

Supporting information for:

A Highly Selective PET-Based Chemosensor for Instant Detecting Zn²⁺

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Supporting Information List of Figures:

Figure S1. Plot of the UV-vis absorption at 423 nm for a mixture of **L2** (20 μM) upon adding of an increasing concentration of Zn²⁺ in DMSO/H₂O (8:2, v/v, containing 0.01 M HEPES, pH=7.24).

Figure S2. The Job's plot examined between Zn²⁺ and **L2**, indicating the 1: 1 stoichiometry, which was carried out by UV-vis spectra.

Figure S3. Fluorescence spectra response of **L2** (20 μM) upon addition of Zn²⁺ (20 equiv.) in DMSO/H₂O (8:2, v/v, containing 0.01 M HEPES, pH=7.24), (λ_{ex}=423 nm). Inset: Photograph of **L2** (20 μM) upon adding 20 equiv. of Zn²⁺, which was taken under a UV-lamp (365 nm).

Figure S4. Plot of the intensity at 508 nm for a mixture of **L2** (20 μM) upon adding of an increasing concentration of Zn²⁺ in DMSO/H₂O (8:2, v/v, containing 0.01 M HEPES, pH=7.24),

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($\lambda_{\text{ex}}=423$ nm).

Figure S5. ESI-MS spectra of **L2**.

Figure S6. ESI-MS spectra of **L2-Zn²⁺**.

Figure S7. ESI-MS spectra of **L2-Zn²⁺** upon addition of **Cu²⁺**.

Figure S8. FT-IR spectra of **L2** (the black line) and **L2-Zn²⁺** (the red line).

Figure S9. Fluorescence spectra of **L2-Zn²⁺** (20 μM) in the presence of **Cu²⁺** or **Cu²⁺** and **S²⁻** in DMSO/H₂O (8:2, v/v, containing 0.01 M HEPES, pH=7.24), ($\lambda_{\text{ex}}=423$ nm).

Figure S10. ¹H NMR spectra of **L2**.

Figure S11. ¹³C NMR spectra of **L2**.

Figure S1

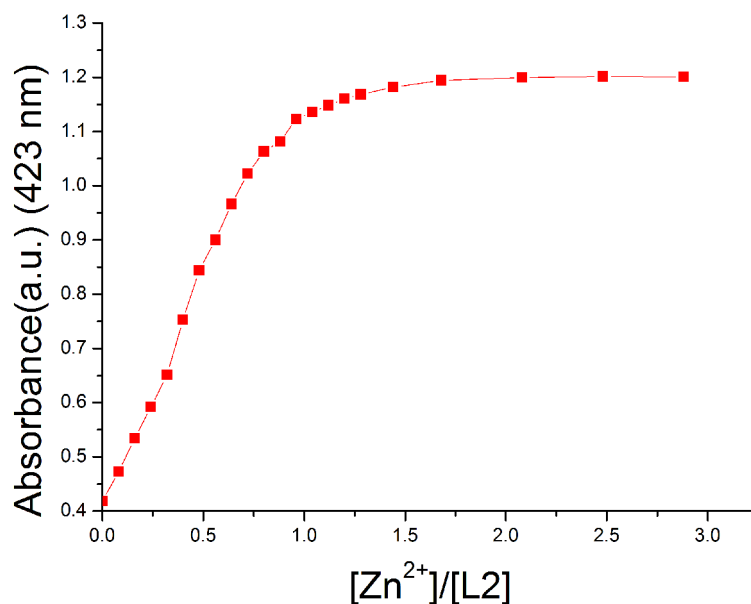


Figure S1. Plot of the UV-vis absorption at 423 nm for a mixture of **L2** (20 μM) upon adding of an increasing concentration of Zn^{2+} in DMSO/ H_2O (8:2, v/v, containing 0.01 M HEPES, pH=7.24).

