

# Gururaj Parande

## List of Publications by Year in descending order

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64  
papers

1,788  
citations

226546

25  
h-index

274767

41  
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64  
all docs

64  
docs citations

64  
times ranked

1426  
citing authors

#	ARTICLE	IF	CITATIONS
1	Selective Laser Melting of Magnesium and Magnesium Alloy Powders: A Review. <i>Metals</i> , 2017, 7, 2.	2.4	179
2	Enhanced performance of nano-sized SiC reinforced Al metal matrix nanocomposites synthesized through microwave sintering and hot extrusion techniques. <i>Progress in Natural Science: Materials International</i> , 2017, 27, 606-614.	4.5	147
3	Effect of reinforcement concentration on the properties of hot extruded Al-Al <sub>2</sub> O <sub>3</sub> composites synthesized through microwave sintering process. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 696, 60-69.	5.6	114
4	Enhancing compressive, tensile, thermal and damping response of pure Al using BN nanoparticles. <i>Journal of Alloys and Compounds</i> , 2018, 762, 398-408.	5.7	74
5	Structural, mechanical and thermal characteristics of Al-Cu-Li particle reinforced Al-matrix composites synthesized by microwave sintering and hot extrusion. <i>Composites Part B: Engineering</i> , 2019, 164, 485-492.	12.1	69
6	Enhancing the hardness/compression/damping response of magnesium by reinforcing with biocompatible silica nanoparticulates. <i>International Journal of Materials Research</i> , 2016, 107, 1091-1099.	0.4	67
7	Dry sliding wear of epoxy/cenosphere syntactic foams. <i>Tribology International</i> , 2015, 92, 425-438.	6.1	66
8	Investigation on dry sliding wear behavior of Mg/BN nanocomposites. <i>Journal of Magnesium and Alloys</i> , 2018, 6, 263-276.	13.1	61
9	Strength retention, corrosion control and biocompatibility of Mg-Zn-Si/HA nanocomposites. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 103, 103584.	3.1	56
10	A study on the effect of low-cost eggshell reinforcement on the immersion, damping and mechanical properties of magnesium-zinc alloy. <i>Composites Part B: Engineering</i> , 2020, 182, 107650.	12.1	56
11	Improved properties of Al-Si <sub>3</sub> N <sub>4</sub> nanocomposites fabricated through a microwave sintering and hot extrusion process. <i>RSC Advances</i> , 2017, 7, 34401-34410.	3.7	54
12	Significantly Enhancing the Ignition/Compression/Damping Response of Monolithic Magnesium by Addition of Sm <sub>2</sub> O <sub>3</sub> Nanoparticles. <i>Metals</i> , 2017, 7, 357.	2.4	53
13	Lanthanum effect on improving CTE, damping, hardness and tensile response of Mg-3Al alloy. <i>Journal of Alloys and Compounds</i> , 2017, 695, 3612-3620.	5.7	51
14	Enhancing the Ignition, Hardness and Compressive Response of Magnesium by Reinforcing with Hollow Glass Microballoons. <i>Materials</i> , 2017, 10, 997.	3.0	51
15	Enhancement of thermal, mechanical, ignition and damping response of magnesium using nano-ceria particles. <i>Ceramics International</i> , 2018, 44, 15035-15043.	4.9	50
16	Evaluation of wear resistance of magnesium/glass microballoon syntactic foams for engineering/biomedical applications. <i>Ceramics International</i> , 2019, 45, 9302-9305.	4.9	47
17	The Potential of Magnesium Based Materials in Mandibular Reconstruction. <i>Metals</i> , 2019, 9, 302.	2.4	45
18	Enhancing Mechanical Response of Monolithic Magnesium Using Nano-NiTi (Nitinol) Particles. <i>Metals</i> , 2018, 8, 1014.	2.4	42

