Papers published in Science Citation Index (SCI) journals - 2018

Sl.	Title	Authors	Journal	Details
1	A comparative three-dimensional study of impulsive flow emanating from a shock tube for shock Mach number 1.6	T. Murugan, C.L. Dora, S. De, D. Das	Journal of Visualization	2018, 21 (6), pp. 921-934
2	A comprehensive numerical model for double-layered porous air journal bearing at higher bearing numbers	M. Phani Kumar, Sudipta De, Pranab Samanta, Naresh Chandra Murmu	Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology	2018, 232 (5), pp. 592-606
3	A quinoline-based compound for explosive 2,4,6-trinitrophenol sensing: experimental and DFT-D3 studies	Shibashis Halder, Pritam Ghosh, Ananta Hazra, Priyabrata Banerjee, Partha Roy	New Journal of Chemistry	2018, 42 (11), pp. 8408-8414
4	A review on sensor based monitoring and control of friction stir welding process and a roadmap to Industry 4.0	Debasish Mishra, Rohan Basu Roy, Samik Dutta, Surjya K. Pal, Debashish Chakravarty	Journal of Manufacturing Processes	2018, 36, pp. 373-397
5	A review on the heterostructure nanomaterials for supercapacitor application	Sanjit Saha, Pranab Samanta, Naresh Chandra Murmu, Tapas Kuila	Journal of Energy Storage	2018, 17, pp. 181–202
6	A Study of Optimization of Various Parameters in the Fabrication of Screen-Printed Electrodes	Keya Layek, Nagahanumaiah, Kalyan Kumar Mistry	IEEE Sensors Journal	2018, 18 (19), pp. 7917-7923
7	Adaptive feed-forward controller of piezoelectric actuator for micro/nano-positioning	S.K. Shome, A. Mukherjee, P. Karmakar, U. Datta	Sādhanā	2018, 43, article no. 158
8	Adhesion Technologies of Bio-Inspired Climbing Robots: A Survey	P. Chattopadhyay, S.K. Ghoshal	International Journal of Robotics & Automation	2018, 33 (6), pp. 654-661
9	An enriched finite element method for general wave propagation problems using local element domain harmonic enrichment functions	Amit Kumar, Santosh Kapuria	Archive of Applied Mechanics	2018, 88 (9), pp. 1573–1594
10	An improved PWM scheme for three-level inverter extending operation into overmodulation region with neutral point voltage balancing for full power factor range	Santu Kr. Giri, Sarbani Mukherjee, Sourabh Kundu, Subrata Banerjee, Chandan Chakraborty	IEEE Journal of Emerging and Selected Topics in Power Electronics	2018, 6(3), pp. 1527-1539

11	Bio Inspired Modified Internal Model Control Approach for Improved Disturbance Rejection of Piezo Micro Manipulator	Saikat Kumar Shome, Sandip Jana, Arpita Mukherjee, Partha Bhattarcharjee, Uma Datta	Studies in Informatics and Control	2018, 27(3), pp. 295-306
12	Chelator probe with exceptionally high stokes shift for selective detection of OAc− with red emission: application as a biosensor	Koushik Pramanik, Pritam Ghosh, Debanjan Dey, Pijush Malpaharia, Swapan K. Chandra, Subhra Kanti Mukhopadhyay, Priyabrata Banerjee	ChemistrySelect	2018, 3 (4), pp. 1151-1156
13	Cobalt Sulfide/Nickel Sulfide heterostructure directly grown on Nickel foam: An efficient and durable electrocatalyst for overall water splitting application	Subhasis Shit, Suman Chhetri, Wooree Jang, Naresh C. Murmu, Hyeyoung Koo, Pranab Samanta, Tapas Kuila	ACS Applied Materials & Interfaces	2018, 10 (33), pp. 27712–27722
14	Comparative study between different optimisation techniques for finding precise switching angle for SHE-PWM of three-phase seven-level cascaded H-bridge inverter	Sourabh Kundu, Arka Deb Burman, Santu K. Giri, Sarbani Mukherjee, Subrata Banerjee	IET Power Electronics	2018, 11 (3), pp. 600-609
15	Comparison of Force Required for Lumbar Puncture With Different Gauges of Spinal Needle Using Fiber Bragg Grating Force Device	S. Ambastha, S. Umesh, S. Dabir, S. Asokan	IEEE Sensors Journal	2018, 18 (19), pp. 8028-8033
