Synthesis of 1,4-bis(pyrazol-1-yl)methyl]benzene
Pyrazole (.776 g, 11.4 mmol) was dissolved in 20 mL dry THF with NaOH (4.56 g, 114.0 mmol) in a 250 mL round-bottomed flask under a N₂ atmosphere and stirred for 2 h, upon which a solution of α,α′-dichloro-p-xylene (1 g, 5.68 mmol) in 10 mL dry THF was added. The mixture was stirred at room temperature overnight under a N₂ atmosphere, after which 200 mL distilled water was added to dissolve the NaOH and NaCl. 200 mL ethyl acetate was added and the two layers were separated using a separatory funnel. The organic layer was concentrated via rotatory evaporation to produce a light yellow oil. The product was isolated by column chromatography (hexanes → ethyl acetate) to yield a white solid. Yield 0.947 g (70 %); mp 92 °C; ¹H NMR, 200 MHz, DMSO-d₆, 5.291 (s, 4H), 6.248 (t, 2H, J=4 Hz), 7.162 (s, 4H), 7.434 (d, 2H, J=1), 7.792 (d, 2H, J=2.2 Hz).

Synthesis of 1,4-bis[(3,5-dimethylpyrazol-1-yl)methyl]benzene
3,5-dimethylpyrazole (2.19 g, 22.8 mmol) was dissolved in 40 mL dry THF with NaOH (9.12 g, 228.0 mmol) in a 250 mL round-bottomed flask under a N₂ atmosphere and stirred for 2 h, upon which a solution of α,α′-dichloro-p-xylene (2 g, 11.36 mmol) in 20 mL dry THF was added. The mixture was stirred at room temperature for 48 hours under a N₂ atmosphere, after which 200 mL distilled water was added to dissolve the NaOH and NaCl. 200 mL ethyl acetate was added and the two layers were separated using a separatory funnel. The organic layer was dried over MgSO₄, then concentrated via rotatory evaporation to produce a white solid. The product was isolated by column chromatography (hexanes → ethyl acetate) to yield a white solid. Excess 3,5-dimethylpyrazole was removed by dissolving product in ethyl acetate and washing with 1:1 HCl/water. Yield 2.684 g (79 %); mp 87-90° C; ¹H NMR, 200 MHz, DMSO-d₆, 2.071 (s, 6H), 2.134 (s, 6H), 5.130 (s, 4H), 5.821 (s, 2H), 7.035 (s, 4H).

Synthesis of 1,4-bis[(pyrazol-1-yl)methyl]benzene:3,5-dinitrobenzoic acid (1a)
1,4-bis[(pyrazol-1-yl)methyl]benzene (.015 g, .063 mmol) and 3,5-dinitrobenzoic acid (.027 g, .126 mmol) were dissolved in 2 mL of ethanol. Light yellow crystals were obtained after six days of slow evaporation of the solvent. mp 135° C

Synthesis of 1,4-bis[(3,5-dimethylpyrazol-1-yl)methyl]benzene:2,6-dichlorobenzoic acid (2a)
1,4-bis[(3,5-dimethylpyrazol-1-yl)methyl]benzene (.015 g, .043 mmol) and 2,6-dichlorobenzoic acid (.016 g, .086 mmol) were dissolved in 2 mL of ethanol. Colorless crystals were obtained after a week of slow evaporation of the solvent. mp 130-132° C

Synthesis of 1,4-bis[(3,5-dimethylpyrazol-1-yl)methyl]benzene:pentamethylbenzoic acid (2b)
1,4-bis[(3,5-dimethylpyrazol-1-yl)methyl]benzene (.015 g, .043 mmol) and pentamethylbenzoic acid (.017 g, .086 mmol) were dissolved in 2 mL of ethanol. Colorless square prisms were obtained after a week of slow evaporation of the solvent. mp 156-158° C