

80. Title: Multifunctional Microcapsules

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Keywords: Mosquito-repellent, Microcapsules, Functional Finishing

Domain: Textiles (Functional textiles)

Summary:

Textile materials are barrier layer between the human body and the environment. They can serve as the protective layer against the spread of microbial contaminations and the deadly mosquito-borne diseases. Multifunctional microcapsules of the present technology bring possibilities to produce finished fabrics or textiles having multifunctional properties along with having thermal stability and enough durability over sufficient period of time. The present technology relates to novel microcapsules for mosquito-repellent-cum-multifunctional finishing of cellulosic textiles. It further relates to multifunctional microcapsules comprising: (a). a core material; and (b). a shell material. Novel microcapsules for multifunctional (mosquito-repellent, antibacterial, antioxidant and flame-retardant) finishing of textiles

Advantages:

- » Protective textiles can be prepared
- » Microcapsules can be prepared using a spray dryer, commonly available in chemical industries
- » Microcapsules can be applied by conventional padding processes
- » High efficacy of functional effects

Applications: Textile materials (Protective textiles and Mosquito-repellent products)

Scale of Development: Prototype developed and characterization done

Technology Readiness Level: 4

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