

Supporting Information

for

A new rhodamine derivative as single optical probe for the recognition of Cu²⁺ and Zn²⁺ ions.

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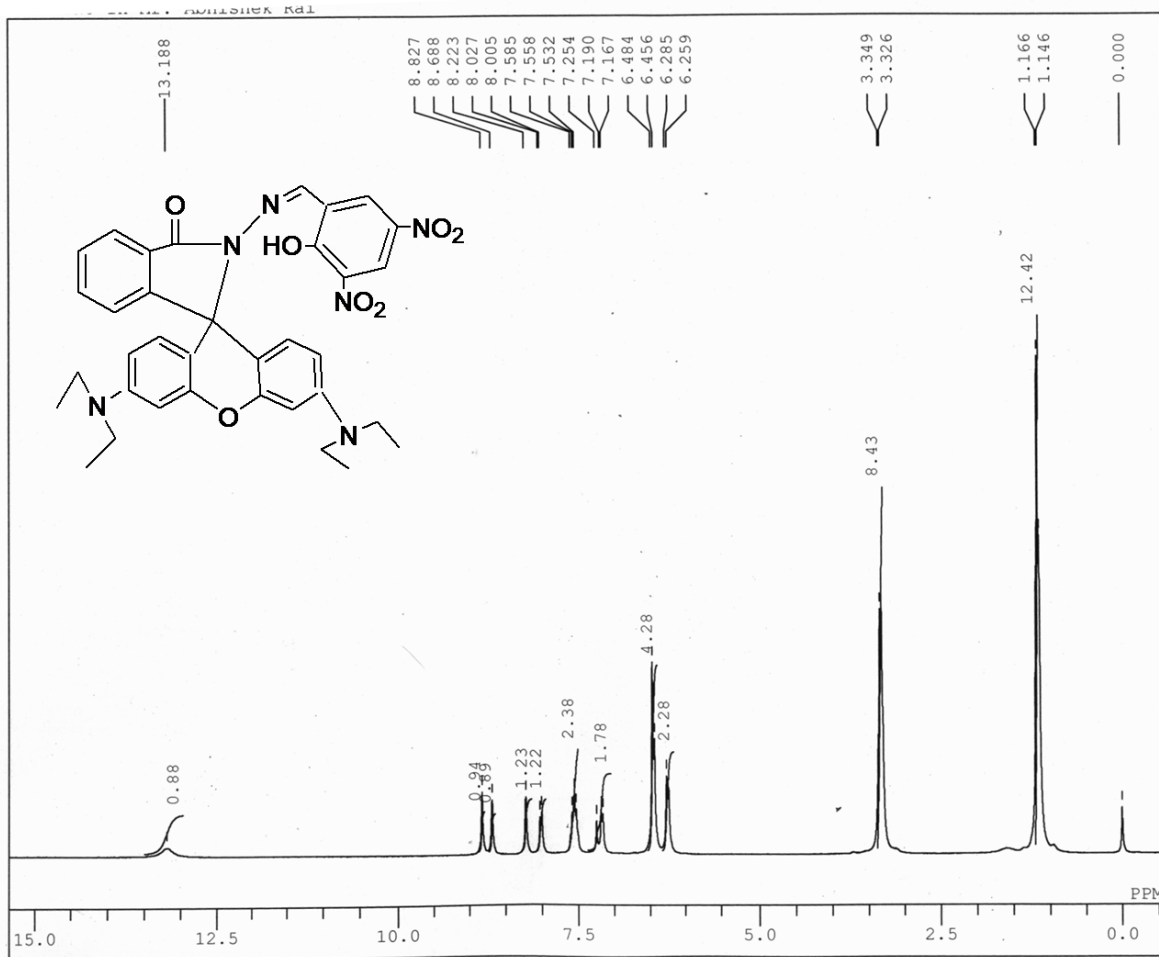


