Supporting information

A highly selective fluorescent chemosensor for Fe^{3+} based on a new diarylethene with rhodamine 6G

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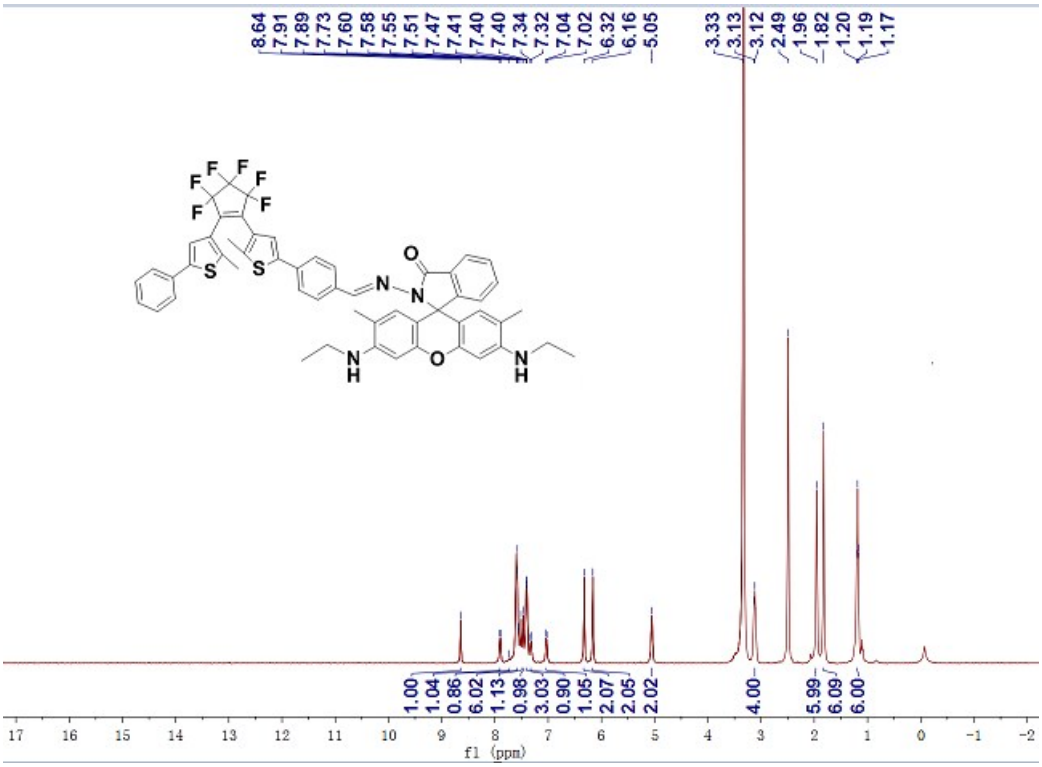

