Mitun Das

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8298745/publications.pdf

Version: 2024-02-01

70	2,730	159585 30	189892 50
papers	citations	h-index	g-index

71	71	71	2453
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Directed energy deposition (DED) additive manufacturing: Physical characteristics, defects, challenges and applications. Materials Today, 2021, 49, 271-295.	14.2	351
2	Laser processing of SiC-particle-reinforced coating on titanium. Scripta Materialia, 2010, 63, 438-441.	5.2	191
3	In situ synthesized TiBâ€“TiN reinforced Ti6Al4V alloy composite coatings: Microstructure, tribological and in-vitro biocompatibility. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 29, 259-271.	3.1	111
4	Laser processing of in situ synthesized TiBâ€“TiN-reinforced Ti6Al4V alloy coatings. Scripta Materialia, 2012, 66, 578-581.	5.2	99
5	Synthesis of hydroxyapatite from Lates calcarifer fish bone for biomedical applications. Materials Letters, 2017, 203, 89-92.	2.6	95
6	Mechanical, wear, corrosion and biological properties of arc deposited titanium nitride coatings. Surface and Coatings Technology, 2018, 344, 214-222.	4.8	91
7	Microstructure and corrosion behavior of laser processed NiTi alloy. Materials Science and Engineering C, 2015, 57, 309-313.	7.3	89
8	Effect of hydroxyapatite particle size, morphology and crystallinity on proliferation of colon cancer HCT116 cells. Materials Science and Engineering C, 2014, 39, 336-339.	7.3	83
9	Carbothermal synthesis of boron nitride coating on PAN carbon fiber. Journal of the European Ceramic Society, 2009, 29, 2129-2134.	5.7	82
10	Laser-based directed energy deposition (DED-LB) of advanced materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 840, 142967.	5.6	82
11	Effect of heat treatment on microstructure, corrosion, and shape memory characteristics of laser deposited NiTi alloy. Journal of Alloys and Compounds, 2018, 744, 337-346.	5.5	75
12	Effect of trace elements on the sintering effect of fish scale derived hydroxyapatite and its bioactivity. Ceramics International, 2017, 43, 15678-15684.	4.8	72
13	Additive Manufacturing of Co-Cr-Mo Alloy: Influence of Heat Treatment on Microstructure, Tribological, and Electrochemical Properties. Frontiers in Mechanical Engineering, 2015, 1, .	1.8	60
14	Additive Manufacturing of Î³â€²-TiAl: Processing, Microstructure, and Properties. Advanced Engineering Materials, 2016, 18, 1208-1215.	3.5	58
15	Microstructure, mechanical and wear properties of laser processed SiC particle reinforced coatings on titanium. Surface and Coatings Technology, 2011, 205, 4366-4373.	4.8	57
16	Laser surface melting of Mg-Zn-Dy alloy for better wettability and corrosion resistance for biodegradable implant applications. Applied Surface Science, 2019, 480, 70-82.	6.1	57
17	Effect of heat treatment on microstructure, mechanical, corrosion and biocompatibility of Mg-Zn-Zr-Gd-Nd alloy. Journal of Alloys and Compounds, 2020, 821, 153462.	5.5	55
18	Microstructural characterization of amorphous and nanocrystalline boron nitride prepared by high-energy ball milling. Materials Research Bulletin, 2008, 43, 1023-1031.	5.2	54

