

Rufinamide[®] Luminescent Hybrids: Design, synthesis and photophysical properties of news 3-(1-aryl-1*H*-1,2,3-triazol-4-yl)-1,1-difluoro-1*H*-1λ⁴,9λ⁴-pyrido[1,2-*c*][1,3,5,2]oxadiazaborinines

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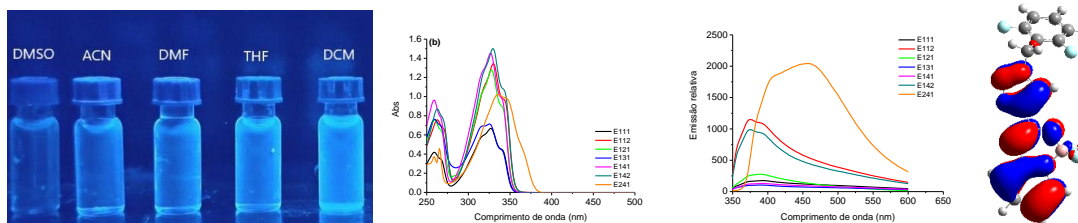
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ABSTRACT

Rufinamide is a drug that was granted orphan drug status for the adjunctive treatment of Lennox-Gastaut syndrome. Being a drug leader, analogues have been developed and studied to resolve achieve greater effectiveness [1], but its distribution and exact docking in the brain mass isn't yet known. So, an efficient fluorescent probe could help to solve it. Recently, 1,3,5,2-oxadiazaborinine dyes have been synthesized due to their photophysical properties, and their subsequent use as pigments, materials and in photodynamic therapy [2-3]. Backed up by literature [4] and in order to improve the photophysical behavior, a new series of amides of Rufinamide analogs (**2**) were synthesized by us from ketones (**1**) and hybridized to furnish the novel series of Rufinamide analogs linked to 1,3,5,2-oxadiazaborinines (**3**), (Scheme 1). Also, it was studied their molecular structure by NMR, SC-XRD, photophysics (UV-Vis) and computational TD-DFT calculations.



Scheme 1 - A summary of this study: Synthesis and photophysical properties of 3-(1-aryl-1*H*-1,2,3-triazol-4-yl)-1,1-difluoro-1*H*-1λ⁴,9λ⁴-pyrido[1,2-*c*][1,3,5,2]oxadiazaborinines (**3**).

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