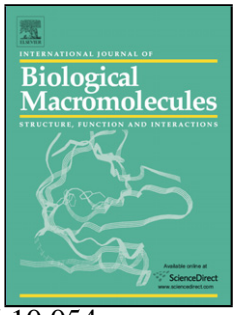

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Role of Alginate in Antibacterial Finishing of Textiles

Jiwei Li[a,b], Jinmei He[a, b*], Yudong Huang[a]

[a] *School of Chemical Engineering and Technology, Harbin Institute of Technology, Harbin 150001, China.*

[b] *State Key Laboratory for Modification of Chemical Fibers and Polymer Materials，Donghua University*

Abstract

Antibacterial finishing of textiles has been introduced as a necessary process for various purposes especially creating a fabric with antimicrobial activities. Currently, the textile industry continues to look for textiles antimicrobial finishing process based on sustainable biopolymers from the viewpoints of environmental friendliness, industrialization, and economic concerns. This paper reviews the the role of alginate, a sustainable biopolymer, in the development of antimicrobial textiles, including both basic physicochemical properties of alginate such as preparation, chemical structure, molecular weight, solubility, viscosity, and sol–gel transformation property. Then different processing routes (e.g. nanocomposite coating, ionic cross-linking coating, and Layer-by-Layer coating) for the antibacterial finishing of textiles by using alginate are revised in some detail. The achievements in this area have increased our

[*] Corresponding author: Jinmei He, E-mail addresses: hejinmeihit@163.com; hejinmei@hit.edu.cn. Tel./Fax: +86-0451-86414806.