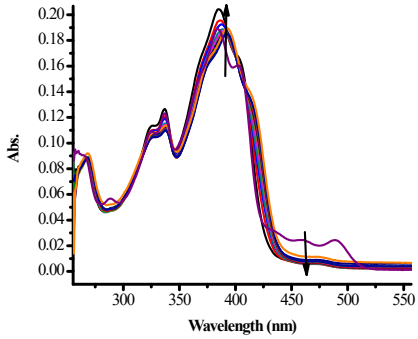
Electronic Supplementary Material (ESI) for RSC Advances.

An ESIPT-ICT ignited naphthylthioic-based ionic probe with dual emissive channels exhibiting CHEF and CHEQ effects

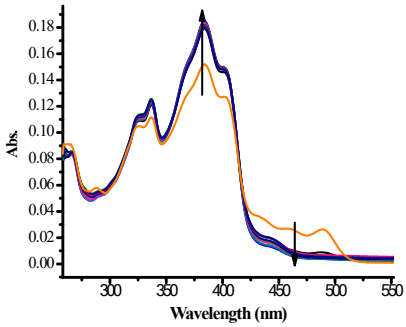
Martha N Amputu, Johannes Naimhwaka, Veikko Uahengo*

Department of Physics, Chemistry and Material Science, University of Namibia, 340 Mandume Ndemufayo Avenue, Windhoek, 9000, Namibia

*Corresponding author. Tel: +264 61 206 3465. E-mail address: vuahengo@unam.na or vuahengo@gmail.com (Veikko Uahengo)



(a)



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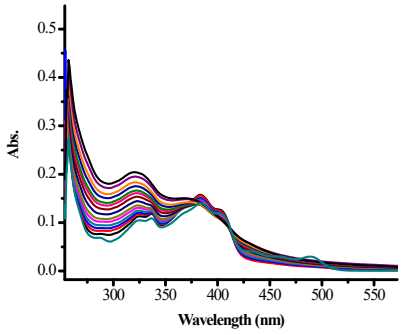

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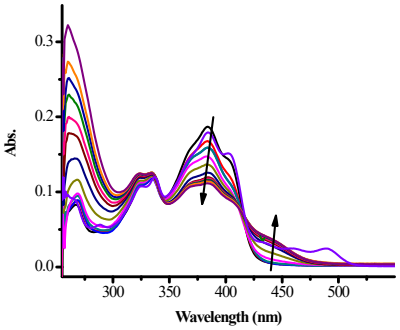

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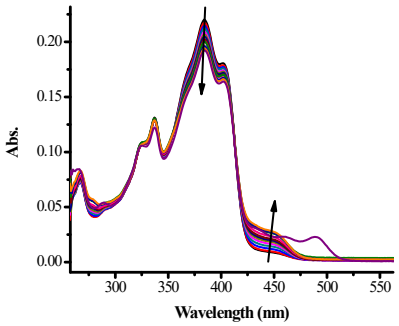

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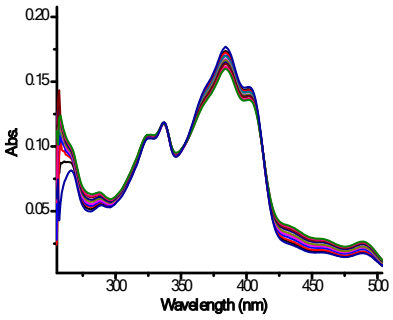
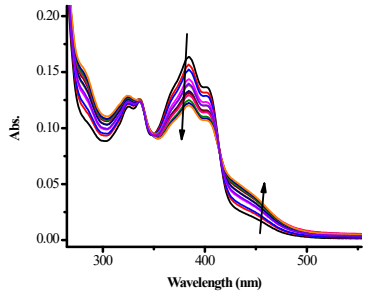
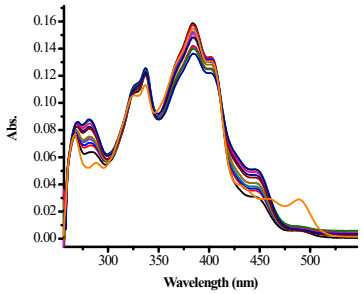


(f)

Figure S1: The absorption titration spectra of **M** (1 x 10^{-5} M) in DMSO-H_2O, with 3 equiv. of (a) Ag^+, (b) Al^{3+}, (c) Fe^{3+}, (d) Hg^{2+}, (e) Sn^{2+} and (f) Na^+ and Li^+, all at room temperature