Fig. S1: ^1H NMR of **RHDN** recorded in DMSO-d_6

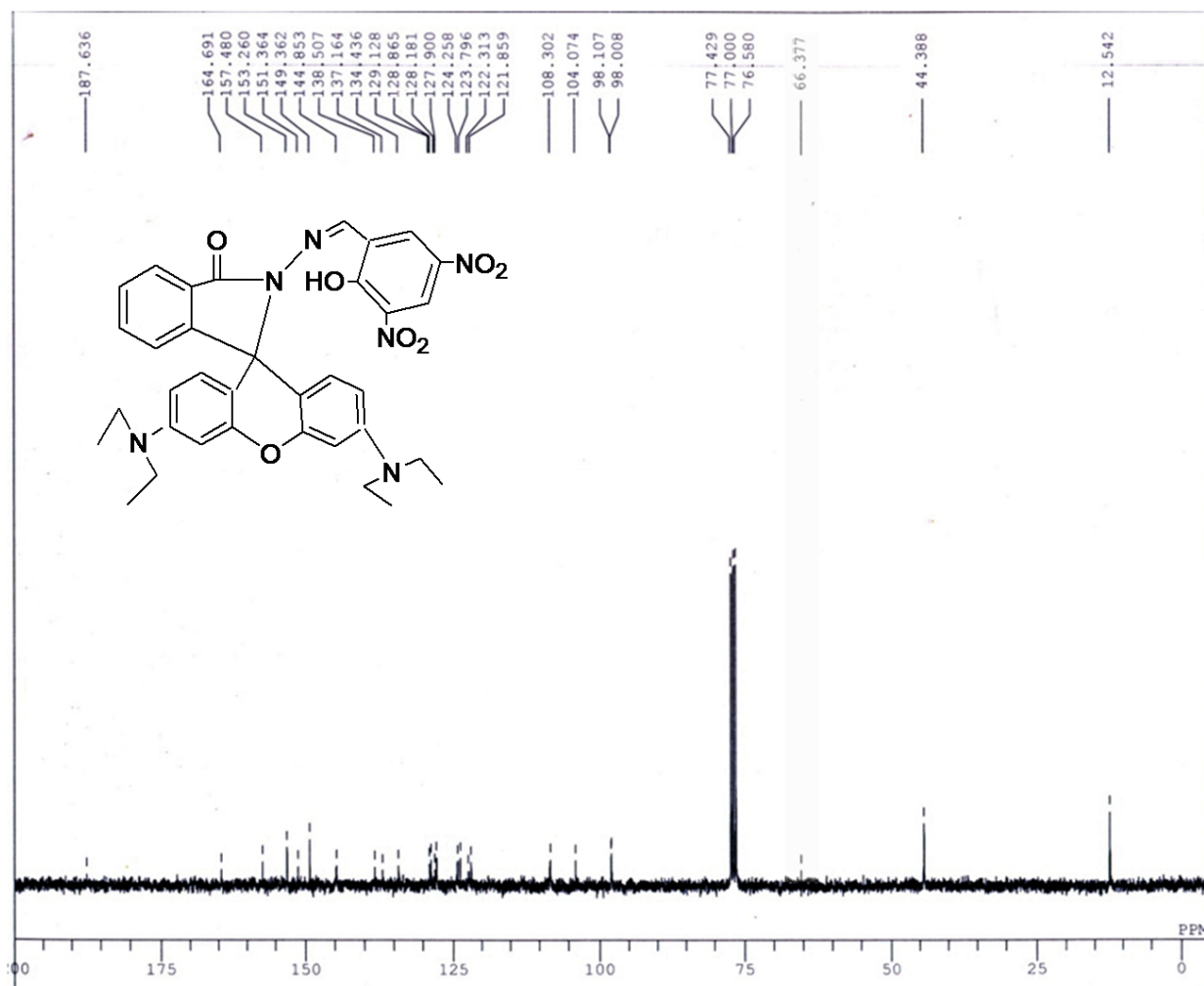


Fig. S2: ¹³C-NMR spectrum