

# Ravikumar Dumpala

## List of Publications by Year in descending order

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Version: 2024-02-01

75  
papers

929  
citations

471061

17  
h-index

500791

28  
g-index

80  
all docs

80  
docs citations

80  
times ranked

630  
citing authors

#	ARTICLE	IF	CITATIONS
1	Magnesium based surface metal matrix composites by friction stir processing. Journal of Magnesium and Alloys, 2016, 4, 52-61.	5.5	130
2	Growth and characterization of integrated nano- and microcrystalline dual layer composite diamond coatings on WC-Co substrates. International Journal of Refractory Metals and Hard Materials, 2013, 37, 127-133.	1.7	55
3	Influence of heat treatment on the machinability and corrosion behavior of AZ91 Mg alloy. Journal of Magnesium and Alloys, 2018, 6, 52-58.	5.5	53
4	An investigation on the hardness and corrosion behavior of MWCNT/Mg composites and grain refined Mg. Journal of Magnesium and Alloys, 2018, 6, 83-89.	5.5	48
5	Adhesion characteristics of nano- and micro-crystalline diamond coatings: Raman stress mapping of the scratch tracks. Diamond and Related Materials, 2014, 44, 71-77.	1.8	47
6	Carbide-based thermal spray coatings: A review on performance characteristics and post-treatment. International Journal of Refractory Metals and Hard Materials, 2022, 103, 105772.	1.7	44
7	Machining characteristics of fine grained AZ91 Mg alloy processed by friction stir processing. Transactions of Nonferrous Metals Society of China, 2017, 27, 804-811.	1.7	42
8	Joining of AZ91 Mg alloy and Al6063 alloy sheets by friction stir welding. Journal of Magnesium and Alloys, 2018, 6, 71-76.	5.5	42
9	Engineered CVD Diamond Coatings for Machining and Tribological Applications. Jom, 2015, 67, 1565-1577.	0.9	33
10	Machining Characteristics and Corrosion Behavior of Grain Refined AZ91 Mg Alloy Produced by Friction Stir Processing: Role of Tool Pin Profile. Transactions of the Indian Institute of Metals, 2018, 71, 951-959.	0.7	30
11	Graded composite diamond coatings with top-layer nanocrystallinity and interfacial integrity: Cross-sectional Raman mapping. Applied Surface Science, 2014, 289, 545-550.	3.1	28
12	High wear performance of the dual-layer graded composite diamond coated cutting tools. International Journal of Refractory Metals and Hard Materials, 2015, 48, 24-30.	1.7	28
13	Microstructure and phase composition dependent tribological properties of TiC/a-C nanocomposite thin films. Surface and Coatings Technology, 2014, 258, 557-565.	2.2	24
14	Microstructure, hardness and wear behavior of AZ31 Mg alloy fly ash composites produced by friction stir processing. Materials Today: Proceedings, 2017, 4, 6671-6677.	0.9	23
15	Hardness and sliding wear characteristics of AA7075-T6 surface composites reinforced with B <sub>4</sub> C and MoS <sub>2</sub> particles. Materials Research Express, 2019, 6, 086589.	0.8	23
16	Magnesium/fish bone derived hydroxyapatite composites by friction stir processing: studies on mechanical behaviour and corrosion resistance. Bulletin of Materials Science, 2019, 42, 1.	0.8	22
17	Nanocrystalline diamond coatings on the interior of WC-Co dies for drawing carbon steel tubes: Enhancement of tube properties. Diamond and Related Materials, 2014, 50, 33-37.	1.8	21
18	Crashworthiness analysis of multi-configuration thin walled co-axial frusta tube structures under quasi-static loading. Thin-Walled Structures, 2020, 154, 106872.	2.7	20