Fig. S1. ^{1}H NMR (in DMSO-d_6.) spectrum of **1O**

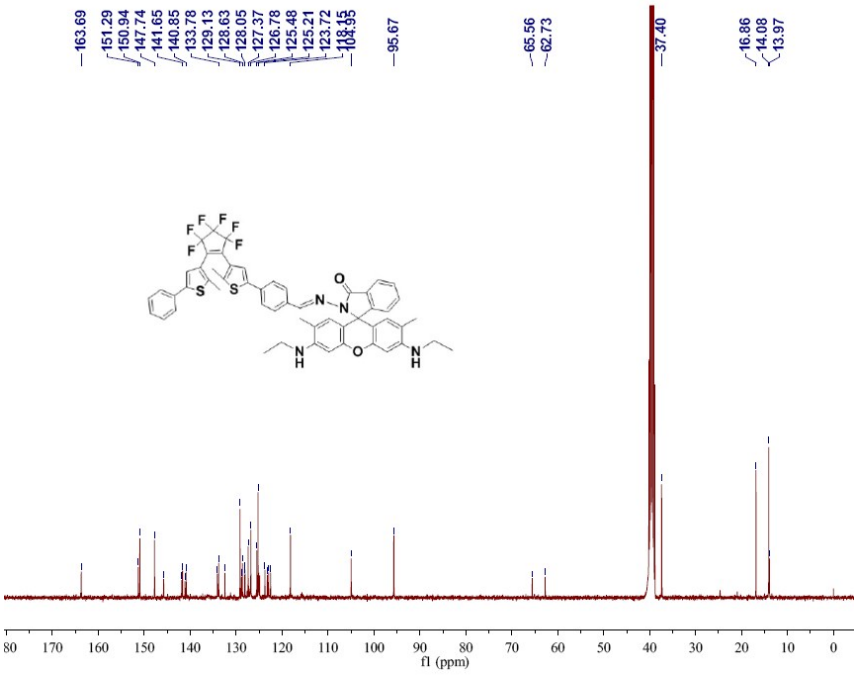

Fig. S2. ^{13}C NMR (in DMSO-d_6.) spectrum of **1O**

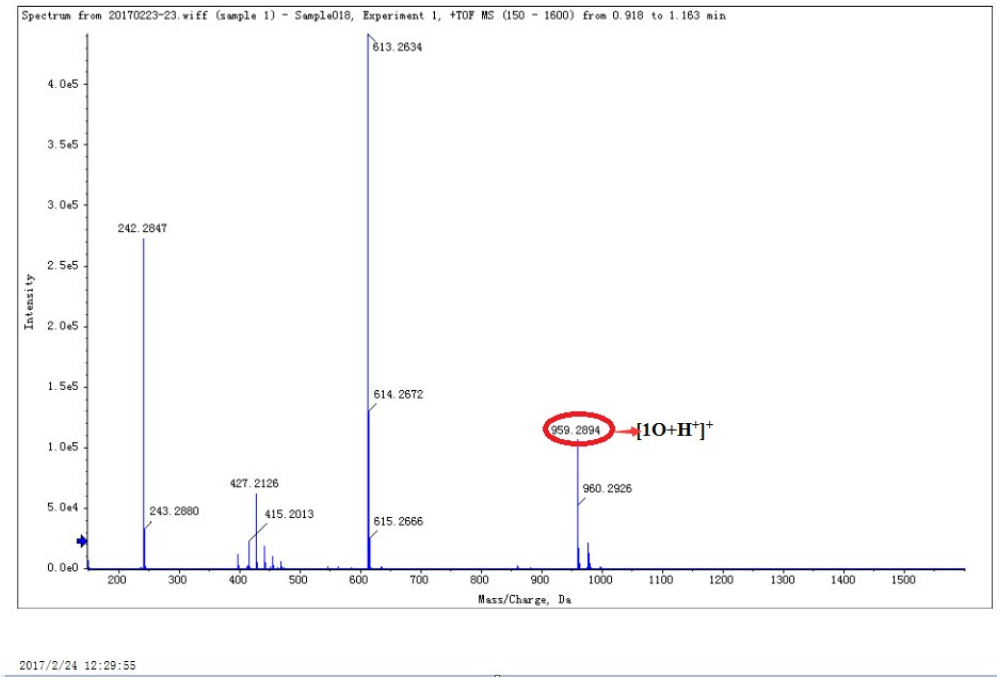

Fig. S3. ESI–MS spectrum of **1O**.

