

Natarajan Selvakumar

List of Publications by Year in descending order

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Version: 2024-02-01

107
papers

3,301
citations

159585

30
h-index

161849

54
g-index

108
all docs

108
docs citations

108
times ranked

2829
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental investigation of mechanical and wear behaviour of Cu-V2O5-Gr(L) reinforced composites. <i>Materials Letters</i> , 2022, 306, 130925.	2.6	3
2	Deep learning-based supervised and unsupervised neural networks for analysing the characteristics of powder composite preforms. <i>International Journal of Modelling and Simulation</i> , 2021, 41, 451-462.	3.3	0
3	Enhancing the mechanical, wear behaviour of copper matrix composite with 2V-Gr as reinforcement. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , 2021, 235, 1405-1419.	1.8	11
4	A Novel Ultrasonic based NDT for smart analysis of material defects using IoT. , 2021, , .		1
5	Development of patient specific dental implant using 3D printing. <i>Journal of Ambient Intelligence and Humanized Computing</i> , 2021, 12, 3549-3558.	4.9	20
6	ZrC-Impregnated Titanium-Based Coating as an Effective Lubricating Barrier for Artificial Hip Prosthesis. <i>Materials Performance and Characterization</i> , 2021, 10, 189-205.	0.3	3
7	Role of Knowledge Mining - A Density based Spatial Clustering of Application. , 2020, , .		0
8	Surface structural features and wear analysis of a multilayer Ti6Al4V-B ₄ C thin film coated AISI 1040 steel. <i>Materials Research Express</i> , 2020, 7, 016436.	1.6	4
9	Study on formability and strain hardening index: influence of particle size of boron carbide (B ₄ C) in magnesium matrix composites fabricated by powder metallurgy technique. <i>Materials Research Express</i> , 2020, 7, 016597.	1.6	16
10	Determination of hazard in truck manufacturing industry using hazard identification risk assessment technique. <i>Materials Today: Proceedings</i> , 2020, 27, 1858-1862.	1.8	4
11	Investigation on Tribological and mechanical behaviour of AA6082â€”Graphene based composites with Ti particles. <i>Materials Research Express</i> , 2020, 7, 076514.	1.6	20
12	TG/DTA studies on the oxidation and thermal behaviour of Ti-6Al-4V-B ₄ C coatings obtained by magnetron sputtering. <i>Journal of Applied Research and Technology</i> , 2020, 18, .	0.9	0
13	Improved Thermal and Fire Retardant Behavior of Polyvinyl Alcohol Matrix Using Nanocomposites. <i>International Journal of Nanoscience</i> , 2019, 18, 1850025.	0.7	4
14	Effect of vanadium on enhancing the mechanical and wear behaviour of copper by using stir casting technique. <i>Materials Research Express</i> , 2019, 6, 096531.	1.6	6
15	Classification of steel microstructures using Modified Alternate Local Ternary Pattern. <i>Materials Research Express</i> , 2019, 6, 096539.	1.6	7
16	Effect of tungsten reinforcement on mechanical, tribological and corrosion behaviour of mechanically alloyed Co-25C Cermet nanocomposites. <i>Materials Research Express</i> , 2019, 6, 1165e4.	1.6	11
17	Fabrication and Characterization of Organic and In-Organic Reinforced A356 Aluminium Matrix Hybrid Composite by Improved Double-Stir Casting. <i>Silicon</i> , 2019, 11, 817-829.	3.3	55
18	Effect of weight percentage of TiC on their tribological properties of magnesium composites. <i>Materials Today: Proceedings</i> , 2018, 5, 6570-6578.	1.8	26

