

Publications:

International:

1. A. Sasmal, S. Sen, J.A. Chelvane, and A. Arockiarajan. "PVDF based flexible magnetoelectric composites for capacitive energy storage, hybrid mechanical energy harvesting and self-powered magnetic field detection." *Polymer*, 2023, 281, 126141. (I.F-3.0)
2. A. Sasmal, S. Maity, A. Arockiarajan, S. Sen, "Electroactive properties and piezotribo hybrid energy harvesting performances of PVDF-AlFeO₃ composites: role of crystal symmetry and agglomeration of fillers." *Dalton Transactions*, 52 (2023) 14837 – 14851. (I.F-4.3)
3. E. Kar, P. Ghosh, S. Pratihar, M. Tavakoli, and S. Sen, "Nature-driven biocompatible epidermal electronic skin for real-time wireless monitoring of human physiological signals". *ACS Applied Materials & Interfaces*, 2023, 15(16), 20372-20384 (I.F-9.0)
4. S. Maity, A. Sasmal, E. Kar, and S. Sen. "Morphotropic Phase Boundary-Assisted Lead-Free BaTiO₃/PDMS Composite-Based Hybrid Energy Harvester: A Portable Power Source for Wireless Power Transmission." *ACS Applied Energy Materials*, 2023, 6 (13), 7052-7064 (I.F-6.4)
5. S .Maity, A.Sasmal , E Kar and S Sen* , Morphotropic Phase Boundary-Assisted Lead-Free BaTiO₃/PDMS Composite-Based Hybrid Energy Harvester: A Portable Power Source for Wireless Power Transmission, , *Chemical Engineering Journal*, 2023,474,145959 (IF : 16.7)
6. A.Sasmal , S Maity, P Maiti, A Arockiarajan, S Sen* Nano to micrometer range particle size effect on the electrical and piezoelectric energy harvesting performances of hydroxide mediated crosslinked PVDF composites, *Chemical Engineering Journal*, 2023, 468, Art No. 143794. (IF : 16.7)
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8. 4Sudipta Ghosh, S.Mishra, S.Sen, C.K Ghosh, D.Bhattacharya, Large room temperature magnetodielectric effect in polyvinylidene-trifluoroethylene/ LaSrMnO₃ (0-3) nanocomposite films, *Journal of Physics and Chemistry of Solids*,179 (2023) 111418 (I.F-4.4).
9. Puja Ghosh, Manikandan M, Shrabanee Sen* and Parukuttyamma Sujatha Devi*, Some Interesting insights into the Acetone Sensing Characteristics of Monoclinic WO₃, *Materials Advances*, 2023, 4, 1146 – 116 (I.F -2.3)

10. A. Sasmal, P. Maiti, S. Maiti, S. Sen, A. Arockiarajan, Air plasma discharged PVDF based binary magnetoelectric composite for simultaneously enhanced energy storage and conversion efficiency, *Applied Physics Letters*, 122 (2023) 083902. (I.F-3.7).
11. A. Sasmal, S. Sen* , Charge Compensation Mechanism and Multifunctional Properties of Bi_{1-x}BaxFeO₃ (x = 0, 0.05, 0.1) Ceramics, *ECS Journal of Solid State Science and Technology*, 11 (2022) 103011 . (I.F-2.4).
12. E. Kar, P. Ghosh, S. Pratihari, M. Tavakoli, and S. Sen, SiO₂ Nanoparticles Incorporated Poly(Vinylidene) Fluoride Composite for Efficient Piezoelectric Energy Harvesting and Dual-Mode Sensing. *Energy Technology*. 2201143 (2023). <https://doi.org/10.1002/ente.202201143> (IF: 4.14)
13. S. Pratihari, E. Kar, S. Sen,. Aluminum impregnated zinc oxide engineered poly(vinylidene fluoride hexafluoropropylene)-based flexible nanocomposite for efficient harvesting of mechanical energy. *International J Energy Res.* 2022; 46(15): 23839- 23856. doi:10.1002/er.8682(IF: 5.16)

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15. A. Sasmal, S. Sen, A. Arockiarajan, Strategies Involved in Enhancing the Capacitive Energy Storage Characteristics of Poly(vinylidene fluoride) Based Flexible Composites, *ChemistrySelect*, 7 (2022) e202202058. (IF: 2.30)
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17. A. Sasmal, A. Patra, P. S. Devi, S. Sen* , Space Charge Induced Augmented Dielectric Permittivity and Improved Energy Harvesting Ability of Nano-Ag Decorated ZnSnO₃ Filled PVDF Based Flexible Nanogenerator, *Composites Science and Technology*, 213 (2021) 108916. (IF: 9.87)
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 22. P. Ghosh, A. Roy, S. Mukhopadhyay, M. Narjinary, S. Sundaram, **S. Sen**, P. S. Devi, A New Functional Composite for Photovoltaic and Sensor Applications, **Advanced Electronic Materials**, 7 (2021) 2000785. (I.F. – 7.2)
 23. A. Sasmal, S. K. Medda, P. S. Devi, **S. Sen***, Nano ZnO decorated $ZnSnO_3$ as efficient fillers to PVDF: toward simultaneous enhancement of energy storage density and efficiency and improved energy harvesting activity, **Nanoscale**, 12 (2020) 20908-20921. (I.F. – 7.7)
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National:

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