

Papers published in Science Citation Index (SCI) journals - 2017

Sl.	Title	Authors	Journal	Details
1	A Carrier-Based PWM Scheme for Neutral Point Voltage Balancing in Three-Level Inverter Extending to Full Power Factor Range	Santu Kr. Giri, Sibaprasad Chakrabarti, Subrata Banerjee, Chandan Chakraborty	IEEE Transactions on Industrial Electronics	2017, 64 (3), pp. 1873-1883
2	A High-Sensitivity Gas Sensor Toward Methanol Using ZnO Microrods: Effect of Operating Temperature	M. Sinha, R. Mahapatra, B. Mondal, R. Ghosh	Journal of Electronic Materials	2017, 46 (4), pp. 2476–2482
3	A novel approach to fabricate dye-encapsulated polymeric micro- and nanoparticles by thin film dewetting technique	Manosree Chatterjee, Abhiram Hens, Kuldeep Mahato, Namita Jaiswal, Nivedita Mahato, Nagahanumaiah, Nripen Chanda	Journal of Colloid and Interface Science	2017, 506, pp. 126-134
4	A novel ditopic chemosensor for cadmium and fluoride and its possible application as a pH sensor	Additi Roy Chowdhury, Pritam Ghosh, Suparna Paul, Samuzal Bhuyan, Jagadeesh C. Bose K, Sudit Mukhopadhyay, Priyabrata Banerjee	Analytical Methods	2017, 9 (1), pp. 124-133
5	A novel lattice energy calculation technique for simple inorganic crystals	Cemal Kaya, Savaş Kaya, Priyabrata Banerjee	Physica B: Condensed Matter	2017, 504, pp. 127-132
6	A simple cleft shaped hydrazine-functionalized colorimetric new Schiff base chemoreceptor for selective detection of F ⁻ in organic solvent through PET signaling: Development of a chemoreceptor based sensor kit for detection of fluoride	Additi Roy Chowdhury, Biswajit Gopal Roy, Saibal Jana, Thomas Weyhermuller, Priyabrata Banerjee	Sensors and Actuators B: Chemical	2017, 241, pp. 706-715
7	A simple hydrazine based molecule for selective detection of Fluoride ion in DMSO	Additi Roy Chowdhury, Priyabrata Banerjee	Journal of Chemical Sciences	2017, 129 (4), pp. 463–470
8	A successive ionic layer adsorption and reaction (SILAR) method to fabricate a layer-by-layer (LbL) MnO ₂ -reduced graphene oxide assembly for supercapacitor application	Milan Jana, Sanjit Saha, Pranab Samanta, Naresh Chandra Murmu, Nam Hoon Kim, Tapas Kuila, Joong Hee Lee	Journal of Power Sources	2017, 340, pp. 380–392

9	Al ₂ O ₃ supported-Fe-III Schiff base complexes : Syntheses, characterizations and their applications in various oxidation reactions	S. Chatterjee, P. Banerjee, D. Sukul, T. Chattopadhyay	Journal of the Indian Chemical Society	2017, 94 (5), pp. 489-495
10	An advance air-induced air-assisted electrostatic nozzle with enhanced performance	Manoj Kumar Patel, Bushra Praveen, Hemant Kumar Sahoo, Bharat Patel, Ashwani Kumar, Manjeet Singh, Manoj Kumar Nayak, Pradeep Rajan	Computers and Electronics in Agriculture	2017, 135, pp. 280-288
11	An iteratively optimized resolution to hyper redundancy for dissimilarly doped compliant IPMC actuators	Ritwik Chattaraj, Siladitya Khan, Aritra Dasgupta, Gautam Gare, Debabrata Chatterjee, Subhasis Bhaumik	Mechatronics	2017, 46, pp. 154-167
12	An overview of modelling techniques employed for performance simulation of low-grade heat operated adsorption cooling systems	Ramesh P. Saha, Biplab Choudhury, Ranadip K. Das, Anirban Sur	Renewable and Sustainable Energy Reviews	2017, 74, pp. 364-376
13	Analysis of cutting force coefficients in high-speed ball end milling at varying rotational speeds	Mithilesh K. Dikshit, Asit B. Puri, Atanu Maity	Machining Science and Technology	2017, 21 (3), pp. 416-435
14	Analysis of multiple robotic assemblies by cooperation of multimobile micromanipulation systems (M4S)	R. K. Jain, S. Majumder, Bhaskar Ghosh, Surajit Saha	International Journal of Advanced Manufacturing Technology	2017, 91 (9-12), pp. 3033-3050
15	Analysis of rotational speed variations on cutting force coefficients in high-speed ball end milling	Mithilesh K. Dikshit, Asit B. Puri, Atanu Maity	Journal of the Brazilian Society of Mechanical Sciences and Engineering	2017, 39 (9), pp. 3529-3539
16	Approaches towards the enhanced production of Rapamycin by Streptomyces hygrosopicus MTCC 4003 through mutagenesis and optimization of process parameters by Taguchi orthogonal array methodology	S. Dutta, B. Basak, B. Bhunia, A. Sinha, A. Dey	World Journal of Microbiology & Biotechnology	2017, 33 (5), article no. 90
17	Bayesian network aided grasp and grip efficiency estimation using a smart data glove for post-stroke diagnosis	Debeshi Dutta, Satyanarayan Modak, Anirudh Kumar, Joydeb Roychowdhury, Soumen Mandal	Biocybernetics and Biomedical Engineering	2017, 37 (1), pp. 44-58

