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New Materials

Multi-Layer Assembly

Solar Sensor

Welding of thermoplastics.

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Citations	2248	1762
h-index	22	19
i10-index	39	33

TITLE	CITED BY	YEAR
Achieving machining effectiveness for AISI 1015 structural steel through coated inserts and grey-fuzzy coupled Taguchi optimization approach C Moganapriya, R Rajasekar, PS Kumar, T Mohanraj, VK Gobinath, Structural and Multidisciplinary Optimization, 1-18		2020
Experimental Investigations in the Drilling of Hybrid Fiber Composites SK Palaniappan, SK Pal, R Rathanasamy, GV Kaliyannan, Hybrid Fiber Composites: Materials, Manufacturing, Process Engineering, 69-85		2020
An Extended Approach on Power Conversion Efficiency Enhancement Through Deposition of ZnS-A 2 S 3 Blends on Silicon Solar Cells GV Kaliyannan, SV Palanisamy, R Rathanasamy, M Palanisamy, Journal of Electronic Materials 49 (10), 5937-5946	AI	2020
Design, development, calibration, and testing of indigenously developed strain gauge based dynamometer for cutting force measurement in the milling process T Mohanraj, S Shankar, R Rajasekar, MS Uddin Journal of Mechanical Engineering and Sciences 14 (2), 6594-6609	1	2020
Influence of graphene oxide on the morphological and mechanical behaviour of compatibilized low density polyethylene nanocomposites BS Hari, MK KV, K Krishnamurthy, VK Gobinath, R Sachinbala, Materials Today: Proceedings		2020
Substantial reduction of carbon black and balancing the technical properties of styrene butadiene rubber compounds using nanoclay HKM Kumar, S Subramaniam, R Rathanasamy, SK Pal, SK Palaniappan Journal of Rubber Research 23 (2), 79-87		2020
Green Adhesive for Industrial Applications PE Bhaskaran, T Subramaniam, GV Kaliyannan, SK Palaniappan, Green Adhesives: Preparation, Properties and Applications, 57-84		2020
Synthetic Binders for Polymer Division SK Palaniappan, M Chinnasamy, R Rathanasamy, SK Pal Green Adhesives: Preparation, Properties and Applications, 227-272		2020
Corrosion behavioral studies on AA7075 surface hybrid composites tailored through friction stir processing S Kandasamy, P Rathinasamy, N Nagarajan, K Arumugam, Anti-Corrosion Methods and Materials		2020
Polymer Coatings for Corrosive Protection GV Kaliyannan, MKK Velusamy, SK Palaniappan, MK Anandraj, Polymers Coatings: Technology and Applications, 371		2020
Polymer Coating for Industrial Applications M Chinnasamy, R Rathanasamy, SK Palaniappan, MKK Velusamy, Polymers Coatings: Technology and Applications, 397		2020
Self-Healing Polymer Coatings SK Palaniappan, M Chinnasamy, R Rathanasamy, SK Pal Polymers Coatings: Technology and Applications, 319		2020

