

Muthukannan Duraiselvam

National Institute of Technology Tiruchirappalli Laser surface Engineering Tribology

GET MY OWN PROFILE		
	All	Since 2015
Citations	1034	832
h-index	18	16
i10-index	28	23

TITLE	CITED BY	YEAR
Microstructural Evolution and Wear Behavior of AlCoCrCuFeNi High Entropy Alloy on Ti–6Al–4V Through Laser Surface Alloying G Prabu, M Duraiselvam, N Jeyaprakash, CH Yang Metals and Materials International, 1-13		2020
Droplet spreading and wettability of laser textured C-263 based nickel superalloy FP Prakash, N Jeyaprakash, M Duraiselvam, G Prabu, CH Yang Surface and Coatings Technology, 126055	1	2020
Surface modification of aluminium 7075 by electrical discharge alloying and influence of surface roughness using RSM AH Maideen, M Duraiselvam, M Varatharajulu Materials Today: Proceedings		2020
Tribological Behavior of Additive Manufactured gamma-TiAl by Electron Beam Melting GV Pradeep, M Duraiselvam, KS Prasad, A Mohammad TRANSACTIONS OF THE INDIAN INSTITUTE OF METALS 73 (6), 1661-1667	1	2020
Tribological Behavior of Additive Manufactured γ-TiAl by Electron Beam Meltin GVK Pradeep, M Duraiselvam, KS Prasad, A Mohammad Transactions of the Indian Institute of Metals 73 (6), 1661-1667	g	2020
Laser Microtexturing of NiCrAlY Coated Nickel-based Superalloy for Improved Adhesion Bond Strength. FP Prakash, M Duraiselvam, S Natarajan, KG Balamurugan Lasers in Engineering (Old City Publishing) 46		2020
Novel welding of Al0. 5CoCrFeNi high-entropy alloy: Corrosion behavior R Sokkalingam, K Sivaprasad, M Duraiselvam, V Muthupandi, Journal of Alloys and Compounds 817, 153163	7	2020
Laser Surface Texturing to Enhance CuNiIn Anti-Fretting Coating Adhesion on Ti6Al4V Alloy for Aerospace Application VU Bagade, M Duraiselvam, N Sarangi, K Parthiban Lasers in Manufacturing and Materials Processing, 1-13	1	2020
Comparative study of laser melting and pre-placed Ni–20% Cr alloying over nodular iron surface N Jeyaprakash, CH Yang, M Duraiselvam, S Sivasankaran Archives of Civil and Mechanical Engineering 20 (1), 1-12	4	2020
Acoustic emission based deep learning technique to predict adhesive bond strength of laser processed CFRP composites R Sathiyamurthy, M Duraiselvam, P Sevvel FME Transactions 48 (3), 611-619	1	2020

TITLE	CITED BY	YEAR
Study the effect of roller hardness on the surface properties of burnished AISI 1211 steel A Arulbrittoraj, A Gurumoorthy, S Karthikeyan, M Duraiselvam International Journal of Computational Materials Science and Surface		2020
Electrochemical Behaviour and Surface Studies on Austenitic Stainless Steel and Nickel-Based Superalloy Dissimilar Weld Joints MA Khan, D Chellaganesh, M Uthayakumar, JTW Jappes, M Duraiselvam Materials Forming, Machining and Post Processing, 251-266		2020
Dynamic Characterization of an Additive Manufactured Turbine Wheel of Turbocharger P Selvam R, M Duraiselvam, SG Barad, D Kumar Gas Turbine India Conference 83525, V001T05A006		2019
Investigation of high temperature wear performance on laser processed nodular iron using optimization technique N Jeyaprakash, CH Yang, M Duraiselvam, G Prabu, SP Tseng, DR Kumar Results in Physics 15, 102585	6	2019
Effect of Titanium Dioxide Particles on the Morphology, Mechanical, and Wear Properties of the Aluminum Alloy 3003-Based Composites KA Kumar, S Natarajan, M Duraiselvam, S Ramachandra Arabian Journal for Science and Engineering 44 (12), 10207-10217	1	2019
Selective laser ablation of CFRP composite to enhance adhesion bonding R Sathiyamurthy, M Duraiselvam Materials and Manufacturing Processes 34 (11), 1296-1305	9	2019
Effect of laser surface texturing on wear resistance of nickel based superalloy P Prakash, M Duraiselvam, S Natarajan, KG Balamurugan Industrial Lubrication and Tribology	2	2019
Wear testing of in situ cast AA8011-TiB ₂ metal matrix composites BMM Selvan, V Anandakrishnan, M Duraiselvam, S Sundarameenakshi Materials Testing 61 (8), 779-786		2019
Hot Corrosion and Oxidation Behaviour of a Laser Processed Nickel-based Superalloy. BK Narayanan, M Duraiselvam, S Natarajan, MA Khan Lasers in Engineering (Old City Publishing) 43		2019
Establishment of Wear Resistant HVOF Coatings for 50CrMo4 Chromium Molybdenum Alloy Steel as an Alternative for Hard Chrome Plating S Karuppasamy, V Sivan, S Natarajan, SPK Babu, M Duraiselvam, Journal of The Institution of Engineers (India): Series C 100 (4), 635-645	4	2019
Application of desirability function approach for optimized process parameters of electrical discharge alloying of Al 7075 with nickel powder AH Maideen, M Duraiselvam, M Varatharajulu Transactions of the Indian Institute of Metals 72 (7), 1901-1916	3	2019