#	ARTICLE	IF	CITATIONS
19	Machining characteristics, wear and corrosion behavior of AZ91 magnesium alloy fly ash composites produced by friction stir processing. <i>Materialwissenschaft Und Werkstofftechnik</i> , 2021, 52, 88-99.	0.5	20
20	Extremely high wear resistance and ultra-low friction behaviour of oxygen-plasma-treated nanocrystalline diamond films. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 425304.	1.3	17
21	Sliding wear behavior of AZ91/B <sub>4</sub> C surface composites produced by friction stir processing. <i>Materials Research Express</i> , 2020, 7, 016586.	0.8	15
22	Review of the crushing response of collapsible tubular structures. <i>Frontiers of Mechanical Engineering</i> , 2020, 15, 438-474.	2.5	14
23	Synthesis, characterization, and antimicrobial properties of strontium-substituted hydroxyapatite. <i>Journal of the Australian Ceramic Society</i> , 2021, 57, 195-204.	1.1	11
24	Effect of heat treatment on the hardness and wear characteristics of NiCrBSi laser clad deposited on AISI410 stainless steel. <i>Materials Research Express</i> , 2019, 6, 086524.	0.8	8
25	Developing Mg-Zn surface alloy by friction surface alloying: In vitro degradation studies in simulated body fluids. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2020, 27, 962-969.	2.4	8
26	Effect of cut-outs on the axial crushing response of cap and open-end hybrid frusta tube. <i>Materials Today: Proceedings</i> , 2020, 28, 2539-2546.	0.9	8
27	Effect of heat treatment on the temperature dependent wear characteristics of electroless Ni-P-BN(h) composite coatings. <i>SN Applied Sciences</i> , 2020, 2, 1.	1.5	7
28	Effect of heat treatment environment on the structural characteristics and microhardness of high velocity oxygen fuel sprayed tungsten carbide-cobalt coatings. <i>Materialwissenschaft Und Werkstofftechnik</i> , 2021, 52, 1346-1354.	0.5	7
29	Effect of eccentric loading on energy absorbing circular cap and open end frusta tube structures. <i>Vacuum</i> , 2019, 166, 356-363.	1.6	6
30	Effect of cryogenic treatment duration on the microhardness and tribological behavior of 40CrMoV5 tool steel. <i>Materials Today: Proceedings</i> , 2021, 38, 2140-2144.	0.9	6
31	Parameter optimization during single roller burnishing of AA6061-T6 alloy by design of experiments. <i>Materials Today: Proceedings</i> , 2022, 50, 1967-1970.	0.9	6
32	Overcoming friction and steps towards superlubricity: A review of underlying mechanisms. <i>Applied Surface Science Advances</i> , 2021, 6, 100175.	2.9	6
33	Sliding wear characteristics of as-deposited and heat-treated electroless Ni-P coatings against AISI E52100 steel ball. <i>Materials Research Express</i> , 2019, 6, 036401.	0.8	5
34	Magnesium-Based Composites for Degradable Implant Applications. , 2021, , 770-780.		5
35	Effect of heat treatment on microstructure, microhardness and corrosion resistance of ZE41 Mg alloy. <i>Koroze A Ochrana Materialu</i> , 2019, 63, 79-85.	0.4	5
36	Characterization of tribo-layer formed during sliding wear of SiC ball against nanocrystalline diamond coatings. <i>Materials Characterization</i> , 2014, 95, 252-258.	1.9	4

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37	Zinc-Substituted Hydroxyapatite: Synthesis, Structural Analysis, and Antimicrobial Behavior. Transactions of the Indian Institute of Metals, 2021, 74, 2335-2344.	0.7	4
38	Investigation on the role of microstructure and temperature on tribological characteristics of fine-grained ZE41 Mg alloy. Tribology - Materials, Surfaces and Interfaces, 2022, 16, 68-75.	0.6	4
39	Developing Zn-MgO composites for degradable implant applications by powder metallurgy route. Materials Letters, 2021, 302, 130433.	1.3	4
40	Fracture toughness and fatigue behavior of spider silk and S-glass epoxy composites: An FEM approach. Materials Today: Proceedings, 2018, 5, 2627-2634.	0.9	3
41	Effects of inert gas environment on the sliding wear behavior of AZ91/B <sub>4</sub> C surface composites. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2022, 236, 1880-1888.	1.0	3
42	Developing composites of zinc and hydroxyapatite for degradable orthopedic implant applications. IOP Conference Series: Materials Science and Engineering, 2021, 1116, 012002.	0.3	3
43	Effect of Crack Angle on Stress Shielding in Bone and Orthopedic Fixing Plate Implant: Design and Simulation. Lecture Notes in Mechanical Engineering, 2021, , 785-792.	0.3	3
44	Investigation on the Structural and Wear Characteristics of Mg AZ91/Fly Ash Surface Composites Fabricated by Friction Stir Processing. Lecture Notes on Multidisciplinary Industrial Engineering, 2019, , 703-710.	0.4	3
45	Solid state surface deposition by friction surfacing: A review. IOP Conference Series: Materials Science and Engineering, 2021, 1185, 012013.	0.3	3
46	Producing High Wetttable Surface on Pure Titanium Sheets by Shot Peening for Bone Implant Applications. Biointerface Research in Applied Chemistry, 2021, 12, 5745-5752.	1.0	3
47	Teaching of mechanical engineering concepts through three-dimensional geometric modeling. International Journal of Mechanical Engineering Education, 2015, 43, 180-190.	0.6	2
48	Fabrication of AA1050/B4C surface composite by friction Stir processing (FSP) and investigation on mechanical and wear characteristics. IOP Conference Series: Materials Science and Engineering, 2018, 402, 012128.	0.3	2
49	Tribological and Morphological Evaluation of Ni-P and Ni-P/D Coatings. Materials Science Forum, 0, 969, 73-79.	0.3	2
50	Microhardness and frictional characteristics of cryogenically treated carbide coatings. Materials Today: Proceedings, 2021, 47, 3112-3116.	0.9	2
51	Reciprocating sliding wear behavior of the heat-treated WC-12Co coatings. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2023, 237, 798-807.	1.0	2
52	Analysis of anisotropy in the upsetting process of AA2014 cast alloy embedded with fly ash. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2020, 234, 2833-2841.	1.1	1
53	Zinc-calcium silicate composites produced by ball milling and sintering for degradable implant applications. Materials Today: Proceedings, 2021, 44, 1584-1588.	0.9	1
54	Role of plunge depth on the joint formation and mechanical behavior of Al6063&AZ91 dissimilar lap joint produced by friction stir welding. Materialwissenschaft Und Werkstofftechnik, 2021, 52, 111-121.	0.5	1

