

Nasser Al-Aqeeli

List of Publications by Year in descending order

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88
papers

2,894
citations

236925

25
h-index

189892

50
g-index

91
all docs

91
docs citations

91
times ranked

2935
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanically alloyed nanocomposites. <i>Progress in Materials Science</i> , 2013, 58, 383-502.	32.8	622
2	Spark Plasma Sintering of Metals and Metal Matrix Nanocomposites: A Review. <i>Journal of Nanomaterials</i> , 2012, 2012, 1-13.	2.7	266
3	Magnesium-based composites and alloys for medical applications: A review of mechanical and corrosion properties. <i>Journal of Alloys and Compounds</i> , 2019, 792, 1162-1190.	5.5	184
4	Fabrication of nano-grained Ti-Nb-Zr biomaterials using spark plasma sintering. <i>Materials and Design</i> , 2015, 87, 693-700.	7.0	97
5	Dynamics of a water droplet on a hydrophobic inclined surface: influence of droplet size and surface inclination angle on droplet rolling. <i>RSC Advances</i> , 2017, 7, 48806-48818.	3.6	80
6	Fabrication and antifouling behaviour of a carbon nanotube membrane. <i>Materials and Design</i> , 2016, 89, 549-558.	7.0	77
7	Cyclic hardening of metallic glasses under Hertzian contacts: Experiments and STZ dynamics simulations. <i>Philosophical Magazine</i> , 2010, 90, 1373-1390.	1.6	71
8	Water Droplet Dynamics on a Hydrophobic Surface in Relation to the Self-Cleaning of Environmental Dust. <i>Scientific Reports</i> , 2018, 8, 2984.	3.3	59
9	Laser texturing of alumina surface for improved hydrophobicity. <i>Applied Surface Science</i> , 2013, 286, 161-170.	6.1	52
10	PEDOT/FHA nanocomposite coatings on newly developed Ti-Nb-Zr implants: Biocompatibility and surface protection against corrosion and bacterial infections. <i>Materials Science and Engineering C</i> , 2019, 98, 482-495.	7.3	43
11	Development of new Al-based nanocomposites by mechanical alloying. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 480, 392-396.	5.6	40
12	Effect of sintering parameters on microstructure, mechanical properties and electrochemical behavior of Nb-Zr alloy for biomedical applications. <i>Materials and Design</i> , 2015, 83, 344-351.	7.0	39
13	Wetting and other physical characteristics of polycarbonate surface textured using laser ablation. <i>Applied Surface Science</i> , 2014, 320, 21-29.	6.1	38
14	Mechanical, in-vitro corrosion, and tribological characteristics of TiN coating produced by cathodic arc physical vapor deposition on Ti20Nb13Zr alloy for biomedical applications. <i>Thin Solid Films</i> , 2020, 709, 138183.	1.8	38
15	Chemo-Mechanical Characteristics of Mud Formed from Environmental Dust Particles in Humid Ambient Air. <i>Scientific Reports</i> , 2016, 6, 30253.	3.3	35
16	Characterization of Nanoreinforcement Dispersion in Inorganic Nanocomposites: A Review. <i>Materials</i> , 2014, 7, 4148-4181.	2.9	33
17	Microstructure and Properties of Spark Plasma Sintered Aluminum Containing 1 wt.% SiC Nanoparticles. <i>Metals</i> , 2015, 5, 70-83.	2.3	33
18	Influence of Laser Nitriding on the Surface and Corrosion Properties of Ti-20Nb-13Zr Alloy in Artificial Saliva for Dental Applications. <i>Journal of Materials Engineering and Performance</i> , 2018, 27, 4655-4664.	2.5	33

