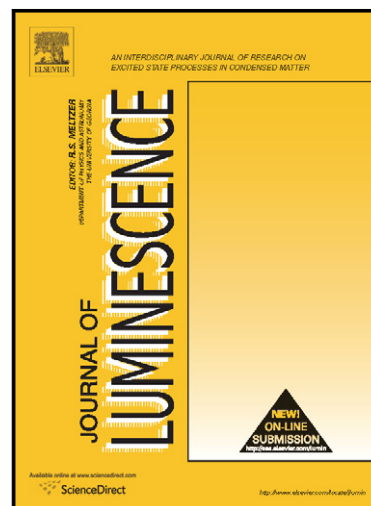


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Anion recognition ability of a novel azo dye derived from 4-hydroxycoumarin

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Abstract

The anion recognition ability of a novel azo dye derived from 4-hydroxycoumarin (**L**) was investigated by experimental (UV-Vis, fluorescence and ¹H NMR) and theoretical [(B3LYP/6-31G(d,p)] methods. Among the surveyed anions, the receptor **L** showed both naked-eye detectable color and spectral changes in the presence of F⁻, AcO⁻ and H₂PO₄⁻ due to the formation of hydrogen bonding complexes followed by deprotonation between these anions and **L**.

Keywords: Anion recognition; Coumarin derivative; Colorimetric; Fluorescence; DFT.

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