

Synthesis and characterization of a fluorescent BODIPY derivative

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Despite existing for almost a century, fluorescent dyes continue to attract the attention of scientists from an ever expanding multidisciplinary areas. Among the many diverse fluorescent molecules, 3-difluoroborodipyrromethene (BODIPY) derivatives, have become a cornerstone for innovative applications such as biological fluorescent labelling, electroluminescent devices, dye sensitized solar cells (DSSCs), photodynamic therapy (PDT), optical sensors etc. Recently, BODIPYs have received great attention because of their advantageous features: photochemical stability, sharp absorption with high intensity in visible to NIR region and high fluorescence quantum yields. In fact, BODIPY came to be known to the biochemists and biologists as a photostable substitute for fluorescein. Furthermore, the BODIPY core can be chemically modified in order to fine tune the optical properties or add new functionalities, such as receptor groups selective to analytes in the case of sensors [1-2].

In continuation of the investigation developed in our research group, we report in this work the synthesis and the characterization of a BODIPY derivative using several spectroscopic/spectrophotometric techniques. Evaluation of their optical properties showed its potential application as a novel fluorescent probe for *in vivo/in vitro* studies.

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