

SCI Journal published in 2020

Sl.	Title	Authors	Journal	Details
1	A bottom-up approach to experimentally investigate the deposition of austenitic stainless steel in laser direct metal deposition system	Piyush Pant, Dipankar Chatterjee, Sudip Kumar Samanta, Titas Nandi, Aditya Kumar Lohar	Journal of the Brazilian Society of Mechanical Sciences and Engineering	2020, 42, article no. 88
2	Catalytic conversion of CO ₂ to biofuel (methanol) and downstream separation in membrane-integrated photoreactor system under suitable conditions	Sankha Chakraborty, Jayato Nayak, Parimal Pal, Ramesh Kumar, Shirsendu Banerjee, Preetam Kumar, Mondal, Madhubanti Pal, Biswajit Ruj	International Journal of Hydrogen Energy	2020, 45 (1), pp. 675-690
3	Experimental and computational studies of imidazolium based ionic liquid 1-methyl- 3-propylimidazolium iodide on mild steel corrosion in acidic solution	Gulista Parveen, Sumayah Bashir, Abhinay Thakur, Sourav Kr Saha, Priyabrata Banerjee, Ashish Kumar	Materials Research Express	2020, 7 (1), article no. 16510
4	Modeling of EHD inkjet printing performance using soft computing-based approaches	Amit Kumar Ball, Raju Das, Shibendu Shekhar Roy, Dakshina Ranjan Kisku, Naresh Chandra Murmu	Soft Computing	2020, 24, pp. 571–589
5	Physico-mechanical properties of tamarind pod shell-based composite	Santosh Goudar, Ravi Kant Jain, Debashis Das	Polymer Composites	2020, 41 (2), pp. 505-521
6	Saliency Subtraction Inspired Automated Event Detection in Underwater Environments	Nitin Kumar, H. K. Sardana, S. N. Shome, Neerja Mittal	Cognitive Computation	2020, 12, pp. 115–127
7	Tribological Property Investigation of Self-Lubricating Molybdenum-Based Zirconia Ceramic Composite Operational at Elevated Temperature	Kunal Ghosh, Subhrojyoti Mazumder, Bipin Kumar Singh, Harish Hirani, Poulomi Roy, Nilrudra Mandal	Journal of Tribology	2020, 142 (2), article no. 021704
8	Waste plastic to pyrolytic oil and its utilization in CI engine: Performance analysis and combustion characteristics	R.K. Singh, Biswajit Ruj, A.K. Sadhukhan, P. Gupta, V.P. Tigga	Fuel	2020, 262, article no. 116539
9	Tandem detection of sub-nano molar level CN and Hg ²⁺ in aqueous medium by suitable molecular sensor: a viable solution for detection of CN and development of RGB based sensory device	Amita Mondal ; Abhijit Hazra; Jitamanu Chakraborty; Jagadeesh C Bose K; Priyabrata Banerjee	Omega (ACS)	ACS Omega 2020, 5, 12, 6576–6587
10	Investigation of electrochemical charge storage in nickel-cobalt-selenide/reduced graphene oxide composite electrode and its hybrid supercapacitor device	Souvik Ghosh; Prakas Samanta; Naresh Chandra Murmu; Tapas Kuila	Journal of Alloys and Compounds (Elsevier)	Volume 835, 15 September 2020, 155432
11	Corrosion inhibition property of triazole based azomethine compound in 1 molL ⁻¹ HCl solution for mild steel : Experimental and insightful theoretical exploration	Manilal Murmu; Sourav Kr Saha; Prabhas Bhowmick; Harish Hirani; Priyabrata Banerjee	Journal of Molecular Liquids (Elsevier)	Vol.313, 1 September 2020, 113508

12	A novel methodology for spark gap monitoring in Micro-EDM using optical fiber Bragg grating	Arjita Das ; Shikha Ambastha ; Saurav Halder ; Sudip Samanta ; Nagahanumaiah	IEEE Transactions on Instrumentation and Measurement	Vol. 69 , Issue: 7 , July 2020
13	Area Efficient VLSI Architectures for Weak Signal Detection in Additive Generalized Cauchy Noise	Siva Ram Krishna Vadali, Subrahmanyam Mula, Priyadip Ray, Saswat Chakrabarti	IEEE Transactions on Circuits and Systems I: Regular Papers	Vol. 67 , Issue: 6 , June 2020
