

Supporting information

A novel "on-off-on" near-infrared fluorescent probe for Cu²⁺ and S²⁻ continuous detection based on dicyanoisoflurone derivatives, and its application in bacterial imaging

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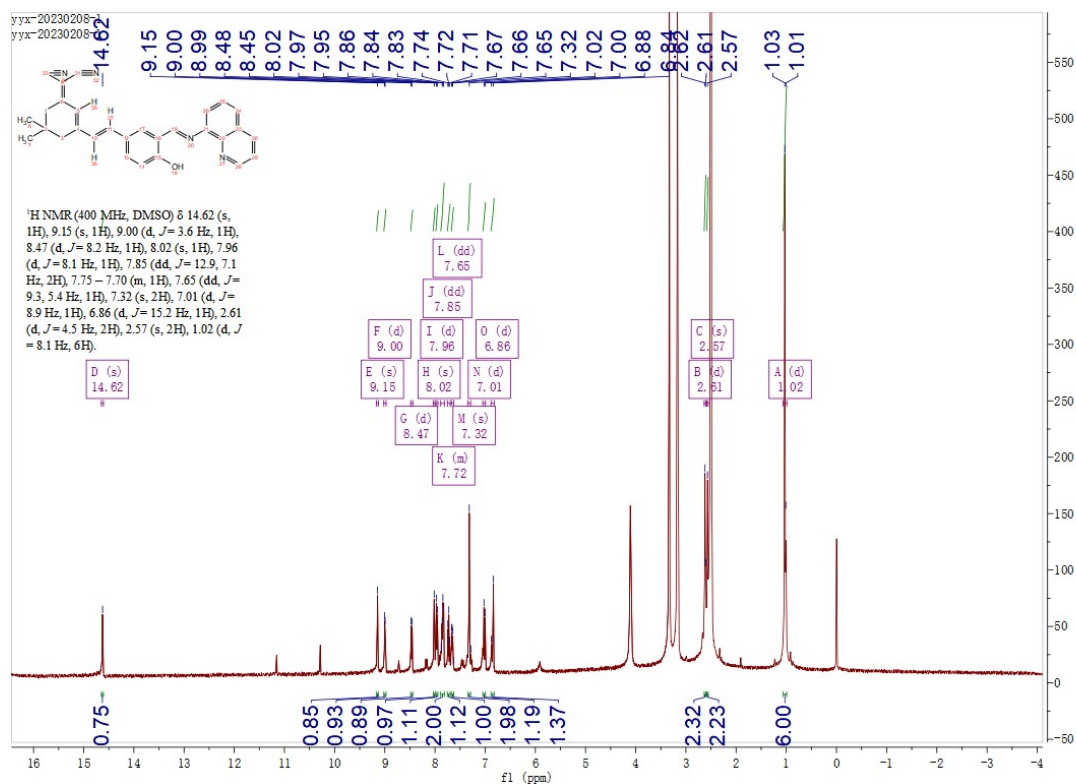


Figure S1 ¹H NMR spectrum of probe DL in DMSO-d₆.