1 of 8 16-11-2020, 11:48

TITLE	CITED BY	YEAR
Fabrication Methods of Organic/Inorganic Nanocomposite Coatings AM Kumar, R Rathanasamy, GV Kaliyannan, M Chinnasamy, Polymers Coatings: Technology and Applications, 21		2020
Fluid Power Actuators M Thangamuthu, T Thangamuthu, GV Kaliyannan, M Chinnasamy, Actuators: Fundamentals, Principles, Materials and Applications, 187-209		2020
Influence of coupling agent on altering the reinforcing efficiency of natural fibre-incorporated polymers—A review MS Anbupalani, CD Venkatachalam, R Rathanasamy Journal of Reinforced Plastics and Composites, 0731684420918937	1	2020
Investigation on sol-gel based coatings application in energy sector—A review GV Kaliyannan, SV Palanisamy, EB Priyanka, S Thangavel, S Sivaraj, Materials Today: Proceedings	2	2020
Technical performance of nano-layered CNC cutting tool inserts—An extensive review C Moganapriya, M Vigneshwaran, G Abbas, A Ragavendran, Materials Today: Proceedings		2020
Effect of thrust force, torque, and induced temperature on Kevlar reinforced composites during drilling process R Parameshwaran, R Rajasekar, VCH Ragavendra, N Praveenraj		2020
Materials Today: Proceedings Plant Fibre Based Biodegradable Green Composites M. Harikrishna Kumar, C. Moganapriya, R. Rajasekar, T. Mohanraj Advanced Applications of Bio-degradable Green Composites 68, 60-84		2020
Influence of ultrathin gahnite anti-reflection coating on the power conversion efficiency of polycrystalline silicon solar cell GV Kaliyannan, SV Palanisamy, R Rathanasamy, M Palanisamy, Journal of Materials Science: Materials in Electronics 31 (3), 2308-2319	3	2020
Influence of Prosopis Juliflora wood flour in Poly Lactic Acid–Developing a novel Bio-Wood Plastic Composite SS Raj, TK Kannan, R Rajasekar Polímeros 30 (1)		2020
Research Insights on the Development of Biosensors MKA Raj, R Rathanasamy, GV Kaliyannan, MR Thangamuthu Nanosensor Technologies for Environmental Monitoring, 33-48		2020
Effect of wood particulate size on the mechanical properties of PLA biocomposite R Sachin, S.R., Kannan, T.K. and Rajasekar Pigment & Resin Technology	1	2020
Tool condition monitoring techniques in milling process - a review PA T Mohanraj, S Shankar, R Rajasekar, NR Sakthivel Journal of Materials Research and Technology	20	2020
Experimental investigation on the influence of carbon-based nanoparticle coating on the heat transfer characteristics of the microprocessor T Thangamuthu, R Rathanasamy, S Kulandaivelu, R Kuttiappan, Journal of Composite Materials 54 (1), 61-70	1	2020
An experimental study on the effect of nano-clay addition on mechanical and water absorption behaviour of jute fibre reinforced epoxy composites S Ramakrishnan, K Krishnamurthy, R Rajasekar, G Rajeshkumar Journal of Industrial Textiles 49 (5), 597-620	22	2019
Influence of graphene oxide on the static and dynamic mechanical behavior of compatibilized polypropylene nanocomposites KVM Kumar, K Krishnamurthy, R Rajasekar, PS Kumar, K Pal, GC Nayak		2019

TITLE Materials Testing 61 (10), 986-990	CITED BY	YEAR
Development of sol-gel derived gahnite anti-reflection coating for augmenting the power conversion efficiency of polycrystalline silicon solar cells GV Kaliyannan, SV Palanisamy, M Palanisamy, M Subramanian, Materials Science-Poland 37 (3), 465-472	1	2019
Enriched physicochemical and blood-compatible properties of nanofibrous polyurethane patch engrafted with juniper oil and titanium dioxide for cardiac tissue engineering RR Saravana Kumar Jaganathan, Mohan Prasath Mani, Ahmad Zahran Md Khudzari International Journal of Polymer Analysis and Characterization 24 (8), 696-708	4	2019
Biomimetic electrospun polyurethane matrix composites with tailor made properties for bone tissue engineering scaffolds SK Jaganathan, MP Mani, M Ayyar, R Rathanasamy Polymer Testing 78, 105955	9	2019
Effects of thrust force variation during the drilling of pure and chemically treated Kevlar based polymer composites AM Kumar, R Parameshwaran, V Krishnaraj, R Rajasekar Materials Testing 61 (9), 907-913	1	2019
Nanomaterials for Oxygen Reduction Reaction S Mahalakshmi, S Bhuvanesh, R Aravindan, KS Abisek, Nanomaterials for Alcohol Fuel Cells 49, 231-270		2019
Carbon Polymer Supports Hybrid for Alcohol Oxidation MH Kumar, S Mahalakshmi, KVM Kumar, P Sathishkumar, Nanomaterials for Alcohol Fuel Cells 49, 177-192		2019
Proton Transport and Design of Proton Electrolyte Membranes for Methanol Oxidation PS Kumar, SK Pal, R Rajasekar, MH Kumar, AM Kumar Nanomaterials for Alcohol Fuel Cells 49, 321-350		2019
Fabrication and Properties of the Polymer Electrolyte Membrane (PEM) for Direct Methanol Fuel Cel Applications C Moganapriya, R Rajasekar, VK Gobinath, A Mohankumar Nanomaterials for Alcohol Fuel Cells 49, 159-176	II	2019
Experimental Investigation of the Thermo-Physical Properties of Nanofluids (CuO) and its Effect on a Flat Plate Solar Collector for Desalination Process MM Azarudeen, K Muralidharan, PR Prakash, R Rajasekar, RN Kumar Research and Applications of Thermal Engineering 2 (1)	a	2019
Tool condition monitoring in the milling process with vegetable based cutting fluids using vibration signatures T Mohanraj, S Shankar, R Rajasekar, R Deivasigamani, PM Arunkumar Materials Testing 61 (3), 282-288	6	2019
Limit load evaluation of inlet pigtail pipe bends with ovality under in-plane bending P Ramaswami, PS Velmurugan, C Moganapriya, R Rajasekar Materials Testing 61 (3), 267-272		2019
Influence of graphene coating on altering the heat transfer behavior of microprocessors T Thangamuthu, R Rathanasamy, S Kulandaivel, G Palanisamy Materials Testing 61 (2), 169-172	1	2019
Wet corrosion behavior of copper exposed to recycled groundnut oil as biofuel RR Velu Kaliyannan Gobinath and Palaniappan Sathish Kumar Govindharajan Materials Testing 61 (2), 131-135		2019
Prediction of cutting tool wear during milling process using artificial intelligence techniques S Shankar, T Mohanraj, R Rajasekar International Journal of Computer Integrated Manufacturing 32 (2), 174-182	19	2019