14	Characterization and actuation behavior of SPS/SGO ion exchange polymer actuator based on PEDOT: PSS/SGO composite electrode	Ajazar Khan, Ravi Kant Jain, Khalid A. Alamry	Polymer-Plastics Technology and Materials	Vol 59, 2020 - Issue 7 Pages 687-701
15	Fast response and low temperature sensing of acetone and ethanol using	Madhumita Sinha, Rajat Mahapatra, Manas Kumar Mondal, Satheesh Krishnamurthy, Ranajit Ghosh	Physica E: Low-dimensional Systems and Nanostructures	Vol. 118, April 2020, 113868
16	Feasibility study on thermography of embedded tumor using fiber Bragg grating thermal sensor	Shikha Ambastha, Shweta Pant, Sharath Umesh, Vikas Vazhayil, Sundarajan Asokan	IEEE Sensors Journal	Vol. 20 , Issue: 5 , March 1, 2020
17	Inverse analysis and multi-objective optimization of coupling mechanism based laser forming process	Kuntal Maji, Shitanshu S Chakraborty, Dilip K Pratihari, Ashish K. Nath	Sādhanā	Sādhanā (2020) 45:8
18	Investigation of the mechanical performance of carbon/polypropylene 2D and 3D woven composites manufactured through multi-step impregnation processes	Vijay Gouda, Dilpreet Singh, Alagirusamy Ramasamy, Apurba Das, Dinesh Kalyanasundaram	Composites Part A: Applied Science and Manufacturing	Vol. 130, March 2020, 105733
19	Lubrication of dry sliding metallic contacts by chemically prepared functionalized graphitic nanoparticles	Suprakash Samanta, Santosh Singh, Rashmi. R. Sahoo	Friction	8(4): 708–725 (2020)
20	Pretreatment of polysaccharidic wastes with cellulolytic <i>Aspergillus fumigatus</i> for enhanced production of biohydrogen in a dual-stage process	Bikram Basak, Shouvik Saha, Pradip K. Chatterjee, Amit Ganguly, Soon Woong Chang, Byong-Hun Jeon	Bioresource Technology	Vol. 299, March 2020, 122592
21	Selection criteria of appropriate bamboo based biomass for thermochemical conversion process	Satyajit Pattanayak, Lalhmingsanga Hauchhum, Chanchal Loha, Lalsangzela Sailo	Biomass Conversion and Biorefinery	10:401–407, (2020)
22	Thermal degradation of waste plastics under non-sweeping atmosphere: Part 2: Effect of process temperature on product characteristics and their future applications	Rohit Kumar Singh, Biswajit Ruj, Anup Kumar Sadhukhan, Parthapratim Gupta	Journal of Environmental Management	Vol. 261, 1 May 2020, 110112
23	Optimal driving based trip planning of electric vehicles using evolutionary algorithms: A driving assistance system	Mousumi Khanra Arup Kr.Nandi	Applied Soft Computing	Vol 93, August 2020, 106361

24	Within-journal self-citations and the Pinski-Narin influence weights	Gangan Prathap Somenath Mukherjee Loet Leydesdorff	Journal of Informetrics	Vol.14, Issue 1, February 2020, 100989
25	A review on synthesis of zirconia toughened alumina (ZTA) for cutting tool applications	M.M.Basha S.M.Basha B.K.Singh N.Mandal M.R.Sankara	Materials Today: Proceedings	Vol.26, Part 2, 2020, Pages 534-541
26	A wave packet enriched finite element for electroelastic wave propagation problems	Santosh Kapuria Amit Kumar	International Journal of Mechanical Sciences	Vol.170, 15 March 2020, 105081
27	Effect of indentation load on mechanical properties and evaluation of tribological properties for zirconia toughened alumina	Ayush Pratap Piyush Kumar G.P Singh Nilrudra Mandal B.K.Singh	Materials Today: Proceedings	Vol.26, Part 2, 2020, Pages 2442-2446
28	Alteration in capacitive performance of Sn-decorated MnO ₂ with different crystal structure: An investigation towards the development of high-performance supercapacitor electrode materials	Prakas Samanta Souvik Ghosh Pranab Samanta Naresh Chandra Murmu Tapas Kuila	Journal of Energy Storage	Vol. 28, April 2020, 101281