Figure S2

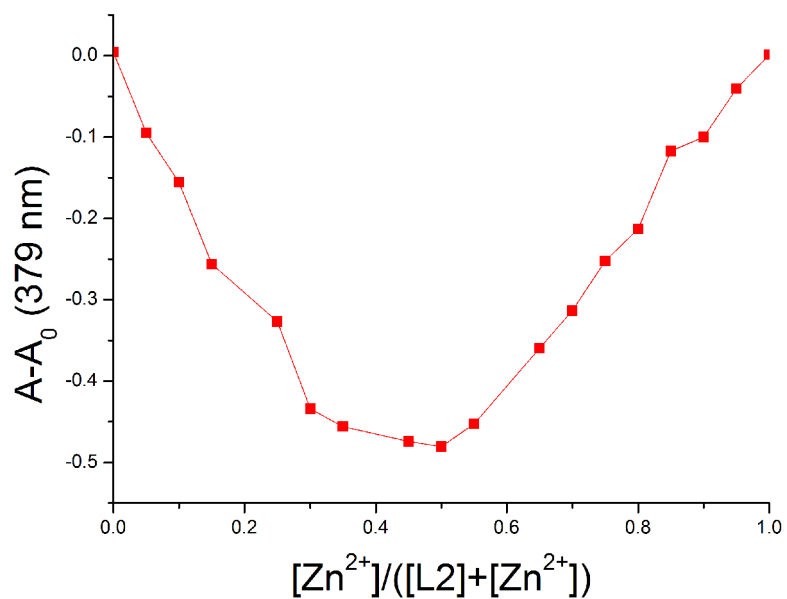


Figure S2. The Job's plot examined between Zn^{2+} and **L2**, indicating the 1: 1 stoichiometry, which was carried out by UV-vis spectra.

Figure S3

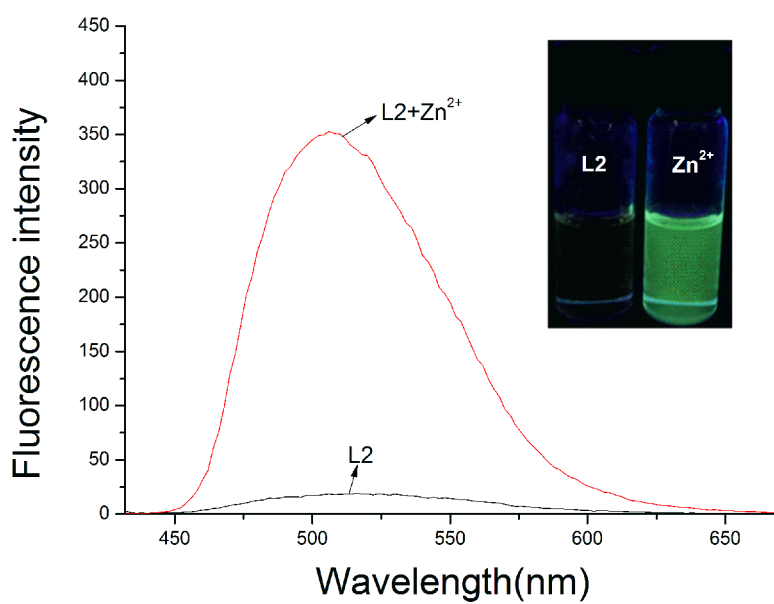


Figure S3. Fluorescence spectra response of **L2** (20 μM) upon addition of Zn^{2+} (20 equiv.) in DMSO/ H_2O (8:2, v/v, containing 0.01 M HEPES, pH=7.24), (λ_{ex} =423 nm). Inset: Photograph of **L2** (20 μM) upon adding 20 equiv. of Zn^{2+} , which was taken under a UV-lamp (365 nm).

