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Research Journal of Pharmacy and Technology

Volume 15, Issue 3, March 2022, Pages 1287-1292

Extraction and Applications of Natural dye from the flower of Tagetes erecta.L in different Fabrics and Focus on Antimicrobial activity(Article)

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Abstract

The main objective of extracting natural dyes from natural sources is to avoid the environmental pollution. The flower of Tagetes erecta is used for the extraction of dye using alkaline extraction method. There are four different mordants ($CuSo_4$, $FeSo_4$, NaCl, $K_2Cr_2O_7$) are used in cotton and polyester fabric by simultaneous mordanting method. The dye fixation is carried out at room temperature and also at $100^{\circ}C$. The result revealed that, different shades of yellow, brown and green were obtained from the dye when subjected to mordant. The dye at $100^{\circ}C$ showed dark colours and excellent fastness properties when compared to dye fixed at room temperature. The dye extract of Tagetes erecta had a great antimicrobial activity against pathogenic strains of bacteria and fungi and the FT-IR was carried out to identify compounds. \bigcirc RJPT All right reserved.

Author keywords

Fabrics FT-IR Mordant Natural Dye Tagetes erecta

Indexed keywords

EMTREE medical terms:

ISSN: 09743618

Source Type: lournal

Original language: English



DOI: 10.52711/0974-360X.2022.00215

Publisher: Research Journal of Pharmacy and Technology

Document Type: Article

Cited by 2 documents

Nadeem, T., Javed, K., Anwar, F. Sustainable Dyeing of Wool and Silk with Conocarpus erectus L. Leaf Extract for the Development of Functional Textiles

(2024) Sustainability (Switzerland)

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