



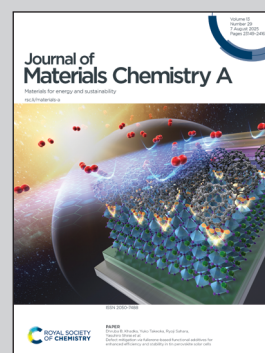
Showcasing a review by Prof. Krishnamoorthi Chintagumpala and Suresh Kumar Chittibabu, Center for Nanotechnology Research lab, and Prof. Arunkumar Chandrasekhar, Nanosensors and Nanoenergy Lab, Vellore Institute of Technology.

From energy to intelligence: MXenes transforming triboelectric nanogenerators

MXenes in triboelectric nanogenerators (TENGs) combine the unique conductivity, surface groups, and tunable structure of MXenes to boost energy output and stability. This review encompasses synthesis methods, working mechanisms, and fabrication strategies, providing valuable insights for researchers. MXene-TENGs are explored for their roles in wearable devices, environmental sensing, sports monitoring, and soft robotics, while addressing challenges and future directions in multifunctional energy harvesting.

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See Arunkumar Chandrasekhar, Krishnamoorthi Chintagumpala *et al.*, *J. Mater. Chem. A*, 2025, **13**, 23170.