#	Article	IF	Citations
19	Laser surface modification of 316L stainless steel with bioactive hydroxyapatite. Materials Science and Engineering C, 2013, 33, 4594-4598.	7.3	52
20	Microstructure â€“ Property correlations for additively manufactured NiTi based shape memory alloys. Materialia, 2019, 8, 100456.	2.7	50
21	Fabrication of Biomedical Implants using Laser Engineered Net Shaping (LENSâ„¢). Transactions of the Indian Ceramic Society, 2013, 72, 169-174.	1.0	46
22	Mechanochemical synthesis of nanocrystalline hydroxyapatite from Mercenaria clam shells and phosphoric acid. Biomedical Physics and Engineering Express, 2017, 3, 015010.	1.2	44
23	Surface design of Mg-Zn alloy temporary orthopaedic implants: Tailoring wettability and biodegradability using laser surface melting. Surface and Coatings Technology, 2018, 347, 337-349.	4.8	43
24	Strontium doped hydroxyapatite from Mercenaria clam shells: Synthesis, mechanical and bioactivity study. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 90, 328-336.	3.1	43
25	Current advances in enhancement of wear and corrosion resistance of titanium alloys â€“ a review. Materials Technology, 2016, 31, 696-704.	3.0	42
26	Nano- and micro-tribological behaviours of plasma nitrided Ti6Al4V alloys. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 77, 267-294.	3.1	40
27	Laser-deposited CoCrMo alloy: Microstructure, wear, and electrochemical properties. Journal of Materials Research, 2014, 29, 2021-2027.	2.6	39
28	Laser surface modification of 316L stainless steel. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 569-577.	3.4	35
29	Effect of fluorine substitution on sintering behaviour, mechanical and bioactivity of hydroxyapatite. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 95, 136-142.	3.1	33
30	Understanding compressive deformation behavior of porous Ti using finite element analysis. Materials Science and Engineering C, 2016, 64, 436-443.	7.3	32
31	Tribological, electrochemical and in vitro biocompatibility properties of SiC reinforced composite coatings. Materials and Design, 2016, 95, 510-517.	7.0	32
32	Wear and corrosion properties of in-situ grown zirconium nitride layers for implant applications. Surface and Coatings Technology, 2018, 334, 357-364.	4.8	29
33	In vitro and in vivo degradation assessment and preventive measures of biodegradable Mg alloys for biomedical applications. Journal of Biomedical Materials Research - Part A, 2022, 110, 462-487.	4.0	29
34	Fluorine substituted nano hydroxyapatite: Synthesis, bio-activity and antibacterial response study. Ceramics International, 2018, 44, 22008-22013.	4.8	28
35	New Mg-Ca-Zn amorphous alloys: Biocompatibility, wettability and mechanical properties. Materialia, 2020, 12, 100799.	2.7	26
36	Nanotribological response of a plasma nitrided bio-steel. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 65, 584-599.	3.1	23

#	Article	IF	Citations
37	Effect of activation on boron nitride coating on carbon fiber. Ceramics International, 2010, 36, 2511-2514.	4.8	22
38	Phase pure, high hardness, biocompatible calcium silicates with excellent anti-bacterial and biofilm inhibition efficacies for endodontic and orthopaedic applications. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 86, 264-283.	3.1	20
39	In vitro tribological and biocompatibility evaluation of sintered silicon nitride. Materials Letters, 2018, 212, 130-133.	2.6	19
40	Laser melting of titanium-diamond composites: Microstructure and mechanical behavior study. Materials Letters, 2016, 178, 284-287.	2.6	18
41	In vitro wear, corrosion and biocompatibility of electron beam melted Î³-TiAl. Materials and Design, 2017, 133, 186-194.	7.0	18
42	Synthesis of boron nitride from boron containing poly(vinyl alcohol) as ceramic precursor. Bulletin of Materials Science, 2012, 35, 99-102.	1.7	16
43	Effect of zinc and rare-earth element addition on mechanical, corrosion, and biological properties of magnesium. Journal of Materials Research, 2018, 33, 3466-3478.	2.6	16
44	Tribo-mechanical characterization of spark plasma sintered chopped carbon fibre reinforced silicon carbide composites. Ceramics International, 2016, 42, 18283-18288.	4.8	15
45	Plasma-Sprayed Ti6Al4V Alloy Composite Coatings Reinforced with In Situ Formed TiB-TiN. Journal of Thermal Spray Technology, 2017, 26, 2013-2019.	3.1	15
46	Synthesis, characterization and in vitro biocompatibility study of strontium titanate ceramic: A potential biomaterial. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 102, 103494.	3.1	15
47	In vitro biocompatibility and degradation assessment of tantalum oxide coated Mg alloy as biodegradable implants. Journal of Alloys and Compounds, 2022, 905, 164272.	5.5	15
48	Bio-tribological response of duplex surface engineered SS316L for hip-implant application. Applied Surface Science, 2020, 507, 145009.	6.1	12
49	Severe wear behaviour of alumina balls sliding against diamond ceramic coatings. Bulletin of Materials Science, 2016, 39, 573-586.	1.7	10
50	Thermally oxidized electron beam melted Î³-TiAl: In vitro wear, corrosion, and biocompatibility properties. Journal of Materials Research, 2018, 33, 2096-2105.	2.6	10
51	Synthesis, characterization, and bioactivity of SrTiO₃-incorporated titanium coating. Journal of Materials Research, 2018, 33, 2087-2095.	2.6	10
52	Laser processing of Ti composite coatings reinforced with hydroxyapatite and bioglass. Additive Manufacturing, 2018, 20, 134-143.	3.0	9
53	Biocompatibility and corrosion evaluation of niobium oxide coated AZ31B alloy for biodegradable implants. Colloids and Surfaces B: Biointerfaces, 2022, 212, 112342.	5.0	9
54	Synthesis of new glassy Mg-Ca-Zn alloys with exceptionally low Young's Modulus: Exploring near eutectic compositions. Scripta Materialia, 2019, 173, 139-143.	5.2	7