18	Biodiesel production using waste cooking oil: a waste to energy conversion strategy	Amanpreet Kaur Sodhi, Sonal Tripathi, Krishnendu Kundu	Clean Technologies and Environmental Policy	2017, 19 (6), pp. 1799–1807
19	Carbon dot stabilized copper sulphide nanoparticles decorated graphene oxide hydrogel for high performance asymmetric supercapacitor	B. De, T. Kuila, N.H. Kim, J.H. Lee	Carbon	2017, 122, pp. 247-257
20	Chatter and dynamic cutting force prediction in high-speed ball end milling	Mithilesh K. Dikshit, Asit B. Puri, Atanu Maity	Machining Science and Technology	2017, 21 (2), pp. 291-312
21	Chemi-resistive response of rutile titania nano-particles towards isopropanol and formaldehyde: a correlation with the volatility and chemical reactivity of vapors	P. Das, B. Mondal, K. Mukherjee	Materials Research Express	2017, 4 (1), article no. 015503
22	Convective heat transfer in slurry flow in a horizontal Y-shaped branch pipe	Bibhuti Bhusan Nayak, Dipankar Chatterjee	Powder Technology	2017, 318, pp. 46-61
23	Damage Assessment of A356 Al Alloy Under Ratcheting–Creep Interaction	Srimant Kumar Mishra, H. Roy, A. K. Mondal, Krishna Dutta	Metallurgical and Materials Transactions A	2017, 48A (6), pp. 2877–2885
24	Development of screen-printed electrode based immunosensor for the detection of HER2 antigen in human serum samples	Tallapragada, S.D. and Layek, K. and Mukherjee, R. and Mistry, K.K. and Ghosh, M	Bioelectrochemistry	2017, 118, pp. 25-30
25	Direct numerical simulation of evaporation in a biporous media	Himadri Chattopadhyay, Sudip K. Samanta, Gautam Biswas, Bharat B. Sharma	Journal of Mechanical Science and Technology	2017, 31 (6), pp. 2635-2641
26	Drying of biomass for utilising in co-firing with coal and its impact on environment – A review	Munna Verma, Chanchal Loha, Amar Nath Sinha, Pradip Kumar Chatterjee	Renewable and Sustainable Energy Reviews	2017, 71, pp. 732-741
27	Effect of disc hardness on MR brake performance	K.P. Lijesh, D. Kumar, H. Hirani	Engineering Failure Analysis	2017, 74, pp. 228-238
28	Effect of substitution on corrosion inhibition properties of 2-(substituted phenyl) benzimidazole derivatives on mild steel in 1 M HCl solution: A combined experimental and theoretical approach	Alok Dutta, Sourav Kr. Saha, Utpal Adhikari, Priyabrata Banerjee, Dipankar Sukul	Corrosion Science	2017, 123, pp. 256-266