of **RHDN** recorded in DMSO-d₆

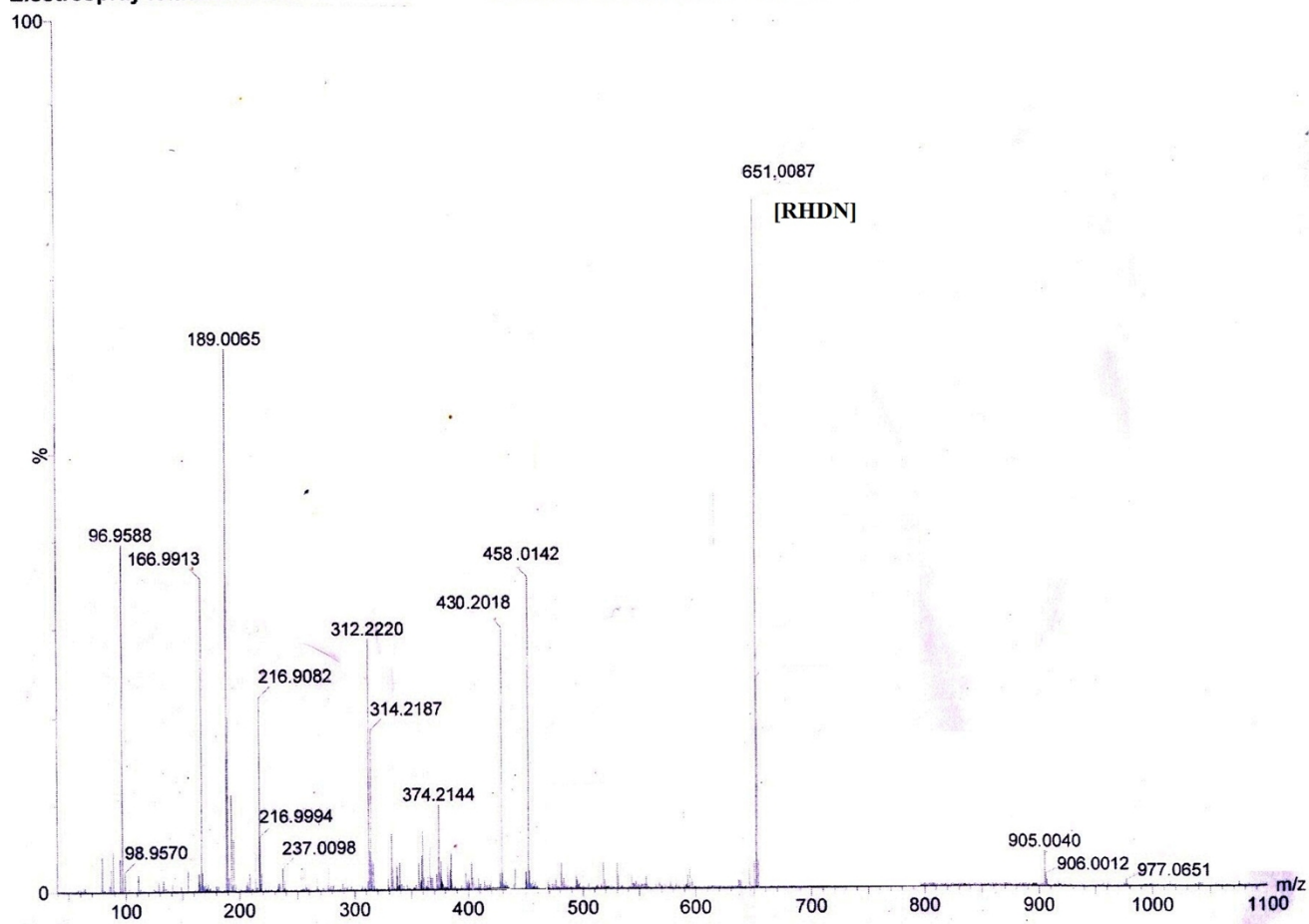


Fig. S3: ESI-MS spectrum of **RHDN**.

