

## Recent Publications

### Year 2018

Sarbani Mukherjee, Santu Kr. Giri and Subrata Banerjee, "A Flexible Discontinuous Modulation Scheme with Hybrid Capacitor Voltage Balancing Strategy for Three-Level NPC Traction Inverter", *IEEE Transactions on Industrial Electronics.* (IF-7.16) (in press)

Saha, S.; Kumar, J. S.; Murmu, N. C.; Samanta, P.; Kuila, T. Controlled electrodeposition of Iron oxide/Nickel oxide@Ni for the investigation of the effect of stoichiometry and particle size on energy storage and water splitting application. *Journal of Materials Chemistry A* 2018, 6, 9657-9664. (I.F.-8.867).

Adak, N. C.; Chhetri, S.; Kuila, T.; Murmu, N. C.; Samanta, P.; Lee J. H. Effect of hydrazine reduced graphene oxide on Inter-laminar Fracture Toughness of woven carbon fiber/epoxy composite. *Composite Part B: Engineering*, 2018, 149, 22-30. (I.F.- 4.727).

Saha, S.; Samanta, P.; Murmu, N. C.; Banerjee, A.; Ganesh, R. S.; Inokawa, H.; Kuila, T. Modified electrochemical charge storage properties of h-BN/rGO superlattice through the transition from n to p type semiconductor by fluorine doping. *Chemical Engineering Journal* 2018, 333, 334-345. (I.F.-6.216).

Sarbani Mukherjee, Santu Kr. Giri, SourabhKundu and Subrata Banerjee, "A Generalized Discontinuous PWM Scheme for Three-Level NPC Inverter with Minimum Switching Loss for Electric Vehicles", *IEEE Industry Applications Magazine.* (IF-1.169) (in press)

Santu Kr. Giri, Sarbani Mukherjee, Sourabh Kundu, Subrata Banerjee and Chandan Chakraborty, "An Improved PWM Scheme for Three-Level Inverter Extending Operation into Overmodulation Region with Neutral Point Voltage Balancing for Full Power Factor Range", *IEEE Journal of Emerging and Selected Topics in Power Electronics.* (IF-4.269) (DOI: 10.1109/JESTPE.2017.2779161) (early access)

Sourabh Kundu, Arka Deb Burman, Santu Kr. Giri, Sarbani Mukherjee, Subrata Banerjee, "A Comparative Study between Different Optimization Techniques for finding Precise Switching Angle for Selective Harmonics Elimination (SHE) PWM of Three-Phase Seven-Level Cascaded H-Bridge Inverter", *IET Power Electronics*, vol. 11, no. 3, pp. 600-609, Mar. 2018 (IF-3.547).

Chhetri, S.; Adak, N. C.; Samanta, P.; Murmu, N. C.; Kuila, T. Rheological, mechanical, and thermal properties of silane grafted layered double hydroxide/epoxy composites. *Industrial & Engineering Chemistry Research*, In Press-2018, (I.F.- 2.843).

Kumar, J. S.; Murmu, N. C.; Kuila, T. Recent trends in the graphene-based sensor for the detection of hydrogen peroxide. *AIMS Material Science*, 2018 (In Press). (I.F. - Pending).

Saha, S.; Samanta, P.; Murmu, N. C.; Kuila, T. A review on the heterostructure nanomaterials for supercapacitor applications. *Journal of Energy Storage* **2018**, 17, 181-122. (**I.F.- Pending**).

Adak, N. C.; Chhetri, S.; Murmu, N. C.; Samanta, P.; Kuila, T. Effect of Thermally Reduced Graphene Oxide on Mechanical Properties of Woven Carbon Fiber/Epoxy Composite. *Crystals* **2018**, 8(3), 111. (**I.F.- 1.566**).

Chhetri, S.; Adak, N. C.; Samanta, P.; Murmu, N. C.; Hui, D.; Kuila, T.; Lee, J. H. Investigation of the mechanical and thermal properties of L-glutathione modified graphene/epoxy composites. *Composite Part B: Engineering* **2018**, 143, 105-112. (**I.F.- 4.727**).

Kumar J. S.; Murmu, N. C.; Samanta, P.; Banerjee, A.; Ganesh, R. S.; Inokawa, H.; Kuila, T. Novel synthesis of Cu<sub>2</sub>O-graphene nano platelet composite through two step electrodeposition method for selective detection of hydrogen peroxide. *New Journal of Chemistry* **2018**, 42, 3574-3581. (**I.F.-3.269**).

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D. Sukul, A. Pal, S. K. Saha, S. Satpati, U. Adhikari and Banerjee, P., Newly synthesized quercetin derivatives as corrosion inhibitor for mild steel in 1 M HCl:combined experimental and theoretical investigation, *Physical Chemistry Chemical Physics*, **2018**, 20, 6562-6574, (**I.F-4.449**).

K. Pramanik, P. Ghosh, D. Dey, P. Malpaharia, S. K, Chandra, S.K. Mukhopadhyay, Banerjee, P., Chelator probe with exceptionally high Stocks Shift for selective detection of OAc- with red emission: Application as a biosensor, *Chemistry Select*, **2018**, 3, 1151 – 1156, (**I.F-NA**).

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Sourabh Kundu, Arka Deb Burman, Santu Kr. Giri, Sarbani Mukherjee, Subrata Banerjee, "Selective Harmonics Elimination for Three-Phase Seven-Level CHB Inverter Using Backtracking Search Algorithm (BSA)", *International Journal of Power Electronics (IF: NA)*.

S. Paul, P. Ghosh, S. Bhuyan, S. K. Mukhopadhyay and Priyabrata Banerjee, Nanomolar-level selective dual channel sensing of Cu<sup>+2</sup> and CN<sup>-</sup> from aqueous medium by an opto-electronic chemoreceptor, *Dalton Transactions*, 2018, 74, 1082-1091, (I.F-4.029).

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Santu. Kr. Giri, Sibaprasad Chakrabarti, Subrata Banerjee, and Chandan Chakraborty, “A carrier-based PWM scheme for neutral point voltage balancing in three-level inverter extending to full power factor range,” *IEEE Transactions on Industrial Electronics*, vol. 64, no. 3, pp. 1873-1883, Mar. 2017. (IF-7.16)

Chhetri, S.; Adak, N. C.; Samanta, P.; Mandal, N.; Kuila, T.; Murmu, N. C. Investigation of mechanical and thermal properties of the cetyltrimethylammonium bromide functionalized molybdenum disulfide ( $\text{MoS}_2$ )/epoxy composites. *Polymer Bulletin* **2017** (I.F.-1.37).

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