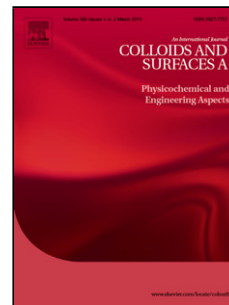


## Accepted Manuscript

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# Environmentally Friendly Sugar-Based Cationic surfactant as a New Auxiliary in Polyacrylonitrile

## Dyeing

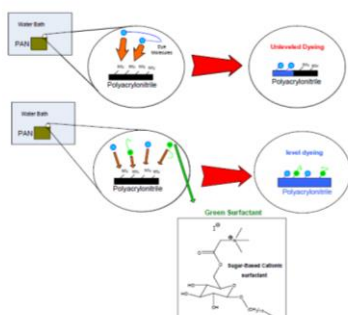
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## Graphical abstract



## Abstract

In this paper, an environmentally friendly ionic sugar based surfactant was synthesized and its efficiency as a retarding agent in dyeing of polyacrylonitrile (PAN) fibers was investigated. A new molecular design method based on the partition coefficient and parachor parameters, has been put in to practice to achieve this goal. The performance of the designed and synthesized retarder was evaluated by

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