



تفاصيل البحث:

Photocoloration and photobleaching of 3-(2-adamantylidene)-p-diethylamino)phenyl-2-methyl-3-furylethylidene]-)-5]-2 succinic anhydride doped in PMMA polymer film
Photocoloration and photobleaching of 3-(2-adamantylidene)-p-diethylamino)phenyl-2-methyl-3-furylethylidene]-)-5]-2 succinic anhydride doped in PMMA polymer film

عنوان البحث

The greenish fulgide 2-E doped in PMMA polymer films was heated at various annealing temperatures. Upon irradiation with UV light (366 nm), fulgide 2-E undergoes a conrotatory ring closure to the bluish colored closed form 2-C. The later color was partially switched back to the original color when the films were irradiated with white light. The percentage conversion decreases with increasing the annealing temperatures. The observed large bathochromic shifts of λ_{max} for the opened and closed forms of 2 and the partial conversion of 2-C to 2-E were rationalized on the bases of electronic and steric effects. It was found that both isomers C and 2-E absorb white light and under white light-2 irradiation they interconvert and a photostationary state is reached. The kinetics of photocoloration and photobleaching processes were followed spectrophotometrically by monitoring the absorbance of the ring closed product 2-C at its λ_{max} of nm. The apparent first-order rate constants for both 630 processes were determined. It was found that there was slight variation in rate constant for photocoloration reaction; which decreases with increase annealing temperature. On the other hand, the apparent rate constant of the photobleaching reaction increases with increasing the annealing temperature

الوصف

نوع البحث

سنة البحث

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الناشر

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المشرف

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عمادة الكلية

وكالات الكلية

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الشؤون التعليمية

الأقسام العلمية

المعامل

مجلة كلية العلوم

الخدمات

الأنظمة الإلكترونية (ODUS)

اتصل بالكلية

دليل المنسولين

الملفات

الأبحاث

المواد

مواقع مفصلة

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