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55	Surface Composites by Friction Stir Processing. , 2021, , 758-769.		1
56	Multiobjective optimization of performance characteristics in turning of AZ91 Mg alloy using grey relational analysis. Materials Today: Proceedings, 2021, 42, 642-649.	0.9	1
57	Friction and wear behaviour of BN(h) and Ag incorporated nickel phosphorous coatings under dry reciprocating sliding conditions. Tribology - Materials, Surfaces and Interfaces, 2022, 16, 23-33.	0.6	1
58	Experimental and numerical analysis of orthogonal cutting of high strength aluminium alloy Al7075-T6. IOP Conference Series: Materials Science and Engineering, 2021, 1185, 012010.	0.3	1
59	Effect of Friction Stir Processing on the Sliding Wear Characteristics of AZ91 Mg Alloy. Lecture Notes in Mechanical Engineering, 2021, , 663-669.	0.3	1
60	Role of heat treatment on machining characteristics and surface roughness of AZ91 Mg alloy. Materials Today: Proceedings, 2021, 50, 2488-2488.	0.9	1
61	Low-velocity impact response of layered frusta tube structures. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2022, 44, 1.	0.8	1
62	Numerical evaluation of the residual stresses in shot peening of alloy steels. Engineering Research Express, 2021, 3, 045059.	0.8	1
63	Optimization of cutting for surface finish obtained using uncoated and diamond coated carbide end mills. IOP Conference Series: Materials Science and Engineering, 2018, 402, 012127.	0.3	0
64	Predicting nanoindentation behaviour of Ni-P coatings using finite element analysis. IOP Conference Series: Materials Science and Engineering, 2018, 402, 012004.	0.3	0
65	Role of microstructure on the degradation behaviour of friction stir processed AZ series Mg alloys assessed in simulated physiological solutions. IOP Conference Series: Materials Science and Engineering, 2019, 653, 012025.	0.3	0
66	Effect of heat treatment on mechanical and tribological characteristics of Electroless Ni-P deposits. Journal of Physics: Conference Series, 2019, 1355, 012032.	0.3	0
67	Effect of laser power on microhardness of NiCrBSi laser clads deposited on AISI410 stainless steel. Journal of Physics: Conference Series, 2019, 1355, 012043.	0.3	0
68	Study on Effect of Tool Overhang on Machining Characteristics of Al 7075-T6 in Orthogonal Turning Process. Materials Science Forum, 0, 969, 870-875.	0.3	0
69	Assessment of sludge formation in diesel storage tanks and eradication measures. IOP Conference Series: Materials Science and Engineering, 2021, 1185, 012006.	0.3	0
70	Bioactive titanium composites for bone implant applications. IOP Conference Series: Materials Science and Engineering, 2021, 1185, 012032.	0.3	0
71	Teaching of mechanical engineering concepts through 3D geometric modeling. International Journal of Mechanical Engineering Education, 0, , 030641901771772.	0.6	0
72	Microstructure, Microhardness and Machining Characteristics of Al6063-SiC Composites. SSRN Electronic Journal, 0, , .	0.4	0

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73	Dissimilar Lap Joint of Al6063 & AZ91 Mg Alloy by Friction Stir Welding. SSRN Electronic Journal, 0, , .	0.4	0
74	Assessing the Effect of Altering Secondary Phase in Friction Stir Processed AZ91 Mg Alloy by Solution Heat Treatment. SSRN Electronic Journal, 0, , .	0.4	0
75	Machining characteristics of Al6063 composites reinforced with SiC particles. Materials Today: Proceedings, 2021, , .	0.9	0