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19	Adhesion Behaviour, Nanohardness and Surface Roughness of Ti-6Al-4V/B4C Thin Films Grown on AISI 1040 Steel. Transactions of the Indian Institute of Metals, 2018, 71, 893-899.	1.5	2
20	Microstructure and mechanical characterization of (B4C+ h-BN)/Al hybrid nanocomposites processed by ultrasound assisted casting. International Journal of Mechanical Sciences, 2018, 144, 814-826.	6.7	62
21	Enhancing Internet of Battle Things using Ultrasonic assisted Non-Destructive Testing (Technical) Tj ETQq1 1 0.784314 rgBT /Overloc		
22	High Temperature Wear Behaviour of Nano/Micro B4C Reinforced Aluminium Matrix Composites Fabricated by an Ultrasonic Cavitation-Assisted Solidification Process. Transactions of the Indian Institute of Metals, 2017, 70, 17-29.	1.5	18
23	Effect of milled B4C nanoparticles on tribological analysis, microstructure and mechanical properties of Cu-4Cr matrix produced by hot extrusion. Archives of Civil and Mechanical Engineering, 2017, 17, 446-456.	3.8	25
24	Tensile, compressive and wear behaviour of self-lubricating sintered magnesium based composites. Transactions of Nonferrous Metals Society of China, 2017, 27, 312-323.	4.2	56
25	Effect of Hybridizing and Optimization of TiC on the Tribological Behavior of Mg-MoS2 Composites. Journal of Tribology, 2017, 139, .	1.9	37
26	Effect of Particle Size of B4C Reinforcement on Ti-6Al-4V Sintered Composite Prepared by Mechanical Milling Method. Transactions of the Indian Ceramic Society, 2017, 76, 31-37.	1.0	14
27	Effect of Particle Size on the Deformation Behaviour of Sintered Al-TiC Nano Composites. Transactions of the Indian Institute of Metals, 2017, 70, 2093-2102.	1.5	2
28	Microstructure, surface topography and sliding wear behaviour of titanium based coating on AISI 1040 steel by magnetron sputtering. Archives of Civil and Mechanical Engineering, 2017, 17, 281-292.	3.8	8
29	Electrical Resistivity, Tribological Behaviour of Multiwalled Carbon Nanotubes and Nanoboron Carbide Particles Reinforced Copper Hybrid Composites for Pantograph Application. Advances in Materials Science and Engineering, 2016, 2016, 1-18.	1.8	10
30	Microstructure characterization and thermal properties of Al-TiC sintered nano composites. Applied Thermal Engineering, 2016, 107, 625-632.	6.0	12
31	Role of component layers in designing carbon nanotubes-based tandem absorber on metal substrates for solar thermal applications. Solar Energy Materials and Solar Cells, 2016, 155, 397-404.	6.2	8
32	Influence of nano ZrC content on tribological analysis, microstructure and mechanical properties of Cu-4Cr matrix composites produced by hot extrusion. Archives of Civil and Mechanical Engineering, 2016, 16, 537-552.	3.8	10
33	Influence of alumina reinforcement on nano-hydroxyapatite/biopolymer composite for biomedical applications. International Journal of Polymer Analysis and Characterization, 2016, 21, 554-562.	1.9	3
34	Enhancing the Properties of Al-WC Nanocomposites Using Liquid Metallurgy. Experimental Techniques, 2016, 40, 129-135.	1.5	10
35	Optimizing the Dry Sliding Wear Behavior of Copper Hybrid Nano Composites Reinforced with MWCNTs and Nano B4C Using Full Factorial Design. Transactions of the Indian Institute of Metals, 2016, 69, 717-732.	1.5	7
36	Experimental Analysis of Al-TiC Sintered Nanocomposite on EDM Process Parameters Using ANOVA. Materials and Manufacturing Processes, 2016, 31, 802-812.	4.7	27