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19	Analytical investigation into laser pulse heating and thermal stresses. Optics and Laser Technology, 2009, 41, 132-139.	4.6	32
20	Synthesis and characterization of alumina-CNT membrane for cadmium removal from aqueous solution. Ceramics International, 2018, 44, 17189-17198.	4.8	32
21	Synthesis, characterisation and mechanical properties of SiC reinforced Al based nanocomposites processed by MA and SPS. Powder Metallurgy, 2013, 56, 149-157.	1.7	31
22	The Synthesis of Nanostructured WC-Based Hardmetals Using Mechanical Alloying and Their Direct Consolidation. Journal of Nanomaterials, 2014, 2014, 1-16.	2.7	30
23	Electrochemical Corrosion and In Vitro Bioactivity of Nano-Grained Biomedical Ti-20Nb-13Zr Alloy in a Simulated Body Fluid. Materials, 2018, 11, 26.	2.9	30
24	Influence of surface treatment on PEDOT coatings: surface and electrochemical corrosion aspects of newly developed Ti alloy. RSC Advances, 2018, 8, 19181-19195.	3.6	28
25	Matrix Structure Evolution and Nanoreinforcement Distribution in Mechanically Milled and Spark Plasma Sintered Al-SiC Nanocomposites. Materials, 2014, 7, 6748-6767.	2.9	27
26	Phase evolution of Mg-Al-Zr nanophase alloys prepared by mechanical alloying. Journal of Alloys and Compounds, 2005, 400, 96-99.	5.5	26
27	Phase evolution during high energy ball milling of immiscible Nb-Zr alloys. Advanced Powder Technology, 2015, 26, 385-391.	4.1	25
28	Water droplet on inclined dusty hydrophobic surface: influence of droplet volume on environmental dust particles removal. RSC Advances, 2019, 9, 3582-3596.	3.6	25
29	Recent Advances in the Processing and Properties of Alumina-CNT/SiC Nanocomposites. Nanomaterials, 2019, 9, 86.	4.1	25
30	Electrical conductivity of spark plasma sintered Al ₂ O ₃ -SiC and Al ₂ O ₃ -carbon nanotube nanocomposites. Ceramics International, 2020, 46, 16008-16019.	4.8	25
31	Thermal stresses due to time exponentially decaying laser pulse: elasto-plastic wave propagations. International Journal of Mechanical Sciences, 2004, 46, 57-80.	6.7	24
32	VC and Cr ₃ C ₂ doped WC-based nano-cermets prepared by MA and SPS. Ceramics International, 2014, 40, 11759-11765.	4.8	24
33	Laser Texturing of Plasma Electrolytically Oxidized Aluminum 6061 Surfaces for Improved Hydrophobicity. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2014, 136, .	2.2	23
34	Characterization of nano-cemented carbides Co-doped with vanadium and chromium carbides. Powder Technology, 2015, 273, 47-53.	4.2	23
35	Replication of laser-textured alumina surfaces by polydimethylsiloxane: Improvement of surface hydrophobicity. Journal of Applied Polymer Science, 2016, 133, .	2.6	23
36	Influence of thermalcapillary and buoyant forces on flow characteristics in a droplet on hydrophobic surface. International Journal of Thermal Sciences, 2016, 102, 239-253.	4.9	23

