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TITLE	CITED BY	YEAR
Optimization of electroless bath process parameter for improving the tribology behavior of Ni-P/CaBr2 composite coating against the hardened EN-31 steel A Premkumar, A Elayaperumal, S Arulvel, MS Jagatheeshwaran, Surface Topography: Metrology and Properties		2020
Significance of tribolayer on the friction and wear resistance of FSPed AA6082/SiCp composite at various load conditions M Sivanesh Prabhu, A Elayaperumal, S Arulvel, M Wasim Khan Surface Topography: Metrology and Properties	1 *	2020
A study on combustion and performance characteristics of ceramic coated (PSZ/Al2O3) and uncoated piston–DI engine SM Abbas, A Elayaperumal, G Suresh Materials Today: Proceedings	1	2020
Enhancement of the hardness and wear-resistance of aluminum-silicon alloy using atmospheric plasma-sprayed ZrO 2, Al 2 O 3-ZrO 2 multilayer, and Al 2 O 3/ZrO 2 composite coatings S Mohamed Abbas, A Elayaperumal, S Arulvel Surface Topography: Metrology and Properties 8 (2), 025027	O	2020
Enhancement of the hardness and wear-resistance of aluminum-silicon alloy using atmospheric plasma-sprayed ZrO 2, Al 2 O 3-ZrO 2 multilayer, and Al 2 O 3/ZrO 2 composite coatings SM Abbas, A Elayaperumal, S Arulvel Surface Topography: Metrology and Properties	O	2020
Development of multi-pass processed AA6082/SiCp surface composite using friction stir processing and its mechanical and tribology characterization MS Prabhu, AE Perumal, S Arulvel Surface and Coatings Technology, 125900	1	2020
Calcium hexaboride reinforced Nickel-Phosphorus composite coating for increasing the wear properties of low carbon steel A Premkumar, A Elayaperumal, S Arulvel, MS Jagatheeshwaran, Materials Today: Proceedings		2020
Mapping of Wear Mechanism for Mechanical Alloyed Al/CNT Composites-An In-situ Analysis P Manikandan, A Elayaperumal, RF Issac. ASME Journal of Tribology, 1-26		2020

TITLE	CITED BY	YEAR
Influence of resistance spot welding process parameters on dissimilar austenitic and duplex stainless steel welded joints EAVP Vignesh Krishnan Proc IMechE Part E:J Process Mechanical Engineering		2020
Wear behaviour of electroless Ni-P and Ni-P-TiO2 composite coatings on En8 steel I Saravanan, A Elayaperumal, A Devaraju, M Karthikeyan, A Raji Materials Today: Proceedings 22, 1135-1139	4	2020
Investigation of temperature influence in wear studies on nitride coatings A Devaraju, P Rajendran, AE Perumal, I Saravanan Materials Today: Proceedings 22, 1167-1174		2020
Resistance spot welding of AISI-316L SS and 2205 DSS for predicting parametric influences on weld strength—Experimental and FEM approach K Vignesh, A Elaya Perumal, P Velmurugan Archives of Civil and Mechanical Engineering 19, 1029-1042	4	2019
Friction and wear measurements of friction stir processed aluminium alloy 6082/CaCO3 composite MS Prabhu, AE Perumal, S Arulvel, RF Issac Measurement 142, 10-20	16	2019
The effect of different percentage of carbon on workability behaviour of Fe-C-0.7 Mn sintered composites APM Raj, N Saravanan, AE Perumal AIP Conference Proceedings 2128 (1), 030001		2019
Influence of Ni–Ti shape memory alloy short fibers on the flexural response of glass fiber reinforced polymeric composites K Pazhanivel, GB Bhaskar, A Elayaperumal, P Anandan, S Arunachalam SN Applied Sciences 1 (7), 789	5	2019
Experimental investigation on the effect of ceramic coating on engine performance and emission characteristics for cleaner production SM Abbas, A Elayaperumal Journal of Cleaner Production 214, 506-513	15	2019
Partial dissolution of precipitated-calcium carbonate (P-CaCO 3) in electroless Nickel-phosphorus (Ni-P) coating and its surface characterization A Premkumar, A Elayaperumal, S Arulvel, MS Jagatheeshwaran Materials Research Express	3	2019
Comparative study on the friction-wear property of As-plated, Nd-YAG laser treated, and heat treated electroless Nickel-Phosphorus/Crab shell particle composite coatings on S Arulvel, A Elayaperumal, MS Jagatheeshwaran Surface and Coatings Technology 357, 543-558	6	2019
