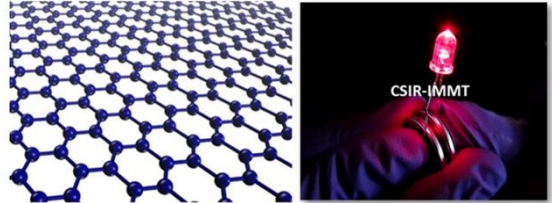


1. GRAPHENE BASED SUPERCAPACITOR:

A simple, inexpensive, non-noble metal based electrode materials has been developed for the electrochemical energy storage application.

CURRENT STATUS:

- A hybrid material composed of sandwiched reduced graphene oxide (rGO) and carbon quantum dots has been developed. The as-synthesized exhibits a high specific capacitance of 156 F/g having a robust cyclic stability (90% capacitance retention) after 5000 cycles with high energy and power density (22.4 WhKg⁻¹ and 76.68 WKg⁻¹ respectively) (TRL LEVEL-4)
- A coin cell type supercapacitor device has been fabricated and demonstrated towards powering up an LED (TRL LEVEL-4/5)



Graphene based materials for advanced Supercapacitor