TITLE	CITED BY	YEAR
Utilization of 2D gahnite nanosheets as highly conductive, transparent and light trapping front conta for silicon solar cells RR Gobinath Velu Kaliyannan, Senthil Velmurugan Palanisamy, Manivasakan Applied Nanoscience, 1-11	act 4	2019
A review on the effect of carbon based nanofillers on the properties of elastomers GV Kaliyannan, R Rathanasamy, SK Palaniappan Material Sci & Eng 3 (3), 89-101		2019
Experimental analysis on the technical behavior of carbon black filled rubber blends' rollers for rice husk removal application P Paramasivam, R Ranganathan, R Rathanasamy, GV Kaliyannan, Polimery 64		2019
Experimental investigation on the effect of multilayer TiCN/TiAlN/WC-C coating on the tribological behaviour of tool inserts for machining applications M Chinnasamy, R Rathanasamy, P Kannayiram, SK Palaniappan, SK Pal, International Journal of Materials Engineering Innovation 10 (3), 186-202		2019
Experimental analysis on the technical behavior of carbon black filled rubber blends' rollers for rice husk removal application MC P. Paramasivam, R. Ranganathan, R. Rathanasamy, G.V. Kaliyannan, S.K Polimery 48 (1)		2019
Mechanical and tribological behavior of SiC and fly ash reinforced Al 7075 composites compared to SAE 65 bronze GV Kaliyannan, PS Kumar, SM Kumar, R Deivasigamani, R Rajasekar Materials Testing 60 (12), 1225-1231	4	2018
Effect of coating on tool inserts and cutting fluid flow rate on the machining performance of AISI 101 steel C Moganapriya, R Rajasekar, K Ponappa, PS Kumar, SK Pal, JS Kumar Materials Testing 60 (12), 1202-1208	15	2018
Single-stage electrospun innovative combination of polyurethane and neem oil: Synthesis, characterization and appraisal of blood compatibility PP Mohan Prasath Mani, Saravana Kumar Jaganathan, Ahmad Zahran Khudzari Journal of Bioactive and Compatible Polymers 33 (6), 573-584	8	2018
Fabrication and characterization of tailor-made novel electrospun fibrous polyurethane scaffolds decorated with propolis and neem oil for tissue engineering applications PP Saravana Kumar Jaganathan, Mohan Prasath Mani, Rajasekar Rathanasamy Journal of Industrial Textiles	4	2018
Recycling of Rubber Composites and Nanocomposites R Shanmugam, SK Palaniappan, R Rathanasamy, K Kasilingam, Rubber Recycling, 275-309		2018
Recycling of Rubber Blends for Durable Construction SK Palaniappan, R Rathanasamy, SK Pal, GC Nayak Rubber Recycling, 259-274		2018
A THEORETICAL STUDY ON THE PHYSICO-MECHANICAL BEHAVIOR OF POLYESTER COMPOSITES USING DIFFERENT CLASSES OF NATURAL FIBER REINFORCEMENTS A MOHANKUMAR, R PARAMESHWARAN, MM PRASATH, SM SENTHIL, Functionalized Engineering Materials and Their Applications, 20		2018
MORPHOLOGICAL AND DYNAMIC MECHANICAL BEHAVIOR OF GRAPHENE-OXIDE-FILLED POLYVINYLIDENE FLUORIDE R RAJASEKAR, PS KUMAR, S MAHALAKSHMI, JH LEE Functionalized Engineering Materials and Their Applications, 19		2018
Fabrication and characterisation of nanofibrous polyurethane scaffold incorporated with corn and neem oil using single stage electrospinning technique for bone tissue RR Saravana Kumar Jaganathan, Mohan Prasath Mani, Sathish Kumar Palaniappan	24	2018