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37	Enhancement in growth rate and productivity of spinach grown in hydroponics with iron oxide nanoparticles. RSC Advances, 2016, 6, 15451-15459.	3.6	105
38	Fabrication of water repellent cotton fabric by coating nano particle impregnated hydrophobic additives and its characterization. Journal of Industrial and Engineering Chemistry, 2016, 37, 180-189.	5.8	47
39	Mechanical analysis and high temperature wear behaviour of AlCrN/DLC coated titanium alloy. International Journal of Surface Science and Engineering, 2016, 10, 27.	0.4	18
40	Optimization and Effect of Weight Fraction of MoS ₂ on the Tribological Behavior of Mg-TiC-MoS ₂ Hybrid Composites. Tribology Transactions, 2016, 59, 733-747.	2.0	66
41	Experimental Investigations on the Densification and Deformation Behaviour of Al-TiB ₂ Composite Preforms. Transactions of the Indian Institute of Metals, 2016, 69, 1059-1068.	1.5	6
42	Workability Behaviour of Fe-Ca-Mn Sintered Composites. Transactions of the Indian Institute of Metals, 2016, 69, 1137-1139.	1.5	2
43	Effects of High Temperature Wear Behaviour of Sintered Ti-6Al-4V Reinforced with Nano B4C Particle. Transactions of the Indian Institute of Metals, 2016, 69, 1267-1276.	1.5	20
44	Effect of nano/micro B4C particles on the mechanical properties of aluminium metal matrix composites fabricated by ultrasonic cavitation-assisted solidification process. Archives of Civil and Mechanical Engineering, 2016, 16, 147-158.	3.8	192
45	Pani-Magnetic Nanoparticles for EMI Shielding and Corrosion Resistance Application. Quantum Matter, 2016, 5, 26-30.	0.2	1
46	Synthesis and characterization of NiO-ZnO nanocomposite by a cost efficient self-combustion technique. Journal of Achievements in Materials and Manufacturing Engineering, 2016, 79, 13-18.	0.6	3
47	Effect of Hybridizing MoS ₂ on the Tribological Behaviour of Mg-TiC Composites. Transactions of the Indian Institute of Metals, 2015, 68, 911-925.	1.5	44
48	Electrochemical Impedance Spectroscopic Analysis of ZnS Nanorod Fabricated Using Butterfly Wings as Biotemplate. Acta Metallurgica Sinica (English Letters), 2015, 28, 103-109.	2.9	17
49	Optimizing wear behavior of TiN coated SS 316L against Ti alloy using Response Surface Methodology. Materials & Design, 2015, 67, 469-482.	5.1	76
50	Simplifying the powder metallurgy manufacturing process using soft computing tools. Applied Soft Computing Journal, 2015, 27, 191-204.	7.2	8
51	Studies on Formability Behaviour of Aluminium Alloy Sheets with Ceramic Nanocoatings. Advanced Materials Research, 2014, 984-985, 482-487.	0.3	0
52	Mechanical behavior and wear prediction of stir cast Al-TiB ₂ composites using response surface methodology. Materials & Design, 2014, 59, 383-396.	5.1	164
53	Electrical resistivity, wear map and modeling of extruded tungsten reinforced copper composite. Materials & Design, 2014, 56, 791-806.	5.1	53
54	Impact of nano particles on safety and environment for fireworks chemicals. Chemical Engineering Research and Design, 2014, 92, 732-738.	5.6	23

