

Analysis and Review of Graphene based Super-Capacitor and its Fast Charging in application of Electric Vehicle

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Abstract: *Electric Vehicles are reflected as a significant solution in developing an ecological and carbon free mode of transportation. However, the major encounters for the EVs smooth performances are its high cost, limited range of process and fast battery dreadful conditions. There are several promising strategy with comprehensive optimization techniques can lead to solve out the above-said issues. This paper represents an overview of effective fast charging techniques of EV in graphene based Super capacitor as an Energy storage system (ESS) concerning prolonging life cycle and high charging efficiency of ESS for EVs instead of Battery as an energy storage system. This paper is also dealing with the comparison analysis between the Li-ion based battery as an energy storage system with the Graphene based Super Capacitor as ESS in application of EVs.*

Keywords: Battery, Graphene based Super Capacitor, Fast Charging, Energy Storage System (ESS)