#	ARTICLE	IF	CITATIONS
19	Significantly enhancing the strength&+ ductility combination of Mg-9Al alloy using multi-walled carbon nanotubes. Journal of Alloys and Compounds, 2019, 790, 974-982.	5.7	39
20	Enhancing the tensile and ignition response of monolithic magnesium by reinforcing with silica nanoparticles. Journal of Materials Research, 2017, 32, 2169-2178.	2.6	37
21	Using B4C Nanoparticles to Enhance Thermal and Mechanical Response of Aluminum. Materials, 2017, 10, 621.	3.0	36
22	Development of rare-earth oxide reinforced magnesium nanocomposites for orthopaedic applications: A mechanical/immersion/biocompatibility perspective. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 114, 104162.	3.1	35
23	Utilizing Low&€Cost Eggshell Particles to Enhance the Mechanical Response of Mg&€2.5Zn Magnesium Alloy Matrix. Advanced Engineering Materials, 2018, 20, 1700919.	3.5	33
24	Magnesium- <sup>12</sup> -Tricalcium Phosphate Composites as a Potential Orthopedic Implant: A Mechanical/Damping/Immersion Perspective. Metals, 2018, 8, 343.	2.4	33
25	Using lanthanum to enhance the overall ignition, hardness, tensile and compressive strengths of Mg-0.5Zr alloy. Journal of Rare Earths, 2017, 35, 723-732.	4.9	26
26	Hollow silica reinforced magnesium nanocomposites with enhanced mechanical and biological properties with computational modeling analysis for mandibular reconstruction. International Journal of Oral Science, 2020, 12, 31.	8.7	24
27	Enhancing the Hardness and Compressive Response of Magnesium Using Complex Composition Alloy Reinforcement. Metals, 2018, 8, 276.	2.4	20
28	Synthesis and Mechanical Response of NiTi SMA Nanoparticle Reinforced Mg Composites Synthesized through Microwave Sintering Process. Materials Today: Proceedings, 2018, 5, 28203-28210.	1.9	18
29	A new method to lightweight and improve strength to weight ratio of magnesium by creating a controlled defect. Journal of Materials Research and Technology, 2020, 9, 3664-3675.	5.9	18
30	Development of Lightweight Magnesium/Glass Micro Balloon Syntactic Foams Using Microwave Approach with Superior Thermal and Mechanical Properties. Metals, 2021, 11, 827.	2.4	16
31	Improving Mechanical, Thermal and Damping Properties of NiTi (Nitinol) Reinforced Aluminum Nanocomposites. Journal of Composites Science, 2020, 4, 19.	3.1	15
32	Effect of samarium oxide nanoparticles on degradation and invitro biocompatibility of magnesium. Materials Today Communications, 2021, 26, 102171.	2.0	14
33	Interfacial characterization and its influence on the corrosion behavior of Mg-SiO2 nanocomposites. Acta Materialia, 2022, 230, 117840.	8.0	13
34	In-Vitro Degradation of Hollow Silica Reinforced Magnesium Syntactic Foams in Different Simulated Body Fluids for Biomedical Applications. Metals, 2020, 10, 1583.	2.4	12
35	A Novel Method of Light Weighting Aluminium Using Magnesium Syntactic Composite Core. Crystals, 2020, 10, 917.	2.3	12
36	Using low-temperature sinterless powder method to develop exceptionally high amount of zinc containing Mg&€Zn&€Ca alloy and Mg&€Zn&€Ca/SiO2 nanocomposite. Journal of Alloys and Compounds, 2021, 853, 156957.	5.7	12