29	Synthesis and characterization of Cu ₂ O nanoparticles	Manab Mallik Soumendu Monia Mantosh Gupta Arnab Ghosh Moti PrakashToppo Himadri Roy	Journal of Alloys and Compounds	Vol. 829, 15 July 2020, 154623
30	Photocatalytic conversion of CO ₂ to methanol using membrane-integrated Green approach: A review on capture, conversion and purification	Sankha Chakraborty Jayato Nayak Biswajit Ruj Parimal Pal Ramesh Kumar Shirsendu Banerjee Moumita Sardar Prasenjit Chakraborty	Journal of Environmental Chemical Engineering	Vol. 8, Issue 4, August 2020, 103935
31	Development of 6-Thioguanine conjugated PLGA nanoparticles through thioester bond formation: Benefits of electrospray mediated drug encapsulation and sustained release in cancer therapeutic applications	Manosree Chatterjee Namita Jaiswal Abhiram Hens Nibedita Mahata Nripen Chanda	Materials Science and Engineering: C	Vol. 114, September 2020, 111029
32	Analysis and comparative studies on impact of Transport Delay and Transforms on the performance of TD-PLL for single phase GCI under grid disturbances	Mohd Afroz Akhtar Suman Saha	International Journal of Electrical Power & Energy Systems	Vol. 115, February 2020, 105488
33	An Adaptive Frequency-Fixed Second-Order Generalized Integrator-Quadrature Signal Generator Using Fractional-Order Conformal Mapping Based Approach	Mohd.Afroz Akhtar Suman Saha	IEEE Transactions on Power Electronics	Vol. 35, No. 6, June 2020
34	Sensing of ethanol and other alcohol contaminated ethanol by conducting functional poly(o-phenylenediamine)	Siddhartha Samanta Poulomi Roy Pradip Kar	Materials Science and Engineering: B	Vol. 256, June 2020, 114541

35	A TG-FTIR investigation on the co-pyrolysis of the waste HDPE, PP, PS and PET under high heating conditions	R.K.Singh B.Ruj A.K.Sadhukhan P.Gupta	Journal of the Energy Institute	Vol. 93, Issue 3, June 2020, Pages 1020-1035
36	Optimal Feet-Forces' and Torque Distributions of Six-Legged Robot Maneuvering on Various Terrains	Abhijit Mahapatra Shibendu Shekhar Roy Dilip Kumar Pratihar	Robotica	Vol.38, Issue.6 June 2020 pp. 1041-1063
37	Adsorption and anti-corrosion characteristics of vanillin Schiff bases on mild steel in 1 M HCl: experimental and theoretical study	Sanjoy Satpati Sourav Kr. Saha Aditya Suhasaria Priyabrata Banerjee Dipankar Sukul	RSC Advances	RSC Adv., 2020,10, 9258-9273
38	Three-dimensional phase field simulation of spheroidal grain formation during semi solid processing of Al-7Si-0.3 Mg alloy	Prosenjit Das Pradip Dutta	Computational Materials Science	Vol.184, November 2020, 109856
39	Discerning detection of mutagenic bio pollutant TNP from water and soil sample by transition metal-containing luminescence metal- organic framework (LMOFs)	Abhijit Hazra; Sourav Bej; Amita Mondal; Naresh Chandra Murmu; Priyabrata Banerjee	ACS Omega (ACS)	ACS Omega 2020 5 (26), June 15949-15961
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41	On learning based approaches in power electronics engineering curriculum – a high switching inchworm motor drive case study	Saikat Kumar Shome; Sandip Jana; Partha Bhattacharjee	Computer Applications in Engineering Education (Wiley)	Vol.28, Issue4 July 2020 867-879
42	Sensing of Higher Alcohols and Selective Sensing of Iso-amyl Alcohol by Poly(o-phenylenediamine) Nanofiber	Siddhartha Samanta Poulomi Roy Pradip Kar	IEEE Sensors Journal	Vol.20 , Issue: 16 , Aug.15, 15 2020 8973 – 8980
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44	Intracellular fluorometric recognition of explosive and mutagenic nitroaromatics by luminescent aryl naphthalene sulfones	Pritam Ghosh; Joyee Das; Amit Basak; Subhra Kanti Mukhopadhyay; Priyabrata Banerjee	Chemistry Select (Wiley)	Vol.5, Issue28 July 31, 2020 8722-8728