(a)



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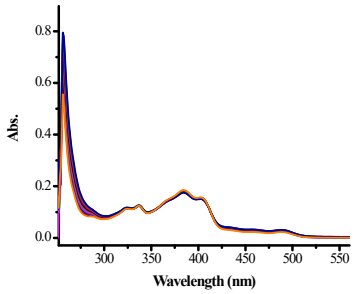

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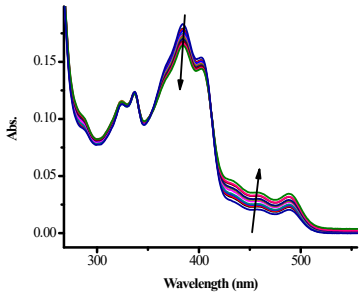

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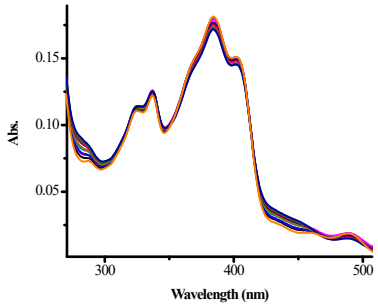

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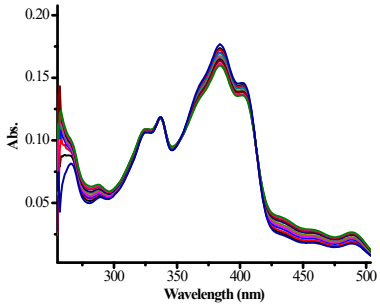

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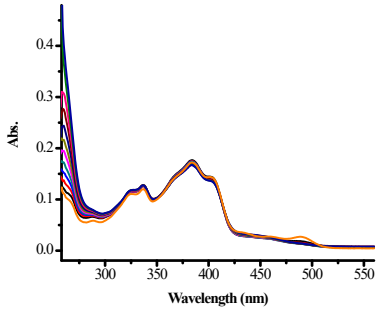

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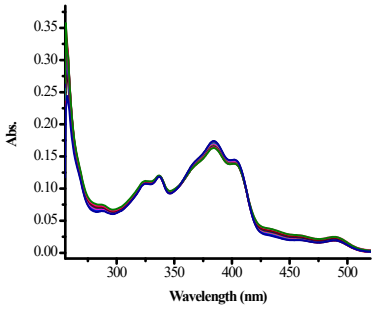


(h)

Figure S2: The absorption titration spectra of **M** (1 x 10^{-5} M) in DMSO-H_2O, with varying equiv. of (a) Co^{2+}, (b) Cd^{2+}, (c) Cr^{3+}, (d) Mg^{2+}, and (e) Mn^{2+} , (f) Na^{+}, (g) Pb^{2+} and (h) Sn^{2+} at room temperature