TITLE	CITED BY	YEAR
Microstructure and tribological evolution during laser alloying WC-12% Co and Cr3C2- 25% NiCr powders on nodular iron surface N Jeyaprakash, CH Yang, M Duraiselvam, G Prabu Results in Physics 12, 1610-1620	18	2019
Synthesis, characterization and mechanical behavior of Al 3003 - TiO ₂ surface composites through friction stir processing KA Kumar, S Natarajan, M Duraiselvam, S Ramachandra Materials and Manufacturing Processes 34 (2), 183-191	7	2019
Effect of laser surface texturing on tribological behaviour of grey cast iron BA Kumar, PD Babu, P Marimuthu, M Duraiselvam International Journal of Surface Science and Engineering 13 (2-3), 220-235		2019
Numerical modeling of WC-12% Co laser alloyed cast iron in high temperature sliding wear condition using response surface methodology N Jeyaprakash, M Duraiselvam, SV Aditya Surface Review and Letters 25 (07), 1950009	22	2018
Microfabrication of terahertz frequency-selective surface by short-and ultrashor laser ablation E Manikandan, BS Sreeja, S Radha, M Duraiselvam, A Gupta, S Prabhu Optical Engineering 58 (1), 011007	t 3	2018
TOPSIS based parametric optimization of laser micro-drilling of TBC coated nickel based superalloy K Parthiban, M Duraiselvam, R Manivannan Optics & Laser Technology 102, 32-39	8	2018
Enhancing antireflection property of silicon through direct picosecond laser surface texturing KE Sarath Raghavendra Babu, M Duraiselvam, L Manikanta Reddy Surface and Interface Analysis 50 (6), 616-622	2	2018
Machinability of nickel based alloys using electrical discharge machining process MA Khan, AK Gokul, MPB Dharan, RVS Jeevakarthikeyan, MS&E 346 (1), 012044		2018
Numerical Simulation on the Effect of Cooling Hole Configuration on the Film Cooling Effectiveness in TBC Coated Turbine Vanes K Parthiban, M Duraiselvam, SK Jain, S Riaz, SV Aditya International Journal of Turbo & Jet-Engines 1 (ahead-of-print)	1	2018
Modelling of Cr3C2-25% NiCr laser alloyed cast iron in high temperature sliding wear condition using response surface methodology N Jeyaprakash, M Duraiselvam, R Raju Archives of Metallurgy and Materials, 1303-1315	g 18	2018
Characterization of laser beam welded Al0. 5CoCrFeNi high-entropy alloy R Sokkalingam, K Sivaprasad, V Muthupandi, M Duraiselvam Key Engineering Materials 775, 448-453	11	2018