45	Microstructural and wear properties of annealed medium carbon steel plate (EN 8) clad with martensitic stainless steel (AISI410)	Shubrajit Bhaumik; Manidipto Mukherjee; Parijat Sarkar; Anish Nayek; Viorel Paleu	Metals (MDPI)	Metals 2020, 16 July 10(7), 958

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48	Keratin-derived functional carbon with superior charge storage and transport for high-performance supercapacitors	Prerna Sinha Amit Yadav Alekha Tyagi Pradip Paik Hiroyuki Yokoi Amit K.Naskar Tapas Kuila Kamal K.Kar	Carbon	Vol.168, 3 0 October 2020, 419-438
49	Colorimetric/naked eye detection of arsenic ions in aqueous medium by mango flower extract: A facile and novel approach	Haradhan Kolya Tapas Kuila Nam Hoon Kim Joong Hee Lee	Applied Surface Science	Vol.513, 30 May 2020, 145760
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51	Bis-benzothiazoles as efficient corrosion inhibitors for mild steel in aqueous HCl: Molecular structure-reactivity correlation study	Aditya Suhasaria Manilal Murmu Sanjoy Satpati Priyabrata Banerjee Dipankar Sukul	Journal of Molecular Liquids	Vol.313, 1 September 2020, 113537
52	Selective Identification and Encapsulation of Biohazardous m-Xylene among a Pool of Its Other Constitutional C ₈ Alkyl Isomers by Luminescent d ₁₀ MOFs: A Combined Theoretical and Experimental Study	Sourav Bej, Riyanka Das, Naresh Chandra Murmu, and Priyabrata Banerjee	Inorg. Chem.	2020, 59, 7, 4366–4376 March
53	Construction of a Succinate-Bridged Cd(II)-Based Two-Dimensional Coordination Polymer for Efficient Optoelectronic Device Fabrication and Explosive Sensing Application	Basudeb Dutta, Abhijit Hazra, Arka Dey, Chittaranjan Sinha, Partha Pratim Ray, Priyabrata Banerjee, Mohammad Hedayetullah Mir	Cryst. Growth Des.	2020, 20, 2, 765–776 13 January
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56	Optimization of drop ejection frequency in EHD inkjet printing system using an improved Firefly Algorithm	Amit Kumar Ball Shibendu Shekhar Roy Dakshina Ranjan Kisku Naresh Chandra Murmu Leandro dos Santos Coelho	Applied Soft Computing	Vol.94, September 2020, 106438
57	Bismuth iron molybdenum oxide solid solutions : A novel and durable electrocatalyst for overall water splitting	Sakila Khatun; Poulomi Roy	Chemical Communication (RSC)	2020,56, 7293-7296
58	Publish or Drop Traffic Event Alerts? Quality-aware Decision Making in Participatory Sensing-based Vehicular CPS	Rajesh P. Barnwal, Nirnay Ghosh, Nirnay Ghosh, Soumya Kanti Ghosh, Soumya K. Ghosh, Sajal K. Das, Sajal K. Das	ACM Transactions on Cyber-Physical Systems	Vol.4, Issue 1 January 2020 Article No.: 9, pp 1–28
59	Thermal degradation, characterization and kinetic modeling of different particle size coal through TGA	Krishna Kant Dwivedi Prabhansu M.K.Karmakar P.K.Chatterjee	Thermal Science and Engineering Progress	Vol.18, 1 August 2020, 100523
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61	Sustainable removal of arsenate, arsenite and bacterial contamination from water using biochar stabilized iron and copper oxide nanoparticles and associated mechanism of the remediation process	Nivedita Priyadarshni Peuli Nath Nagahanumaiah Nripen Chanda	Journal of Water Process Engineering	Vol.37, October 2020, 101495
62	Separation of particles in spiral micro-channel using Dean's flow fractionation	Puja Mitra Samik Dutta Nagahanumaiah Abhiram Hens	Journal of the Brazilian Society of Mechanical Sciences and Engineering	Vol.42, Article number: 405 (2020)
63	FeNiS _x @MoS ₂ Heterostructure: A Bioinspired Nonprecious Electrocatalyst for the Hydrogen Evolution Reaction in Acidic and Basic Media	Saikat Bolar Subhasis Shit Dr. Naresh Chandra Murmu Dr. Tapas Kuila	ChemElectroChem	Vol.7, Issue15 August 3, 2020 pp.3324-3335
