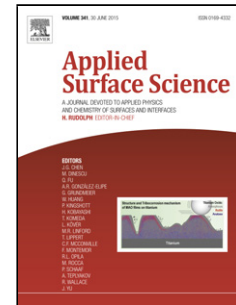


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Electromagnetic interference shielding effectiveness of microcellular polyimide/in situ thermally reduced graphene oxide/carbon nanotubes nanocomposites

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Highlights

- **Graphene Oxide (GO) and multi-walled carbon nanotubes (MWCNTs) could be uniformly dispersed in poly (amic acid) (PAA, precursor of polyimide) solution. While PAA was thermally imidized into polyimide (PI), the GO in PAA matrix was in situ reduced into reduced graphene oxide (RGO). This made RGO and MWCNTs uniformly dispersed in PI matrix.**
- **The microcellular PI/RGO/MWCNTs nanocomposites were obtained through solvent evaporation induced phase separation.**
- **The synergistic effect between RGO and MWCNTs enhanced both the electrical conductivity and electromagnetic interference (EMI) shielding performance of the microcellular nanocomposites.**

ABSTRACT

A simple and effective method was adopted to fabricate microcellular polyimide (PI)/reduced graphene oxide (GO)/multi-walled carbon nanotubes (MWCNTs) nanocomposites. Firstly, microcellular poly (amic acid) (PAA)/GO/MWCNTs

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