

Supporting Information

A facile synthesis of a novel 4-hydroxyl-3-azo coumarin based colorimetric probes for detecting Hg²⁺ and a fluorescence turn-off response of 3CBD to Fe³⁺ in aqueous environment

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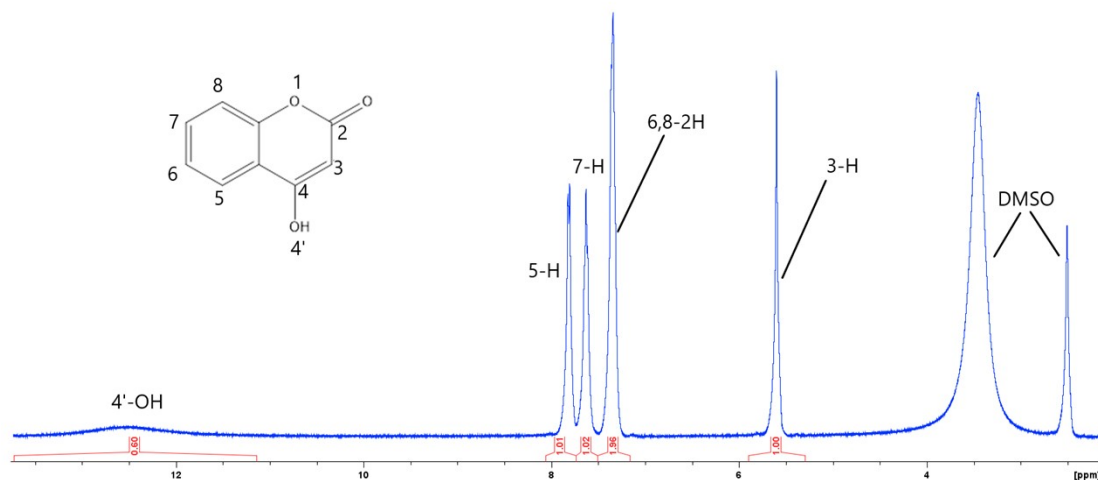


Figure S 1: ¹H NMR spectra for coumpling constant in **DMSO**.

¹H NMR (CDCl₃, 400 MHz) δ 7.81 (dd, *J* = 7.5, 1.5 Hz, 1H), 7.69 (td, *J* = 7.5, 1.5 Hz, 1H), 7.42 – 7.33 (m, 2H), 5.60 (s, 1H), 4.76 (s, 1H). ¹³C NMR (CDCl₃, 400 MHz) δ 164.88 , 163.59 , 153.43 , 133.66 , 124.25 , 123.97 , 118.57 , 115.68 , 90.56 .

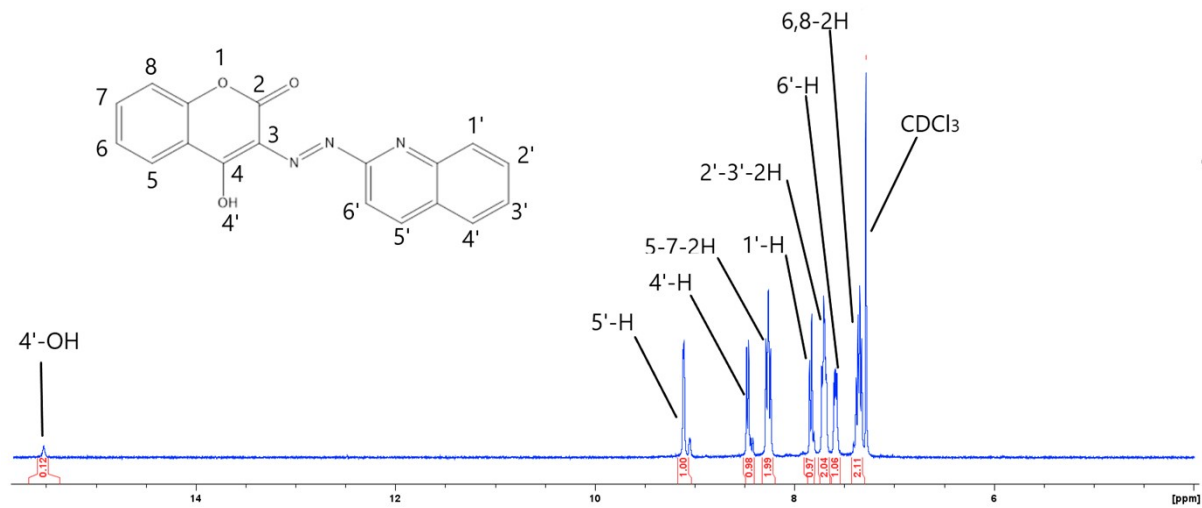


Figure S 2: ^1H NMR spectra for 3CQD in CDCl_3 .