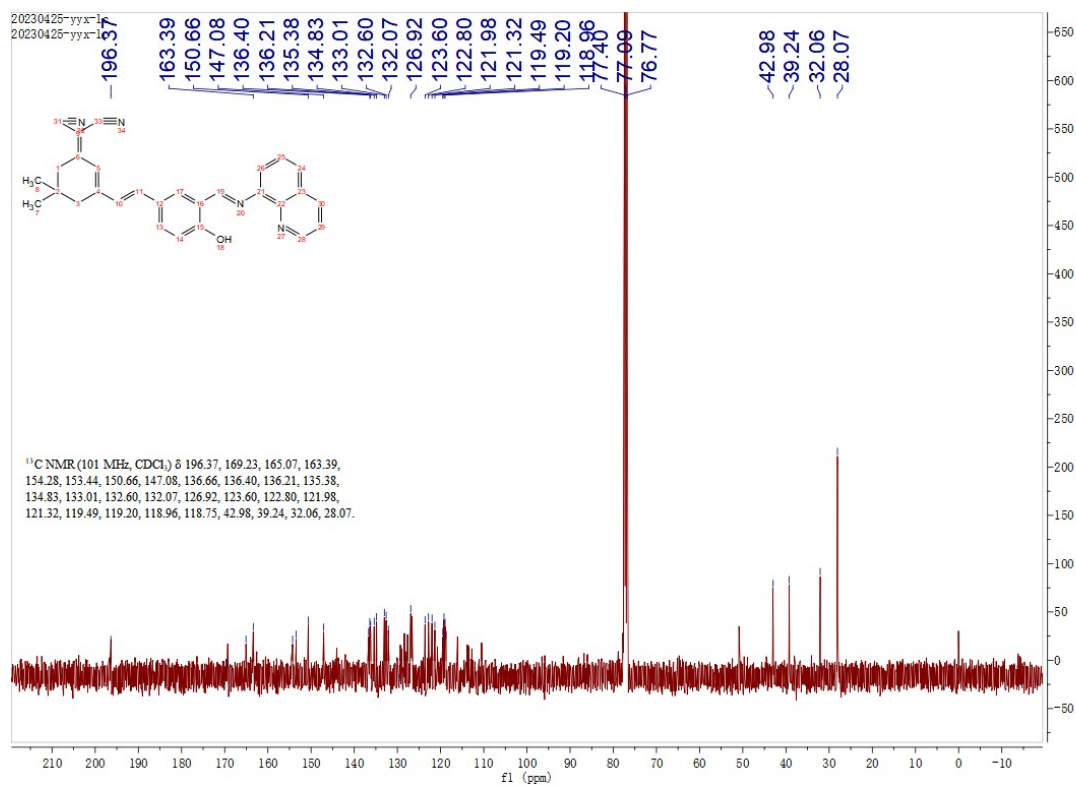


Figure S2 ¹³C NMR spectrum of probe DL in CDCl₃.

Mass Spectrum SmartFormula Report

Analysis Info

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 Sample Name YQB DL
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Operator zlwei
 Instrument / Ser# micrOTOF-Q II 10351

Acquisition Parameter

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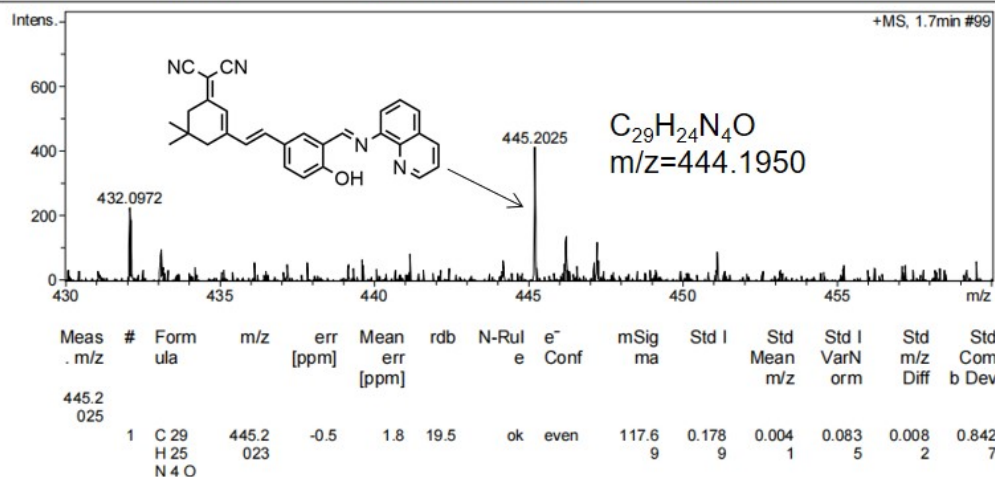


Figure S3 High-resolution mass spectra of the probe DL.