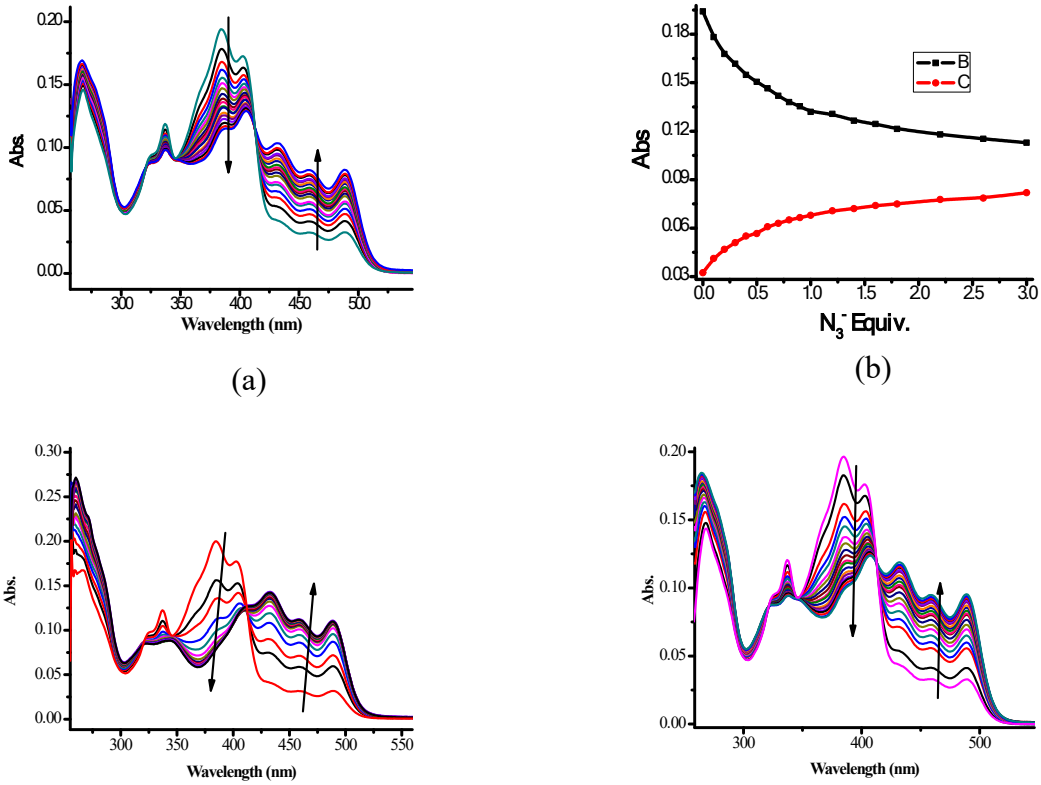


Figure S3: The absorption titration spectra of **M** (1 x 10^{-5} M) in DMSO-H_2O, with up to 5 equiv. of (a) N_3^-, (b) N_3^- titration profile, (c) OH^- and (d) OCN^- at room temperature

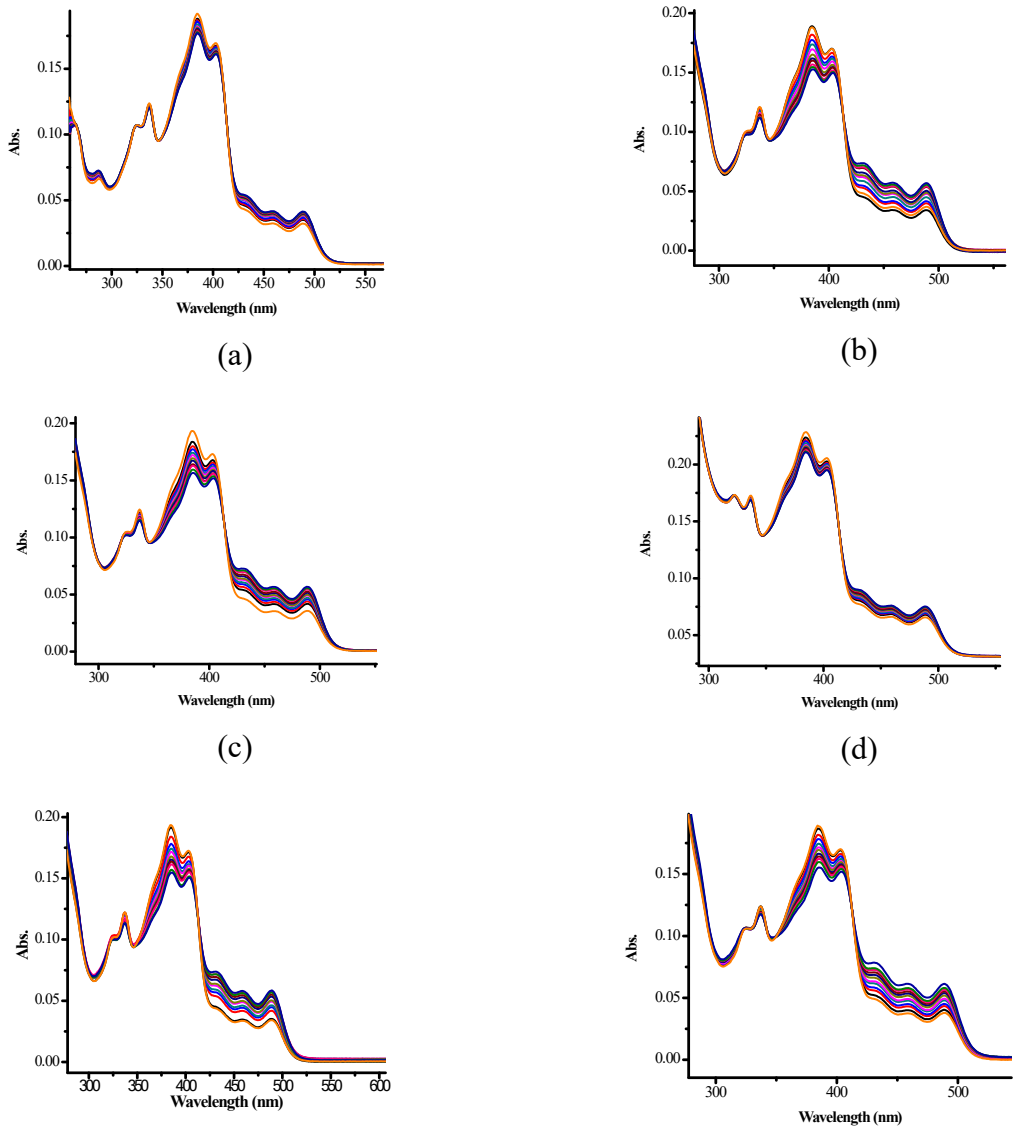
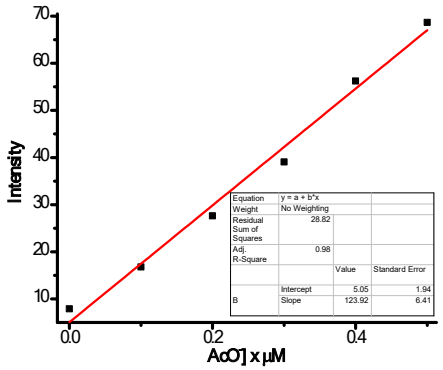
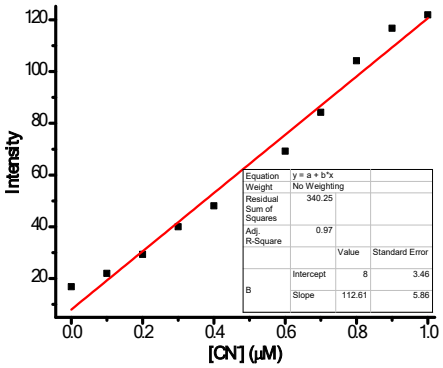


