

SCI Journal published in 2021 till 31st March

As per the data available with KRC

Sl.	Title	Authors	Journal	Details
1	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 ArunNripenChanda	Sensors and Actuators B: Chemical	Volume 327, 15 January 2021, 128860
2	Enhancement of Dry Sliding Tribological Characteristics of Perforated Zirconia Toughened Alumina Ceramic Composite Filled With Nano MoS ₂ in High Vacuum	Kunal Ghosh, SubhrojyotiMazumder, Harish Hirani,Poulomi Roy, Nilrudra Mandal	Journal of Tribology(ASME)	143(6): 061401 (9 pages) Jun 2021,
3	Laser processing of metal foam - A review	AnirbanChangdarShitan shuShekhar Chakraborty	Journal of Manufacturing Processes	Vol. 61, January 2021, Pages 208-225
4	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 PrakasSamanta SaikatBolar Naresh Chandra Murmu Tapas Kuila	Journal of Electroanalytical Chemistry	Vol.880, 1 January 2021, 114929
5	An account of the strategies to enhance the water splitting efficiency of noble-metal-free electrocatalysts	Subhasis Shit SaikatBolara Naresh Chandra Murmu Tapas Kuila	Journal of Energy Chemistry	Vol. 59, August 2021, Pages 160-190
6	Seawater Electrocatalysis: Activity and Selectivity	SakilaKhatun , Harish Hirani and Poulomi Roy	Journal of Materials Chemistry A	Vol.9, Issue 1, pp.74-86 07 January 2021
7	Activation Strategy of MoS ₂ as HER Electrocatalyst through Doping-Induced Lattice Strain, Band Gap Engineering, and Active Crystal Plane Design	SaikatBolar, Subhasis Shit, Naresh Chandra Murmu, PranabSamanta, Tapas Kuila	ACS Appl. Mater. Interfaces	13, 1, pp.765–780 13 January 2021
8	Optimization of process parameters for bio-enzymatic and enzymatic saccharification of waste broken rice for ethanol production using response surface methodology and artificial neural network–genetic algorithm	PayelMondal, Anup Kumar Sadhukhan, Amit Ganguly, Parthapratim Gupta	3 Biotech	(2021) 11:28 3 January 2021
9	Bearing Degradation Assessment and Remaining Useful Life Estimation Based on Kullback-Leibler Divergence and Gaussian Processes Regression	Prem Shankar Kumar L.A.Kumaraswamidhas, S.K.Laha	Measurement	Vol.174, April 2021, 108948
10	Adsorption of redox-active Schiff bases and corrosion inhibiting property for mild steel in 1 molL ⁻¹ H ₂ SO ₄ : Experimental analysis supported by ab initio DFT, DFTB and molecular dynamics simulation approach	SirsenduSenguptaManil alMurmuNaresh Chandra MurmuPriyabrata Banerjee	Journal of Molecular Liquids	Vol.326, 15 March 2021, 115215

11	Coumarin functionalized molecular scaffolds for effectual detection of precarious Fluoride and Cyanide	AmitaMondal Somrita Nag Priyabrata Banerjee	Dalton Transactions	Vol.50, Issue 2, pp.403-756 14 January 2021
12	An ESIPT based turn on fluorochromogenic sensor for low level discrimination of chemically analogous Zn ²⁺ and Cd ²⁺ & aqueous phase recognition of bio-hazardous CN ⁻ : From solution state analysis to prototype fabrication	Suparna Paul Priyabrata Banerjee	Sensors and Actuators B: Chemical	Vol.329, 15 February 2021, 129172
13	Corrosion inhibition and adsorption of imidazolium based ionic liquid over P110 steel surface in 15% HCl under static and dynamic conditions: Experimental, surface and theoretical analysis	Amrishi Singh K.R.AnsariM.A.Quraish Priyabrata Banerjee	Journal of Molecular Liquids	Vol.323, 1 February 2021, 114608
14	A numerical study on the wall erosion impact and gas-particle hydrodynamics in circulating fluidized bed riser	Krishna Kant DwivediSubhajit Dutta ChanchalLoha Malay Kumar KarmakarPradip Kumar Chatterjee	Thermal Science and Engineering Progress	Vol. 22,1 May 2021, 100852
15	Failure of Induced Draft-ID fan blade in coal fired boiler	Chidambaram Subramanian, Himadri Roy, AbhijitMondal, Debashis Ghosh, Swarup Kr Laha, Kamal kishorJanardhanji Uke	Engineering Failure Analysis	Vol.122, April 2021, 105282
16	The structure–activity correlation of bifunctional MnO ₂ polymorphic and MoS ₂ -based heterostructures: a highly efficient, robust electrochemical water oxidation and reductionreaction catalyst in alkaline pH	SaikatBolar, Subhasis Shit, PrakasSamanta, Naresh Chandra Murmu and Tapas Kuila	Sustainable Energy& Fuels	2021, Vol.5, Issue 4, 21 February pp.1148-1157
17	Investigation of phenol-formaldehyde resins as corrosion impeding agent in acid solution	Bhawna Chugh SanjeeveThakur BalaramPani ManilalMurmu Priyabrata Banerjee AmalM.Al-Mohaimed EnoE.Ebenso Manjeet Singh Jyoti Singh Ashish KumarSingh	Journal of Molecular Liquids	Vol.330, 15 May 2021, 115649
18	Experimental and Numerical Analysis of the Powder Flow in a Multi-Channel Coaxial Nozzle of a Direct Metal Deposition System	Pant, P., Chatterjee, D., Samanta, S.K., Lohar, A.K.	Journal of Manufacturing Science and Engineering, Transactions of the ASME	143(7): Jul 2021, 071003