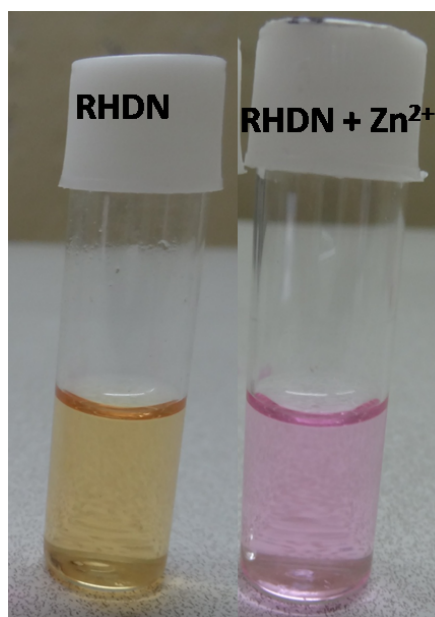


Fig. S4: Colorimetric response of **RHDN** in CH₃CN/aqueous HEPES buffer (1 mM, pH 7.2; 7:3v/v) in the presence of Zn²⁺ (20 eq.) solution

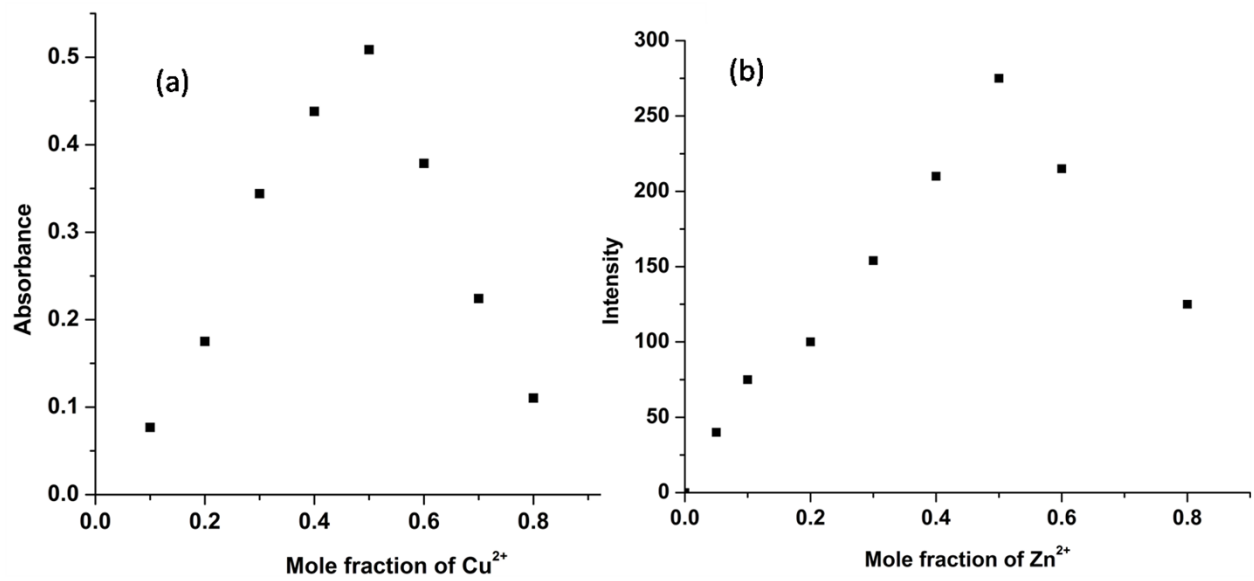


Fig. S5: Job's plot analysis from (a) absorption spectra showing maximum absorption at 1:1 ratio [RHDN: Cu^{2+}]; (b) emission intensity showing maximum emission at 1:1 ratio [RHDN: Zn^{2+}].