16	Controlled electrodeposition of iron oxide/nickel oxide@Ni for the investigation of the effects of stoichiometry and particle size on energy storage and water splitting applications	Sanjit Saha, J. Sharath Kumar, Naresh Chandra Murmu, Pranab Samanta, Tapas Kuila	Journal of Materials Chemistry A	2018, 6, pp. 9657-9664
17	Correlation between microstructure and mechanical properties of YSZ/Al_2O_3 ceramics and its effect on high speed machining of steel	Bipin Kumar Singh, Kunal Ghosh, Shibendu Shekhar Roy, Biswanath Mondal, Nilrudra Mandal	Transactions of the Indian Ceramic Society	2018, 77 (4), pp. 1-7
18	Design of innovative pulse thresher	B.K. Saha, S.K. Mandal	Journal of Scientific and Industrial Research (JSIR)	2018, 77 (1), pp. 50-54
19	Development and machinability evaluation of MgO doped Y-ZTA ceramic inserts for high-speed machining of steel	Bipin Kumar Singh, Himadri Roy, Biswanath Mondal, Sibendu Sekhar Roy, Nilrudra Mandal	Machining Science and Technology	2018, 22 (6), pp. 899-913
20	Development of sulfonated poly(vinyl alcohol)/aluminium	Inamuddin, Ajahar Khan, R. K. Jain,	Sensor and Actuator: A	2018, 280 (1), pp. 114-124

	oxide/graphene based ionic polymer-metal composite (IPMC) actuator	Abdullah M. Asiri	Physical	
21	Development, characterization and electromechanical actuation behavior of Ionic Polymer Metal Composite actuator based on sulfonated poly(1,4-phenylene ether-ether-sulfone)/carbon nanotube	Ajahar Khan, Ravi Kant Jain, Priyabrata Banerjee, Bhaskar Ghosh, Inamuddin, Abdullah M. Asiri	Scientific Reports	2018, 8 (1), article no. 9909
22	DMSA-functionalized gold nanorod on paper for colorimetric detection and estimation of arsenic (III and V) contamination in groundwater	Nivedita Priyadarshni, Peuli Nath, Nagahanumaiah, Nripen Chanda	ACS Sustainable Chemistry & Engineering	2018, 6 (5), pp 6264–6272
23	Effect of flexural stiffness distribution of a fin on propulsion performance	Srinivasa Reddy N., Soumen Sen, Chandan Har	Mechanism and Machine Theory	2018, 129, pp. 218-231
24	Effect of thermally reduced graphene oxide on mechanical properties of woven carbon fiber/epoxy composite	Nitai Chandra Adak, Suman Chhetri, Naresh Chandra Murmu, Pranab Samanta, Tapas Kuila	Crystals	2018, 8 (3), article no. 111
25	Effects of hydrazine reduced graphene oxide on the inter-laminar fracture toughness of woven carbon fiber/epoxy composite	Nitai Chandra Adak, Suman Chhetri, Tapas Kuila, Naresh Chandra Murmu, Pranab Samanta, Joong Hee Lee	Composites Part B: Engineering	2018, 149, pp. 22-30
26	Electrochemical behaviour of uncoated and phosphatidylcholine coated copper in hydrochloric acid medium	Dipankar Sukul, Aparesh Pal, Shipra Mukhopadhyay, Sourav Kr. Saha, Priyabrata Banerjee	Journal of Molecular Liquids	2018, 249, pp. 930-940
27	Facile synthesis of flower-like morphology Cu0.27Co2.73O4 for a high-performance supercapattery with extraordinary cycling stability	Shipra Raj, Pradip Kar, Poulomi Roy	ChemComm	2018,54, pp. 12400-12403
28	Fuel properties and emission characteristics of biodiesel produced from unused algae grown in India	Rachan Karmakar, Krishnendu Kundu, Anita Rajor	Petroleum Science	2018, 15 (2), pp. 385–395
29	Halide salts and their structural properties in presence of secondary amine based molecule: A combined experimental and theoretical analysis	Pritam Ghosh, Abhijit Hazra, Meenakshi Ghosh, Naresh Chandra Murmu, Priyabrata Banerjee	Journal of Molecular Structure	2018, 1157, pp. 444-449