19	Waste Cooking (Palm) Oil as an Economical Source of Biodiesel Production for Alternative Green Fuel and Efficient Lubricant	Samanta, S., Sahoo, R.R.	Bioenergy Research	14(1) pages 163–174(2021)
20	Coumarin functionalized molecular scaffolds for the effectual detection of hazardous fluoride and cyanide	Mondal, A., Nag, S., Banerjee, P.	Dalton Transactions	2021, 50 , 429-451
21	Cu (II) and Co (II/III) complexes of N,O-chelated Schiff base ligands: DNA interaction, protein binding, cytotoxicity, cell death mechanism and reactive oxygen species generation studies	Mondal, S.S., Jaiswal, N., Bera, P.S., Tiwari, R.K., Behera, J.N., Chanda, N., Ghosal, S., Saha, T.K.	Applied Organometallic Chemistry	Vol.35, Issue 1 January 2021 e6026
22	Printed oxygen gas sensor using Copper-DTTPA solid electrolyte	Nivedita Priyadarshini, Soumen Mandal, Supradepa Panual Ganesan, Saurav Halder, Debolina Roy and Nripen Chanda	Analyst	2021, 146, pp.1839-1843 21 March 2021
23	Competitive corrosion inhibition performance of alkyl/acyl substituted 2-(2-hydroxybenzylideneamino)phenol protecting mild steel used in adverse acidic medium: A dual approach analysis using FMOs/molecular dynamics simulation corroborated experimental findings	Sirsendu Sengupta Manilal Murmu Sukdeb Mandal Harish Hirani Priyabrata Banerjee	Colloids and Surfaces A: Physicochemical and Engineering Aspects	Vol.617, 20 May 2021, 126314
24	Tailoring the bifunctional electrocatalytic activity of electrodeposited molybdenum sulfide/iron oxide heterostructure to achieve excellent overall water splitting	Subhasis Shit Saikat Bolar Naresh Chandra Murmu Tapas Kuila	Chemical Engineering Journal	Vol.417, 1 August 2021, 129333
25	Material dependent and temperature driven adsorption switching (p- to n- type) using CNT/ZnO composite-based chemiresistive methanol gas sensor	Madhumita Sinha Samya Neogi Rajat Mahapatra Satheesh Krishnamurthy Ranajit Ghosh	Sensors and Actuators B: Chemical	Vol.336, 1 June 2021, 129729
26	Optimization of electrochemical	Sucharita Saha	Proceedings of	Vol.235,

	etching process for manufacturing of micro electrodes for micro-EDM application	Amit Kumar Ball Arpita Mukherjee Arjita Das SauravHalder Naga Hanumaiah	the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture	Issue: 5, pp 925-940 1 April 2021
27	A hybrid electro-responsive SWNT/PEDOT: PSS-based membrane towards soft actuator applications	Ajaha Khan Ravi Kant Jain Priyabrata Banerjee Khalid A Alamry Bhaskar Ghosh Inamuddin Abdullah M Asiri	Journal of Reinforced Plastics and Composites	Vol.40, pp 87-102 2021 February
28	The designed synthesis of a hydrophobic covalent polymer composite to expel toxic dyes and oil from wastewater: theoretical corroboration	DebanjanDey AmitaMondal Somrita Nag UdayanMondal Harish Hiran Priyabrata Banerjee	New Journal of Chemistry	45, 5165-5175 21 March 2021
29	Experimental and Numerical Analysis of the Powder Flow in a Multi-Channel Coaxial Nozzle of a Direct Metal Deposition System	Piyush Pant , Dipankar Chatterjee , Sudip Kumar Samanta , Aditya Kumar Lohar	Journal of Manufacturing Science and Engineering- transactions of The Asme	Vol.143, Issue 7 July 2021
30	An Effective Approach of Nanoscale CaF ₂ Addition into ZTA Composite to Enhance Tribological Characteristics in Dry Sliding	SubhrojyotiMazumder, Kishor Kumar Sadhu,KunalGhosh,PoulomiRoy,Nilrudra Mandal	Transactions of the Indian Ceramic Society	Vol.80, 2021 - Issue 1 March 2021