Figure S4: The absorption titration spectra of **M** (1 x 10^{-5} M) in DMSO-H_2O, with up to 5 equiv. of (a) Br^-, (b) Cl^-, (c) ClO_4^- ,and (d) HSO_4^- (e) I^- and (f) NO_3^-, at room temperature



(a)



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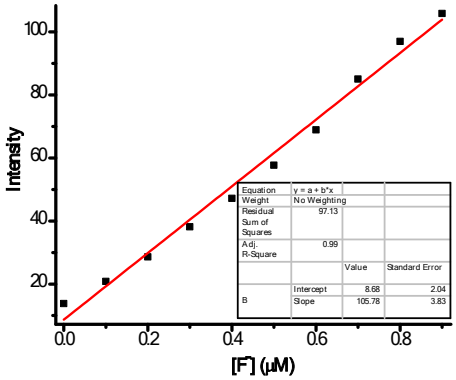

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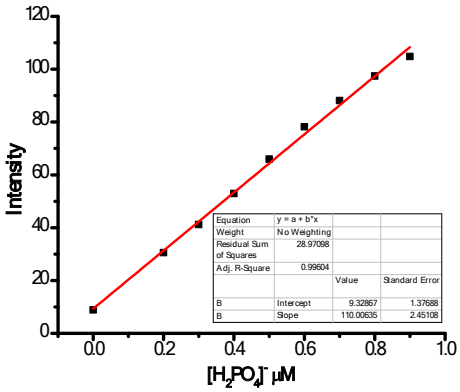

(d)

Figure S5: The Fluorescence signals of **M** (1 x 10^{-5} M) in DMSO-H_2O, to changing conc. of (a) AcO^- (0-0.5 µM) at 515, (b) CN^- (0-1.0 µM), (c) F^- (0-1.0 µM), at 520, and (d) $H_2PO_4^-$ (0-1.0 µM) at 530 nm.