TITLE	CITED BY	YEAR
High Temperature Tribological Characterisation of Laser Nitrided Nickel-Based Superalloy V Dillibabu, M Duraiselvam, S Natarajan, U Chandrasekhar, MA Khan Transactions of the Indian Institute of Metals 71 (1), 99-106		2018
Multi objective optimization of wear behaviour of in situ AA8011-ZrB2 metal matrix composites by using Taguchi-Grey analysis BM Selvan, V Anandakrishnan, M Duraiselvam, R Venkatraman, Materials Science Forum 928, 162-167	2	2018
Laser material processing of nickel superalloy for improved erosion resistance BK Narayanan, M Duraiselvam, S Natarajan, M Anaz Khan Materials and Manufacturing Processes 32 (14), 1596-1605	7	2017
Effect of laser glazing on the thermo-mechanical properties of plasma-sprayed LaTi ₂ Al ₉ O ₁₉ thermal barrier coatings SR Dhineshkumar, M Duraiselvam, S Natarajan, SS Panwar, T Jana, Materials and Manufacturing Processes 32 (14), 1573-1580	2	2017
Thermo-mechanical characterization of laser textured LaMgAl11O19/YSZ functionally graded thermal barrier coating MA Khan, M Duraiselvam, SS Panwar, T Jena, SR Dhineshkumar Surface and Coatings Technology 321, 146-155	7	2017
Microstructural Studies on Laser Dissimilar Welded Ni and Steel Alloys for Aeronautical Turbine Applications V Dillibabu, M Duraiselvam, U Chandrasekhar, R Raju Lasers in Engineering (Old City Publishing) 37	6	2017
Sliding wear behaviour of plasma sprayed coatings on nickel based superalloy MA Khan, S Sundarrajan, M Duraiselvam, S Natarajan, AS Kumar Surface Engineering 33 (1), 35-41	7	2017
Sliding wear of AlSI1040 steel at different thermo chemical surface treated conditions A Arulbrittoraj, P Padmanabhan, M Duraiselvam International Journal of Surface Science and Engineering 11 (6), 531-546	2	2017
High-temperature tribological characterisation of laser surface melted Ni-based superalloy V Dillibabu, M Duraiselvam, MA Khan, KP Naveena International Journal of Surface Science and Engineering 11 (3), 273-287	1	2017
Improvement of strain tolerance of functionally graded TBCs through laser surface micro-texturing MA Khan, M Duraiselvam, SS Panwar, T Jena, SR Dhineshkumar Journal of Materials Science 52 (2), 696-708	2	2017
Experimental study on evaluating the effect of micro textured tools in turning aisi 316 austenitic stainless steel D Vasumathy, A Meena, M Duraiselvam Procedia Engineering 184, 50-57	15	2017

TITLE	CITED BY	YEAR
Enhancement of strain tolerance of functionally graded LaTi2Al9O19 thermal barrier coating through ultra-short pulse based laser texturing SR Dhineshkumar, M Duraiselvam, S Natarajan, SS Panwar, T Jena, Surface and Coatings Technology 304, 263-271	17	2016
Enhanced ablation resistance through laser glazing of plasma sprayed LaTi2Al9O19-based functionally graded thermal barrier coating SR Dhineshkumar, M Duraiselvam, S Natarajan, SS Panwar, T Jana, Ceramics International 42 (8), 10184-10190	13	2016
The effect of sliding wear parameters on carburized AISI1040 steel A Arulbrittoraj, P Padmanabhan, M Duraiselvam, R Srinivasan, Journal of Mechanical Science and Technology 30 (4), 1825-1833	5	2016
Plasma transferred arc welding of Stellite 6 alloy on stainless steel for wear resistance MM Ferozhkhan, M Duraiselvam, R Ravibharath Procedia Technology 25, 1305-1311	23	2016
Surface nano-texturing of silicon by picosecond laser irradiation through TiO2 nanotube arrays KESR Babu, M Duraiselvam Applied Surface Science 353, 1112-1116	1	2015
Microstructural and mechanical characterization of Ti6Al4V refurbished parts obtained by laser metal deposition R Raju, M Duraiselvam, V Petley, S Verma, R Rajendran Materials Science and Engineering: A 643, 64-71	50	2015
Effect of thermal cycle on Ni–Cr based nanostructured thermal spray coating in boiler tubes V Senthilkumar, B Thiyagarajan, M Duraiselvam, K Karthick Transactions of Nonferrous Metals Society of China 25 (5), 1533-1542	7	2015
Dry sliding wear behavior of Cr 3 C 2-NiCr coating on austenitic stainless steel D Sudhakar, D Jeyasimman, M Duraiselvam International Journal Of Core Engineering & Management 1 (12), 215-225	9	2015
热循环对锅炉管热喷涂 Ni-Cr 基纳米涂层的影响 V SENTHILKUMAR, B THIYAGARAJAN, M DURAISELVAM, K KARTHICK 中国有色金属学报: 英文版 25 (5), 1533-1542		2015
热循环对锅炉管热喷涂 Ni-Cr 基纳米涂层的影响 (英文) V SENTHILKUMAR, B THIYAGARAJAN, M DURAISELVAM, K KARTHICK Transactions of Nonferrous Metals Society of China, 22		2015
Enhancing tribological and corrosion resistance of Hastelloy C-276 through laser surface treatment M Hashim, M Duraiselvam Materials Science Forum 830, 659-662	1	2015