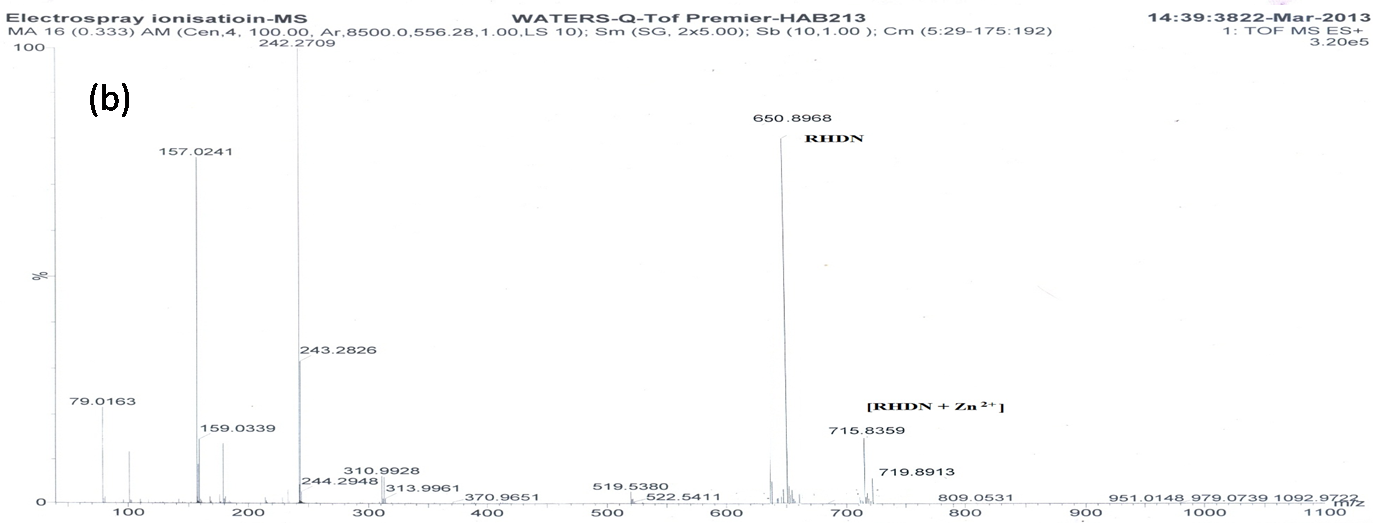
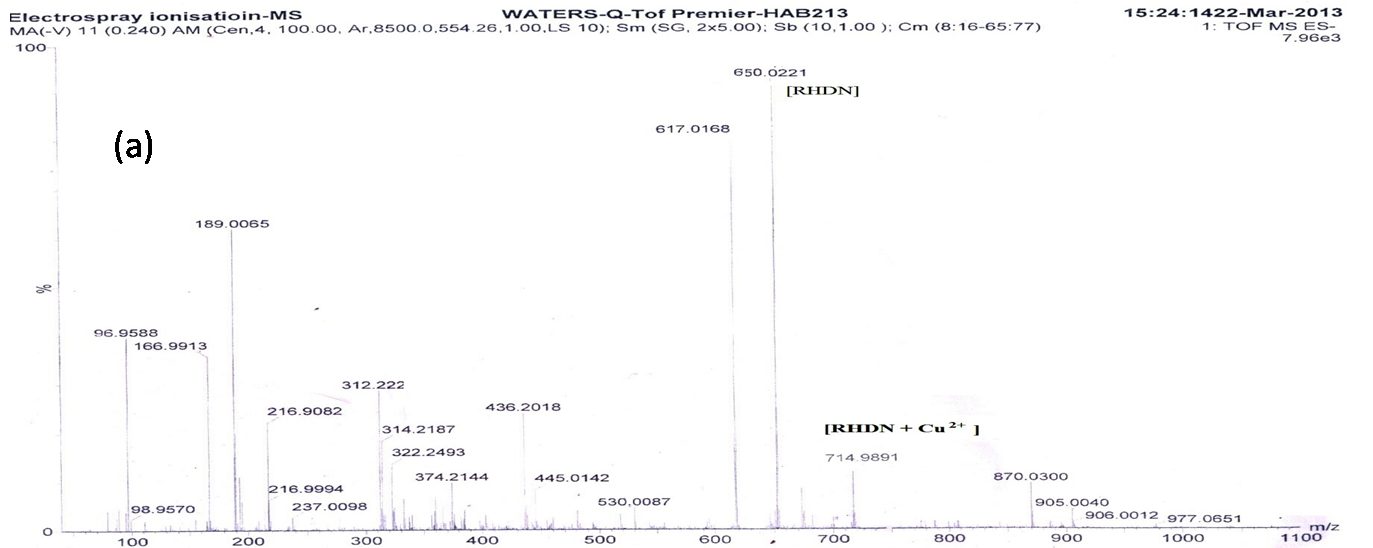


Fig. S6: ESI-MS of (a) **RHDN-Cu²⁺** adduct (b) **RHDN-Zn²⁺** adduct in acetonitrile.

