

## عنوان مقاله:

Investigation of Graphene-based Nanomaterial for Innovative Energy and Environmental Applications

## محل انتشار:

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## خلاصه مقاله:

Carbon materials have been playing a significant role in the development of alternative lean and sustainable energy technologies. Graphene-based nanomaterials have recently attracted interests because of their outstanding properties such as large surface area, mechanical stability, and tunable electrical and optical properties. Due to its high specific surface area, good chemical stability and outstanding electrical properties, graphene, a class of two-dimensional allotrope of carbon-based nanomaterials, is one of ideal candidates for next generation energy conversion and storage devices. Because of the expanded structural diversity and improved overall properties, graphen and its nanocomposites are convenient for versatile applications of energy storage/conversion such as photocatalytic water splitting, lithium batteries, supercapacitors, fuel cells, hydrogen storage. Moreover, graphen is one of the most outstanding nanomateroas for environment protection in variety of researches and industries. In this review, we present an overview on the recent progress, as well as the challenges, of the GO-based materials for energy and environmental applications

## کلمات کلیدی:

Graphene, Nanomaterials, Energy Storage, Energy Conversion, Environment Protection

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