Mass Spectrum SmartFormula Report

Analysis Info

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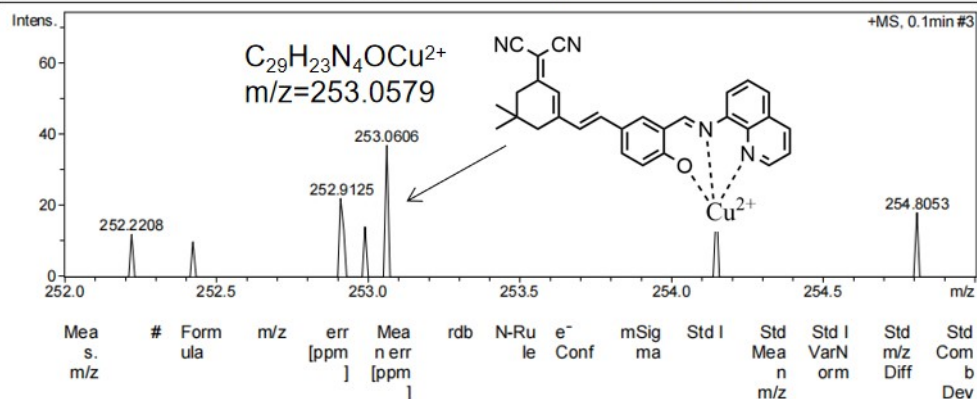


Figure S4 High-resolution mass spectra of the probe DL+Cu²⁺.

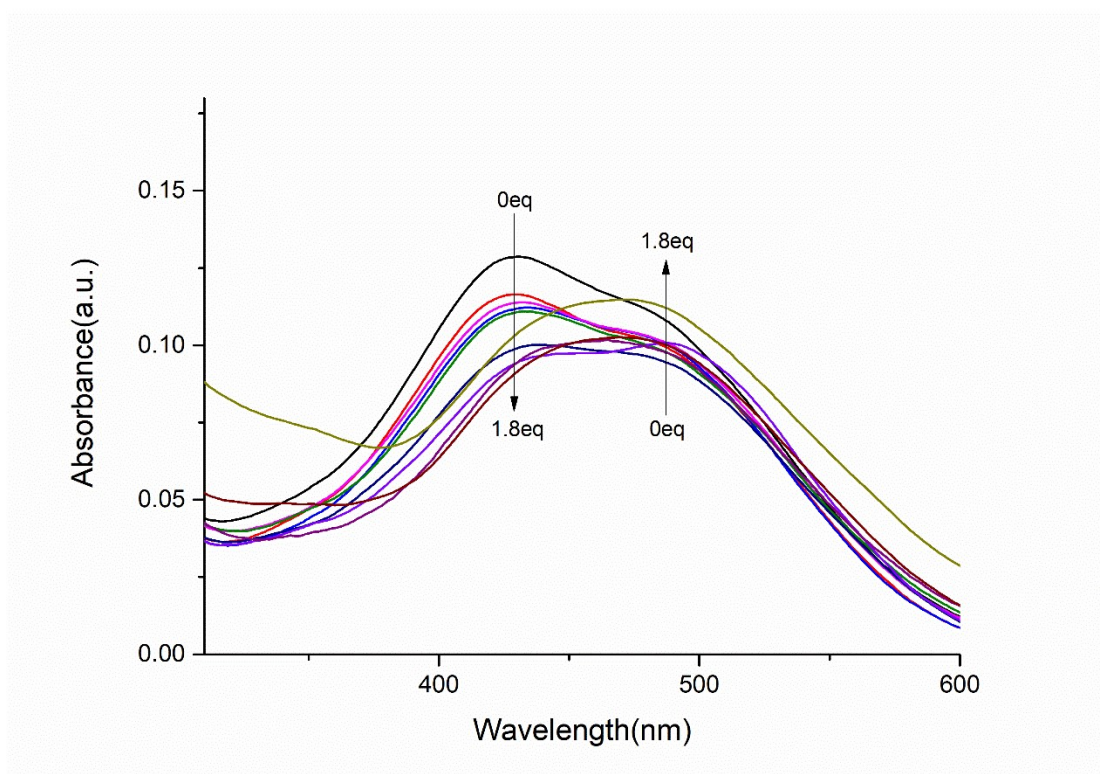


Figure S5 UV-Vis absorption diagram of 5 μM DL for Cu^{2+} recognition in DMSO/HEPES (v:v = 3:7, pH = 7.4) buffer solution.