Wear behavior of HPT processed UFG AZ31B magnesium alloy P Seenuvasaperumal, K Doi, DA Basha, A Singh, A Elayaperumal, Materials Letters 227, 194-198	8	2018

TITLE	CITED BY	YEAR
Controlling adhesive wear failure of nickel-phosphorus coating at high load condition using crab shell particle as reinforcement S Arulvel, A Elayaperumal, MS Jagatheeshwaran Engineering Failure Analysis 90, 310-323	13	2018
Taguchi analysis of tool wear and delamination in milling of GFRP composite using coated K10 end mill PP Raj, K Pazhanivel, AE Perumal Progress in Industrial Ecology, an International Journal 12 (1-2), 138-153		2018
Drilling of pultruded and liquid composite moulded glass/epoxy thick composites: Experimental and statistical investigation B Ramesh, A Elayaperumal, S Satishkumar, A Kumar Measurement 114, 109-121	10	2018
Impact of nano zinc oxide on the friction—Wear property of electroless nickel-phosphorus sea shell composite coatings MS Jagatheeshwaran, A Elayaperumal, S Arulvel Materials Science and Engineering: B 225, 160-172	7	2017
Renewable energy based smart microgrids—A pathway to green port development A Misra, G Venkataramani, S Gowrishankar, E Ayyasam, V Ramalingam Strategic Planning for Energy and the Environment 37 (2), 17-32	12	2017
Influence of calcium hexaboride reinforced magnesium composite for the mechanical and tribological behviour P Seenuvasaperumal, A Elayaperumal, R Jayavel Tribology International 111, 18-25	21	2017
Sustainability and environmental management: Emissions accounting for ports A Misra, K Panchabikesan, E Ayyasamy, V Ramalingam Strategic Planning for Energy and the Environment 37 (1), 8-26	4	2017
Drying and energy aspects of tapioca sago processing-an experimental field study R Sivakumar, A Elayaperumal, R Saravanan Journal of Mechanical Science and Technology 31 (6), 3035-3042	1	2017
Fault diagnostics of spur gear using decision tree and fuzzy classifier A Krishnakumari, A Elayaperumal, M Saravanan, C Arvindan The International Journal of Advanced Manufacturing Technology 89 (9-12	35	2017
Electroless nickel–phosphorus coating on crab shell particles and its characterization S Arulvel, A Elayaperumal, MS Jagatheeshwaran Journal of Solid State Chemistry 248, 87-95	15	2017
Optimization of resistance spot welding process parameters and microstructural examination for dissimilar welding of AISI 316L austenitic stainless steel and 2205 duplex K Vignesh, A Elayaperumal, P Velmurugan The International Journal of Advanced Manufacturing Technology, 1-11	25	2017

TITLE	CITED BY	YEAR
Room temperature ferromgnetism in Cr doped SrSnO3-pervoskite system KS M.Muralidharan, V.Anbarasu, A.Elayaperumal Journal of Material science:Materials in Electronics 28 (5), 4125-4137	23	2017
ROLE OF BIODIESEL WITH NANOADDITIVES IN PORT OWNED TRUCKS AND OTHER VEHICLES FOR EMISSION REDUCTION A Misra, S Tajudeen, G Venkataramani, A Elayaperumal, V Ramalingam THERMAL SCIENCE 21 (1), 605-614	2	2017
GHG emission accounting and mitigation strategies to reduce the carbon footprint in conventional port activities—a case of the Port of Chennai A Misra, G Venkataramani, K Panchabikesan, A Elayaperumal, Carbon Management, 1 -12	6	2017
Sustainable Energy Resources based Smart Microgrid towards Green Port Development-A Pathway for Ecofriendly Society A Misra, G Venkataramani, K Panchabikesan, A Elayaperumal, Asian Journal of Research in Social Sciences and Humanities 7 (3), 190-200	1	2017
Effect of Calcium Hexaboride Particles on Predicting the Dry Sliding Tribological Process Parameter of Magnesium Composite Using Grey Relational Analysis P Seenuvasaperumal, A Elayaperumal Materials Today: Proceedings 4 (2), 557-566		2017
Drillability study of pultruded and sheet moulding compound thick polymeric composites B Ramesh, A Elayaperumal, S Satishkumar Proceedings of the Institution of Mechanical Engineers, Part B: Journal of	6	2017
