

## Supplementary Information

# An effective colorimetric and fluorescent chemosensor derived from modified curcumin for the detection of the Fe<sup>3+</sup> ion

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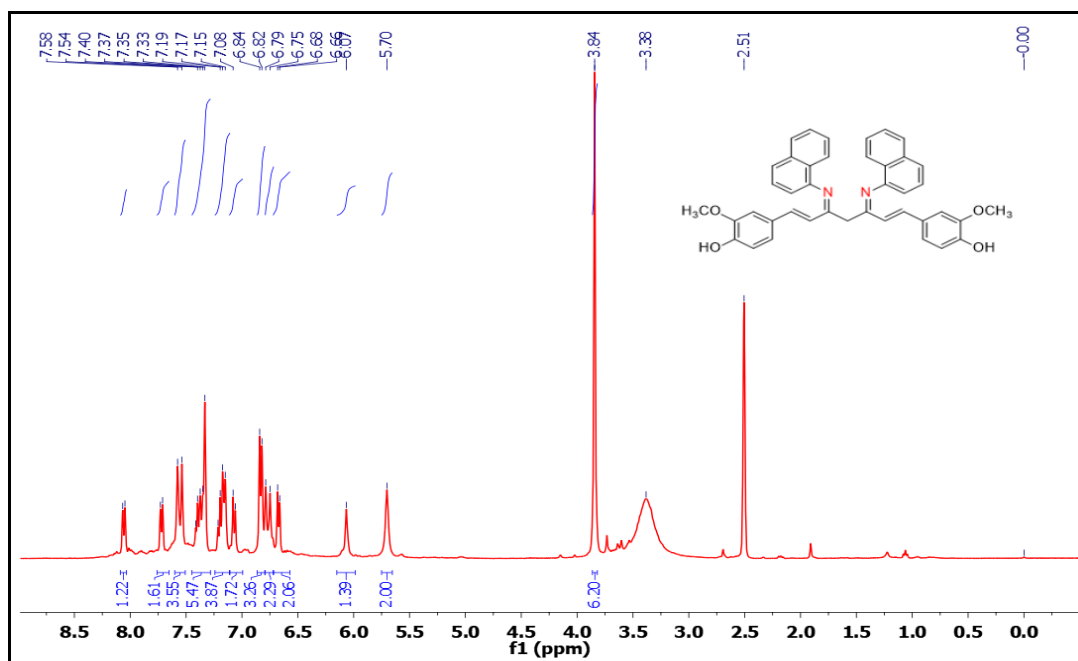


Fig. S1 — <sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>) spectrum of NIBMP