Figure S4

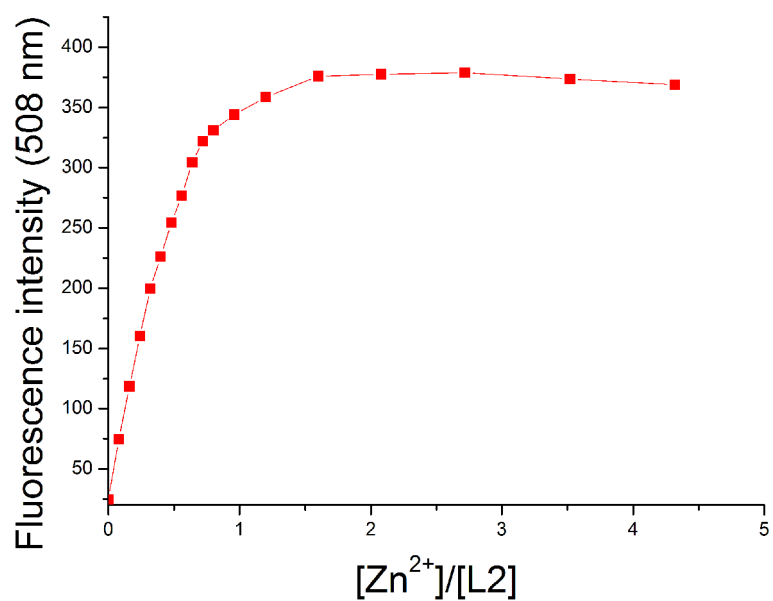


Figure S4. Plot of the intensity at 508 nm for a mixture of **L2** (20 μM) upon adding of an increasing concentration of Zn^{2+} in DMSO/ H_2O (8:2, v/v, containing 0.01 M HEPES, pH=7.24), (λ_{ex} =423 nm).

Figure S5

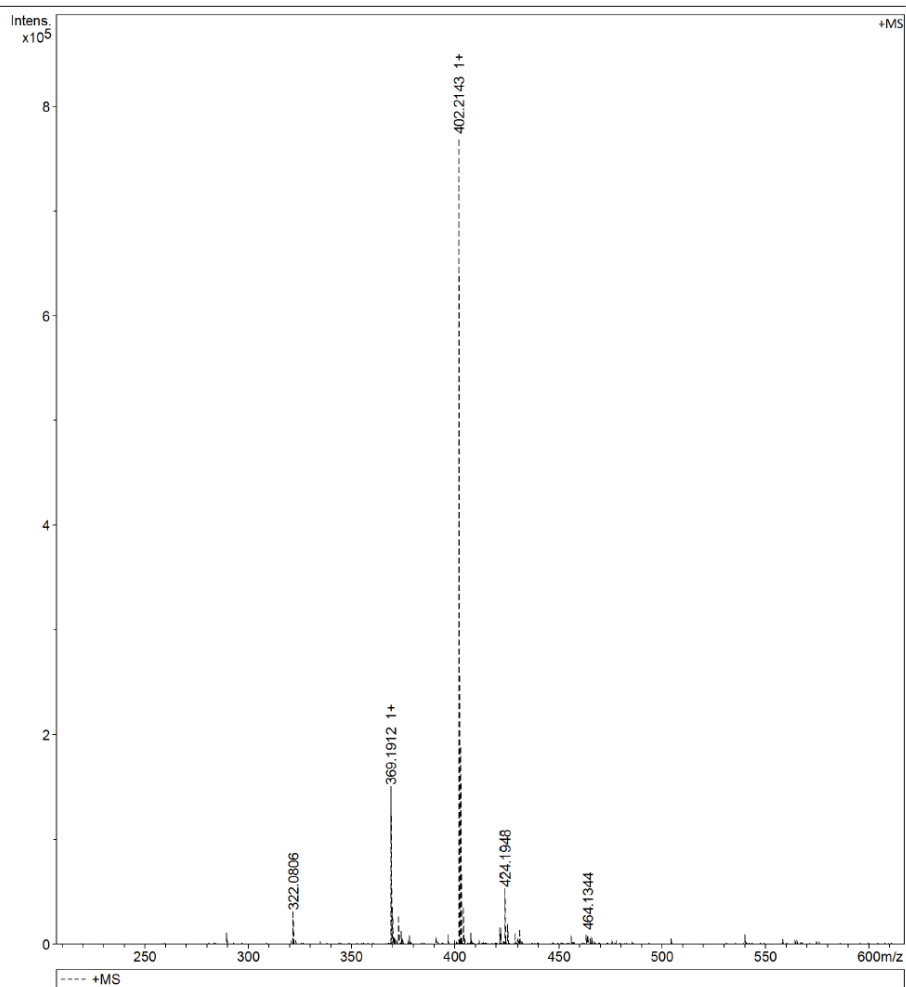
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Operator BDAL@DE
Instrument micrOTOF



