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Naphthalene-Glycine Conjugate: An Extremely Selective Colorimetric Chemosensor for Iodide Ion in Aqueous Solution

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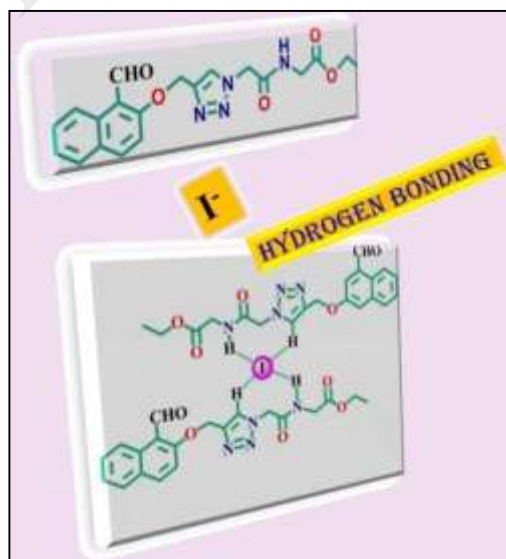
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Graphical abstract

A novel water soluble chemosensor based on naphthalene-glycine conjugate has been designed and synthesized which was highly selective and sensitive towards detection of iodide anion. Addition of iodide ion to the receptor solution led to the complete diminution of the fluorescence intensity. Based on the ¹H NMR titration, ESI-MS data and Job's plot along with the theoretical calculation using DFT method the probable binding modes of this receptor with iodide anion has also been suggested and binding ratio of ligand to anion is found to be 2:1.



Highlights

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