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37	Influence of mud residues on solvent induced crystalized polycarbonate surface used as PV protective cover. Solar Energy, 2016, 125, 282-293.	6.1	22
38	Laser control melting of alumina surfaces with presence of B4C particles. Journal of Alloys and Compounds, 2012, 539, 12-16.	5.5	21
39	Processing of CNTs Reinforced Al-Based Nanocomposites Using Different Consolidation Techniques. Journal of Nanomaterials, 2013, 2013, 1-10.	2.7	21
40	[INVITED] Laser treatment of Inconel 718 alloy and surface characteristics. Optics and Laser Technology, 2016, 78, 153-158.	4.6	20
41	Formation of an amorphous phase and its crystallization in the immiscible Nb-Zr system by mechanical alloying. Journal of Applied Physics, 2013, 114, 153512.	2.5	19
42	Silicone oil impregnated nano silica modified glass surface and influence of environmental dust particles on optical transmittance. RSC Advances, 2017, 7, 29762-29771.	3.6	19
43	Laser Nitriding of the Newly Developed Ti-20Nb-13Zr at.% Biomaterial Alloy to Enhance Its Mechanical and Corrosion Properties in Simulated Body Fluid. Journal of Materials Engineering and Performance, 2017, 26, 5553-5562.	2.5	18
44	Characteristics of oil impregnated hydrophobic glass surfaces in relation to self-cleaning of environmental dust particles. Solar Energy Materials and Solar Cells, 2017, 171, 8-15.	6.2	18
45	Thermal Stress Development Due to Laser Step Input Pulse Heating. Journal of Thermal Stresses, 2006, 29, 721-751.	2.0	17
46	The Effect of Variable Binder Content and Sintering Temperature on the Mechanical Properties of WC-Co/Cr ₃ C ₂ Nanocomposites. Materials and Manufacturing Processes, 2015, 30, 327-334.	4.7	17
47	Solvent-induced crystallization of a polycarbonate surface and texture copying by polydimethylsiloxane for improved surface hydrophobicity. Journal of Applied Polymer Science, 2016, 133, .	2.6	17
48	Environmental dust effects on aluminum surfaces in humid air ambient. Scientific Reports, 2017, 7, 45999.	3.3	17
49	Optimization of process parameters for spark plasma sintering of nano-structured ferritic Fe-18Cr-2Si alloy. Powder Technology, 2016, 299, 62-70.	4.2	16
50	Environmental Dust Particles Repelling from A Hydrophobic Surface under Electrostatic Influence. Scientific Reports, 2019, 9, 8703.	3.3	16
51	Laser surface treatment of aluminum based composite mixed with B4C particles. Optics and Laser Technology, 2015, 66, 129-137.	4.6	15
52	Internal flow and heat transfer in a droplet located on a superhydrophobic surface. International Journal of Thermal Sciences, 2017, 121, 213-227.	4.9	15
53	Formulation of laser-induced thermal stresses: Stress boundary at the surface. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2003, 217, 423-434.	2.1	14
54	Strengthening behavior due to cyclic elastic loading in Pd-based metallic glass. Journal of Alloys and Compounds, 2011, 509, 7216-7220.	5.5	14

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55	Fabrication and Assessment of Crumb-Rubber-Modified Coatings with Anticorrosive Properties. <i>Materials</i> , 2015, 8, 181-192.	2.9	14
56	Laser gas assisted nitriding and sol-gel coating Of alumina surfaces: Effect Of environmental dust on surfaces. <i>Surface and Coatings Technology</i> , 2016, 289, 11-22.	4.8	14
57	Influence of Thermal Treatment on the Microstructure, Mechanical Properties, and Corrosion Resistance of Newly Developed Ti20Nb13Zr Biomedical Alloy in a Simulated Body Environment. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 1337-1349.	2.5	14
58	Improvement of in vitro corrosion, wear, and mechanical properties of newly developed Ti alloy by thermal treatment for dental applications. <i>Transactions of Nonferrous Metals Society of China</i> , 2021, 31, 952-966.	4.2	14
59	Droplet dynamics on a hydrophobic surface coated with N-octadecane phase change material. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 546, 28-39.	4.7	13
60	Mechanical Alloying and Spark Plasma Sintering of Nano-SiC Reinforced Al ₁₂ Si ₁₂ 0.3Mg Alloy. <i>Arabian Journal for Science and Engineering</i> , 2014, 39, 3161-3168.	1.1	12
61	Reversible exchange of wetting state of a hydrophobic surface via phase change material coating. <i>RSC Advances</i> , 2018, 8, 938-947.	3.6	12
62	In Vitro Corrosion and Bioactivity Performance of Surface-Treated Ti-20Nb-13Zr Alloys for Orthopedic Applications. <i>Coatings</i> , 2019, 9, 344.	2.6	12
63	Age Hardening Behavior of Carbon Nanotube Reinforced Aluminum Nanocomposites. <i>Journal of Nano Research</i> , 2012, 21, 29-35.	0.8	11
64	Fabrication of Brushite Coating on AZ91D and AZ31 Alloys by Two-Step Chemical Treatment and Its Surface Protection in Simulated Body Fluid. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 3803-3815.	2.5	11
65	Porous Al ₂ O ₃ -CNT Nanocomposite Membrane Produced by Spark Plasma Sintering with Tailored Microstructure and Properties for Water Treatment. <i>Nanomaterials</i> , 2020, 10, 845.	4.1	11
66	Synthesis and spark plasma sintering of Al-Mg-Zr alloys. <i>Journal of Central South University</i> , 2013, 20, 7-14.	3.0	10
67	Magnesium nanocomposite: Effect of melt dispersion of different oxides nano particles. <i>Journal of Materials Research</i> , 2016, 31, 100-108.	2.6	10
68	Development of tensile-compressive asymmetry free magnesium based composite using TiO ₂ nanoparticles dispersion. <i>Journal of Materials Research</i> , 2018, 33, 130-137.	2.6	10
69	Laser gas assisted texturing of alumina surfaces and effects of environmental dry mud solution on surface characteristics. <i>Ceramics International</i> , 2016, 42, 396-404.	4.8	9
70	Laser gas assisted texturing and formation of nitride and oxynitride compounds on alumina surface: Surface response to environmental dust. <i>Optics and Lasers in Engineering</i> , 2018, 102, 1-9.	3.8	9
71	Optimization of Spark Plasma Sintering Parameters Using the Taguchi Method for Developing Mg-Based Composites. <i>Jom</i> , 2020, 72, 1186-1194.	1.9	9
72	Effect of Sonication Time and Clay Loading on Nanoclay Dispersion and Thermal Property of Epoxy-Clay Nanocomposite. <i>Key Engineering Materials</i> , 0, 471-472, 490-495.	0.4	7