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by: BDAL@DE

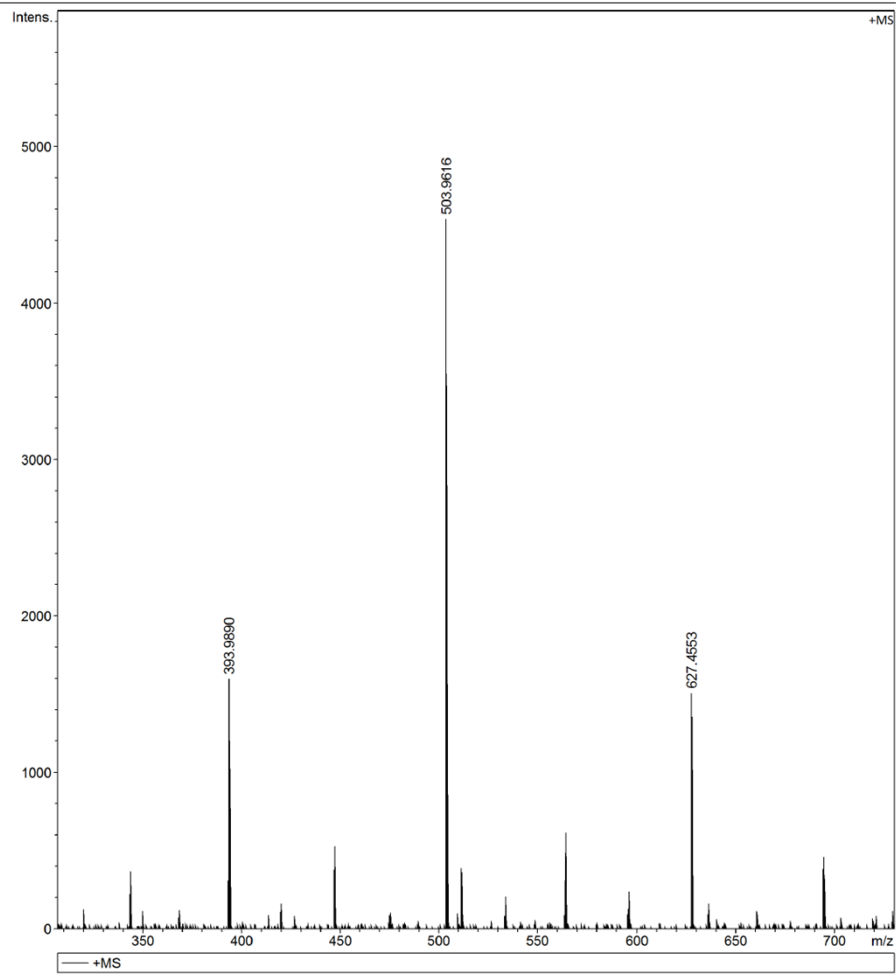
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Figure S5. ESI-MS spectra of L2.

Figure S6

Generic Display Report

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Bruker Compass DataAnalysis 4.1 printed: 3/3/2014 4:12:15 PM by: BDAL@DE Page 1 of 1

Figure S6. ESI-MS spectra of $L2-Zn^{2+}$.