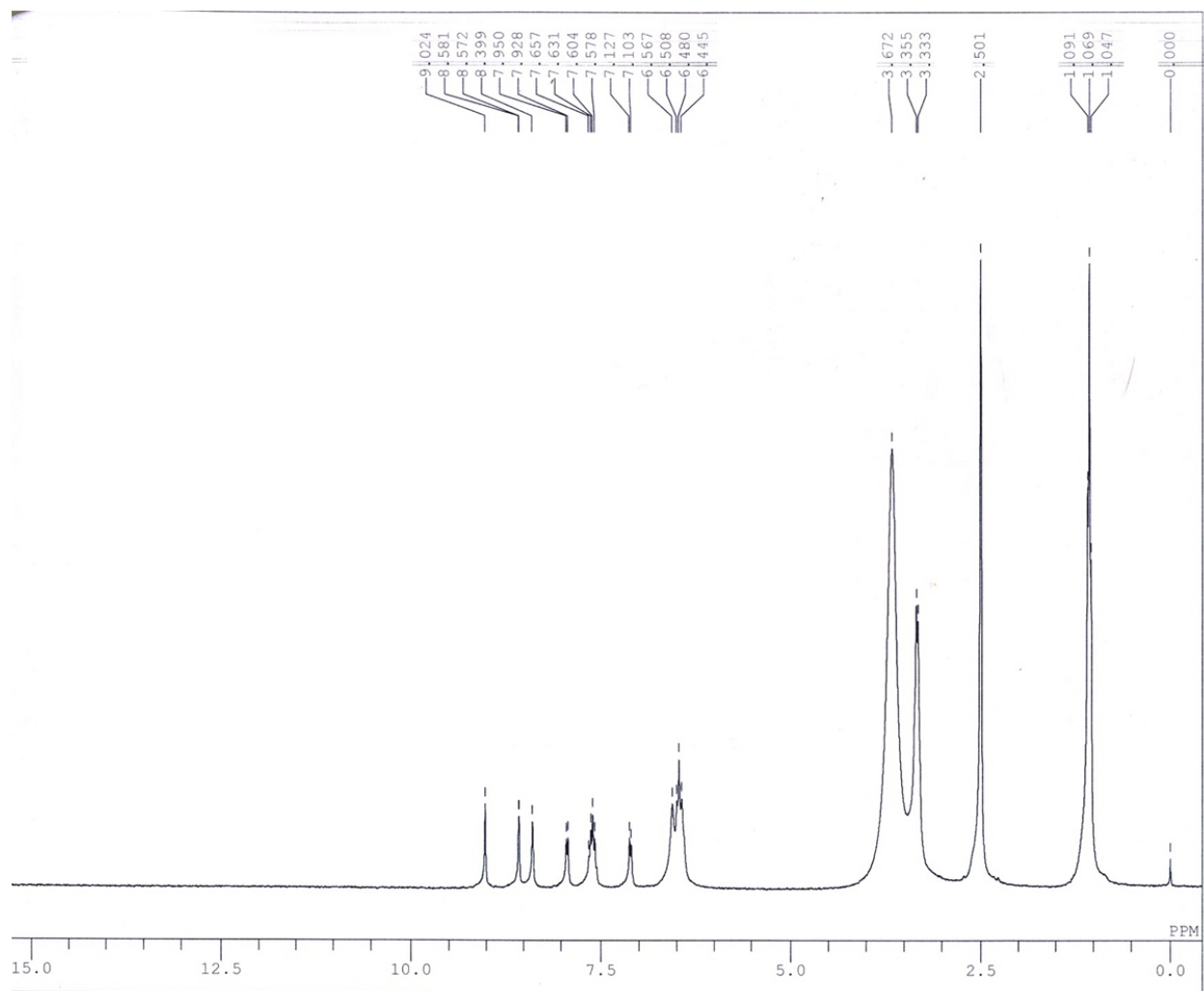


Fig. S7: ¹H NMR spectrum of **RHDN** recorded in DMSO-d₆ in the presence of Zn²⁺ ions.

