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Antibacterial Biocompatible Arginine Functionalized Mono-layer Graphene: No More Risk of Silver Toxicity

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Highlights

- - Large-area arginine amino acid functional exfoliated mono-layer graphene developed.
- - Morphology and microstructure of organic pattern physicochemically characterized.
- - Antibacterial ability of the degradable composite is competitive with risky AgNPs.
- - Smart switchable bacteria toxicity and normal cell biocompatibility was achieved.
- - Human cell growth assay suggest safe economic long biofunctionality of Arg-EMGr.

Abstract

Antibacterial ability is vital in biological approaches as well as functional biomaterials.

Besides, cytocompatibility aspect of biologic media, tissue and organs is always concern for

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