

Publications of DC member 2(Dr. N Selvakumar):

NUMBER OF PUBLICATIONS: 49

1. PR Rajkumar, C Kailasanathan, A Senthilkumar, **N Selvakumar**, A JohnRajan. Study on formability and strain hardening index: influence of particle size of boron carbide (B4C) in magnesium matrix composites fabricated by powder metallurgy technique. Materials Research Express 7 (1), 016597, 2020.
2. R Malkiya Rasalin Prince, **N Selvakumar**, D Arulkirubakaran, S Christopher Ezhil Singh, T Ramkumar, R Monish Kumar. Surface structural features and wear analysis of a multilayer Ti6Al4V-B4C thin film coated AISI 1040 steel. Materials Research Express 7 (1), 016436, 2020.
3. J Jabinth, **N Selvakumar**. Enhancing the mechanical, wear behaviour of copper matrix composite with 2V-Gr as reinforcement. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 1350650120960573, 2020.
4. C Rajaganapathy, D Vasudevan, **N Selvakumar**. Investigation on Tribological and mechanical behaviour of AA6082—Graphene based composites with Ti particles. Materials Research Express 7 (7), 076514, 2020.
5. R Pavanasam, **N Selvakumar**. Deep learning-based supervised and unsupervised neural networks for analysing the characteristics of powder composite preforms. International Journal of Modelling and Simulation, 1-12, 2020.
6. **N Selvakumar**, M Ruvankumar. Determination of hazard in truck manufacturing industry using hazard identification risk assessment technique. Materials Today: Proceedings, 2020.
7. R Malkiya Rasalin Prince, **N Selvakumar**, D Arulkirubakaran, S Christopher Ezhil Singh, M Chrispin Das, C Prabha, Praveen Kumar Bannaravuri, RB Jeen Robert, I Living Prephet. TG/DTA studies on the oxidation and thermal behaviour of Ti-6Al-4V-B4C coatings obtained by magnetron sputtering. Journal of Applied Research and Technology 18 (3), 2020.
8. K Jeyasubramanian, E Muthusankar, GS Hikku, **N Selvakumar**. Improved Thermal and Fire Retardant Behavior of Polyvinyl Alcohol Matrix Using Nanocomposites. International Journal of Nanoscience 18 (05), 1850025, 2019.
9. J Jabinth, **N Selvakumar**. Effect of vanadium on enhancing the mechanical and wear behaviour of copper by using stir casting technique. Materials Research Express 6 (9), 096531, 2019.
10. S Arivazhagan, J Jasline Tracia, **N Selvakumar**. Classification of steel microstructures using modified alternate local ternary pattern. Materials research Express 6 (9), 096539, 2019.
11. GR Raghav, AN Balaji, **N Selvakumar**, D Muthukrishnan, E Sajith. Effect of tungsten reinforcement on mechanical, tribological and corrosion behaviour of mechanically alloyed Co-25C Cermet nanocomposites. Materials Research Express 6 (11), 1165e4, 2019.
12. B Vinod, S Ramanathan, V Ananthi, **N Selvakumar**. Fabrication and characterization of organic and in-organic reinforced A356 aluminium matrix hybrid composite by improved double-stir casting. Silicon 11 (2), 817-829, 2019.

13. P Radha, **N Selvakumar**, R Harichandran. Computational Intelligence for Analysing the Mechanical Properties of AA 2219–(B₄C+ h-BN) Hybrid Nano Composites Processed by Ultrasound Assisted Casting. Archives of Metallurgy and Materials, 1163-1173, 2019.
14. P Radha, **N Selvakumar**, R Harichandran. Computational Intelligence for Analysing the Mechanical Properties of AA 2219–(B₄C+ h-BN) Hybrid Nano Composites Processed by Ultrasound Assisted Casting. Archives of Metallurgy and Materials, 1163-1173, 2019.
15. **N Selvakumar**, RMR Prince. Adhesion Behaviour, Nanohardness and Surface Roughness of Ti–6Al–4V–6B₄C Thin Films Grown on AISI 1040 Steel. Transactions of the Indian Institute of Metals 71 (4), 893-899, 2018.
16. **N Selvakumar**, RMR Prince. Adhesion Behaviour, Nanohardness and Surface Roughness of Ti–6Al–4V–6B₄C Thin Films Grown on AISI 1040 Steel. Transactions of the Indian Institute of Metals 71 (4), 893-899, 2018.
17. R Harichandran, **N Selvakumar**. Microstructure and mechanical characterization of (B₄C+ h-BN)/Al hybrid nanocomposites processed by ultrasound assisted casting. International Journal of Mechanical Sciences 144, 814-826, 2018.
18. P Narayanasamy, **N Selvakumar**, P Balasundar. Effect of weight percentage of TiC on their tribological properties of magnesium composites. Materials Today: Proceedings 5 (2), 6570-6578, 2018.
19. **N Selvakumar**. Particulate Processing (Powder Metallurgy). Elsevier, 2017.
20. **N Selvakumar**. Microstructure, surface topography and sliding wear behaviour of titanium based coating on AISI 1040 steel by magnetron sputtering. Archives of Civil and Mechanical Engineering 17 (2), 281-292, 2017.
21. P Narayanasamy, **N Selvakumar**. Tensile, compressive and wear behaviour of self-lubricating sintered magnesium based composites. Transactions of Nonferrous Metals Society of China 27 (2), 312-323, 2017.
22. SCE Singh, **N Selvakumar**. 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 17 (2), 446-456, 2017.
23. **N Selvakumar**, T Ramkumar. Effect of Particle Size of B₄C Reinforcement on Ti-6Al-4V Sintered Composite Prepared by Mechanical Milling Method. Transactions of the Indian Ceramic Society 76 (1), 31-37, 2017.
24. R Harichandran, **N Selvakumar**, G Venkatachalam. High Temperature Wear Behaviour of Nano/Micro B₄C Reinforced Aluminium Matrix Composites Fabricated by an Ultrasonic Cavitation-Assisted Solidification. Transactions of the Indian Institute of Metals 70 (1), 17-29, 2017.

