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Polyaconitic Acid/Functional Amine/Azo Dye Composite as a Novel Hyper-Branched Polymer for Cotton Fabric Functionalization

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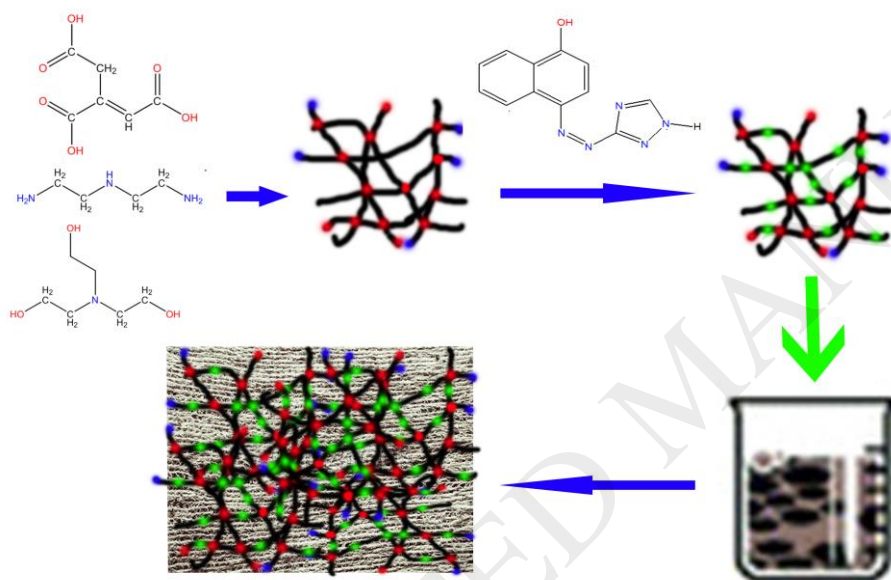
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Graphical abstract



High light

- A hyperbranched polyaconitic acid with two different amine were synthesized
- A new heterocyclic azo dye was synthesized and characterized
- Characterization provide that both composites and azo dye have been well prepared
- Treated fabrics have good antimicrobial activity
- Fastness properties, physical and mechanical properties for fabrics were evaluated

ABSTRACT

A new hyperbranched polymer based on aconitic acid and two different amine (triethnaol amine and diethylenetriamine) with different functional groups; hydroxyl and amine groups respectively was successfully synthesized by A2B3 polymerization technique and characterised using Fourier Transform

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