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55	Carbon Nanotube-Based Tandem Absorber with Tunable Spectral Selectivity: Transition from Near-Perfect Blackbody Absorber to Solar Selective Absorber. <i>Advanced Materials</i> , 2014, 26, 2552-2557.	21.0	95
56	Effect of graphite addition on mechanical behavior of Al6061/TiB2 hybrid composite using acoustic emission. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 612, 16-27.	5.6	85
57	Experimental investigation on mechanical behaviour, modelling and optimization of wear parameters of B4C and graphite reinforced aluminium hybrid composites. <i>Materials & Design</i> , 2014, 63, 620-632.	5.1	261
58	Experimental analysis on nano scale flash powder composition in fireworks manufacturing. <i>Journal of Thermal Analysis and Calorimetry</i> , 2013, 113, 615-621.	3.6	12
59	Forming limit diagram and void coalescence analysis of AA5052 coated with molybdenum-based ceramic nanocomposites. <i>Materials & Design</i> , 2013, 52, 393-403.	5.1	10
60	Numerical modelling, prediction of Cu-W nano powder composite in dry sliding wear condition using response surface methodology. <i>Materials & Design</i> , 2013, 50, 977-996.	5.1	82
61	Magnetic Flux Alignment Studies on Entrapped Ferrofluid Nanoparticles in Poly Vinyl Alcohol Matrix. <i>Journal of Materials Science and Technology</i> , 2013, 29, 903-908.	10.7	3
62	Ballistic behaviour of gun powder and flash powder for firework chemicals as a function of particle sizes. <i>Measurement: Journal of the International Measurement Confederation</i> , 2013, 46, 3202-3210.	5.0	3
63	Thermal, electrical and wear behavior of sintered Cu-W nanocomposite. <i>Materials & Design</i> , 2013, 46, 16-25.	5.1	94
64	Investigation on the Electrical Properties of Polymer metal Nanocomposites for Physiological Sensing Applications. <i>Physics Procedia</i> , 2013, 49, 67-78.	1.2	37
65	Experimental investigation on workability and strain hardening behaviour of Fe-C-Mn sintered composites with different percentage of carbon and manganese content. <i>Materials & Design</i> , 2013, 49, 791-801.	5.1	21
66	Experimental and prediction of sintered Cu-W composite by using artificial neural networks. <i>Materials & Design</i> , 2013, 45, 323-335.	5.1	55
67	Evaluation of corrosion inhibition in mild steel using cerium oxide nanoparticles. <i>Materials Letters</i> , 2013, 91, 78-80.	2.6	31
68	Numerical modelling on corrosion behaviour of molybdenum-based ceramic nanocomposite coated mild steel using response surface methodology. <i>International Journal of Surface Science and Engineering</i> , 2013, 7, 345.	0.4	5
69	Enhancing the Properties of Al-WC Nanocomposites Using Liquid Metallurgy. <i>Experimental Techniques</i> , 2013, , n/a-n/a.	1.5	0
70	Indigenous development of ultra high vacuum (UHV) magnetron sputtering system for the preparation of Permalloy magnetic thin films. <i>Journal of Physics: Conference Series</i> , 2012, 390, 012081.	0.4	0
71	Mechanical Behaviour of Sintered Cu-5%W Nano Powder Composite. <i>Procedia Engineering</i> , 2012, 38, 2874-2880.	1.2	22
72	Experimental investigation on workability and strain hardening behaviour of Fe-C-0.5Mn sintered composites. <i>Materials & Design</i> , 2012, 41, 349-357.	5.1	19

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73	Minimum ignition energy for micro and nano flash powders. <i>Process Safety Progress</i> , 2012, 31, 19-23.	1.0	25
74	Flame-retardant fabric systems based on electrospun polyamide/boric acid nanocomposite fibers. <i>Journal of Applied Polymer Science</i> , 2012, 126, 614-619.	2.6	25
75	Structure and properties of titania reinforced nano-hydroxyapatite/gelatin bio-composites for bone graft materials. <i>Ceramics International</i> , 2012, 38, 571-579.	4.8	55
76	Comparative study of hydroxyapatite/gelatin composites reinforced with bio-inert ceramic particles. <i>Ceramics International</i> , 2012, 38, 3569-3582.	4.8	37
77	Workability studies on sintered Cu-10SiC preforms during cold axial upsetting. <i>Materials & Design</i> , 2012, 39, 1-8.	5.1	17
78	Application of factorial techniques to study the wear of Al hybrid composites with graphite addition. <i>Materials & Design</i> , 2012, 39, 42-54.	5.1	177
79	Design and fabrication of highly thermally stable HfMoN/HfON/Al ₂ O ₃ tandem absorber for solar thermal power generation applications. <i>Solar Energy Materials and Solar Cells</i> , 2012, 102, 86-92.	6.2	79
80	Smart coating for corrosion protection by adopting nano particles. <i>Progress in Organic Coatings</i> , 2012, 74, 461-469.	3.9	62
81	Investigation of Cu-SiC Composite Preforms during Cold Upsetting. <i>Materials and Manufacturing Processes</i> , 2011, 26, 826-831.	4.7	7
82	Evaluating the effect of SiC content on iron-based nanocomposite. <i>Journal of Experimental Nanoscience</i> , 2011, 6, 557-566.	2.4	1
83	Deformation Behavior of Sintered Fe-C-Mn Composite During Cold Upset Forming. <i>Materials and Manufacturing Processes</i> , 2011, 26, 1388-1392.	4.7	11
84	Automatic Defect Classification in Ultrasonic NDT Using Artificial Intelligence. <i>Journal of Nondestructive Evaluation</i> , 2011, 30, 20-28.	2.4	129
85	Thermal and sensitivity analysis of nano aluminium powder for firework application. <i>Journal of Thermal Analysis and Calorimetry</i> , 2011, 105, 259-267.	3.6	27
86	Wettability of ZnO: A comparison of reactively sputtered; thermally oxidized and vacuum annealed coatings. <i>Applied Surface Science</i> , 2011, 257, 4410-4417.	6.1	21
87	Enhancement in Thermal and Tensile Properties of ZrO ₂ /Poly(Vinyl Alcohol) Nanocomposite Film. <i>Materials Express</i> , 2011, 1, 329-335.	0.5	24
88	Some aspects on work hardening behaviour of Cu-5%SiC powder composites. , 2010, , .		0
89	Automatic detection of defects in ultrasonic testing using artificial neural network. <i>International Journal of Microstructure and Materials Properties</i> , 2010, 5, 561.	0.1	6
90	Effect of substrate roughness on the apparent surface free energy of sputter deposited superhydrophobic polytetrafluoroethylene coatings: A comparison of experimental data with different theoretical models. <i>Journal of Applied Physics</i> , 2010, 108, .	2.5	53

