Supporting Information

Luminescent Calix[4]arene-Based Metallogel Formed at Different Solvent Composition

Jaehyeon Park, Ji Ha Lee, Justyn Jaworski, Seiji Shinkai, and Jong Hwa Jung*

[†]Department of Chemistry & Research Institute of Natural Science, Gyeongsang National University, Jinju 660-701, Republic of Korea. [‡]Dept. of Chemical Engineering, Hanyang University, Seoul, Korea. [#]Institute for Advanced Study, Kyushu University Fukuoka 819-0395, Japan.

Table S1. Gelation Test of Ligand **1** (1.0 wt%) with Pt²⁺ (4 equivalents) in Different Solvents

DMSO/X (1:1 v/v)	Phase
Chloroform	P
Methylene chloride	P
Toluene	P
Methanol	P
Ethanol	P
Ethyl acetate	P
Acetonitrile	P
Tetrahydrofuran	P
Acetone	P
H ₂ O	G

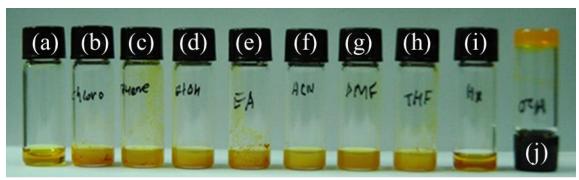


Figure S1. Photographs of ligand **1** (1.0 wt%) with Pt^{2+} (4 equivalents) in different solvents (a) DMSO, (b) Chloroform, (c) Toluene, (d) Ethanol, (e) Ethyl acetae, (f) Acetonitrile, (g) DMF, (h) THF, (i) Hexane, and (j) H_2O .

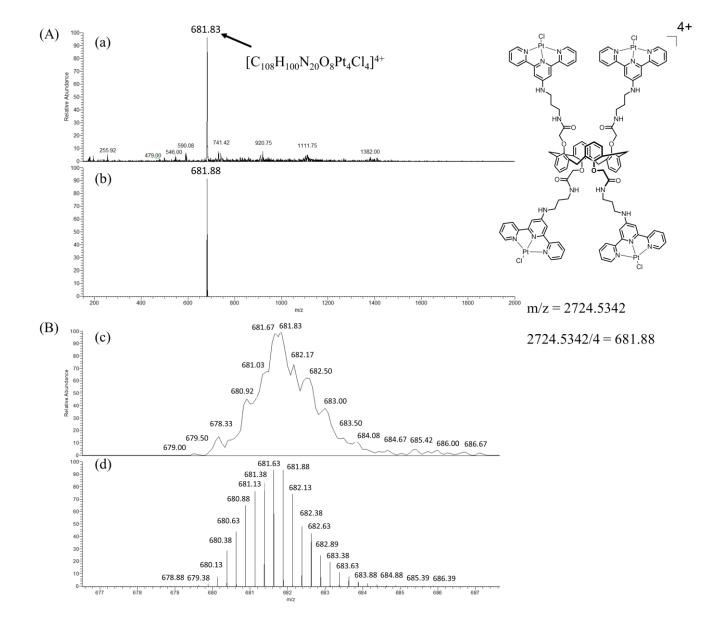


Figure S2. ESI Mass spectra of gel **1-**[PtCl₂]₄⁴⁺; (a and c) experimental and (b and d) calculated data.

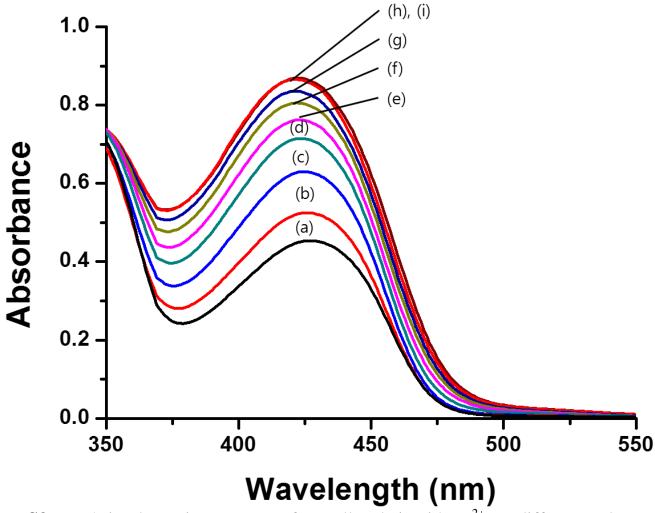


Figure S3. UV/Vis absorption spectra of metallogel **1** with Pt^{2+} at different solvent composition of $H_2O:DMSO$ (a) 1:9, (b) 2:8, (c) 3:7, (d) 4:6, (e) 5:5, (f) 6:4, (g) 7:3, (h) 8:2, and (i) 9:1 at concentration = $5x10^{-4}$ M.

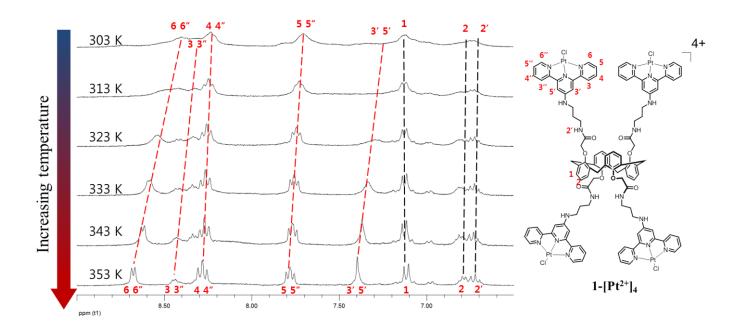


Figure S4. ¹H NMR spectra of metallogel **1** with Pt²⁺ (4.0 equivalents) by changing the temperature.