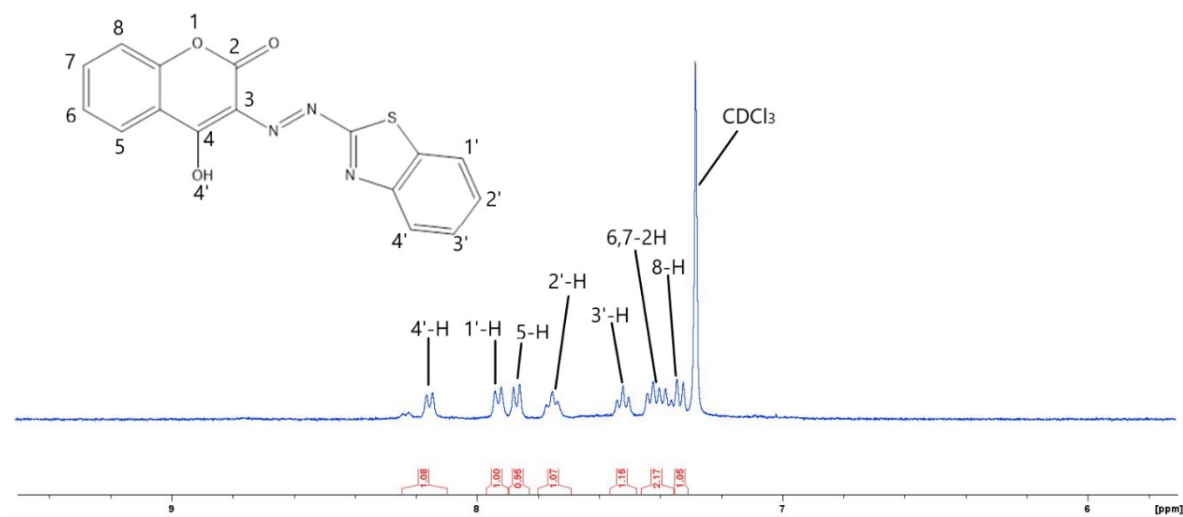


Figure S 3: ^1H NMR spectra for 3CBD in CDCl_3 .

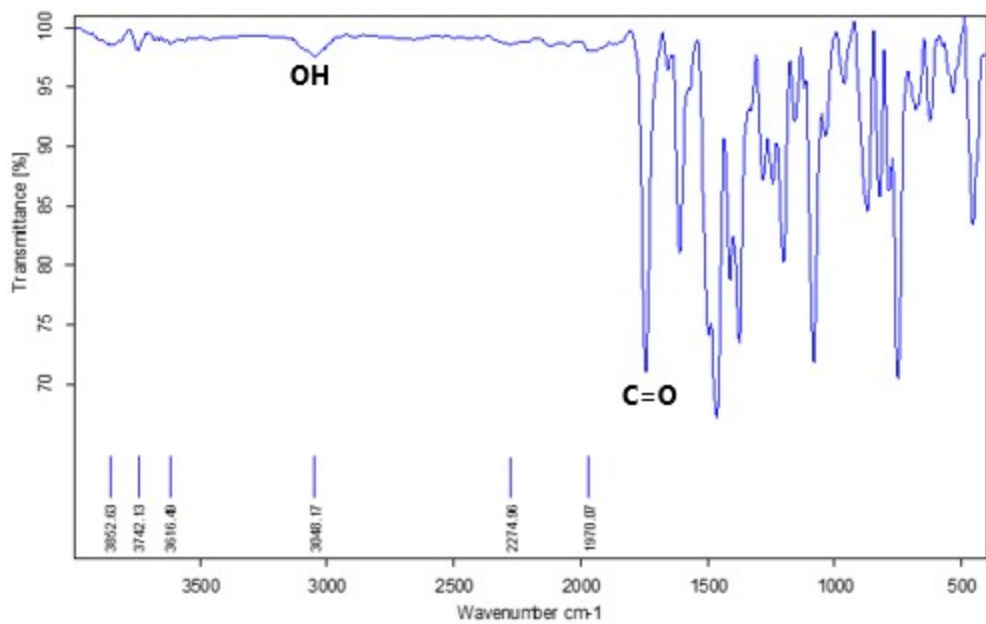


Figure S 4: FT-IR spectra for 3CBD.

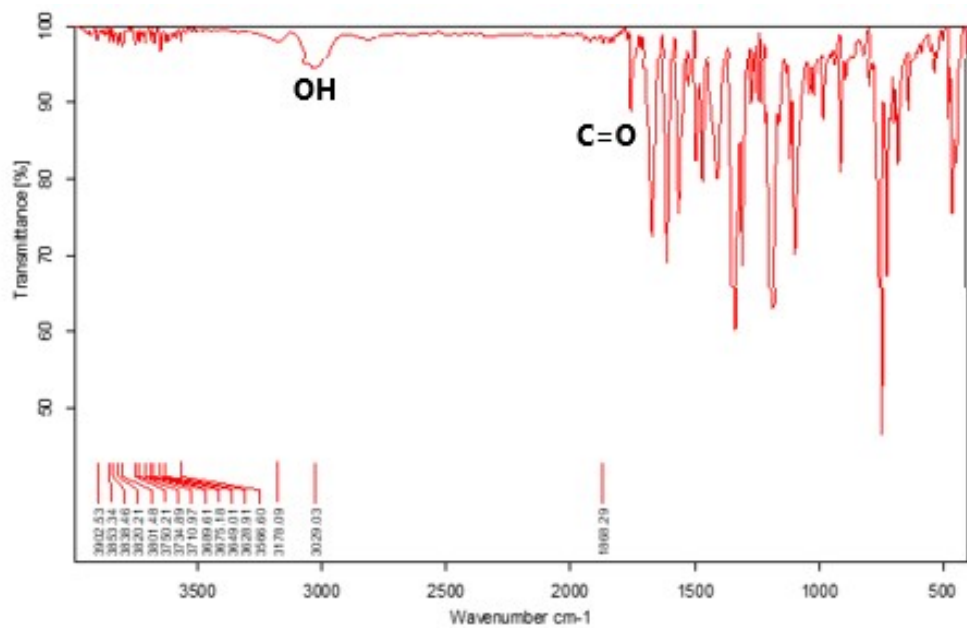


Figure S 5: FT-IR spectra for 3CQD.