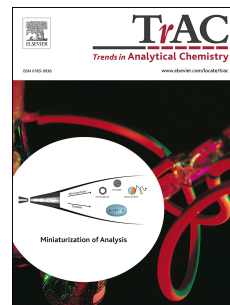


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Fabrication of Fluorescent Biosensing Platform Based on Graphene

Oxide-DNA and Their Application in Biomolecule Detection

Si-Ying Wang^a, Chen-Feng Wang^a, Yun-Kai Lv^{a,b,*}, Shi-Gang Shen^{a,b}

^a College of Chemistry and Environmental Science, Hebei University, Key Laboratory of Analytical Science and Technology of Hebei Province, Baoding 071002, China

^b Key Laboratory of Medicinal Chemistry and Molecular Diagnosis of Ministry of Education, Hebei University, Baoding 071002, P. R. China

* Correspondence to: Tel.: +86-312-5079359; *E-mail*: lvyunkai@126.com (Y-K. Lv).

This first two authors have equal contribution to this work.

Abstract

During the past few years, graphene oxide (GO) becomes increasingly significant in fluorescent biosensing due to its unique heterogeneous structure that offers it potential applications in various fields. Based on the transformation of affinities between GO and DNA, plenty of assays for bioanalysis have been developed rapidly, in which GO generally functions as a quencher. In this review, the current status and design mechanism of fluorescent biosensing platform based on graphene oxide-DNA are introduced in detail; the latest research progress of biomolecular fluorescence sensing has been summarized, classified and compared in this paper. Some unique and elegant ideas are introduced.

KEYWORDS: graphene oxide, DNA, fluorescent biosensors, biomolecule

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