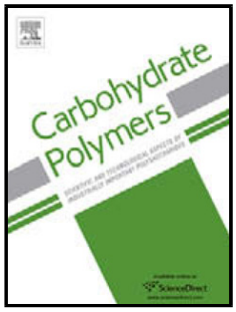

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Synergistic effect of carbon nanotubes and graphene for high performance cellulose acetate membranes in biomedical applications

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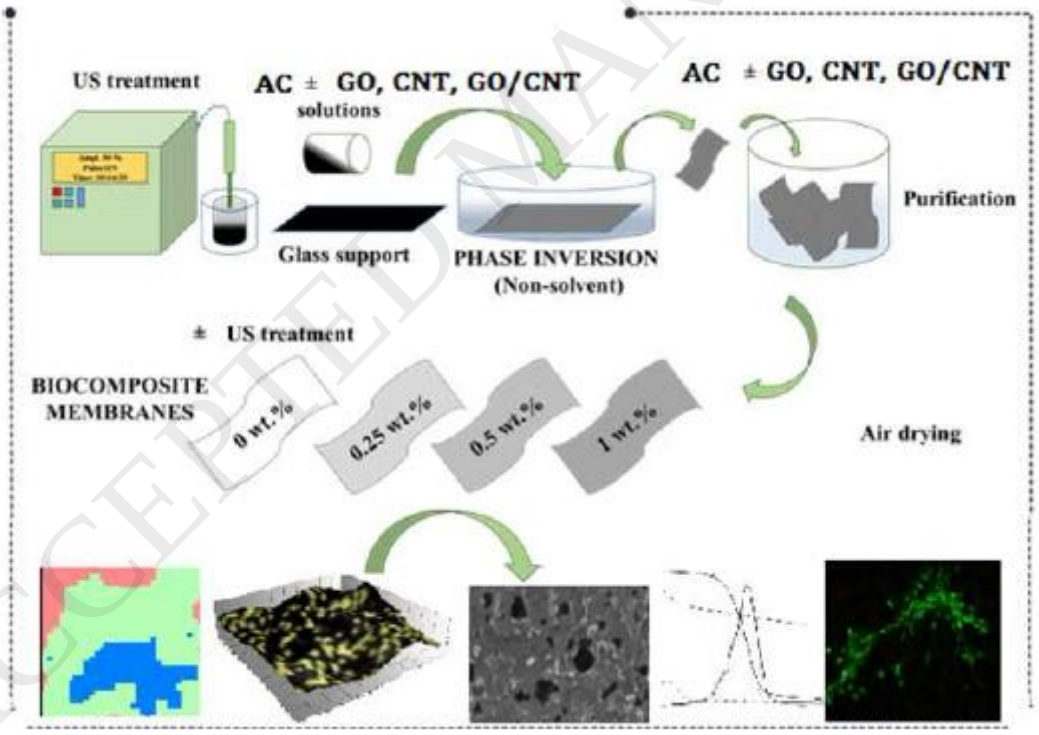
Highlights

- Novel carbon nanomaterial (CNM)/cellulose acetate (CA) membranes were fabricated;
- CNM addition advantageously influenced roughness, mechanical and thermal features;
- Membranes comprising CNM exhibited lower water and ethanol fluxes;
- CNM /CA membranes showed excellent cytocompatibility and biological suitability;

GRAPHICAL ABSTRACT



Abstract

Comparative evaluation of innovative combinations of three types of carbon nanomaterial (CNM) highlighted membranes with important potential for biomedical applications. Non-solvent induced phase separation coupled with ultrasound technique was used to generate