

# Dyeing of Textile Fabrics by Using Herbal Extract and its Efficacy Escape Pathogens †

Ilaya Bharathi V <sup>1</sup>, Mohd Hashim Khan <sup>1</sup>, Karthikeyan Ramalingam <sup>1,\*</sup>

<sup>1</sup> School of Life Sciences, B.S. Abdur Rahman Crescent Institute of Science and Technology, GST Road, Vandalur, Chennai -600 048, India

\* Correspondence: karthikeyan.sls@crescent.education;

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**Abstract:** The use and investigation of plant-derived medications have increased rapidly in recent years. The goal of the present study is to estimate the antimicrobial potential of ethanolic and water extracts of Adhatoda (*Justicia Adhatoda*), neem (*Azadirachta Indica*), Holy Basil (*Ocimumtenuiflorum*), Nilavembu (*Andrographis paniculate*), Keelanelli (*Phyllanthus niruri*), Nochi (*Vitex negundo*), Karpooravalli (*Plectranthusamboinicus*), Thumbai (*Leucas aspera*), Amman Pacharasi (*Euphorbia hirta*) and Kuppaimeni (*Acalypha indica*) on ESKAPE pathogens. The emergence of resistance in ESKAPE pathogens (*Enterococcus faecium*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Pseudomonas aeruginosa*, and *Enterobacter species*) is a strong demand for new alternative to overcome the problem of drug resistance. The results of antimicrobial activities of herbal plant extract against the strains of ESKAPE pathogens were recorded, which shows the inhibition of pathogens in an increasing manner of the concentrations. Also, qualitative phytochemical analysis and dyeing fabric with the extracted dye was attempted. In conclusion, the mixtures of plant extracts are of great value as natural antimicrobials and can safely treat the drug-resistant ESKAPE pathogens without any toxic effect.

**Keywords:** dyes; herbal plants; ESKAPE pathogens; drug resistant; antimicrobials.

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## Conflicts of Interest

The authors declare no conflict of interest.