30	High-Thrust Aerostatic Bearing Design through Transient Perturbation Modelling with Numerical Validation	Nripen Mondal, Binod Kumar Saha, Rana Saha, Dipankar Sanyal	Journal of Dynamic Systems, Measurement, and Control	2018, 140 (4), article no. 041012
31	Hybrid $NiCo_2O4$-$NiCo_2S_4$Nanoflakes as High-Performance Anode Materials for Lithium-Ion Batteries	Shipra Raj, Yifan Dong, Pradip Kar, Liqiang Mai, Song Jin, Poulomi Roy	ChemistrySelect	2018, 3 (8), pp. 2315-2320
32	Hydrodynamic characteristics in a pilot-scale cold flow model for chemical looping combustion	A.K. Dubey, A. Samanta, P. Sarkar, M.K. Karmakar, A. Mukherjee, C. Loha, M. Kumar, S.G. Sahu, V.K. Saxena, P.K. Chatterjee	Advanced Powder Technology	2018, 29 (6), pp. 1499-1506
33	Hydrogeochemistry and quality of groundwater in a part of Damodar Valley, Eastern India: an integrated geochemical and statistical approach	Asit Kumar Batabyal	Stochastic Environmental Research and Risk Assessment	2018, 32(8), pp. 2351-2368
34	Improved efficiency of ZnO hierarchical particle based dye sensitized solar cell by incorporating thin passivation layer in photo-anode	Priyanka Das, Biswanath Mondal, Kalisadhan Mukherjee	Applied Physics A	2018, 124, article no.80
35	Interface engineering for the improvement of mechanical and thermal properties of covalent functionalized graphene/epoxy composites	Suman Chhetri, Nitai Chandra Adak, Pranab Samanta, Phani Kumar Mallisetty, Naresh Chandra Murmu, Tapas Kuila	Journal Of Applied Polymer Science	2018, 135 (15), article no. 46124
36	Investigation of mechanical and thermal properties of the cetyltrimethylammonium bromide functionalized molybdenum disulfide (MoS_2)/epoxy composites	Suman Chhetri, Nitai Chandra Adak, Pranab Samanta, Nilrudra Mandal, Tapas Kuila, Naresh Chandra Murmu	Polymer Bulletin	2018, 75 (1), pp. 327–343
37	Investigation of the mechanical and thermal properties of l-glutathione modified graphene/epoxy composites	Suman Chhetri, Nitai Chandra Adak, Pranab Samanta, Naresh Chandra Murmu, David Hui, Tapas Kuila, Joong Hee Lee	Composites Part B: Engineering	2018, 143, pp. 105-112
38	Investigations on the effect of driving parameters for xylitol production from water hyacinth biomass	Anamica Bhattacharya, Amit Ganguly, Anup Kumar Sadhukhan, Pradip Kumar Chatterjee	Indian Journal of Biotechnology (IJBT)	2018, 17 (2), pp. 272-283

39	Iron (III) oxide hydroxide based novel electrode for the electrochemical detection of trace level fluoride present in water	A.Maikap, K. Mukherjee, N. Mandal, B.Mondal, A.K. Meikap	Electrochimica Acta	2018, 264, pp. 150-156
40	Measurement of walking speed from gait data using kurtosis and skewness based approximate and detailed coefficients	Habib Masum, Surajit Chattopadhyay, Ranjit Ray, Subhasis Bhaumik	IET Science, Measurement & Technology	2018, 12 (4), pp. 521–527
41	Methanogenesis of organic wastes and their blend in batch anaerobic digester: Experimental and kinetic study	Ranjana Rathaur, Sumit H. Dhawane, Amit Ganguly, Mrinal Kanti Mandal, Gopinath Halder	Process Safety and Environmental Protection	2018, 113, pp. 413-423
42	Modified electrochemical charge storage properties of h-BN/rGO superlattice through the transition from n to p type semiconductor by fluorine doping	Sanjit Saha, Pranab Samanta, Naresh C.Murmu, Amit Banerjee, R. Sankar Ganesh, Hiroshi Inokawa, Tapas Kuila	Chemical Engineering Journal	2018, 339, pp. 334-345
43	Modified evolutionary model with insertion and deletion (Indel) for phylogenetic tree construction	A.K. Mahadani, G. Sanyal, P. Mahadani, P. Bhattacharjee	International Journal of Data Mining and Bioinformatics	2018, 21 (1), pp. 43-69