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37	Improving the friction and wear characteristics of AZ31 alloy with the addition of Al <sub>2</sub> O <sub>3</sub> nanoparticles. Materials Research Express, 2019, 6, 126505.	1.7	11
38	Enhancing significantly the damping response of Mg using hollow glass microspheres while simultaneously reducing weight. Advanced Materials Letters, 2017, 8, 1171-1177.	0.7	11
39	Microstructure and Mechanical Behavior of Hot Extruded Aluminum/Tin-Bismuth Composites Produced by Powder Metallurgy. Applied Sciences (Switzerland), 2020, 10, 2812.	2.6	10
40	A New Method to Lightweight Magnesium Using Syntactic Composite Core. Applied Sciences (Switzerland), 2020, 10, 4773.	2.6	9
41	Compositional Tailoring of Mg-2Zn-1Ca Alloy Using Manganese to Enhance Compression Response and In-Vitro Degradation. Materials, 2022, 15, 810.	3.0	9
42	Enhancing the Physical, Thermal, and Mechanical Responses of a Mg/2wt.%CeO <sub>2</sub> Nanocomposite Using Deep Cryogenic Treatment. Metals, 2023, 13, 660.	2.4	6
43	Bioresorbable Nano-Hydroxyapatite Reinforced Magnesium Alloplastic Bone Substitute for Biomedical Applications: A Study. Minerals, Metals and Materials Series, 2019, , 71-82.	0.0	5
44	An Investigation into the Effect of Length Scale (Nano to Micron) of Cerium Oxide Particles on the Mechanical and Flammability Response of Magnesium. Journal of Materials Engineering and Performance, 2023, 32, 2710-2722.	2.4	5
45	Drill Hole Orientation: Its Role and Importance on the Compression Response of Pure Magnesium. Applied Sciences (Switzerland), 2020, 10, 7047.	2.6	3
46	Studies on surface morphology of under liquid laser ablated magnesium alloy. Materials Today: Proceedings, 2021, 46, 1071-1076.	1.9	3
47	Comparison of Shallow (~20 °C) and Deep Cryogenic Treatment (~196 °C) to Enhance the Properties of a Mg/2wt.%CeO <sub>2</sub> Nanocomposite. Technologies, 2024, 12, 14.	5.3	3
48	Tensile Response of Al-Based Nanocomposites. , 2021, , 313-324.		2
49	Machining of Y <sub>2</sub> O <sub>3</sub> reinforced magnesium rare earth alloys using wire electrical discharge turning process. Machining Science and Technology, 2022, 26, 160-182.	2.6	2
50	An experimental investigation on the influence of hybrid turning induced deformation parameters on the properties of Mg-Zn-Sr-Dy alloy. Journal of Materials Processing Technology, 2023, 312, 117845.	6.4	2
51	Effect of Varying Hot Extrusion Temperatures on the Properties of a Sinterless Turning Induced Deformation Processed Eco-Friendly Mg-Zn-Ca Alloy. Crystals, 2023, 13, 3.	2.3	2
52	Influence of Laser Treatment Medium on the Surface Topography Characteristics of Laser Surface-Modified Resorbable Mg <sub>3</sub> Zn Alloy and Mg <sub>3</sub> Zn <sub>1</sub> HA Nanocomposite. Metals, 2023, 13, 850.	2.4	2
53	The Mechanical and Thermal Response of Shape Memory Alloy-Reinforced Aluminum Nanocomposites. Minerals, Metals and Materials Series, 2019, , 51-62.	0.0	1
54	Metal Matrix Syntactic Composites. , 2021, , 109-120.		1

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55	Eco-friendly Metal Matrix Composites. , 2021, , 140-159.		1
56	Development of Eco-Magnesium Based Composite with Enhanced Mechanical, Damping and Ignition Properties. Recent Patents on Engineering, 2021, 14, 348-356.	0.4	1
57	An Insight into Use of Hollow Fly Ash Particles on The Properties of Magnesium. , 2016, , 175-176.		1
58	An Insight Into Use of Hollow Fly Ash Particles on the Properties of Magnesium. , 2016, , 175-176.		1
59	Processing, microstructure and mechanical response of a shell (Magnesium) â€œ Core (Magnesium+Lithium) hybrid composite. Materials Today: Proceedings, 2022, , .	1.9	1
60	An Investigation into the Effect of Length Scale of Reinforcement on the Cryogenic Response of a Mg/2wt.%CeO2 Composite. Micro, 2024, 4, 170-184.	2.0	1
61	Role of Rare Earth Oxide Reinforcements in Enhancing the Mechanical, Damping and Ignition Resistance of Magnesium. Minerals, Metals and Materials Series, 2019, , 115-124.	0.0	0
62	Study of In Vitro Biodegradation Behavior of Mgâ€œ2.5Znâ€œxES Composite. Minerals, Metals and Materials Series, 2020, , 253-258.	0.0	0
63	Tribological Response of Magnesium/Glass Microballoon Syntactic Foams. Minerals, Metals and Materials Series, 2022, , 311-320.	0.0	0
64	Scope of magnesium ceria nanocomposites for mandibular reconstruction: Degradation and biomechanical evaluation using a 3-dimensional finite element analysis approach. Journal of the Mechanical Behavior of Biomedical Materials, 2024, 152, 106424.	3.1	0