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BOOK OF ABSTRACTS

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NEW BLUE FLUORESCENT BENZOFURAN DERIVATIVES

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Fused *O*-heterocyclic rings offer very interesting optical properties. Benzofuran derivatives represent such a class, being a "pure" blue-emitting moiety^{1–2}. In the case of benzofuran derivatives, the literature data shows that they are chromophores with high photoluminescence and good quantum yields².

In previous research works³, we synthesized a series of dihydroxyacetophenone (DHA) derivatives with antimicrobial and anticancer activity. The aim of this work was to find a new method of synthesis for fluorescent benzofurans, starting from DHA, to study the relationship between optical properties and structure (the effect of substituents and conjugation), and to develop a new method for the preparation of these derivatives under MW irradiation.

$$\begin{array}{c} \text{MW irradiation} \\ \text{165°C} \\ \text{CI-CH}_2\text{-COOMe} \\ \text{OH} \\ \text{K}_2\text{CO}_3\text{/KI} \\ \textbf{1a-c} \\ \end{array} \begin{array}{c} \text{HO} \\ \text{OH} \\ \text{K}_2\text{CO}_3\text{/KI} \\ \textbf{1a-c} \\ \end{array} \begin{array}{c} \text{HO} \\ \text{CI-CH}_2\text{-COOMe} \\ \text{OH} \\ \text{COOMe} \\ \end{array} \begin{array}{c} \text{CI-CH}_2\text{-COOMe} \\ \text{COOMe} \\ \end{array} \begin{array}{c} \text{COOMe} \\ \text{COOMe}$$

Scheme 1. Benzofuran derivatives preparation under MW irradiation.

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