Discussion on the feasibility of using proteinized/deproteinized crab shell particles for coating applications: synthesis and characterization S Arulvel, A Elayaperumal, MS Jagatheeshwaran Journal of Environmental Chemical Engineering 4 (4), 3891-3899	12	2016
The role of calcinated sea shell particles on friction-wear behavior of electroless NiP coating: fabrication and characterization MS Jagatheeshwaran, A Elayaperumal, S Arulvel Surface and Coatings Technology 304, 492-501	17	2016
Wear study of cross linked UHMWPE hybrid composite-TiN interface I Saravanan, AE Perumal, RF Issac Surfaces and Interfaces 4, 42-50	2	2016
Fluidized bed drying of some agro products—A review R Sivakumar, R Saravanan, AE Perumal, S Iniyan Renewable and Sustainable Energy Reviews 61, 280-301	69	2016
Influence of SMA reinforcement on the impact resistance of GFRP composite laminates under different temperatures K Pazhanivel, GB Bhaskar, A Elayaperumal, P Anandan, S Arunachalam Bulletin of Materials Science 39 (3), 889-899	3	2016

TITLE	CITED BY	YEAR
Influence of cooling on the performance of the drilling process of glass fibre reinforced epoxy composites (vol 16, pg 135, 2016) B Ramesh, A Elayaperumal, S Satishkumar, A Kumar, T Jayakumar, ARCHIVES OF CIVIL AND MECHANICAL ENGINEERING 16 (3), 564-564		2016
Studies on combined cooling and drying of agro products using air cooled internal heat recovered vapour absorption system R Sivakumar, A Elayaperumal, R Saravanan Applied Thermal Engineering 97, 100-108	9	2016
Micro/nanostructure and tribological characteristics of pressureless sintered carbon nanotubes reinforced aluminium matrix composites P Manikandan, R Sieh, A Elayaperumal, HR Le, S Basu Journal of nanomaterials 2016	10	2016
A study of frictional wear behaviour of Ti6Al4V and UHMWPE hybrid composit on TIN surface for bio-medical applications BV Saravanan I,Elayaperumal A Tribology International 98, 179-189	re 14	2016
Optimization of wear parameters and their relative effects on TiN coated surface against Ti6Al4V alloy I Saravanan, AE Perumal, RF Issac, SC Vettivel, A Devaraju Materials & Design 92, 23-35	25	2016
Influence of cooling on the performance of the drilling process of glass fibre reinforced epoxy composites B Ramesh, A Elayaperumal, S Satishkumar, A Kumar, T Jayakumar, Archives of Civil and Mechanical Engineering 16 (3), 565-575	14	2016
Surfaces and Interfaces I Saravanan, AE Perumal, RF Issac		2016
Enhanced ferromagnetism in Cr doped SrMoO4 scheelite structured compounds KS M.Muralidharan,V.Anbarasu,A.Elayaperumal J.Mater.Sci:Mater Electron 27, 2545-2556	5	2016
Enhanced ferromagnetism in Cr doped SrMoO4 scheelite structured compounds KS M.Muralidharan, V.Anbarasu, A.Elayaperumal J.Mater. Sci: Mater Electron 27, 2545-2556	5	2016
Graphene decorated with MoS 2 nanosheets: a synergetic energy storage composite electrode for supercapacitor applications R Thangappan, S Kalaiselvam, A Elayaperumal, R Jayavel, Dalton transactions 45 (6), 2637-2646	126	2016
Wear behavior of γ-irradiated Ti6Al4V alloy sliding on TiN deposited steel surface I Saravanan, AE Perumal Tribology International 93, 451-463	8	2016

TITLE	CITED BY	YEAR
Wear characteristics of electroless NiP/bio-composite coatings on En8 steel MS Jagatheeshwaran, A Elayaperumal, S Arulvel Journal of Manufacturing Processes 20, 206-214	17	2015
Carrier mediated ferromagntism in Cr doped SrTiO3 compounds KS M. Muralidharan, V. Anbarasu, A. Elaya Perumal Journal of materials science: Materials in electronics 26, 6352-6365	24	2015
Processing and characterization of pure cordierite and zirconia-doped cordie ceramic composite by precipitation technique MS Kumar, AE Perumal, TR Vijayaram, G Senguttuvan Bulletin of Materials Science 38 (3), 679-688	erite 9	2015
