

Interfacial Engineering of Graphenes for Energy and Biosensor Devices

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Interfacing functional materials with electrical or biological systems is of prime importance in terms of expanding applicative fields and obtaining high performances of devices. Herein, I report the functionalization of graphenes through supramolecular assembly and their electrochemical applications into fuel cells, supercapacitors, and biosensor devices. The solution processable nano-hybridization of graphenes by functional materials such as ionic liquids, polyelectrolytes, block copolymers, and biomaterials, described herein would pave the way to obtain high performances of flexible energy and biosensor devices as well as to overcome the existing technology barriers.

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