

Supporting Information

Possibilities of thermal lens spectrometry in the analysis of *p*-chlorophenoxy-substituted lutetium phthalocyanine

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Table S1. Thermal lens measurement parameters

Figure S1. MALDI TOF mass spectrum (positive ion mode) of lutetium complex, isotopic pattern (inset A) and simulated MS pattern (inset B).

Figure S2. ^1H NMR spectrum of lutetium complex in THF- d_8 .

Figure S3. Attenuated Total Reflection–Fourier Transform Infra-Red (ATR-FTIR) spectrum of lutetium(III) complex **4**.

Figure S4. UV-Vis spectra of solution of compound **4** diluted from $c=2.5 \cdot 10^{-5}$ M to $c=10^{-6}$ M in CHCl_3 (A) or THF (B). Absorbance of Q band vs concentration in CHCl_3 (C) or THF (D), dashed line demonstrates Beer's law calibration curve ($l=0.2$ cm).

Table S1. Thermal lens measurement parameters

| Parameter | Value |
|---|--------------|
| Excitation laser | |
| Wavelength, λ_e (nm) | 532 |
| Lens focal length, f_e (mm) | 200 |
| Confocal distance, Z_{ce} (mm) | 10.9 |
| Power, P (mW) | 100 |
| Beam waist radius, ω_{e0} (μm) | 43 \pm 1 |
| Probe laser | |
| Wavelength, λ_p (nm) | 632.8 |
| Lens focal length f_p (mm) | 300 |
| Confocal distance, Z_{cp} (mm) | 2.7 |
| Power (mW) | 4.5 |
| Beam waist radius, ω_{p0} (μm) | 23 |
| Beam radius in the cell, ω_p (μm) | 520 \pm 10 |
| Other parameters | |
| Optical path length (mm) | 10 |
| Cell-detector distance, Z_2 (cm) | 230 |
| Mode-mismatch factor, m | 146 |
| Geometric parameter, V | 36.9 |
| Modulator frequency (Hz) | 0.1 |