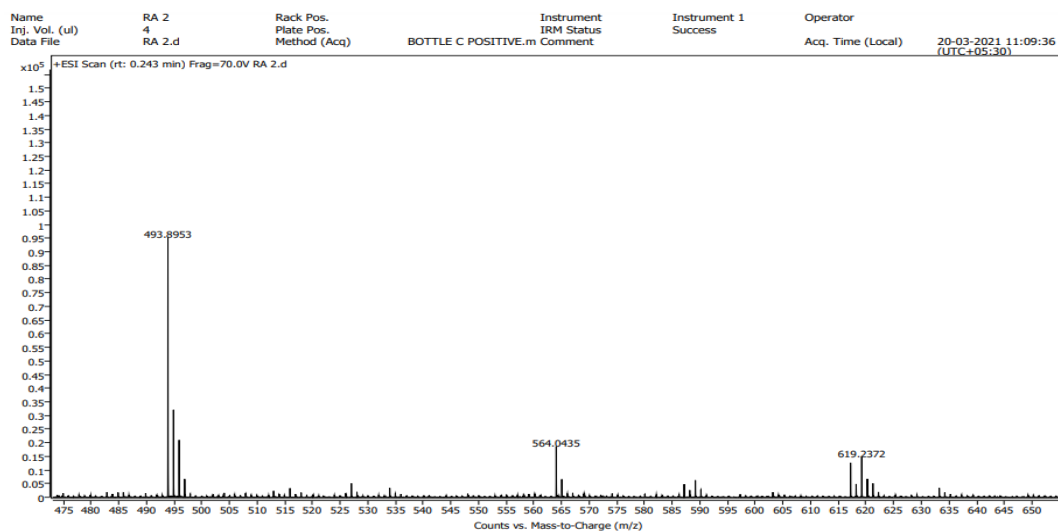


Fig. S2 — Mass spectrum of NIBMP

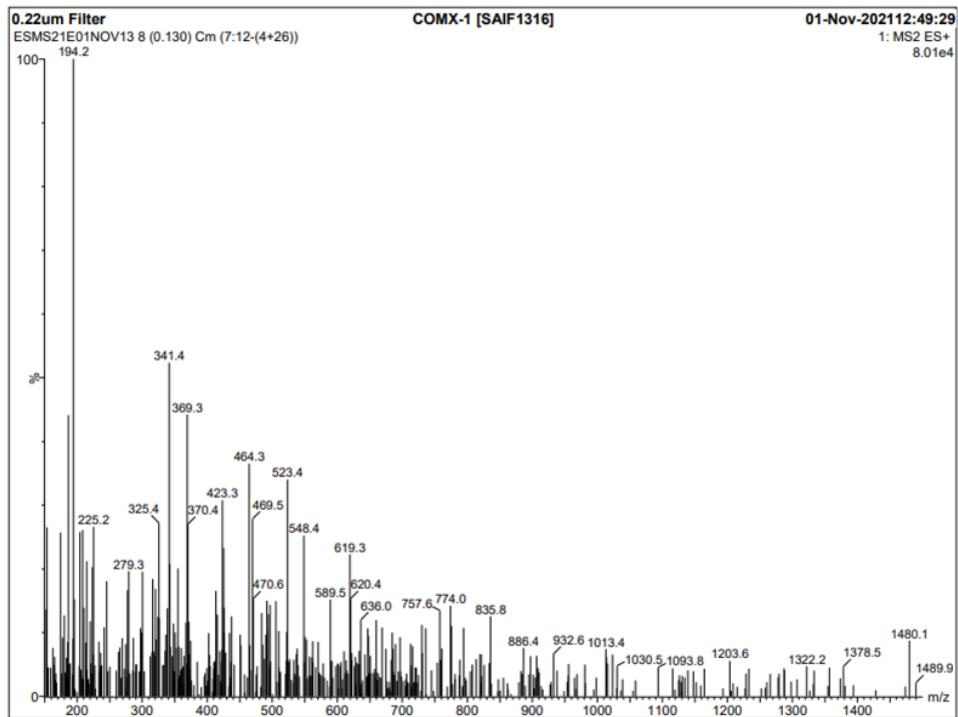


Fig. S3 — Mass spectrum of NIBMP-Fe<sup>3+</sup> complex

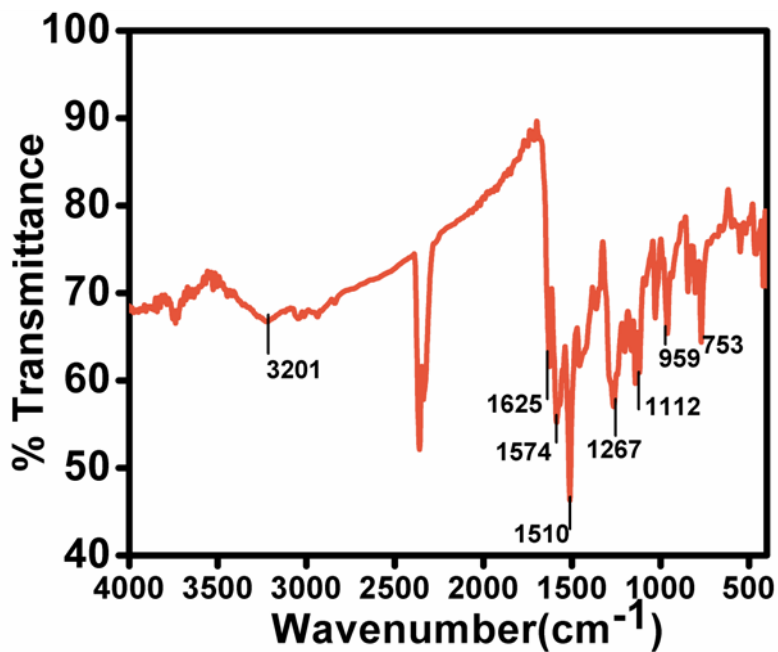


Fig. S4 — FTIR spectrum of NIBMP

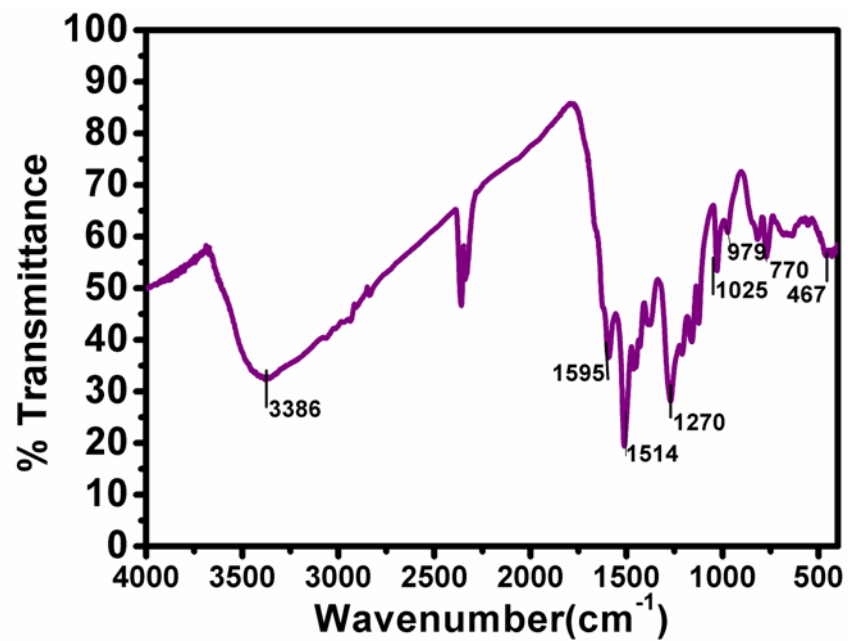


