Alloys. <i>Key Engineering Materials</i> , 0, 417-418, 393-396.	0.4	2
84	Post-processing. , 2021, , 327-348.		2
85	Thermographic Analysis of Composite Metallization through Cold Spray. <i>Metals</i> , 2021, 11, 1860.	1.0	2
86	Influence of Small Surface Defects on Fatigue Limit of Nitrided and Shot Peening Steel. <i>Key Engineering Materials</i> , 0, 417-418, 57-60.	0.4	1
87	Short crack fatigue threshold of a nitrided and shot peened low alloy steel. <i>Procedia Engineering</i> , 2011, 10, 3588-3595.	1.2	1
88	Effect of REM Finishing on Fatigue Behavior of a Shot Peened Low Alloy Steel. <i>Key Engineering Materials</i> , 0, 488-489, 290-293.	0.4	1
89	Flexible Bioelectronics: Blending Electronics with the Human Body: A Pathway toward a Cybernetic Future (Adv. Sci. 10/2018). <i>Advanced Science</i> , 2018, 5, 1870059.	5.6	1
90	Effects of surface nanocrystallization on the anodic oxidation behavior of Aluminum. <i>Forces in Mechanics</i> , 2021, 4, 100028.	1.3	0

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91	Structural Integrity of Metal Deposits Obtained Using Cold Spray Solid-State Deposition. , 2022, , .		0