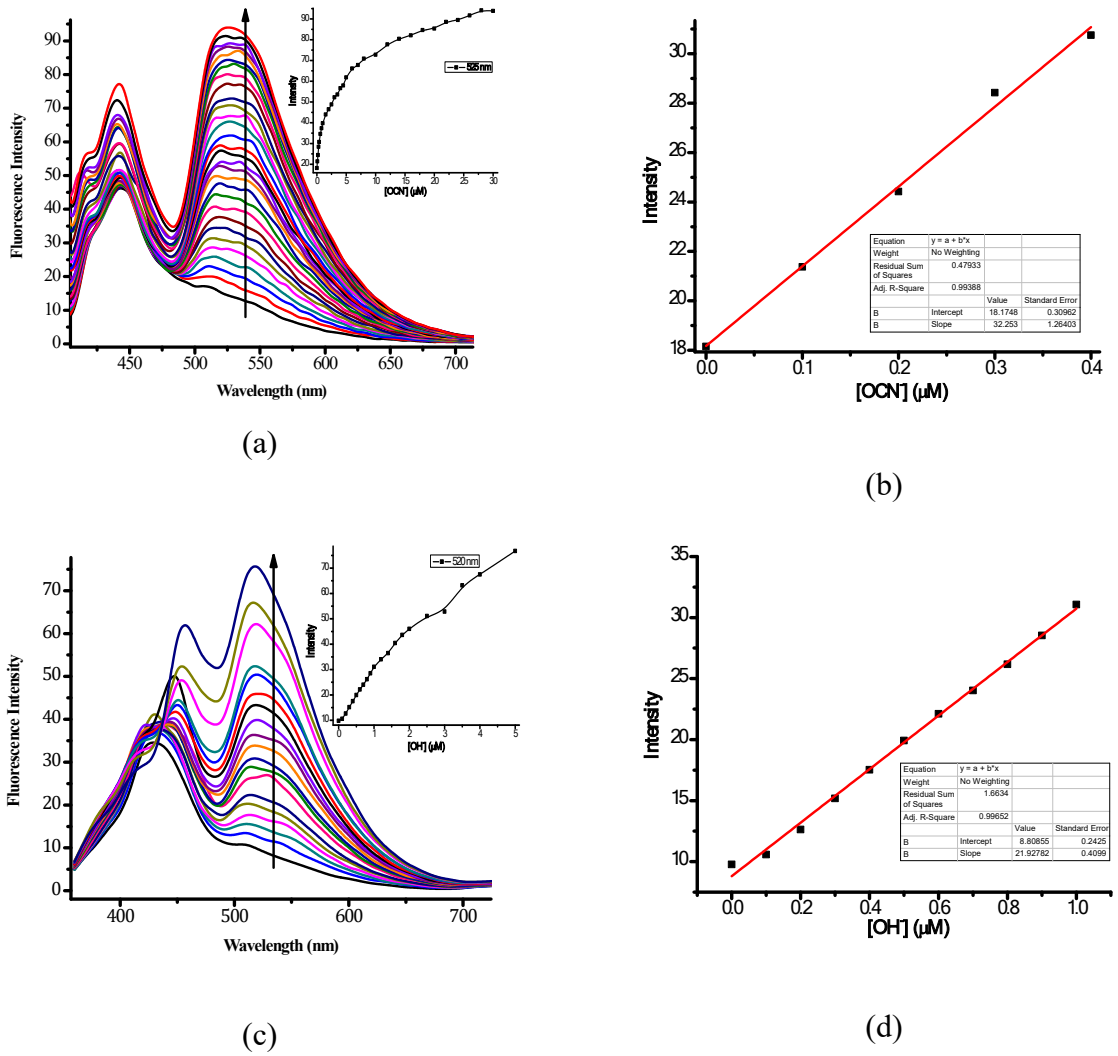

Figure S6: The Fluorescence titration spectra of **M** (1 x 10^{-5} M) in DMSO-H_2O, (a) upon the addition of 25 equiv. of OCN^- and (b) Fluorescence signals of **M** to changing conc. of OCN^- (0-0.4 μM) at 525 nm, (c) upon the addition of 5 equiv. of OH^-, and (d) Fluorescence signals of **M** to changing conc. of OH^- (0-1.0 μM), at 520.

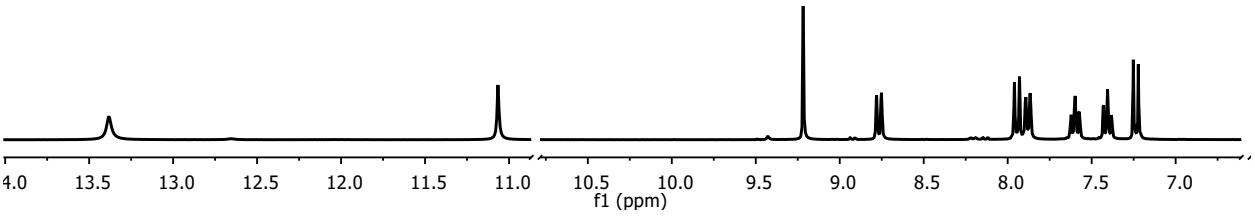

Figure S7: ^{1}H NMR spectral of **M** in DMSO-d_6