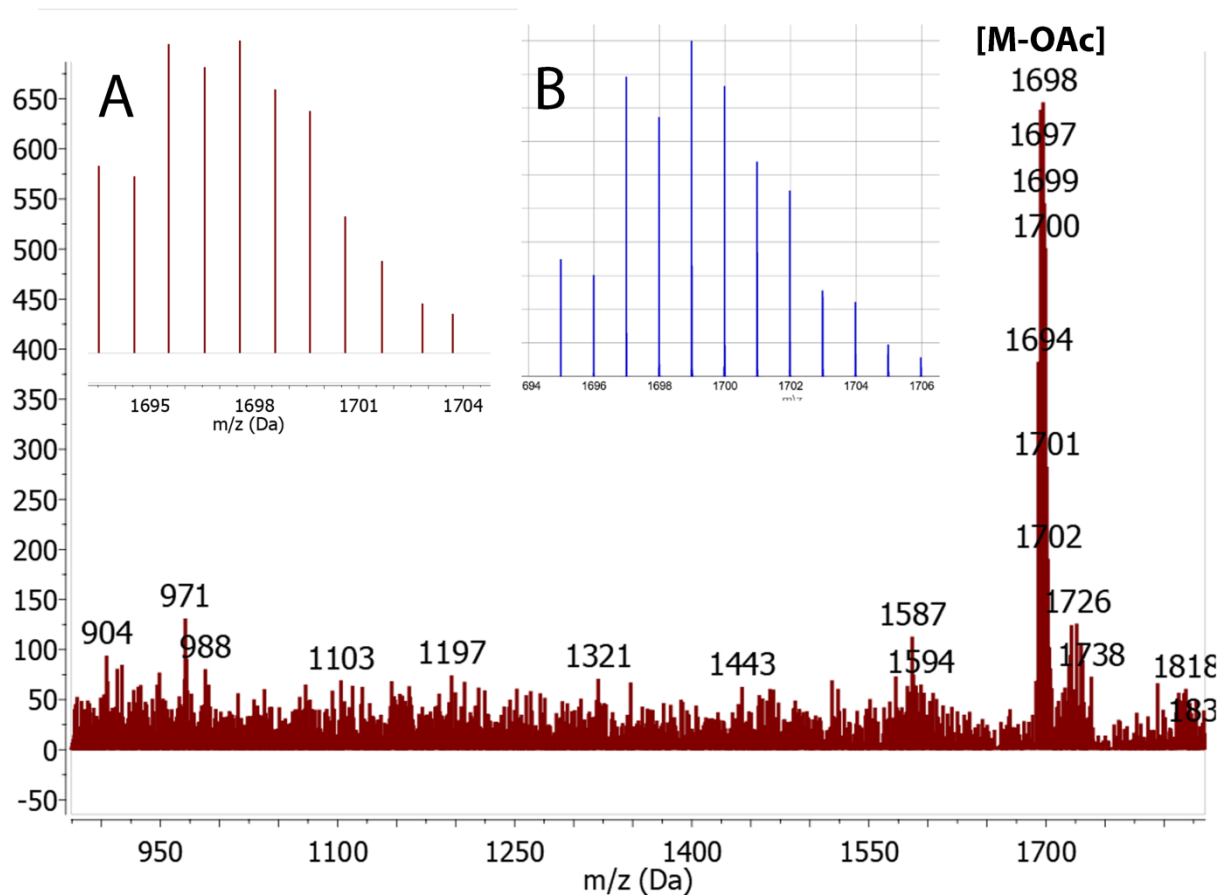


Figure S1. MALDI TOF mass spectrum (positive ion mode) of lutetium complex, isotopic pattern (inset A) and simulated MS pattern (inset B).

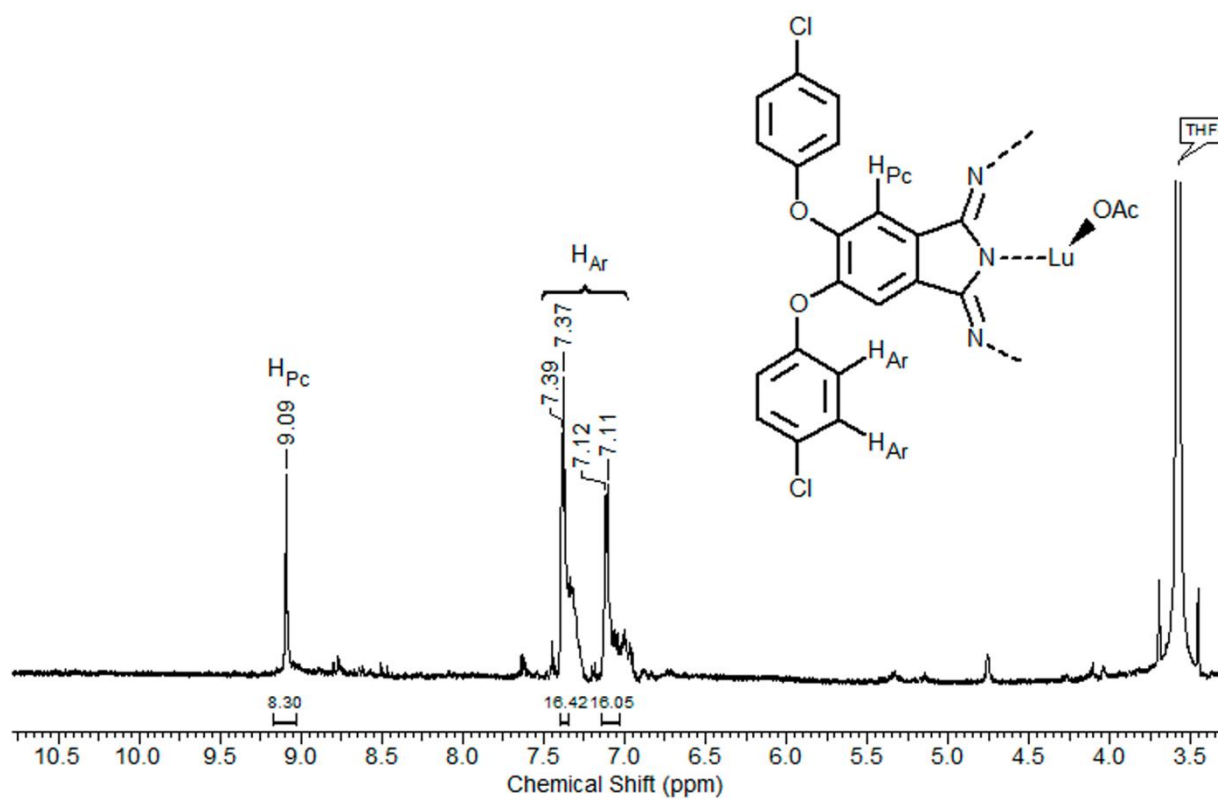


Figure S2. ^1H NMR spectrum of lutetium complex in THF-d_8 .

