Accepted Manuscript

Title: Combined use of spectrophotometer and smartphone for the optical detection of Fe³⁺ using a vitamin B₆ cofactor conjugated pyrene derivative and its application in live cells imaging

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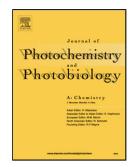
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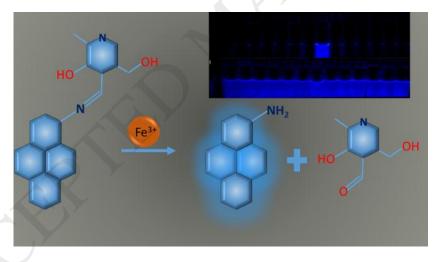
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Graphical Abstract



Synthetically easy, a pyrene-vitamin B_6 cofactor pyridoxal based fluorescent 'turn-on' sensor was developed for the selective detection of Fe³⁺ *via* the chemodosimeter approach.

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