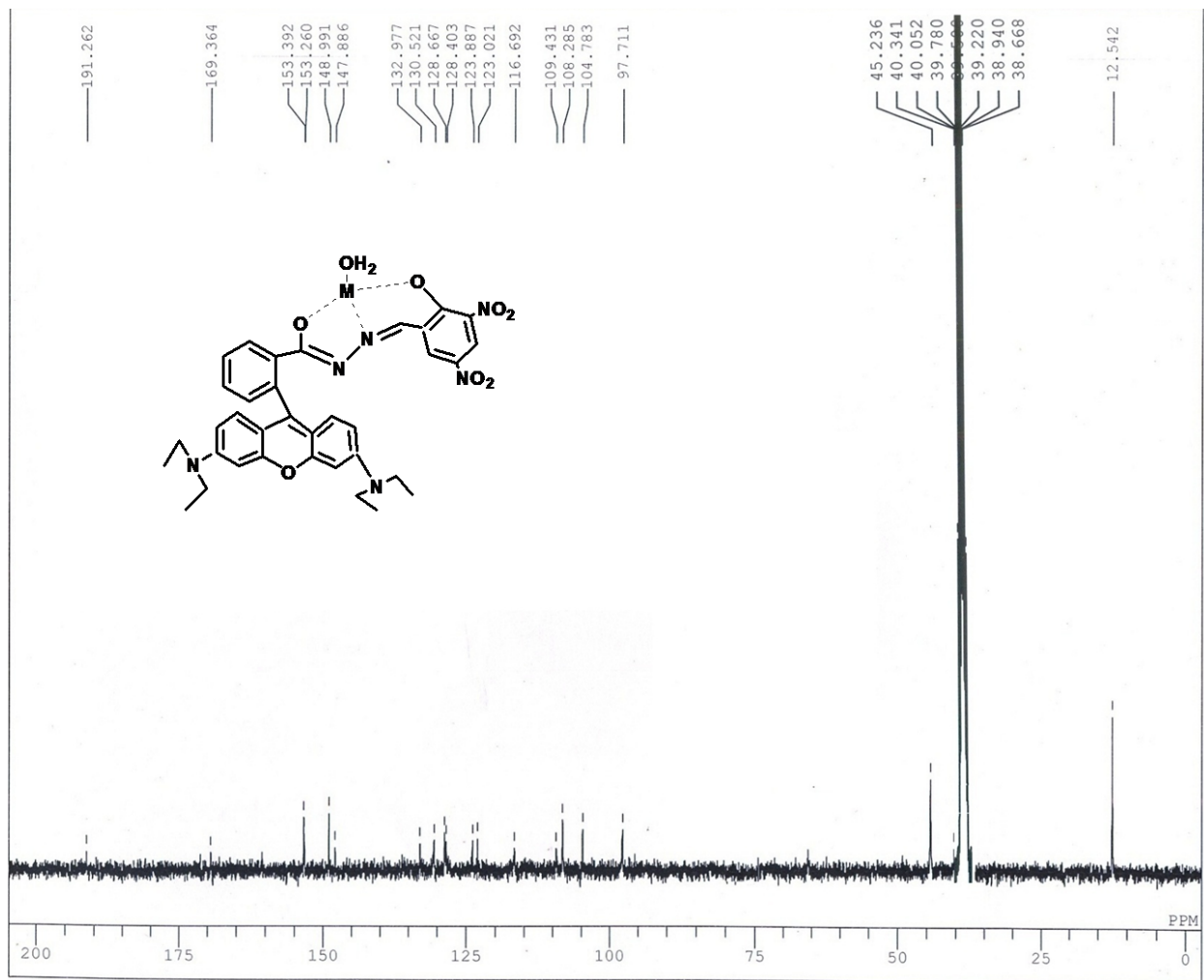


Fig. S8: ^{13}C NMR spectrum of **RHDN** recorded in DMSO-d_6 in the presence of Zn^{2+} ions.