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Structural coloration of chitosan coated cellulose fabrics by electrostatic self-assembled poly (styrene-methyl methacrylate-acrylic acid) photonic crystals

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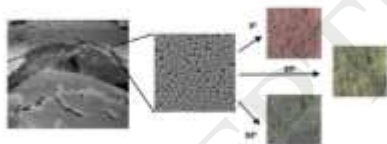
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GRAPHICAL ABSTRACT



Highlights

- Monodisperse PCs nanospheres of P(St-MMA-AA) were successfully synthesized
- Stable and uniform structural color onto woven cotton fabrics was obtained
- The coated fabric is able to display different iridescence at different viewing angles
- The crosslinking confers high stability, washing and light fastness
- The chitosan layer is also able to partially stabilize the nanophotonic coatings

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