Figure S7

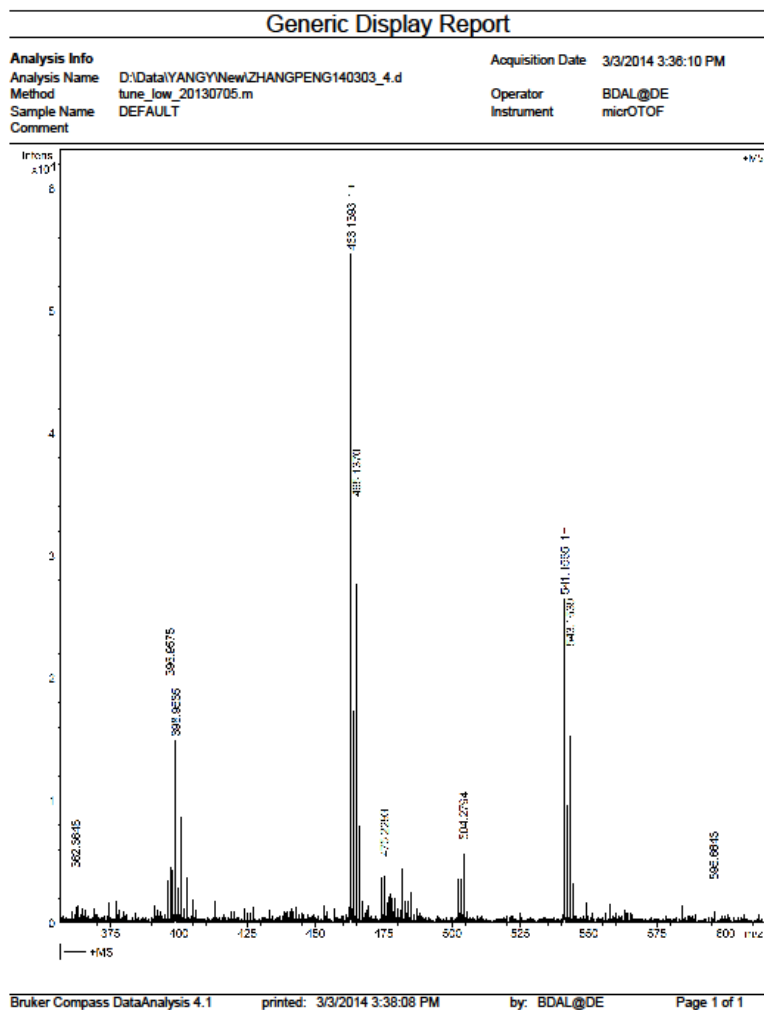


Figure S7. ESI-MS spectra of **L2-Zn²⁺** upon addition of **Cu²⁺**.

