

Synthesis, Characterization and Antimicrobial Studies of a Copolymer and Its Composite

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Abstract: 8-hydroxyquinoline5-sulphonic acid and anthranilic acid with formaldehyde were used to prepare the new composite. Various characterisation techniques, such as elemental analysis, FTIR, UV-Visible, NMR (¹³C and ¹H), and SEM, were used to examine the structure and characteristics of the copolymer and copolymer/carbon composite. Antimicrobial analysis was also used to look into the copolymers and composites. The disc diffusion method have been used to study the antimicrobial analysis. The copolymer and its composites possess antimicrobial activity for certain bacteria such as *Staphylococcus aureus*, *Escherichia coli*, and fungi *Aspergillusniger* and *Candida albicans*. The surface morphology of the copolymer and its composites was established by SEM.

Keywords: Copolymer, Composites, Nano carbon, Antimicrobial Analysis, SEM.

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