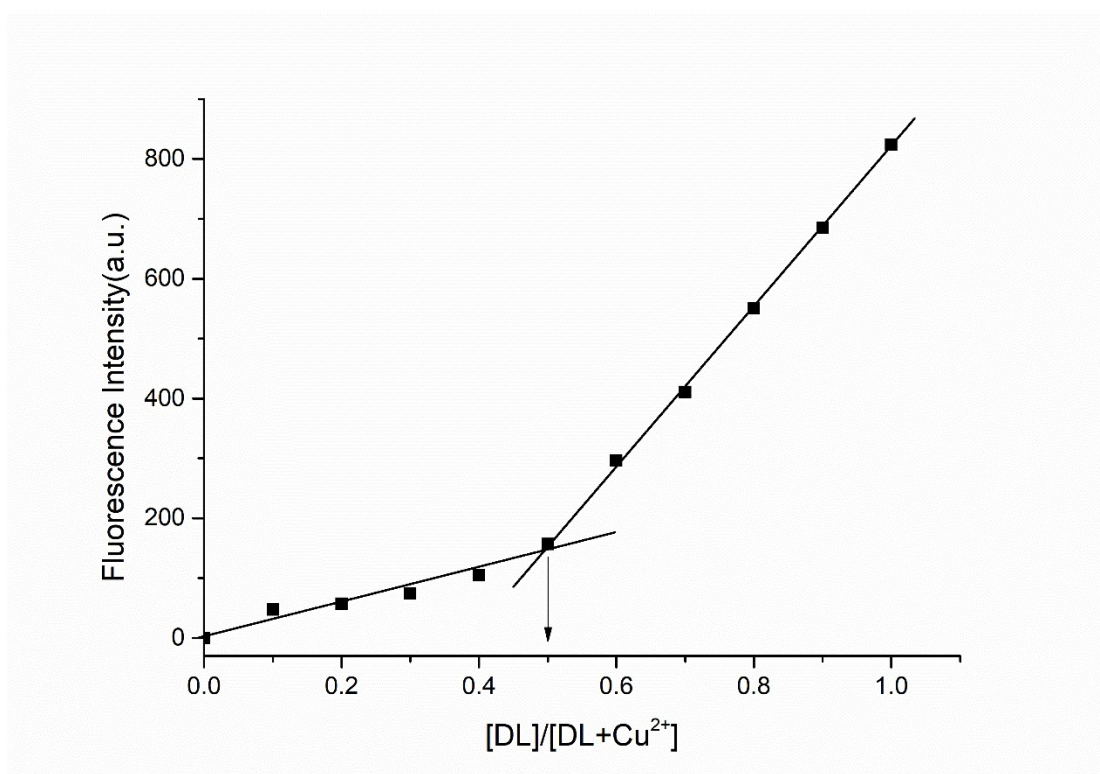


Figure S6 The Job's plot curve for estimating the coordination ratio of the DL to Cu^{2+} .