Figure S8

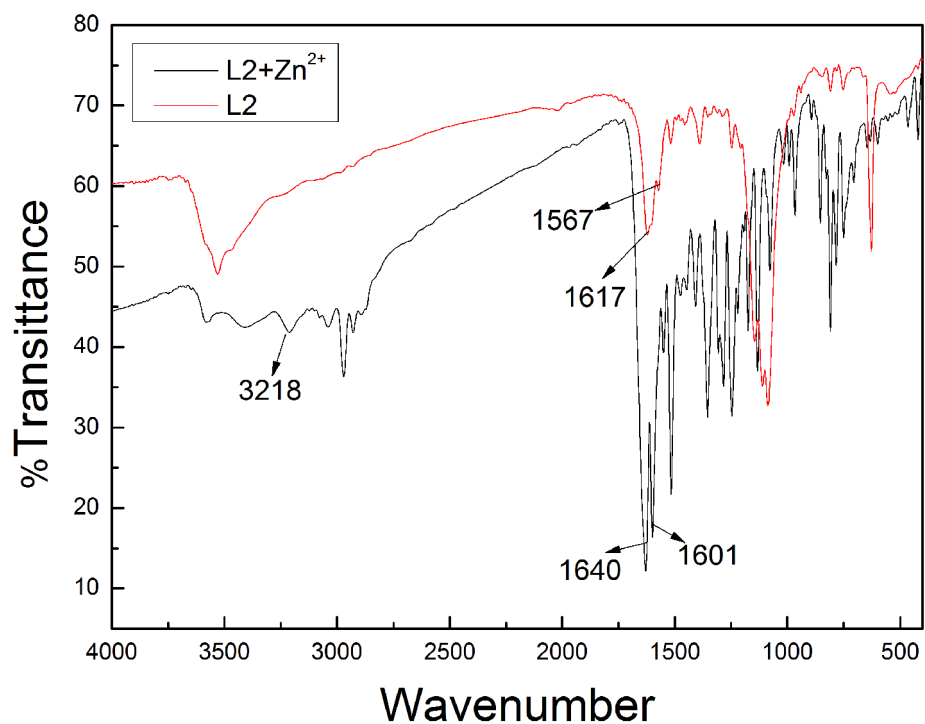


Figure S8. FT-IR spectra of L2 (the black line) and L2-Zn²⁺ (the red line).

Figure S9

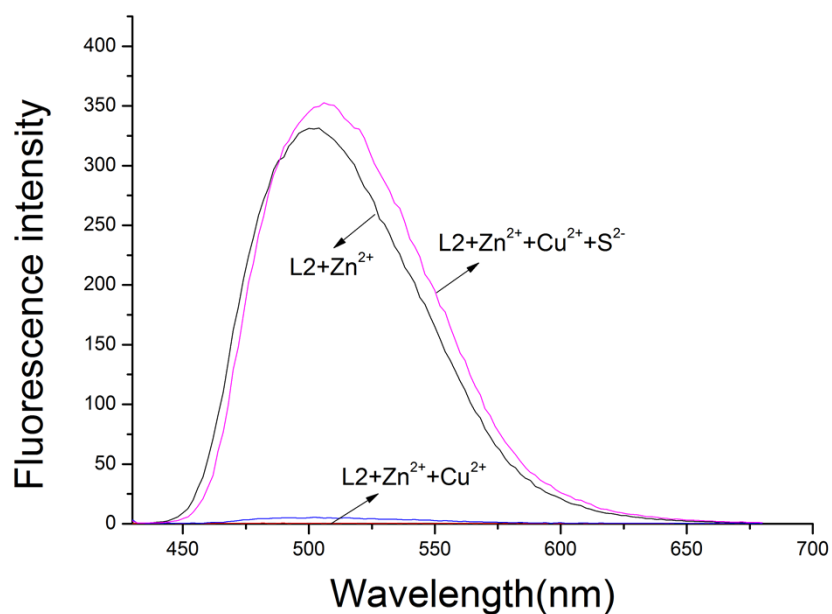


Figure S9. Fluorescence spectra of L2-Zn²⁺ (20 μ M) in the presence of Cu²⁺ or Cu²⁺ and S²⁻ in DMSO/H₂O (8:2, v/v, containing 0.01 M HEPES, pH=7.24), (λ_{ex} =423 nm).