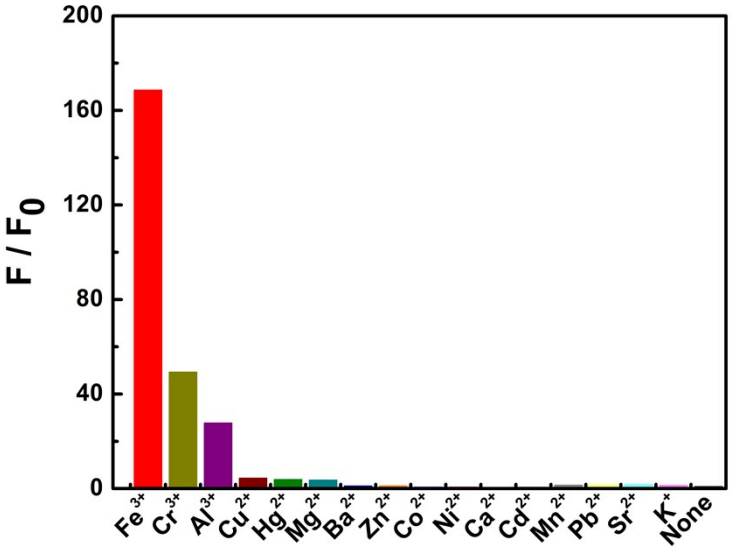

Fig. S4. Changes in fluorescence (fluorescence intensity at 585 nm) of **1O** to various metal ions (10.0 equiv.) in aqueous acetonitrile (C = 2.0 × 10^{-5} mol L^{-1}, v/v = 1:1)

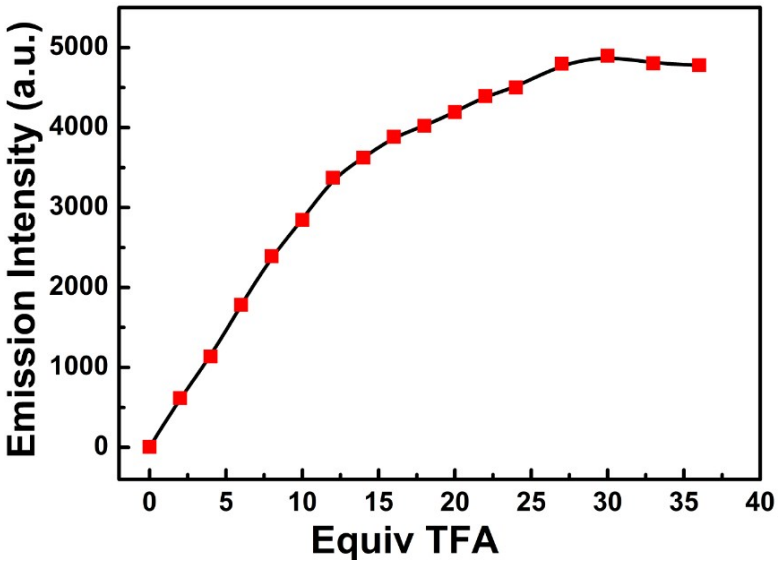

Fig. S5. Upon addition of different equivalents TFA and the emission intensity curve at 584 nm

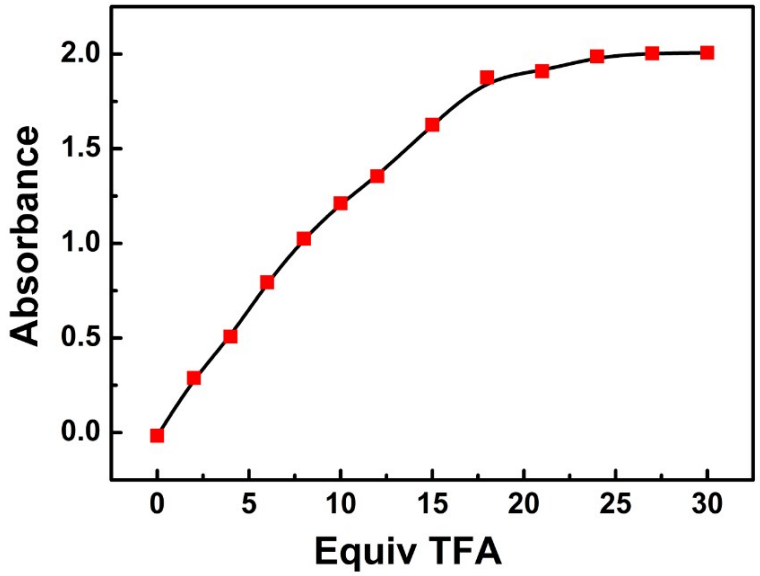

Fig. S6. The absorption intensity changes of **1O** at 531 nm with different equivalents of TFA