44	Multiphase model of semisolid slurry generation and isothermal holding during cooling slope Rheoprocessing of A356 Al alloy	Prosenjit Das, Sudip K. Samanta, Biswanath Mondal, Pradip Dutta	Metallurgical and Materials Transactions B	2018, 49 (4), pp. 1925–1944
45	Nanomolar-level selective dual channel sensing of Cu^{2+} and CN^{-} from an aqueous medium by an opto-electronic chemoreceptor	Suparna Paul, Pritam Ghosh, Samuzal Bhuyan, Subhra Kanti Mukhopadhyay, Priyabrata Banerjee	Dalton Transactions	2018, 47 (4), pp.1082-1091
46	Newly synthesized quercetin derivatives as corrosion inhibitors for mild steel in 1 M HCl: combined experimental and theoretical investigation	Dipankar Sukul, Aparesh Pal, Sourav Kr. Saha, Sanjoy Satpati, Utpal Adhikari, Priyabrata Banerjee	Physical Chemistry Chemical Physics	2018, 20, pp. 6562-6574
47	Novel ionic polymer–metal composite actuator based on sulfonated poly(1,4-phenylene ether-ether-sulfone) and polyvinylidene fluoride/ sulfonated graphene oxide	Ajahar Khan, Ravi Kant Jain, Bhaskar Ghosh, Inamuddin, Abdullah M. Asiri	RSC Advances	2018, 8, pp. 25423-25435
48	Novel synthesis of Cu_2O-graphene nano platelet composite through two step electrodeposition method for selective detection of hydrogen	Sharat J. Kumar, Naresh Chandra Murmu, Pranab Samanta, Amit Banerjee, Sankar	New Journal of Chemistry	2018,42, pp. 3574-3581

	peroxide	Ganesh R., Hiroshi Inokawa, Tapas Kuila		
49	Numerical investigation of gas-particle hydrodynamics in a vortex chamber fluidized bed	Subhajit Dutta, Chanchal Loha, Pradip Kumar Chatterjee, Anup Kumar Sadhukhan, Parthapratim Gupta	Advanced Powder Technology	2018, 29 (12), pp. 3357-3367
50	Numerical investigation of transient magnetohydrodynamic mixed convection in a ventilated cavity containing two heated circular cylinders	Dipankar Chatterjee, Ramgopal Mishra	Heat Transfer Engineering	2018, 39 (12), pp. 1052-1066
51	Numerical simulation of gas-bubble formation through two submerged orifices	V.K. Prasad, D. Chatterjee, S.P. Singh	Sādhanā	2018, 43, article no 171
52	Numerical Visualization of Blast Wave Interacting with Objects	S. Dey, T. Murugan, D. Chatterjee	Journal of Applied Fluid Mechanics	2018, 11 (5), pp. 1201-1206
53	On the thermoelastic instability of foil bearings	P. Samanta, M.M. Khonsari	Tribology International	2018, 121, pp. 10-20
54	Optimization of biodiesel production from grape seed oil using Taguchi's orthogonal array	Gurpinder Singh, Saroj Kumar Mohapatra, Satishchandra S. Ragit, Krishnendu Kundu	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	2018, 40 (18), pp. 2144-2153
55	Optimization of dilute acetic acid pretreatment of mixed fruit waste for increased methane production	Shouvik Saha, Byong-HunJeon, Mayur B. Kurade, Shekhar B. Jadhav, Pradip K. Chatterjee, Soon Woong Chang, Sanjay Prabhu Govindwar, Sun Joon Kim	Journal of Cleaner Production	2018, 190, pp. 411-421
56	Optimization of processing parameters of cooling slope process for semi-solid casting of ADC 12 Al alloy	Sujeet Kumar Gautam, Nilrudra Mandal, Himadri Roy, Aditya Kumar Lohar, Sudip Kumar Samanta, Goutam Sutradhar	Journal of the Brazilian Society of Mechanical Sciences and Engineering	2018, 40, article no. 291
57	Oxidation behaviour of nanostructured YSZ plasma sprayed coated Inconel alloy	D. Ghosh, S. Das, H. Roy, S.K. Mitra	Surface Engineering	2018, 34 (1), pp. 22-29
58	Phenoxazinone synthase activity of two iron(III) complexes comprising the same Schiff base ligand: Biomimetic functional model and mechanistic investigation	Sourav Chatterjee, Dipankar Sukul, Priyabrata Banerjee, Jaydeep Adhikary	Inorganica Chimica Acta	2018, 474, pp. 105-112