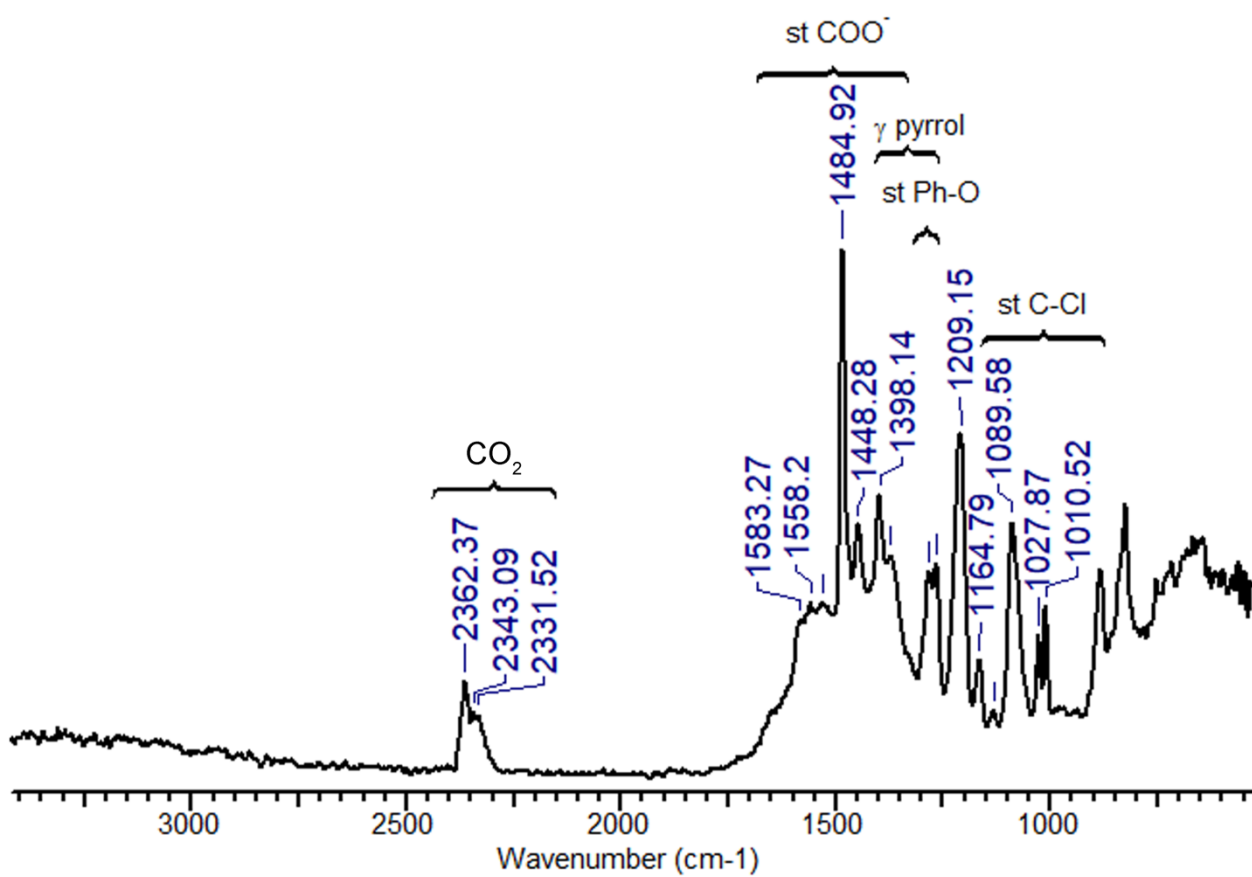


Figure S3. Attenuated Total Reflection–Fourier Transform Infra-Red (ATR-FTIR) spectrum of lutetium(III) complex **4**.