29	Electrochemical functionalization and in-situ deposition of the SAA@rGO/h-BN@Ni electrode for supercapacitor applications	Sanjit Saha, Pranab Samanta, Naresh C. Murmu, Nam H. Kim, Tapas Kuila, Joong H. Lee	Journal of Industrial and Engineering Chemistry	2017, 52, pp. 321-330
30	Enhancement of fault diagnosis of rolling element bearing using maximum kurtosis fast nonlocal means denoising	S.K. Laha	Measurement	2017, 100, pp. 157-163
31	Experimental and theoretical investigation towards anti-corrosive property of glutamic acid and poly- γ -glutamic acid for mild steel in 1 M HCl: intramolecular synergism due to copolymerization	Pialee Roy, Sourav Kr. Saha, Priyabrata Banerjee, Sukalpa Dey, Dipankar Sukul	Research on Chemical Intermediates	2017, 43 (8), pp. 4423-4444
32	Experimental characterizations of bimorph piezoelectric actuator for robotic assembly	Bhaskar Ghosh, Ravi K. Jain, S. Majumder, S.S. Roy, Sumit Mukhopadhyay	Journal of Intelligent Material Systems and Structures	2017, 28 (15), pp. 2095-2109
33	Experimental performance evaluation of smart bimorph piezoelectric actuator and its application in micro robotics	Bhaskar Ghosh, R. K. Jain, S. Majumder, S.S. Roy, S. Mukhopadhyay	Microsystem Technologies	2017, 23 (10), pp. 4619-4635
34	Exploring the efficacy of nanofluids for lithium-ion battery thermal management	Bittagopal Mondal, Carlos F. Lopez, Partha P. Mukherjee	International Journal of Heat and Mass Transfer	2017, 112, pp. 779-794
35	Explosive and pollutant TNP detection by structurally flexible SOFs: DFT-D3, TD-DFT study and in vitro recognition	Pritam Ghosh, Partha Roy, Ananta Ghosh, Saibal Jana, Naresh Chandra Murmu, Subhra Kanti Mukhopadhyay, Priyabrata Banerjee	Journal of Luminescence	2017, 185, pp. 272-278
36	Facile synthesis of novel sulfonated polyaniline functionalized graphene using m-aminobenzene sulfonic acid for asymmetric supercapacitor application	P. Bandyopadhyay, T. Kuila, J. Balamurugan, T.T. Nguyen, N.H. Kim, J.H. Lee	Chemical Engineering Journal	2017, 308, pp. 1174-1184
37	Fluoride-contaminated groundwater of Birbhum district, West Bengal, India: Interpretation of drinking and irrigation suitability and	Asit Kumar Batabyal, Srimanta Gupta	Environmental Monitoring and Assessment	2017, 189, article no. 369

	major geochemical processes using principal component analysis			
38	Functionalized reduced graphene oxide/epoxy composites with enhanced mechanical properties and thermal stability	SumanChhetria, Nitai Chandra Adak, Pranab Samanta, Naresh Chandra Murmu, Tapas Kuila	Polymer Testing	2017, 63, pp. 1-11
39	Genesis of flake-like morphology and dye-sensitized solar cell performance of Al-doped ZnO particles: a study	D. Sengupta, B. Mondal, K. Mukherjee	Journal of Nanoparticle Research	2017, 19, article no. 100
40	How explosive TNP interacts with a small tritopic receptor: a combined crystallographic and thermodynamic approach	Pritam Ghosh, Suparna Paul, Priyabrata Banerjee	CrystEngComm	2017, 19, pp. 6703-6710
41	Hydrazine functionalized probes for chromogenic and fluorescent ratiometric sensing of pH and F ⁻ : experimental and DFT studies	Additi Roy Chowdhury, Amita Mondal, Biswajit Gopal Roy, Jagadeesh C. Bose K, Sudit Mukhopadhyay, Priyabrata Banerjee	Photochemical & Photobiological Sciences	2017, 16, pp. 1654-1663
42	Hydrodynamic Modelling of Coal-Biomass Mixture in a Bubbling Fluidized Bed Reactor	M. Verma, C. Loha, A.N. Sinha, M. Kumar, A. Saikia, P.K. Chatterjee	Journal of Applied Fluid Mechanics	2017, 10 (5), pp. 1355-1362
43	Hydrogeochemical processes and contaminants enrichment with special emphasis on fluoride in groundwater of Birbhum district, West Bengal, India	A.K. Batabyal	Environmental Earth Sciences	2017, 76 (7), article no. 285
44	Interface science and engineering for less friction and wear	Pranab Samanta, Jai Dahiya, Johnson Joseph, Santaneel Ghosh	Advances in Mechanical Engineering	2017, 9 (12), article no.
45	Investigation of band structure and electrochemical properties of h-BN/rGO composites for asymmetric supercapacitor applications	Sanjit Saha, Milan Jana, Pranab Samanta, Naresh C. Murmu, Nam H. Kim, Tapas Kuila, Joong H. Lee	Materials Chemistry and Physics	2017, 190, pp. 153-165
46	Investigation of the surface plasmon polariton and electrochemical properties of covalent and non-covalent functionalized reduced graphene oxide	Sanjit Saha, Pranab Samanta, Naresh Chandra Murmu, Tapas Kuila	Phys. Chem. Chem. Phys.	2017, 19, pp. 28588-28595