25. M Sivaraj, **N Selvakumar**. Effect of Particle Size on the Deformation Behaviour of Sintered Al–TiC Nano Composites. Transactions of the Indian Institute of Metals 70 (8), 2093-2102, 2017.
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27. **N Selvakumar**, T Ramkumar. Effects of High Temperature Wear Behaviour of Sintered Ti–6Al–4V Reinforced with Nano B₄C Particle. Transactions of the Indian Institute of Metals 69 (6), 1267-1276, 2016.
28. M Sivaraj, **N Selvakumar**. Experimental analysis of Al–TiC sintered nanocomposite on EDM process parameters using ANOVA. Materials and Manufacturing Processes 31 (6), 802-812, 2016.
29. K Gangatharan, **N Selvakumar**, P Narayanasamy, G Bhavesh. Mechanical analysis and high temperature wear behaviour of AlCrN/DLC coated titanium alloy. International Journal of Surface Science and Engineering 10 (1), 27-40. 2016.
30. K Gangatharan, **N Selvakumar**. 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 69 (3), 717-732, 2016.
31. **N Selvakumar**, B Gnanasundarajayaraja, P Rajeshkumar. Enhancing the properties of Al–WC nanocomposites using liquid metallurgy. Experimental Techniques 40 (1), 129-135, 2016.
32. M Ahasan, MJ Davidson, **N Selvakumar**. Experimental Investigations on the Densification and Deformation Behaviour of Al-TiB₂ Composite Preforms. Transactions of the Indian Institute of Metals 69 (5), 1059-1068, 2016.
33. R Harichandran, **N Selvakumar**. Effect of h-BN solid nano lubricant on the dry sliding wear behaviour of Al-B₄C nanocomposites. Archives of Materials Science and Engineering 77 (1), 5—11, 2016.
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35. C Kailasanathan, **N Selvakumar**. Influence of alumina reinforcement on nano-hydroxyapatite/biopolymer composite for biomedical applications. International Journal of Polymer Analysis and Characterization 21 (6), 554-562, 2016.
36. **N Selvakumar**, M Sivaraj, S Muthuraman. Microstructure characterization and thermal properties of Al-TiC sintered nano composites. Applied Thermal Engineering 107, 625-632, 2016.
37. **N Selvakumar**, K Gangatharan. 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.

38. KV Kannan, **N Selvakumar**, K Jeyasubramanian. Pani-Magnetic Nanoparticles for EMI Shielding and Corrosion Resistance Application. *Quantum Matter* 5 (1), 26-30, 2016.
39. P Radha, **N Selvakumar**. Neural Networks for Predicting the Wear Properties of Sintered Ti-6Al-4V Composite Reinforced with Nano B₄C Particle and Classification using Data Mining Tools. *Int J Comput Neural Eng* 3 (3), 40-48, 2016.
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41. R Harichandran, **N Selvakumar**. Effect of nano/micro B₄C particles on the mechanical properties of aluminium metal matrix composites fabricated by ultrasonic cavitation-assisted solidification... ,*Archives of Civil and Mechanical Engineering* 16, 147-158, 2016.
42. Kadarkaraithangam Jeyasubramanian, Ubendran Upeksha Gopalakrishnan Thoppey, Gnanadhas Sobhin Hikku, **Natarajan Selvakumar**, Angaiah Subramania, Karthikeyan Krishnamoorthy. Enhancement in growth rate and productivity of spinach grown in hydroponics with iron oxide nanoparticles. *RSC advances* 6 (19), 15451-15459, 2016.
43. **N Selvakumar**, P Narayanasamy. Optimization and Effect of Weight Fraction of MoS₂ on the Tribological Behavior of Mg-TiC-MoS₂ Hybrid Composites. *Tribology Transactions* 59 (4), 733-747, 2016.
44. K Jeyasubramanian, GS Hikku, AVM Preethi, VS Benitha, **N Selvakumar**. Fabrication of water repellent cotton fabric by coating nano particle impregnated hydrophobic additives and its characterization. *Journal of Industrial and Engineering Chemistry* 37, 180-189, 2016.
45. **N Selvakumar**, APM Raj, K Gangatharan. Workability Behaviour of Fe-C-Mn Sintered Composites. *Transactions of the Indian Institute of Metals* 69 (5), 1137-1139, 2016.
46. P Radha, G Chandrasekaran, **N Selvakumar**. Simplifying the powder metallurgy manufacturing process using soft computing tools. *Applied Soft Computing* 27, 191-204, 2015.
47. K Jeyasubramanian, M Nisanthi, VS Benitha, **N Selvakumar**. Electrochemical impedance spectroscopic analysis of ZnS nanorod fabricated using butterfly wings as biotemplate. *Acta Metallurgica Sinica (English Letters)* 28 (1), 103-109, 2015.
48. I Saravanan, AE Perumal, SC Vettivel, **N Selvakumar**, A Baradeswaran. Optimizing wear behavior of TiN coated SS 316L against Ti alloy using Response Surface Methodology. *Materials & Design* 67, 469-482, 2015.
49. P Narayanasamy, **N Selvakumar**, P Balasundar. Effect of Hybridizing MoS₂ on the Tribological Behaviour of Mg-TiC Composites. *Transactions of the Indian Institute of Metals* 68 (5), 911-925, 2015.