#	Article	IF	Citations
55	Spark plasma sintering of Ti-diamond composites. Ceramics International, 2019, 45, 11281-11286.	4.8	6
56	Surface engineering of LENS-Ti-6Al-4V to obtain nano- and micro-surface topography for orthopedic application. Nanomedicine: Nanotechnology, Biology, and Medicine, 2019, 18, 157-168.	3.3	5
57	Hydrogel-integrated 3D-printed poly(lactic acid) scaffolds for bone tissue engineering. Journal of Materials Research, 2021, 36, 3833-3842.	2.6	5
58	Site-specific microstructure, porosity and mechanical properties of LENSâ„¢ processed Tiâ€“6Alâ€“4V alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 820, 141494.	5.6	5
59	Laser surface modification of Mg-Zn-Gd alloy: microstructural, wettability and in vitro degradation aspects. Materials Research Express, 2018, 5, 126502.	1.6	4
60	Biological performance of metal metalloid (TiCuZrPd:B) TFMG fabricated by pulsed laser deposition. Colloids and Surfaces B: Biointerfaces, 2021, 202, 111684.	5.0	4
61	Two-Step Electrochemical Pretreatment and Electrodeposition of Silver on Stainless Steel. Journal of the Electrochemical Society, 2017, 164, D463-D468.	2.9	3
62	Biointegration of three-dimensionalâ€“printed biomaterials and biomedical devices. , 2020, , 433-482.		3
63	An investigation on electro discharge micro-drilling of SiC-20% BN composite. International Journal of Materials and Structural Integrity, 2011, 5, 348.	0.1	2
64	Degradation, wettability and surface characteristics of laser surface modified Mgâ€“Znâ€“Gdâ€“Nd alloy. Journal of Materials Science: Materials in Medicine, 2020, 31, 42.	3.6	2
65	Microstructure and properties of parts manufactured by directed energy deposition of water-atomized low-alloy steel powders. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 814, 141232.	5.6	2
66	Articulating Biomaterials. Advances in Chemical and Materials Engineering Book Series, 2015, , 218-267.	0.3	2
67	Investigation on the effect of spark gap in dry Âµ-electro discharge machining of SiC-10BN nano-composite. International Journal of Manufacturing Technology and Management, 2011, 24, 71.	0.1	1
68	Tribocorrosion characteristics of Ti6Al4V-TiB-TiN in-situ composite coatings prepared using plasma spraying. Journal of Composite Materials, 2021, 55, 1935-1946.	2.4	1
69	Microstructure, mechanical, in vitro corrosion and biocompatibility response study of as-cast and as-rolled Mgâ€“5Znâ€“0.5Zr alloy. MRS Advances, 2021, 6, 472-476.	0.9	1
70	Articulating Biomaterials. , 2018, , 859-910.		0