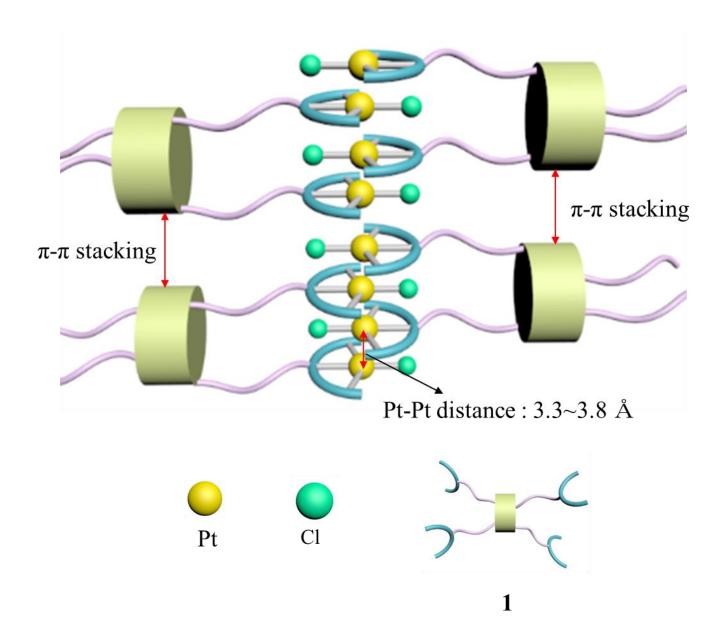


Figure S5. Proposed structure of metallogel **1** with Pt²⁺ (4.0 equivalents).

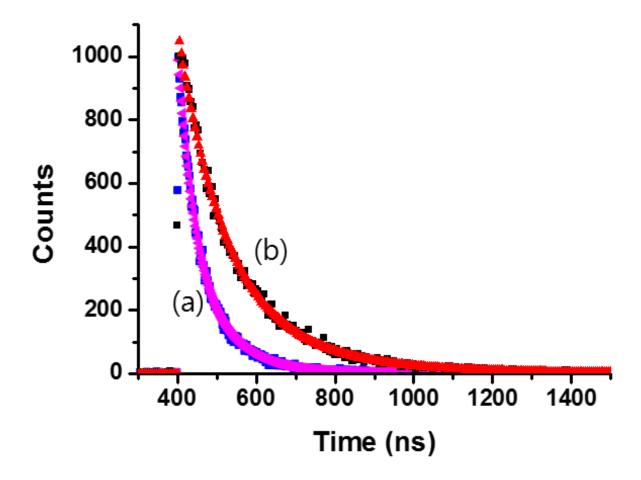


Figure S6. Emission decay curves of gel $1-[PtC1]_4^{4+}$ with different contents of $H_2O/DMSO$ (a) 7:3, and (b) 3:7.

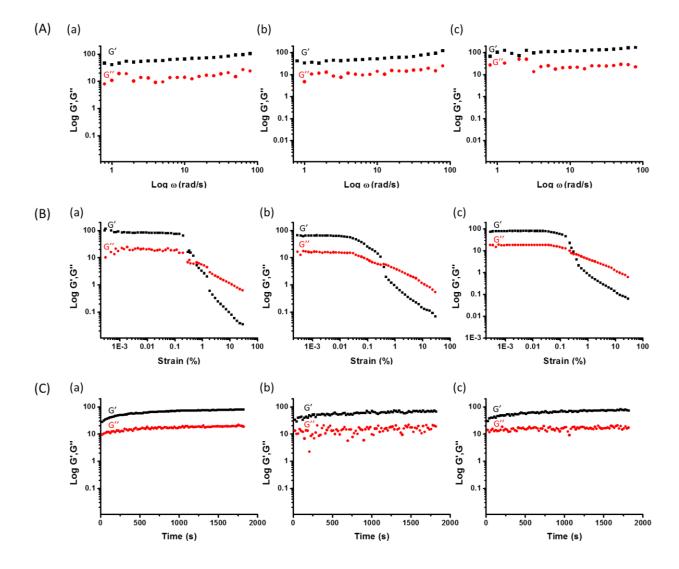


Figure S7. Dynamic oscillatory and steady shear measurements of Pt²⁺ metallogel **1** at different equivalents of Pt²⁺: (A) Frequency sweep of G' and G" for Pt²⁺ metallogel **1** (a) 4.0 equiv, (b) 5.0 equiv, and (c) 6.0 equiv at a strain of 0.1 %. (B) Strain sweep G' and G" at a frequency of 1 rads⁻¹ for Pt²⁺ metallogel **1** (a) 4.0 equiv, (b) 5.0 equiv, and (c) 6.0 equiv. (C) time-dependent oscillation measurements of G' and G" for Pt²⁺ metallogel **1** (a) 4.0 equiv, (b) 5.0 equiv, and (c) 6.0 equiv at a strain of 0.1 %.