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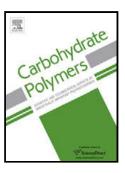
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Green synthesis of oriented xanthan gum-graphene oxide hybrid

aerogels for water purification

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Highlights

A facile three-dimensional xanthan gum/graphene oxide hybrid aerogel was fabricated

by ice crystal templating.

A network composed of co-aligned pore channels was obtained at a low freezing

temperature ($-40 \degree$ C).

The as-prepared hybrid aerogels exhibited stability and excellent adsorption capacity for

organic dyes and heavy metal ions.

Abstract

Three-dimensional xanthan gum (XG)/graphene oxide (GO) hybrid aerogels were

fabricated by ice crystal templating without using chemical modifiers. The hybrid

aerogels were prepared by the stirring of xanthan gum-graphene oxide hybrid

solution, followed by freezing at low temperature and finally by freeze-drying. The

1

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