47	Investigation on Tensile Behaviour of Laser Welded Al–Mg–Sc–Zr In Situ TiB ₂ Reinforced Metal Matrix Composite	A. J. Banerjee, H. Roy, M.K. Biswal, A.K. Lohar, H. Chattopadhyay, Naga Hanumaiah	Transactions of the Indian Institute of Metals	2017, 70 (8), pp. 2071–2077
48	Magnetohydrodynamic Natural Convection in a Square Enclosure with Four Circular Cylinders Positioned at Different Rectangular Locations	Dipankar Chatterjee, Satish Kumar Gupta	Heat Transfer Engineering	2017, 38 (17), pp. 1449-1465
49	Micro-EDM multiple parameter optimization for Cp titanium	Vijay Kumar Meena, Man Singh Azad, Suman Singh, Narinder Singh	International Journal of Advanced Manufacturing Technology	2017, 89 (1), pp. 897-904
50	Microstructural evolution and hardness property of in situ Al–Mg ₂ Si composites using one-step gravity casting method	Prosanta Biswas ORCID Icon, Manas Kumar Mondal, Himadri Roy & Durbadal Mandal	Canadian Metallurgical Quarterly The Canadian Journal of Metallurgy and Materials Science	2017, 56 (3), pp. 340-348
51	Modelling and application of response surface optimization to optimize cutting parameters for minimizing cutting	Mithilesh K. Dikshit, Asit B. Puri, Atanu Maity	Journal of the Brazilian Society of Mechanical Sciences and Engineering	2017, 39 (12), pp. 5117–5133
52	Modelling of flow behaviour in a LD vessel by an impinging gas jet	Mondal, MK; Das, P; Karmakar, N; Banik, N	Progress in Computational Fluid Dynamics	2017, 17 (3), pp. 159-171
53	Morphology controlled synthesis of MnCO ₃ -RGO materials and their supercapacitor applications	Milan Jana , Pranab Samanta, Naresh Chandra Murmu, Tapas Kuila	Journal of Materials Chemistry A	2017, 5 (25), pp. 12863-12872
54	Multi-criteria optimization and predictive modeling of turning forces in high-speed machining of yttria based zirconia toughened alumina insert using desirability function approach	Nilrudra Mandal, B. Doloi, Biswanath Mondal, B.K. Singh	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture	2017, 231 (8), pp. 1396-1408
55	Nanomolar level detection of explosive and pollutant TNP by fluorescent aryl naphthalene sulfones: DFT study, in vitro detection and portable prototype fabrication	Pritam Ghosh, Joyee Das, Amit Basak, Subhra Kanti Mukhopadhyay, Priyabrata Banerjee	Sensors and Actuators B: Chemical	2017, 251, pp. 985–992