59	Process kinetic studies of biohydrogen production by co-fermentation of fruit-vegetable wastes and cottage cheese whey	Bikram Basak, Adiba Fatima, Byong-Hun Jeon, Amit Ganguly, Pradip Kumar Chatterjee, Apurba Dey	Energy for Sustainable Development	2018, 47, pp. 39-52
60	Production of biodiesel from unused algal biomass in Punjab, India	Rachan Karmakar, Anita Rajor, Krishnendu Kundu, Nitin Kumar	Petroleum Science	2018, 15 (1), pp. 164–175
61	Progressive tool condition monitoring of end milling from machined surface images	Samik Dutta, Surjya K. Pal, Ranjan Sen	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture	2018, 232 (2), pp. 251-266
62	Pyrolysis of three different categories of automotive tyre wastes: Product yield analysis and characterization	Rohit Kumar Singh, Biswajit Ruj, Anusua Jana, Sourav Mondal, Banibrata Jana, Anup Kumar Sadhukhan, Parthapratim Gupta	Journal of Analytical and Applied Pyrolysis	2018, 135, pp. 379-389
63	Rheological, mechanical, and thermal properties of Silane grafted layered double hydroxide/epoxy composites	Suman Chhetri, Nitai Chandra Adak, Pranab Samanta, Naresh Chandra Murmu, Tapas Kuila	Industrial & Engineering Chemistry Research	2018, 57 (26), pp. 8729–8739
64	Robust-stable quadratic-optimal fuzzy-PDC controllers for systems with parametric uncertainties: A PSO based approach	Dibyendu Pal, Amitava Chatterjee, Anjan Rakshit	Engineering Applications of Artificial Intelligence	2018, 70, pp, 38-51
65	Soft wearable ionic polymer sensors for palpatory pulse-rate extraction	Ritwik Chattaraj, Subhasis Bhaumik, Siladitya Khan, Debabrata Chatterjee	Sensors and Actuators A: Physical	2018, 270, pp. 65-71
66	Static and dynamic mechanical properties of graphene oxide-incorporated woven carbon fiber/epoxy composite	Nitai Chandra Adak, Suman Chhetri, Nam Hoon Kim, Naresh Chandra Murmu, Pranab Samanta, Tapas Kuila	Journal of Materials Engineering and Performance	2018, 27 (3), pp. 1138–1147
67	Steady mixed convection in power-law fluids from a heated triangular cylinder	Satish Kumar Gupta, Sudipta Ray, Dipankar Chatterjee	Heat Transfer Engineering	2018, 39 (11), pp. 957-976
68	Structural features and dye-sensitized solar cell	D. Sengupta, B. Mondal,	Journal of Solid State	2018, 22 (1), pp. 227–235

	performance of chemically synthesized F doped ZnO particles	K. Mukherjee	Electrochemistry	
69	The limiting load-carrying capacity of foil thrust bearings	P. Samanta, M.M. Khonsari	Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology	2018, 232 (8), pp. 1046-1052
70	Theoretical insights into the nature of oxidant and mechanism in the regioselective syn-dihydroxylation of an alkene with a Rieske oxygenase inspired iron catalyst	Lisa Roy	ChemCatChem	2018, 10, pp. 3683-3688
71	Thermo-mechanical finite element study on deformation mechanics during radial scan line laser forming of a bowl shaped surface out of a thin sheet	Shitanshu Shekhar Chakraborty, Vikranth Racherl, Ashish Kumar Nath	Journal of Manufacturing Processes	2018, 31, pp. 593-604
72	Vortex generators for active thermal management in lithium-ion battery systems	Bittagopal Mondal, Carlos F. Lopez, Ankit Verma, Partha P. Mukherjee	International Journal of Heat and Mass Transfer	2018, 124, pp. 800-815
73	Wave packet enriched finite element for generalized thermoelasticity theories for thermal shock wave problems	Amit Kumar, Santosh Kapuria	Journal of Thermal Stresses	2018, 41 (8), pp. 1080-1099
74	α-Fe_2O_3/TiO_2 Hybrids with tunable morphologies as efficient photocatalysts and positive electrodes for supercapacitors	Mayukh Chakravarty, Anupam Das, Chitralee Sarma, Poulomi Roy	ChemistrySelect	2018, 3 (11), pp. 3284-3294