Effect of drill point geometry on quality characteristics and multiple performation optimization in drilling of nonlaminated composites B Ramesh, A Elayaperumal, S Satishkumar, A Kumar, T Jayakumar Proceedings of the Institution of Mechanical Engineers, Part L: Journal of	ance 10	2015
Thermal, thermo oxidative and ablative behavior of cenosphere filled ceramic/phenolic composites R Balaji, M Sasikumar, A Elayaperumal Polymer Degradation and Stability 114, 125-132	21	2015
Influence of stainless steel wire reinforcement on the impact resistance of GFRP composite laminates K Pazhanivel, GB Bhaskar, A Elayaperumal, P Anandan, S Arunachalam Arabian Journal for Science and Engineering 40 (4), 1111-1122	2	2015
Synthesis, characterization and sintering behavior influencing mechanical, thermal and physical properties of pure cordierite and cordierite-ceria MS Kumar, AE Perumal, TR Vijayaram Journal of Advanced Ceramics 4 (1), 22-30	7	2015
Optimizing wear behavior of TiN coated SS 316L against Ti alloy using Response Surface Methodology I Saravanan, AE Perumal, SC Vettivel, N Selvakumar, A Baradeswaran Materials & Design 67, 469-482	55	2015
Effect of graphite on tribological and mechanical properties of AA7075 composites A Baradeswaran, A Elaya Perumal Tribology Transactions 58 (1), 1-6	41	2015
Review of reduction of leakage current in cascaded multilevel inverter MSV Kumar, AS Williams, PE Paul, A Perumal International Journal of Research in Science and Technology 2 (1), 1-4	2	2015
Dry Sliding Wear Behavior of Ti6Al4V and TaN against TiN Deposited Steel Surface AE Perumal Journal of Materials Science and Chemical Engineering 3 (07), 202	1	2015

TITLE	CITED BY	YEAR
Band gap tailoring and enhanced ferromagnetism in Yb doped SrWO4 scheelite structured System KS M. Muralidharan, V. Anbarasu, A. Elaya Perumal Journal of materials science: Materials in Electronics 26, 6875-6886	8	2015
Studies on multi functional behaviour of Cr doped SrWO4 compounds KS M. Muralidharan, V. Anbarasu, A. Elaya Perumal Journal of materials science: Materials in Electronics 26, 6926-6938	7	2015
Determination of Optimum Parameter Levels for Quality Characteristics in Conventional Drilling of Thick Polymeric Composites B. Ramesh, A. Elayaperumal, S. Satishkumar Advanced Materials Research 1119, 601-606		2015
Experimental Study and Optimization of Process Parameters on Thrust Force Based on Taguchi and ANOVA During Drilling of GFRP Polymeric Composites Manufactured by Pultrusion Method B. Ramesh, A. Elayaperumal, S. Satishkumar International Journal of Applied Engineering Research 10 (8), 5910-5915		2015
Experimental Investigation of the Effect of Different Cooling Methods on Drill-Induced Damage in Pultruded Composites Ramesh Balasubramanian, Elayaperumal Ayyasamy, Satishkumar Shanmugam, Anish Polymer Composites		2015
Synthesis of graphene oxide/vanadium pentoxide composite nanofibers by electrospinning for supercapacitor applications R Thangappan, S Kalaiselvam, A Elayaperumal, R Jayavel Solid State Ionics 268, 321-325	42	2014
Experimental investigation on mechanical behaviour, modelling and optimization of wear parameters of B4C and graphite reinforced aluminium hybrid composites A Baradeswaran, SC Vettivel, AE Perumal, N Selvakumar, RF Issac Materials & Design 63, 620-632	197	2014
Neural network model for condition monitoring of wear and film thickness in a gearbox C Sreepradha, AK Kumari, AE Perumal, RC Panda, K Harshabardhan, Neural Computing and Applications 24 (7-8), 1943-1952	11	2014
Determination of optimum parameter levels for multiperformance characteristics in conventional milling of beryllium copper alloy by using response surface methodology B Ramesh, A Elayaperumal, R Venkatesh, S Madhav, K Jain International Journal of Innovative Research in Science, Engineering and	6	2014
Carrer induced ferromagnetism in Yb doped SrTiO3 pervoskite system KS M.Muralidharan, V.Anbarasu, A.Elayaperumal Journal of Material science:Materials in Electronics 25 (9), 4078-4087	17	2014