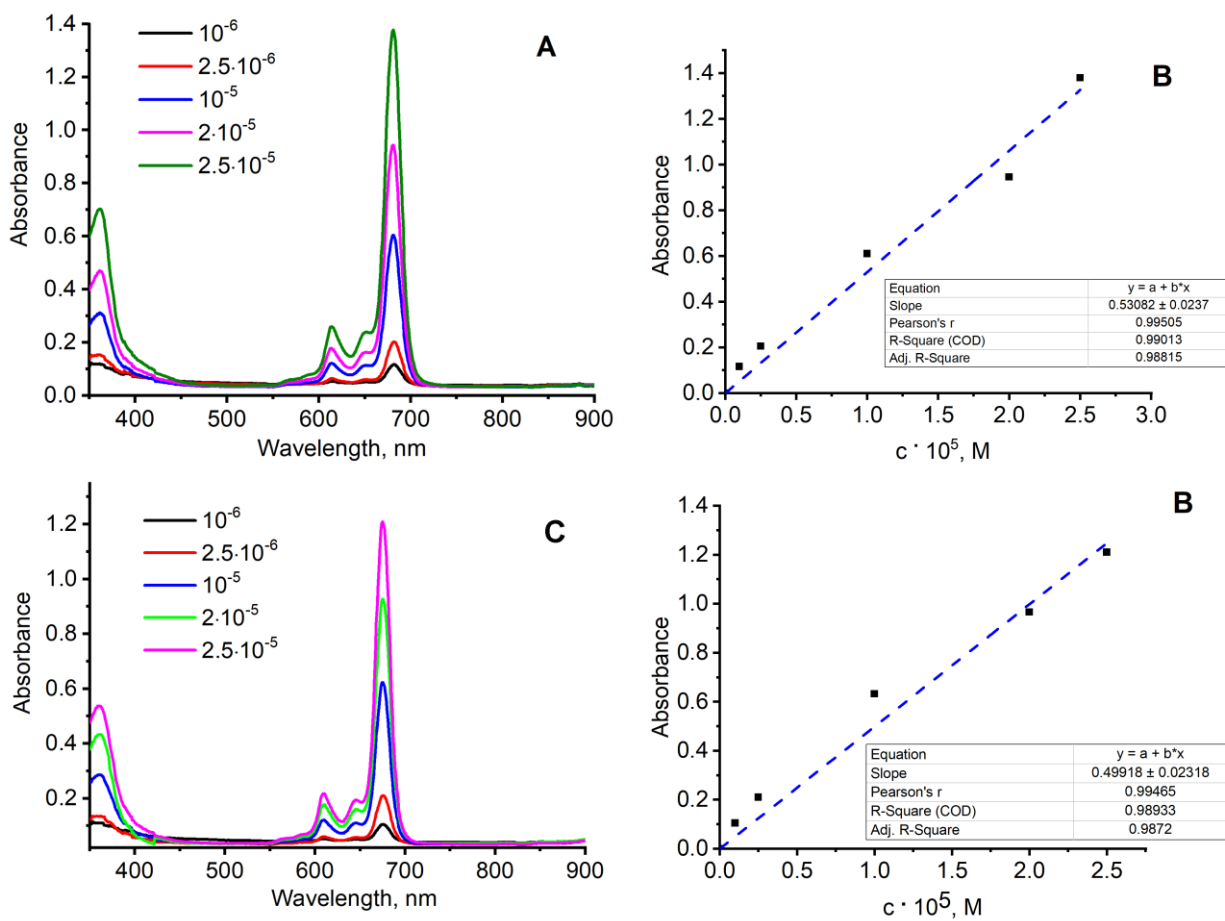


Figure S4. UV-Vis spectra of solution of compound **4** diluted from $c=2.5 \cdot 10^{-5}$ M to $c=10^{-6}$ M in CHCl_3 (A) or THF (C). Absorbance of Q band vs concentration in CHCl_3 (B) or THF (D), dashed line demonstrates Beer's law calibration curve ($l=0.2$ cm).