


Near Infrared Polyene Radical-Cation Derived from 7,8-Dihydrobenzo[*c,d*]Furo[2,3-*f*]Indole: Synthesis, Spectra and Nature of Electron Transitions

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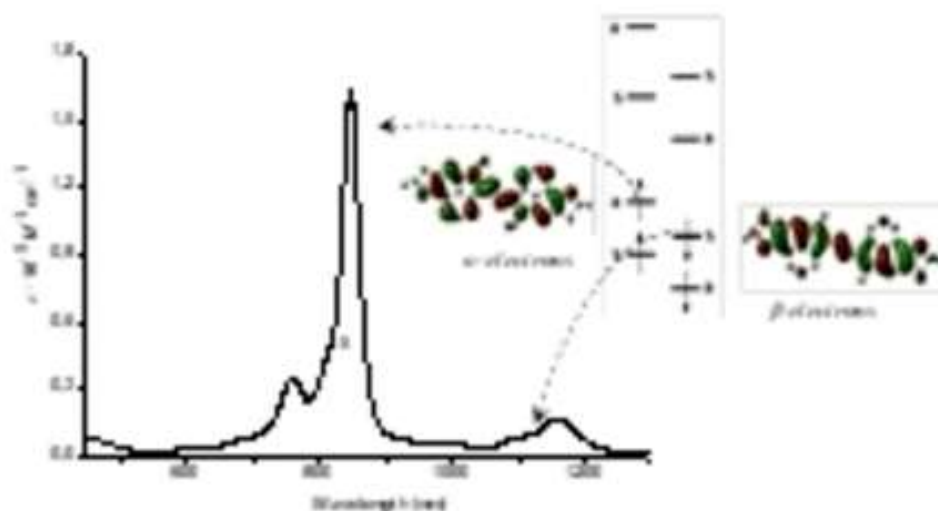
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Abstract

The synthesis and features of lower electronic transitions in a stable polyene cation-radical based on containing 7,8-dihydrobenzo[*cd*]furo indole was considered. It was shown that in the spectra of the polyene cation-radical two splitting bands appear: a low-intensity long-wavelength band and a high-intensity short-wavelength band; they are explained by the splitting of excited states generated by α - and β -electrons.



Abstract

The stable polyene cation-radical containing the 7,8-dihydrobenzo[*cd*]furo^[2,3-*f*]indol terminal groups was synthesized and the features of its lowest electron transitions were studied, in detail. The electronic structure and absorption spectra of the polyene cation-radical obtained, was compared with the electronic and spectral properties of the corresponding neutral polyenes,