56	Navier-Stokes simulation of shock-heavy bubble interaction: comparison of upwind and WENO schemes	Abhishek Kundu, Sudipta De	Computers & Fluids	2017, 157, pp. 131-145
57	Navier–Stokes simulation of slipstream evolution in steady shock reflection	Abhishek Kundu, Sudipta De	Journal of Visualization	2017, 20 (3), pp. 515–518
58	Near-set Based Mucin Segmentation in Histopathology Images for Detecting Mucinous Carcinoma	Soma Banerjee, Monjoy Saha, Indu Arun, Bijan Basak, Sanjit Agarwal, Rosina Ahmed, Sanjoy Chatterjee, Lipi B. Mahanta, Chandan Chakraborty	Journal of Medical Systems	2017, 41, article no. 144
59	Nitroaromatic explosives detection by a luminescent Cd(II) based metal organic framework	Shibashis Halder, Pritam Ghosh, Corrado Rizzoli, Priyabrata Banerjee, Partha Roy	Polyhedron	2017, 123, pp. 217–225
60	Numerical Analysis of Gas-Solid Behavior in a Cyclone Separator for Circulating Fluidized Bed System	Prabhansu, S. Rajmistry, S. Ganguli, P. Chandra, M. Kr. Karmakar, P. Kr. Chatterjee	Journal of Applied Fluid Mechanics	2017, 10 (4), pp. 1167-1176
61	Numerical investigation of convective heat transfer in pipeline flow of multi-sized mono dispersed fly ash-water slurry	Bibhuti Bhusan Nayak, Dipankar Chatterjee	International Journal of Heat and Mass Transfer	2017, 108 (B), pp. 1802-1818
62	Numerical prediction of flow and heat transfer characteristics of water-fly ash slurry in a 180° return pipe bend	Bibhuti Bhusan Nayak, Dipankar Chatterjee, Amar Nath Mullick	International Journal of Thermal Sciences	2017, 113, pp. 100-115
63	Optimization of safflower oil transesterification using the Taguchi approach	N. Kumar, S.K. Mohapatra, S.S. Ragit, K. Kundu, R. Karmakar	Petroleum Science	2017, 14 (4), pp. 798–805
64	Optimization of surface roughness in ball-end milling using teaching-learning-based optimization and response surface methodology	Mithilesh K Dikshit, Asit B Puri, Atanu Maity	Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture	2017, 231 (14), pp. 2596-2607
65	Probabilistic Assessment of UPV Test Result of a Degasser Unit	Abhijit Chatterjee, Debashis Das, Anup Kumar Sadhukhan, Pradip Kumar Chatterjee	Journal of Nondestructive Evaluation	2017, 36:18 (10 pages)

66	Robust Control of Non-holonomic Wheeled Mobile Robot with Past Information: Theory and Experiment	Spandan Roy, Sambhunath Nandy, Indra Narayan Kar, Ranjit Ray, Sankar Nath Shome	Proceedings of the Institution of Mechanical Engineers, Part I: Journal of Systems and Control Engineering	2017, 231 (3), pp. 178-188
67	Rotation induced flow suppression around two tandem circular cylinders at low Reynolds number	Dipankar Chatterjee, Krishan Gupta, Virendra Kumar, Sachin Abraham Varghese	Fluid Dynamics Research	2017, 49, article no. 045503
68	RuIII(EDTA) mediated activation of redox signalling molecules	Debabrata Chatterjee, Rudi van Eldik	Coordination Chemistry Reviews	2017, (349), pp. 129-138
69	Simultaneous Adsorption-Desorption Processes in the Conductance Transient of Anatase Titania for Sensing Ethanol: A Distinctive Feature with Kinetic Perception	Priyanka Das, Biswanath Mondal, Kalisadhan Mukherjee	Journal of Physical Chemistry C	2017, 121(2), pp. 1146-1152
70	Small molecular probe as selective tritopic sensor of Al ³⁺ , F ⁻ and TNP: Fabrication of portable prototype for onsite detection of explosive TNP	Pritam Ghosh, Priyabrata Banerjee	Analytica Chimica Acta	2017, 965, pp. 111-122
71	Soft actuator based on Kraton with GO/Ag/Pani composite electrodes for robotic applications	Ajazar Khan, Ravi Kant Jain, Priyabrata Banerjee, Inamuddin, Abdullah M Asiri	Materials Research Express	2017, 4, article no. 115701
72	Surface modification of reduced graphene oxide through successive ionic layer adsorption and reaction method for redox dominant supercapacitor electrodes	Milan Jana, Pranab Samanta, Naresh Chandra Murmu, Tapas Kuila	Chemical Engineering Journal	2017, 330, pp. 914-925
73	Synthesis and field dependent shear stress evaluation of stable MR fluid for brake application	K.P. Lijesh, D. Kumar, H. Hirani	Industrial Lubrication and Tribology	2017, 69 (5), pp. 655-665
74	Thorium (IV) phosphate-polyaniline composite-based hydrophilic membranes for bending actuator application	Ajazar Khan, Inamuddin, Ravi Kant Jain, Abdullah M. Asiri	Polymer Engineering & Science	2017, 57 (3), pp. 258-267

75	UCGNet: wireless sensor network-based active aquifer contamination monitoring and control system for underground coal gasification	Rajesh P. Barnwal, Sujeet Bharti, Sudip Misra, Mohammad S. Obaidat	International Journal of Communication Systems	2017, 30 (1), article no. e2852
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