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73	Extraordinary Strengthening of Magnesium by Solid-State Diffusion of Copper in Mg-0.5Cu Alloy. <i>Jom</i> , 2020, 72, 1597-1606.	1.9	7
74	Sol-gel coating of colloidal particles deposited glass surface pertinent to self-cleaning applications. <i>Progress in Organic Coatings</i> , 2019, 127, 202-210.	3.9	6
75	Magnesium nanocomposite: increasing copperisation effect on high temperature tensile properties. <i>Powder Metallurgy</i> , 2016, 59, 66-72.	1.7	5
76	Laser treatment of aluminum composite and investigation of thermal stress field. <i>International Journal of Advanced Manufacturing Technology</i> , 2016, 86, 3547-3561.	3.0	5
77	Effect of hybrid reinforcement on the high temperature tensile behavior of magnesium nanocomposite. <i>International Journal of Materials Research</i> , 2015, 106, 1298-1302.	0.3	4
78	Thermal Behavior of Spark Plasma Sintered Alumina-Based Nanocomposites. <i>Arabian Journal for Science and Engineering</i> , 2019, 44, 6013-6028.	3.0	4
79	Wear Behavior of Spark Plasma Sintered Al2124 Aluminum Alloy Containing Carbon Nanotubes. <i>Science of Advanced Materials</i> , 2012, 4, 1166-1173.	0.7	4
80	The effect of laser pulse frequency on the microstructure and morphology of duplex treated Ti-6Al-4V alloy. <i>Surface and Coatings Technology</i> , 2011, 205, 3073-3079.	4.8	3
81	Variation of Mechanical Properties of Epoxy-Clay Nanocomposite with Sonication Time and Clay Loading. <i>Key Engineering Materials</i> , 0, 471-472, 496-501.	0.4	3
82	Wear and Mechanical Propertiesâ€™ Evaluation of Duplex-Treated Ti-6Al-4V Alloy Using Nanoindentation. <i>Arabian Journal for Science and Engineering</i> , 2012, 37, 735-748.	1.1	3
83	Effect of Copper Nanoparticle on the High-Temperature Tensile Behavior of a Mgâ€™ O_3 Nanocomposite. <i>Arabian Journal for Science and Engineering</i> , 2018, 43, 4803-4810.	3.0	3
84	Mobility of A Water Droplet on Liquid Phase of N-Octadecane Coated Hydrophobic Surface. <i>Scientific Reports</i> , 2018, 8, 15060.	3.3	3
85	Manufacture of microporous ceramic layer by suspensionâ€™sedimentation for filtration applications. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2013, 227, 1032-1038.	2.4	2
86	Comparison of Corrosion Behavior of Electrochemically Deposited Nano-Cobalt-Coated Ni Sheet. <i>Journal of Chemistry</i> , 2013, 2013, 1-6.	1.9	2
87	Mg6Zn0.4Ca0.5Cu alloy: Physically blended microalloyed lightweight alloy with significantly high strength and ductility. <i>Journal of Alloys and Compounds</i> , 2019, 787, 1015-1022.	5.5	2
88	Effect of Consolidation Mechanism on the Properties of Nanostructured WC-6, 9, 12 wt%Co Hardmetals. , 2011, , .		0