Biopolymers Research

Research Article OMICS International

Dye Uptake of Polyethylene Terephthalate Fiber in Non- Aqueous Solvent

Oyeleke GO [1*], Isola AD [1], Sulaiman WK [2] and Adebisi AA [1]

[1]*Department of Science Laboratory Technology, Osun State Polytechnic, Iree, Nigeria*
[2]*Department of Chemistry, Oduduwa University, Ipetu - Modu, Ile Ife, Nigeria*

uptake

Introduction

e conventional dyeing of most textile substrates is an energy intensive operation requiring the heating of signi cant dye bath volumes for extended periods of time to attain su cient penetration of the dyestu into the ber structure. is is true of polyaramid bers, which are particularly di cult to dye because of their high glass transition temperatures. Dyes are intensely colored substances that can be used to produce a signi cant degree of coloration when dispersed in or react with other materials by a process that at least temporarily destroys the crystal structure of the substrate [1]. ey are retained in the substrate by adsorption solution and mechanical retention or by ionic or covalent

improvement of polyester pretreated with some alkoxides while [9]. Studied the solvent induced structural modi cations of poly (ethylene terephthalate) laments. e aim of this research work is to determine the level of disperse dye uptake by polyester fabric in a non-aqueous solvents at di erent dyeing temperatures.

Materials and Methods

Materials

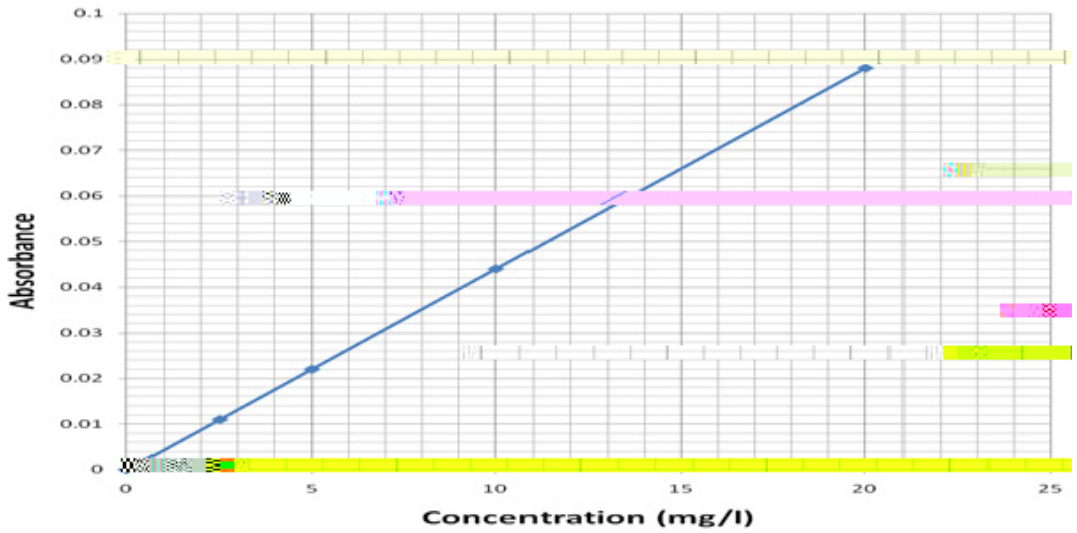

Figure 3: Calibration curve of aqueous disperse blue 1 dye at 605 nm.

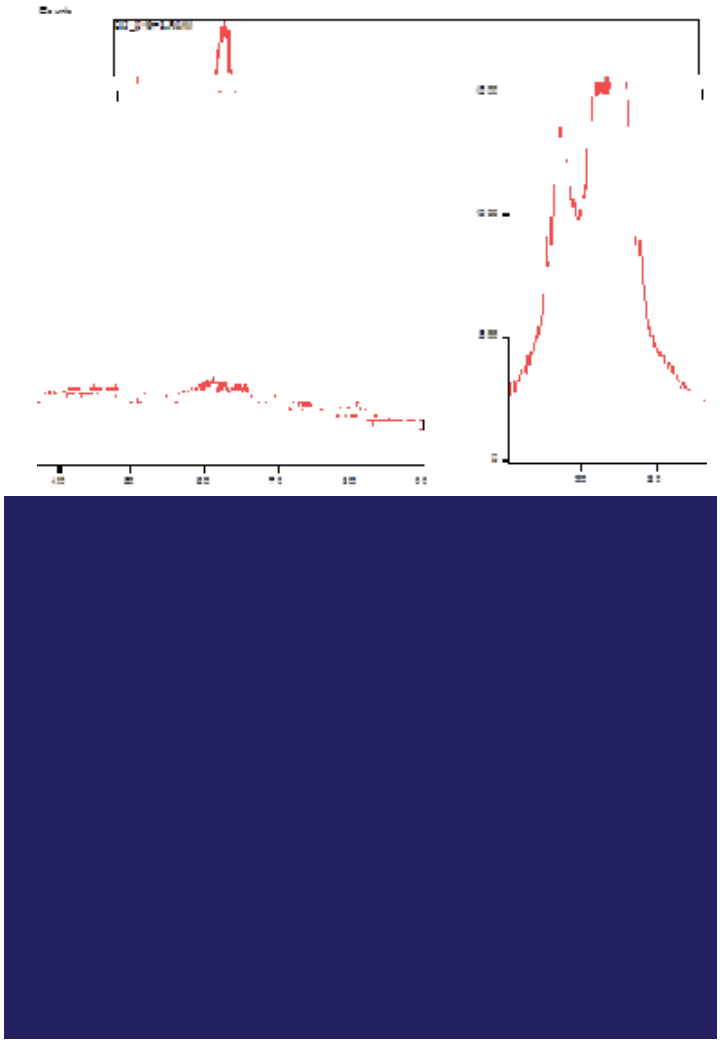

Figure 4: ; 5 ' R I X Q W U H D W H G > @ D Q G V 7 & (7 U H D W H G ¿ E U H

References

1. 6KDVKLQD : *KXODP 5. 7R[LFLW\ RI G\HV DQ
Pakistan J Sci & Ind Res 47:76-90.

2.