TITLE Journal of Polymer Research 25 (7), 146	CITED BY	YEAR
Preparation, characterization and blood compatibility assessment of a novel electrospun nanocomposite comprising polyurethane and ayurvedic-indhulekha oil for tissue RR Manikandan Ayyar, Mohan Prasath Mani, Saravana Kumar Jaganathan Biomedical Engineering/Biomedizinische Technik 63 (3), 245-253	19	2018
Morphological, thermal, and blood-compatible properties of electrospun nanocomposites for tissue engineering application RR Ayyar Manikandan, Mohan Prasath Mani, Saravana Kumar Jaganathan Polymer Composites 39	9	2018
A review on biodegradable polymeric materials striving towards the attainment of green environmer D Jayanth, PS Kumar, GC Nayak, JS Kumar, SK Pal, R Rajasekar Journal of Polymers and the Environment 26 (2), 838-865	nt 25	2018
Modelling and analysis of four wheel rim by using PEEK composites R Manivannan, R Rajasekar, VK Gobinath Material Sci & Eng 2 (6), 177-183	1	2018
Influence of coating material and cutting parameters on surface roughness and material removal rain turning process using Taguchi method C Moganapriya, R Rajasekar, K Ponappa, R Venkatesh, S Jerome Materials Today: Proceedings 5 (2), 8532-8538	te 22	2018
Graphene-based Composites: Present, Past and Future for Supercapacitors RR P. Sathish Kumar, Samir Kumar Pal, T. K. Kannan Electrochemical Capacitors: Theory, Materials and Applications 26, 263-287	1	2018
Electrochemical Super Capacitors Fabricated by the Layer-by-Layer (LbL) Technique RR C. Moganapriya, P. Sathish Kumar, Samir Kumar Pal, P. Kanagarajan Electrochemical Capacitors Theory, Materials and Applications 26, 236-262		2018
Partial replacement of carbon black by nanoclay in butyl rubber compounds for tubeless tires MKH Kumar, S Shankar, R Rajasekar, PS Kumar, PS Kumar Materials Testing 59 (11-12), 1054-1060	2	2017
Folic acid decorated chitosan nanoparticles and its derivatives for the delivery of drugs and genes to cancer cells AA John, SK Jaganathan, M Ayyar, NP Krishnasamy, R Rajasekar, Current Science 113 (8), 1530	0 10	2017
Formation of functional nanofibrous electrospun polyurethane and murivenna oil with improved haemocompatibility for wound healing A Manikandan, MP Mani, SK Jaganathan, R Rajasekar, M Jagannath Polymer Testing 61, 106-113	69	2017
Tribomechanical behavior of TiCN/TiAIN/WC-C multilayer film on cutting tool inserts for machining C Moganapriya, R Rajasekar, K Ponappa, R Karthick, RV Perundurai, Materials Testing 59 (7-8), 703-707	3	2017
Morphological, thermal, and blood-compatible properties of electrospun nanocomposites for tissue engineering application RR Ayyar Manikandan, Mohan Prasath Mani, Saravana Kumar Jaganathan Polymer Composites 39 (S1), E132-E139	9	2017
Optimization of machining force and delamination factor of GFRP in dry drilling process using taguchi method K Shunmugesh, R Rajasekar, C Moganapriya, V Karthik Advances in Natural and Applied Sciences 11 (8), 220-231		2017
Prediction of the surface roughness and wheel wear of modern ceramic material (Al2O3) during grinding using multiple regression analysis model RRRV P Kanakarajan, S. Sundaram, A Kumaravel Indian Journal of Engineering & Materials Sciences 24, 182-186		2017