Figure S10

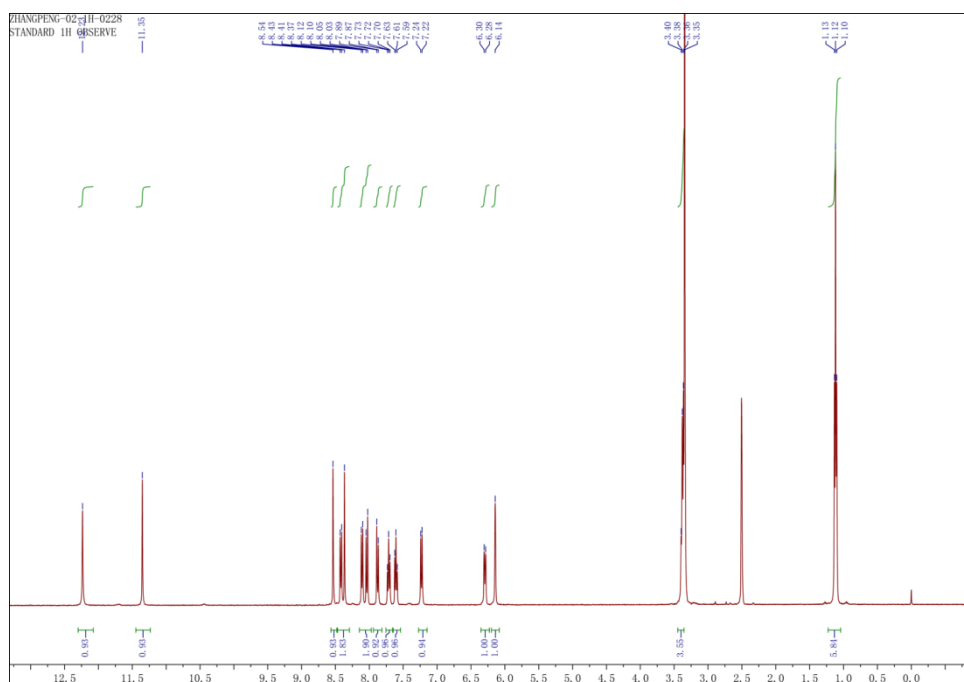


Figure S10. ^1H NMR spectra of L2.

Figure S11

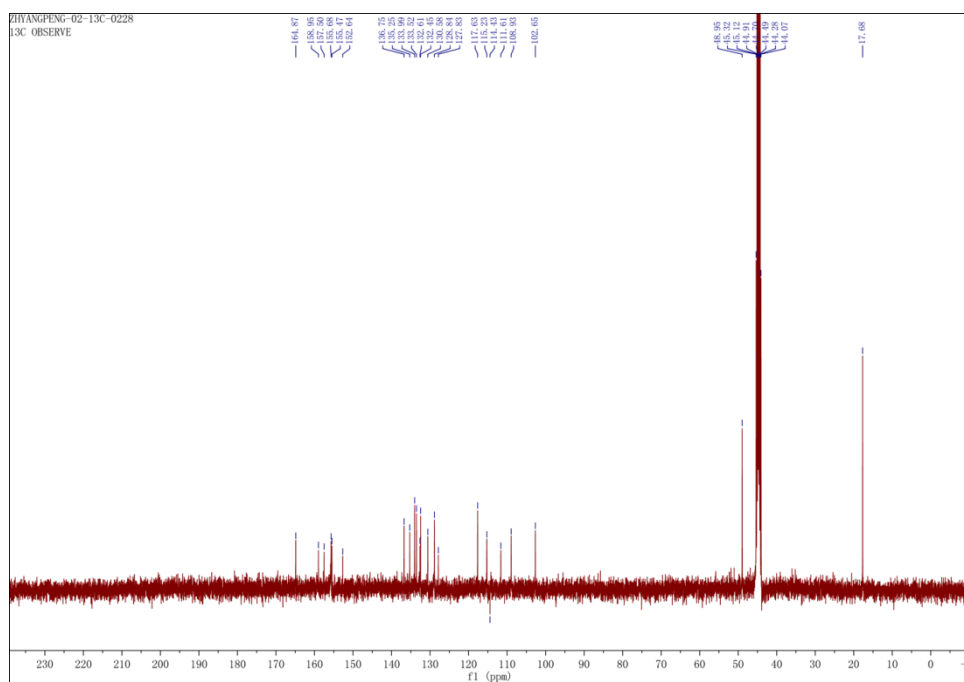


Figure S11. ^{13}C NMR spectra of L2.