

عنوان مقاله:

Two Independent Intermolecular π -D-Polymeric H-Bonds between Each Enantiomer in Octahydro- λ -Xanthene- λ , λ (γ H)-Diones and Bis-Xanthen Analogues : Synthesis and Crystal Structure

محل انتشار:

دوفصلنامه تحقیقات شیمی آلی، دوره 6، شماره 1 (سال: 1399)

تعداد صفحات اصل مقاله: 21

نویسندگان:

Nader Noroozi Pesyan - Department of Organic Chemistry, Faculty of Chemistry, Urmia University, δ 7159, Urmia, Iran

F. Karimi - Department of Organic Chemistry, Faculty of Chemistry, Urmia University, δ 7159, Urmia, Iran

H. Batmani - Department of Organic Chemistry, Faculty of Chemistry, Urmia University, δ 7159, Urmia, Iran

T. Tunç - Department of Science Education, Faculty of Education, Aksaray University, TR-68100, Aksaray, Turkey

E. Şahin - Department of Chemistry, Faculty of Science, Atatürk University, TR-25240 Erzurum, Turkey

خلاصه مقاله:

Reaction of λ , λ -cyclohexanedione, aldehydes, and cyanogen bromide leads to the selective formation of octahydro- λ -xanthene- λ , λ (γ H)-diones in moderate to good yields at room temperature under basic condition. The reaction of dialdehydes such as phthalaldehyde and terphthalaldehyde gives tetrahydridibenzo[b,e]oxepin- λ (γ H)-one and bifunctionalized linked bis-xanthen analogues, respectively. All structures were characterized by FT IR, 1 H and 13 C NMR spectroscopy and Mass analysis techniques. The structure of λ c was analyzed by X-ray crystallography. The pKa and hydrogen bond strength (EHB) were determined in results of \approx 11.7 and to \approx 5 kcal.mol $^{-1}$, respectively, via d(O \cdots O) distance

کلمات کلیدی:

cyclohexanedione, Octahydro- λ -xanthene- λ , λ (γ H)-dione, One-pot, Xanthene, Polymeric H-bond- λ , λ

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1766134>