TITLE	CITED BY	YEAR
Effects of abaca fiber reinforcement on the dynamic mechanical behavior of vinyl ester composites AM Kumar, R Parameshwaran, PS Kumar, SK Pal, MM Prasath, Materials Testing 59 (6), 555-562	2	2017
Development of calcium titanium oxide coated silicon solar cells for enhanced voltage generation capacity K Kathirvel, R Rajasekar, T Shanmuharajan, SK Pal, PS Kumar, JS Kumar Materials Science-Poland 35 (1), 181-187	1	2017
Tribomechanical behavior of B_4C_p reinforced Al 359 composites D Ramasamy, MK Subramanian, GV Kaliyannan, J Durairaj, Materials Testing 59 (2), 172-177	3	2017
Surface, thermal and hemocompatible properties of novel single stage electrospun nanocomposites comprising polyurethane blended with bio oilTM M Ayyar, MP Mani, SK Jaganathan, R Rathinasamy, AZ Khudzari, Anais da Academia Brasileira de Ciências 89 (3), 2411-2422	3	2017
Prediction of the surface roughness and wheel wear of modern ceramic material (Al ₂ O ₃) during grinding using multiple regression analysis model P Kanakarajan, S Sundaram, A Kumaravel, R Rajasekar, NISCAIR-CSIR, India	2	2017
INFLUENCE OF ROCK PROPERTIES ON WEAR OF M AND SR GRADE RUBBER WITH VARYING NORMAL LOAD AND SLIDING SPEED SK PAL, KUM RAO, PS KUMAR, R RAJASEKAR Archives of Metallurgy and Materials 62 (3)	1	2017
REVIEW ON PARAMETERS INFLUENCING THE RICE BREAKAGE AND RUBBER ROLL WEAR IN SHELLER P PRABHAKARAN, R RANGANATHAN, VM KUMAR, R RAJASEKAR, Archives of Metallurgy and Materials 62 (3)	5	2017
EXPERIMENTAL ANALYSIS OF NITROGEN AS AN ALLOYING ELEMENT IN WC9 GRADE STEE V VISHNUH, S SUDHAKAR, K TAMILARASU, P PRABHAKARAN, Archives of Metallurgy and Materials 62 (3)	L 1	2017
INFLUENCE OF CUTTING FLUID FLOW RATE AND CUTTING PARAMETERS ON THE SURFACE ROUGHNESS AND FLANK WEAR OF TIAIN COATED TOOL IN TURNING AISI 1015 STEEL USING TAGUCHI METHOD C MOGANAPRIYA, R RAJASEKAR, K PONAPPA, R VENKATESH, Archives of Metallurgy and Materials 62 (3)	E 3	2017
EFFECT OF OVALITY IN INLET PIGTAIL PIPE BENDS UNDER COMBINED INTERNAL PRESSURE AND IN-PLANE BENDING FOR Ni-Fe-Cr B407 MATERIAL P RAMASWAMI, PS VELMURUGAN, R RAJASEKAR Archives of Metallurgy and Materials 62 (3)	1	2017
Organic/Silica Nanocomposite Membranes PS Kumar, SK Pal, M Chinnasamy, R Rajasekar Organic-Inorganic Composite Polymer Electrolyte Membranes, 47-72		2017
Organic/Montmorillonite Nanocomposite Membranes PS Kumar, SM Senthil, SK Pal, R Rajasekar Organic-Inorganic Composite Polymer Electrolyte Membranes, 133-164		2017
A Theoretical Study on the Physico-Mechanical Behavior of Polyester Composites Using Different Classes of Natural Fiber Reinforcements RR A. Mohankumar, R. Parameshwaran, M. MohanPrasath, S. M. Senthil, P Functionalized Engineering Materials and Their Applications 1, 375		2016
Morphological and Dynamic Mechanical Behavior of Graphene Oxide Filled Polyvinylidene Fluoride RR J. H. Lee, P. Sathish Kumar, S. Mahalakshmi Functionalized Engineering Materials and Their Applications 1, 375		2016

