

Advanced Li-Ion Hybrid Supercapacitors Based on 3D Graphene- Foam Composites

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Currently one of the most promising techniques is to use 2-dimensional (2D) graphene sheets to form three-dimensional (3D) networks known as graphene sponge. Graphene sponges are synonymous with the following terminology: foams, aerogels, hydrogels and 3D porous networks. Graphene sponges exhibit high surface area and highly accessible pore volume. They also display high strength and conductivity with low densities. Dr. Aiping Yu's team at the University of Waterloo has developed a few technologies to fabricate graphene foam and composite to make electrodes of Li ion supercapacitor. The presentation will cover the main achievements of the group in this field.