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One-step electrochemical synthesis of three-dimensional graphene foam loaded nickel–cobalt hydroxides nanoflakes and its electrochemical properties

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Highlights

- Three-dimensional porous $\text{Ni}_x\text{Co}_{2x}(\text{OH})_{6x}$ /graphene nanohybrid foam has been prepared by a facile and green one-step electrochemical method.
- $\text{Ni}_x\text{Co}_{2x}(\text{OH})_{6x}$ /graphene foam exhibits better structural integration of optimal component and improved electrochemical properties.
- $\text{Ni}_x\text{Co}_{2x}(\text{OH})_{6x}$ /graphene foam serves as binder-free electrode for supercapacitor.
- $\text{Ni}_x\text{Co}_{2x}(\text{OH})_{6x}$ /graphene foam has been used for nonenzymatic H_2O_2 biosensing.

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