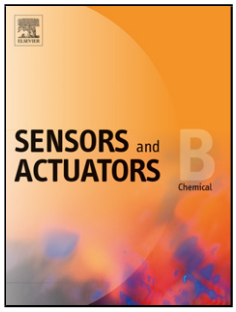

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An effective ICT-based and ratiometric fluorescent probe for sensing sulfite

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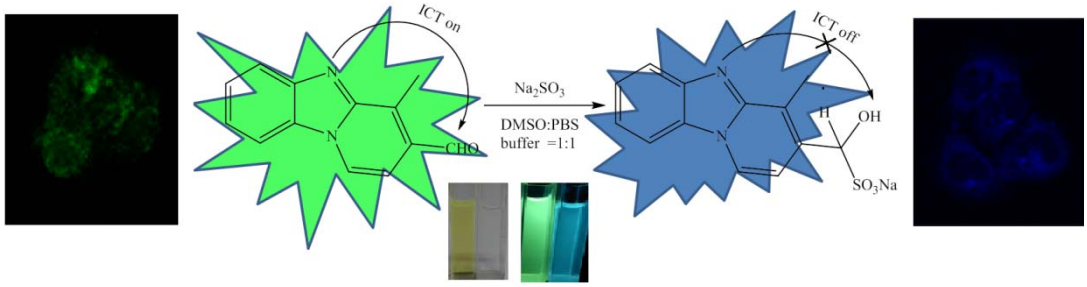
Graphical abstract



A fast-response fluorescent probe for SO_3^{2-} has been developed. Upon addition of sulfite, the apparently fluorescence variation is confirmed in a ratiometric manner and ICT mechanism in DMSO : PBS = 1 : 1 (pH = 5). The mechanism has been proved by HRMS and theoretical calculation.