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Kojic acid - Azodye based Permanent optical storage devices for green technology

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Abstract

Light is a powerful tool in photonic industry due to its high potential in many electronic devices [1]. On the other hand, environmental friendly way of producing kojic acids from biowaste sago is a subject of interest for many researchers. Although lot of studies were devoted to improve the optical storage devices from different kinds of materials but not many aware of synthesizing light sensitive materials along with biowaste materials. This study is a bold step to obtain kojic acid based azodye using green route there by producing high quality light sensitive materials.

Photoisomerization behavior of kojic acid-azodyes with the effect of photopolymerization of monomer and photo-crosslinking of polymer were studied. Results showed that molecule never relax back to its original state when left in the dark for more than 100 minutes. This result is useful for creating permanent optical storage device [figure 1].



Figure 1: Showing kojic acid based permanent optical storage device.

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Reference: Gurumurthy Hegde, "Light induced transitions in Liquid crystals", *lambert Academy*, Publisher: SIBN 978-3-8383-7606-6 (2010).