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91	Spectroscopic ellipsometric characterization of TiAlN/TiAlON/Si ₃ N ₄ tandem absorber for solar selective applications. Applied Surface Science, 2008, 254, 1694-1699.	6.1	73
92	Adaptive Selection of Top-m Retrieval Schemes for Data Fusion Using Tabu Search. , 2007, , .		1
93	Generalized Neural Network Model to Predict the Properties of Sintered Al - Fe Composite. , 2007, , .		3
94	Phenomenon of instantaneous strain hardening behaviour of sintered Al-Fe composite preforms during cold axial forming. Materials & Design, 2007, 28, 1358-1363.	5.1	18
95	Modelling the effect of particle size and iron content on forming of Al-Fe composite preforms using neural network. Materials & Design, 2007, 28, 119-130.	5.1	18
96	TiAlN-TiAlON-Si ₃ N ₄ tandem absorber for high temperature solar selective applications. Applied Physics Letters, 2006, 89, 191909.	3.3	119
97	Deformation Behavior of Cold Upset Forming of Sintered Al-Fe Composite Preforms. Journal of Engineering Materials and Technology, Transactions of the ASME, 2005, 127, 251-256.	1.4	45
98	Neural network model for predicting strain hardening and densification constants of sintered aluminium preforms. Powder Metallurgy, 2004, 47, 261-266.	1.7	6
99	Some aspects of cold upset forming of sintered aluminium preforms using different lubricants. Materials Science and Technology, 2004, 20, 485-489.	1.6	17
100	Some Aspects of Cold Upset Forming of Sintered Aluminum Preforms Using Different Lubricants. Powder Metallurgy and Metal Ceramics, 2004, 43, 349-354.	0.8	2
101	Prediction of deformation characteristics of sintered aluminium preforms using neural networks. Modelling and Simulation in Materials Science and Engineering, 2004, 12, 611-620.	2.0	20
102	Phenomenon of strain hardening behaviour of sintered aluminium preforms during cold axial forming. Journal of Materials Processing Technology, 2003, 142, 347-354.	6.3	36
103	Tribological Behaviour of Cu -5W Sintered Powder Composite. Advanced Materials Research, 0, 622-623, 1300-1304.	0.3	0
104	Effect of Calcination in Synthesis of Nano Hydroxyapatite for Bone Grafting. Materials and Manufacturing Processes, 0, , 141223092238008.	4.7	3
105	Phenomenon of Workability Behaviour of Cu-SiC Sintered Preforms during Cold Upsetting. Materials and Manufacturing Processes, 0, , 141223092238008.	4.7	1
106	Workability Behavior of Fe-C-Mn Sintered Composites for Different Aspect Ratio and Carbon Content. Materials and Manufacturing Processes, 0, , 141223092238008.	4.7	0
107	Neural Networks for Predicting the Wear Properties of Sintered Ti-6Al-4V Composite Reinforced with Nano B ₄ C Particle and Classification using Data Mining Tools. International Journal of Computational & Neural Engineering, 0, , 40-48.	0.0	0