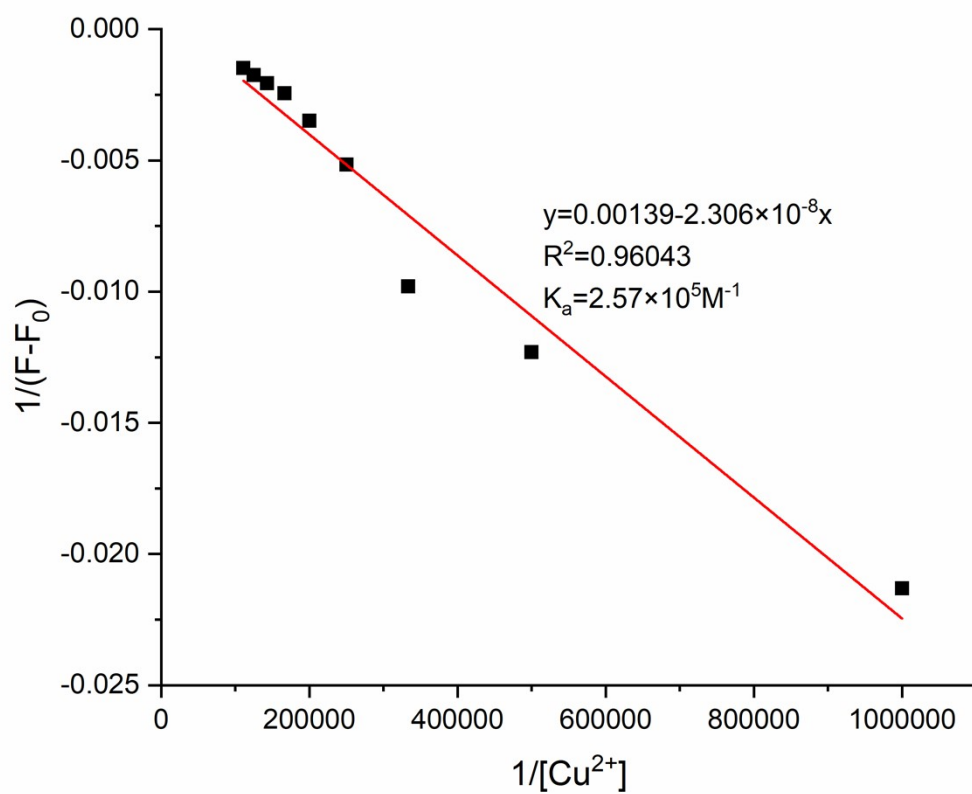


Figure S7 The Benesi Hildebrand diagram of $1/(F-F_0)$ and $1/[Cu^{2+}]$ with 1:1 coordination between probe DL and Cu^{2+} .

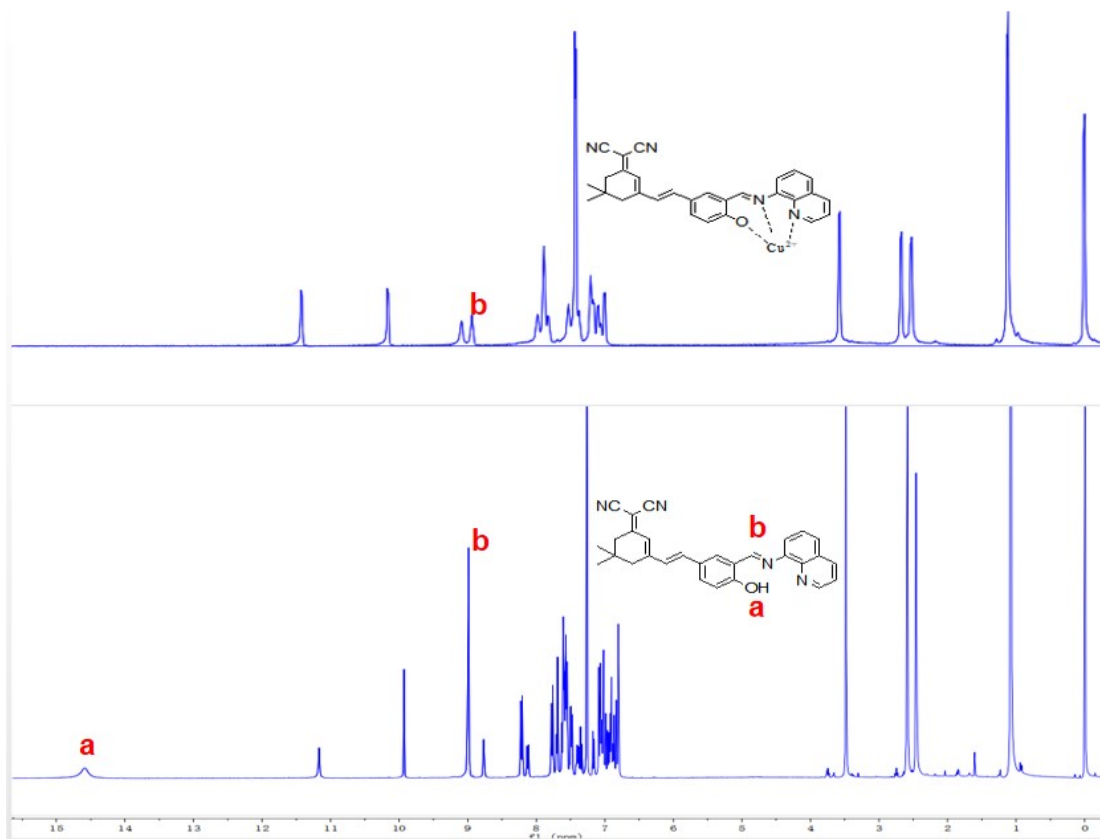


Figure S8 ^1H NMR spectra of probe DL before and after recognition of Cu^{2+} .