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65	Dark fermentative hydrogen production from pretreated lignocellulosic biomass: Effects of inhibitory byproducts and recent trends in mitigation strategies	Bikram Basak Byong-Hun Jeon Tae Hyun Kim Jae-Cheol Lee Pradip Kumar Chatterjee Hankwon Lim	Renewable and Sustainable Energy Reviews	Vol 133, November 2020, 110338
66	Prediction of clad characteristics using ANN and combined PSO-ANN algorithms in laser metal deposition process	Piyush Pant Dipankar Chatterjee	Surfaces and Interfaces	Vol 21, December 2020, 100699
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69	Exploratory studies of a multidimensionally talented simple Mn- based porous network: selective “turn-on” recognition @ cysteine over homocysteine with an indication of cystinuria and renal dysfunction.	Sourav Bej; Abhijit Hazra; Riyanka Das; Sourav Kr Saha; Monserrat Corbella; Priyabrata Banerjee	New Journal of Chemistry (RSC)	14 September 2020, Issue 34, pp.14712-14722
70	Decomposition of polyamide via slow pyrolysis: Effect of heating rate and operating temperature on product yield and composition	Ajinkya Mukund Pannase Rohit Kumar Singh Biswajit Ruj Partha pratim Gupta	Journal of Analytical and Applied Pyrolysis	Vol 151, October 2020, 104886
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77	Exploratory studies on azido-bridged complexes (Ni ²⁺ and Mn ²⁺) as dual colourimetric chemosensors for S ²⁻ and Ag ⁺ : combined experimental and theoretical outcomes with real field applications	Nithun Ranjan Pandit Sourav Bej Ananya Mondal Meenakshi Ghosh George E. Kostakis Annie K. Powell Priyabrata Banerjee Biplab Biswas	Dalton Trans.	07 October 2020, 49 , Issue 37 13090-13099
78	Design of a point-of-care device for electrochemical detection of P.vivax infected-malaria using antibody functionalized rGO-gold nanocomposite	Preeti Singh Manosree Chatterjee Kalyan Chatterjee Ravi Kumar Arun Nripen Chanda	Sensors and Actuators B: Chemical	Volume 327, 15 January 2021, 128860
79	Experimental and theoretical assessment of almond gum as an economically and environmentally viable corrosion inhibitor for mild steel in 1 M HCl	Mohammad Mobin Irfan Ahmad Megha Basik Manilal Murmu Priyabrata Banerjee	Sustainable Chemistry and Pharmacy	Volume 18, December 2020, 100337
80	Alteration in electrocatalytic water splitting activity of reduced graphene oxide through simultaneous and individual doping of Lewis acid/base center	Subhasis Shit Prakas Samanta Saikat Bolar Naresh Chandra Murmu Tapas Kuila	Electrochimica Acta	Volume 362, 1 December 2020, 137146
81	A Harmonized Applied and Theoretical Exploration for Nanomolar Level Recognition of Perilous F ⁻ and CN ⁻ by Multichannel Chemosensor: Proposition of Hg ²⁺ -Mediated Logic Gate Imitator	Amita Mondal Abhijit Hazra Dr. Jitamanyu Chakrabarty Dr. Naresh C. Murmu Dr. Priyabrata Banerjee	ChemistrySelect	Volume 5, Issue 38 Pages: 11713-12037 October 15, 2020
82	Cationic Amphiphilic Peptides: Synthetic Antimicrobial Agents Inspired by Nature	Dr. Rajen Kundu	ChemMedChem	Volume 15, Issue 20 October 19, 2020 Pages 1887-1896
83	Design and Development of a Solar Artifact using Structural Analysis	Atanu Maity, Ashok Kumar Prasad, Nitish Kumar, Subrata Kumar Mandal	Journal of Scientific & Industrial Research	Vol. 79, August 2020, pp. 740-745
84	Enhancement of Dry Sliding Tribological Characteristics of Perforated Zirconia Toughened Alumina Ceramic Composite Filled With Nano MoS ₂ in High Vacuum	Kunal Ghosh, Subhrojyoti Mazumder, Harish Hirani, Poulomi Roy, Nilrudra Mandal	Journal of Tribology (ASME)	143(6): 061401 (9 pages) Jun 2021,