Fig. S5 — FTIR spectrum of NIBMP-Fe<sup>3+</sup> complex

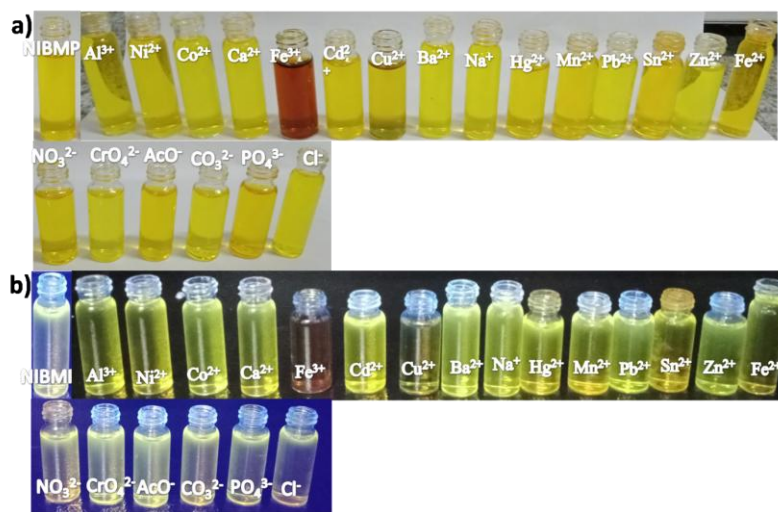


Fig. S6 — (a) Color changes of NIBMP with different metal cations and anions under naked eye detection and (b) Color changes of NIBMP under UV-light (365 nm) with different metal cations and anions