TITLE	CITED BY	YEAR
Chapter 4 Binders Such as Adhesives, Gums, Wallpaper Paste, Resins or Any Subclass in Polivision R Rajasekar, C Moganapriya, P Sathish Kumar, P Navaneethakrishnan Green Polymer Composites Technology: Properties and Applications, 49-62	olymer	2016
Acoustic emission testing of the machining performance of SiC grinding wheel shaped Al2O3 ceramics P Kanakarajan, S Sundaram, A Kumaravel, R Rajasekar, Materials Testing 58 (10), 908-912	2	2016
14 Vinyl Polymer CK Das, R Rajasekar, CS Reddy Handbook of Vinyl Polymers: Radical Polymerization, Process, and Technology, 429		2016
Reduction of harmful nitrogen oxide emission from low heat rejection diesel engine using carb nanotubes G Thulasi, PA Kandampalayam, R Rathanasamy, SK Palaniappan, Thermal Science 20 (suppl. 4), 1181-1187	bon 6	2016
Dual Reinforcement Effect of Nanoclay and Jute Fiber on the Mechanical Properties of Polyec Resin S Ramakrishnan, K Krishnamurthy, R Rajasekar Asian Journal of Research in Social Sciences and Humanities 6 (12), 912-926	ster 1	2016
Fabrication and hemocompatibility assessment of novel polyurethane-based bio-nanofibrous dressing loaded with honey and carica papaya extract for the management of burn injuries A Balaji, SK Jaganathan, AF Ismail, R Rajasekar International journal of nanomedicine 11, 4339	52	2016
Effect of Pretreatment Methods on Properties of Natural Fiber Composites: A Review NVPNRRS Shankar Polymers & Polymer Composites 24 (7), 555-566	44	2016
Multiphase Materials for Tire Applications R Rajasekar, C Sivasenapathy, C Moganapriya, A Sivakumar Multicomponent Polymeric Materials, 349-367		2016
Multi Layer Pipes R Rajasekar, KSKS Kumar, PS Kumar Multicomponent Polymeric Materials, 279-299		2016
Paints and coating of multicomponent product PS Kumar, R Rajasekar, SK Pal, GC Nayak, SMRS Ismail Multicomponent Polymeric Materials, 157-226	4	2016
Multilayer (Fuel) Storage Tank R Rajasekar, KVM Kumar, K Krishnamurthy, PS Kumar Multicomponent Polymeric Materials, 301-324		2016
Acoustic emission testing of surface roughness and wear caused by grinding of ceramic mater P Kanakarajan, S Sundaram, A Kumaravel, R Rajasekar, PS Kumar Materials Testing 57 (4), 337-342	erials 7	2015
Theoretical prediction on the mechanical behavior of natural fiber reinforced vinyl ester compos Ramakrishnan, K Krishnamurthy, MM Prasath, RS Kumar, M Dharmaraj, Appl. Sci. Adv. Mater. Int 1 (3), 85-92	osites 7	2015
Research updates on graphene oxide-based polymeric nanocomposites KV Maheshkumar, K Krishnamurthy, P Sathishkumar, S Sahoo, E Uddin, Polymer composites 35 (12), 2297-2310	26	2014
Investigation of chemically treated randomly oriented sansevieria ehrenbergii fiber reinforced isophthallic polyester composites TP Sathishkumar, P Navaneethakrishnan, S Shankar, R Rajasekar Journal of Composite Materials 48 (24), 2961-2975	12	2014

TITLE	CITED BY	YEAR
Mechanical properties and water absorption of short snake grass fiber reinforced isophthallic polyester composites TP Sathishkumar, P Navaneethakrishnan, S Shankar, R Rajasekar Fibers and Polymers 15 (9), 1927-1934	22	2014
Graphene and modified graphene-based polymer nanocomposites—A review N Saravanan, R Rajasekar, S Mahalakshmi, TP Sathishkumar, Journal of Reinforced Plastics and Composites 33 (12), 1158-1170	107	2014