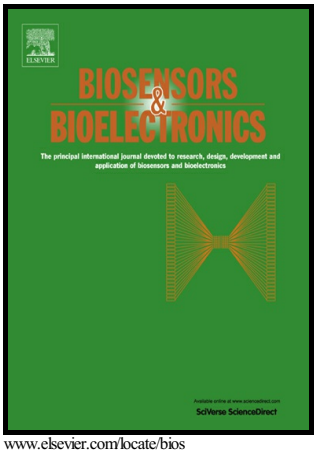

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Abstract

Probe-mediated fluorescence biosensing methods based on spectrophotometry still have limitations such as detection inaccuracy caused by the occurrence of false signals and lack of simultaneous qualitative and quantitative read-outs with an ultra-low detection limit. Herein, we describe a novel seesawed fluorescence detection strategy based on dual-colour imaging-based quantitation in which the green fluorescence of the capture aptamer decreases and the red fluorescence of the detection aptamer increases simultaneously upon their respective interactions