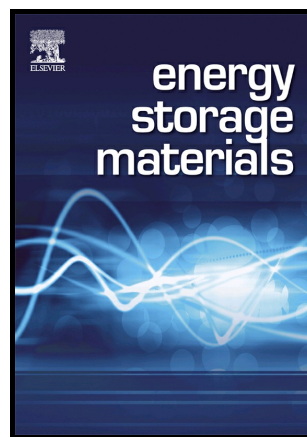


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3D Ag/NiO-Fe₂O₃/Ag Nanomembranes as Carbon-Free Cathode Materials for Li-O₂ Batteries

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Abstract:

The Li-O₂ battery is considered as an appealing candidate for future energy supplies due to its exceptionally high energy density. A key issue of prevailing aprotic Li-O₂ batteries is exploring carbon-free electrode materials to avoid the irreversible side reactions produced by carbonaceous electrode. Here, three-dimensional (3D) curved Ag/NiO-Fe₂O₃/Ag hybrid nanomembranes induced by a facile thermal treatment method are fabricated, for the first time, as carbon-free cathode materials in Li-O₂ batteries. A competing scheme between the intrinsic strain built in the

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