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Mini Review

Review on Textiles and Different Application of Textiles

Veena BP[1]* and Dr. Mamatha G Hegde[2]

[1]Junior Research Fellowship, Department of Fashion Design, Faculty of Art and Design, MS Ramaiah University of Applied Sciences, India

[2]Associate professor and Head of Dept, Department of Fashion Design, Faculty of Art & Design, MS Ramaiah University of Applied Sciences, India

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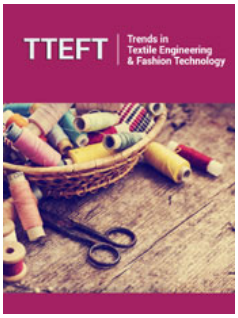

***Corresponding author:** Veena BP, Junior Research Fellowship, Department of Fashion Design, Faculty of Art and Design, MS Ramaiah University of Applied Sciences, Bangalore, Karnataka, India

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Abstract

Textiles have developed from being a source of adornment to a wide range of applications. Textiles have gone through a lot of reforms and inventions of spinning, weaving, knitting, finishing etc., to spread such a range of applications. This article gives an overview of textiles, their categories and applications.

Keywords: Technical textiles; Nano technology; Metal nano particles; Organic cotton; Smart textiles

Introduction

Textiles are the outcome of fibers, and fibers are mainly divided in to natural, man-made and synthetic fibers. Toxic substances are used for synthesizing artificial textiles which are harmful for human health and the environment. It is recommended to use natural textiles which are eco-friendly and sustainable. The use of natural textiles also has adverse effects such as consumption of lot of water and pesticides to grow which can be results in the damage of human health, soil, water, air etc. use of fabrics such as organic cotton [1], bamboo, aloe vera, lotus fabrics etc., is a solution for the above problem. Smart textiles [2], E-textiles, technical textiles etc., are some of the advancements in particular fields. Textiles can make sense and react to the environment, and these are called by the name smart textiles. The production of smart textiles involves integration of any digital tools, devices or sensors and it goes each other with nano technology, electronics, and computer engineering etc., (Figure 1).

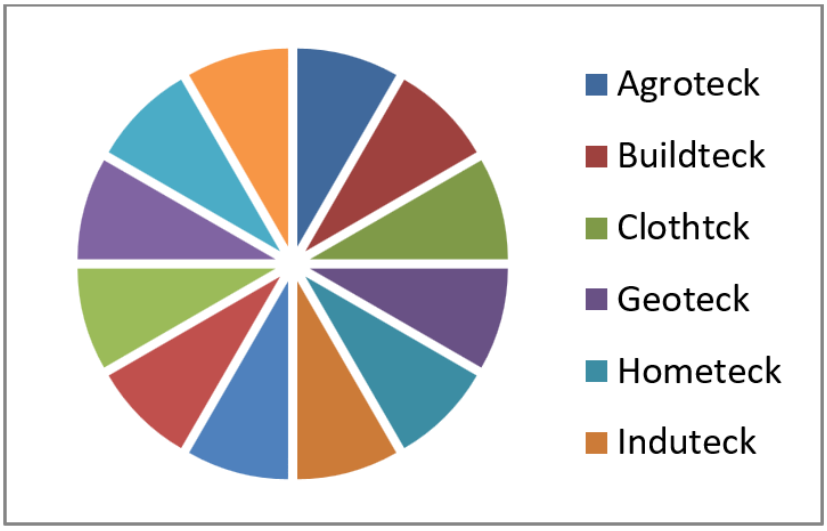

Figure 1: Explains different applications of technical textiles.

Natural fibers such as cotton, silk irrespective of varieties such as Mulberry, Muga or Eri and bamboo, hemp, lotus fabric etc., are breathable and itself have antibacterial, antimicrobial property etc., [3]. Treatment with natural dyes like curcumin, Terminalia catappa, Morinda citrofolia, Tectona grandis, Artocarpus heterophyllus, brahmi, Indian sarsaparilla, etc., and mordants such as alum, Myrobalan, indica fruit, pomegranate fruit etc. can be used for to the enhance this property. These textiles are the best option for home furnishings, automobiles, food packaging, military uses, medicinal applications such as cloth used for first aid, hygienic and health care products, dermatological applications [4-8].

Surface modifications

There are different types of surface modifications which can enhance the functional properties of textiles and can be made suitable for end use [9-12] (Figure 2).

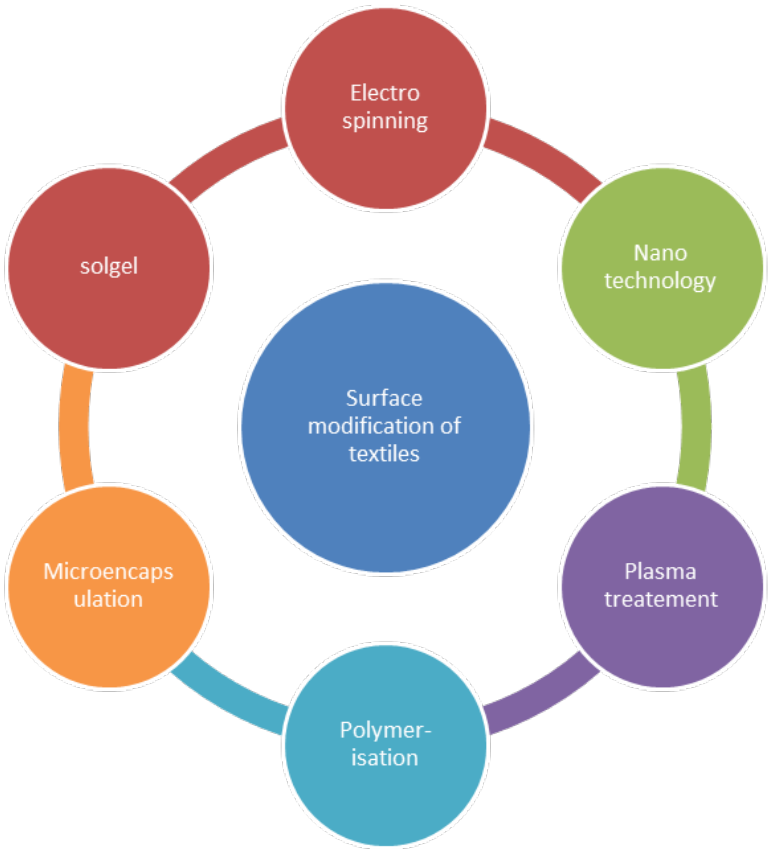

Figure 2: Explains different types of surface modifications which can enhance the functional properties of textiles.

Metal nano particles

Figure 3: Metal nano particles.

Various metal nano particles are used for synthesizing green nano particles [13-15] (Figure 3).

Conclusion

This review is an attempt to find out the enhancement of functional properties of textiles and different applications of textiles. It reveals in future there is high scope for these.

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