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87	Picolinohydrazide-Based Covalent Organic Polymer for Metal-Free Catalysis and Removal of Heavy Metals from Wastewater	Additi Roy Chowdhury Sayan Maiti Amita Mondal Apurba K. Das	Journal of Physical Chemistry C	Vol.124, Issue 14 pp.7835-7843 April 9, 2020
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90	Microbial Symbiosis: A Network towards Biomethanation	Shouvik Saha Bikram Basak Jae-Hoon Hwang El-Sayed Salama Pradip K.Chatterjee Byong-Hun Jeon	Trends in Microbiology	Vol. 28, Issue 12, December 2020, Pages 968-984
91	Analysis on specific cutting energy in micro milling of bulk metallic glass	Debajyoti Ray Asit Baran Puri Naga Hanumaiah Saurav Halder	The International Journal of Advanced Manufacturing Technology	(2020) 108:245–261
92	Assessment of a cracked reinforced concrete supporting structure for a converter in a steel melting shop through non-destructive testing and a statistical approach – a case study	Das, D; Debbarma, S R; Bouri, D; Banerjee, S; Chatterjee, S	Insight - Non-Destructive Testing and Condition Monitoring	Volume 62, Number 11, November 2020, pp. 633-641(9)
93	Electrospray-based synthesis of fluorescent poly(d,l-lactide-co-glycolide) nanoparticles for the efficient delivery of an anticancer drug and self-monitoring its effect in drug-resistant breast cancer cells	Manosree Chatterjee Ritwik Maity Souvik Das Nibedita Mahata Biswarup Basu Nripen Chanda	Materials Advances	01 November 2020, Issue 8 pp.3033-3048
94	Antimicrobial Hydrogels: Promising Soft Biomaterials	Dr. Rajen Kundu Priyanka Payal	ChemistrySelect	Vol.5, Issue 46 December 11, 2020 Pages 14800-14810
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97	Optimization of specific capacitance and water splitting efficiency of N-enriched carbon by incorporating oxides of transition metals via an ancient chemical technique	Subhasis Shit Souvik Ghosh Prakas Samanta Saikat Bolar Naresh Chandra Murmu Tapas Kuila	Journal of Electroanalytical Chemistry	Vol.880, 1 January 2021, 114929
98	An account of the strategies to enhance the water splitting efficiency of noble-metal-free electrocatalysts	Subhasis Shit Saikat Bolara Naresh Chandra Murmu Tapas Kuila	Journal of Energy Chemistry	Vol. 59, August 2021, Pages 160-190
99	A comparative study on pyrolysis characteristics of bituminous coal and low-rank coal using thermogravimetric analysis (TGA)	Krishna Kant Dwivedi, Prabhansu Shrivastav, Malay Kumar Karmakar, Achintya Kumar Pramanick, Pradip Kumar Chatterjee	International Journal of Coal Preparation and Utilization	DOI: https://doi.org/10.1080/19392699.2019.1566130
100	Effect of Mn Addition on the Mechanical Properties of Al-12.6Si Alloy: Role of Al ₁₅ (MnFe) ₃ Si ₂ Intermetallic and Microstructure Modification	Prosanta Biswas, Surajit Patra, Himadri Roy, Chandra Sekhar Tiwary, Manas Paliwal, Manas Kumar Mondal	Metals and Materials International	DOI: https://doi.org/10.1007/s12540-019-00535-5
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102	Thermoelectroelastic shock waves in piezoelectric media: An enriched finite element solution based on generalized piezothermoelasticity	Santosh Kapuria Amit Kumar	Mechanics of Advanced Materials and Structures	DOI: https://doi.org/10.1080/15376494.2020.1730530
103	Application of MLP-ANN models for estimating the higher heating value of bamboo biomass	Satyajit Pattanayak Chanchal Loha Lalhminganga Hauchhum Lalsangzela Sailo	Biomass Conversion and Biorefinery	DOI: https://doi.org/10.1007/s13399-020-00685-2
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