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01	Effect of sliding velocity and load on the COF of self-lubricating ceramics CuO/MgO/ZTA	Piyush Kumar,AyushPratap, Nilrudra Mandal,B.K.Singh	Materials Today: Proceedings	DOI: https://doi.org/10.1016/j.matpr.2020.11.992 20 January 2021
02	Evaluation of Physicochemical Properties of Provitamin K3 Derived Benzo[α]Phenoxazine as a Photosensitizer	Suprabha S. Sahoo DattatrayChadar ManilalMurmu Priyabrata Banerjee SunitaSalunke-Gawali R. J. Butcher	Engineered Science	DOI: 10.30919/es8d1103 25 January 2021
03	Failure cause analysis of an expansion bellow of turbine unit	Chidambaram Subramaniana Himadri Roy Abhishek Kumar AbhijitMondal Subrata Ray Sanjib Kr De Debashis Ghosh AtanuSaha	International Journal of Pressure Vessels and Piping	DOI: https://doi.org/10.1016/j.ijpvp.2021.104360 8 March 2021, 104360
04	Modeling, Analysis and Implementation of an Improved Interleaved Buck-Boost Converter	Rana, N., Banerjee, S., Giri, S.K., Trivedi, A., Williamson, S.S.	IEEE Transactions on Circuits and Systems II: Express Briefs	DOI: 10.1109/TCSII.2021.3056478
05	Indel-K2P: a modified Kimura 2 Parameters (K2P) model to incorporate insertion and deletion (Indel) information in phylogenetic analysis	Mahadani, A.K., Awasthi, S., Sanyal, G., Bhattacharjee, P., Pippal, S.	Cyber-Physical Systems	DOI: https://doi.org/10.1080/23335777.2021.1879274 16 Feb 2021
06	Globularization of Primary Phase of Al-7Si-0.3Mg Alloy DuringCooling Slope Processing and Isothermal Holding	Prosenjit Das Pradip Dutta	Trans Indian Inst Met	DOI: https://doi.org/10.1007/s12666-020-02177-3 25 February 2021
07	Machinability analysis of nickel-based superalloyNimonic 90: a comparison between wet and LCO2 as a cryogenic coolant	Tej Patel Navneet Khanna Sahitya Yadav Prassan Shah Murat Sarikaya Dilpreet Singh Munish Kumar Gupta Nitin Kotkunde	The International Journal of Advanced Manufacturing Technology	DOI: https://doi.org/10.1007/s00170-021-06793-1 08 March 2021
08	Metallurgical Failure Investigation of Premature Failed Platen Water Wall Tube in a Thermal Power Plant Boiler	Debashis Ghosh Himadri Roy Chidambaram Subramanian	Journal of Failure Analysis and Prevention	DOI: https://doi.org/10.1007/s11668-021-01137-3 18 March 2021
09	Effect of redox additive in	PrakasSamanta	Composites Part	DOI:

	aqueous electrolyte on the high specific capacitance of cation incorporated MnCo ₂ O ₄ @Ni(OH) ₂ electrode materials for flexible symmetric supercapacitor	Souvik Ghosh Naresh Chandra Murmu Tapas Kuila	B: Engineering	https://doi.org/10.1016/j.compositesb.2021.108755 4 March 2021, 108755
10	Feasibility study of biomass gasification for power generation in Northeast India	Satyajit Pattanayak Lalhmingsanga Hauchhum Chanchal Loha Lalsangzela Sailo	Biomass Conversion and Biorefinery	DOI: https://doi.org/10.1007/s13399-021-01419-8 13 March 2021
11	Modelling of electric vehicle drive toward its range prediction and remaining battery SOC after trip completion	Sutapa Mondal, Arup Nandi, Mousumi Khanra	International Journal of Electric and Hybrid Vehicles	In Press