

Supporting Information

5 **Structure-dependent Mechanochromism of two Ag(I) Imidazolate Chains**

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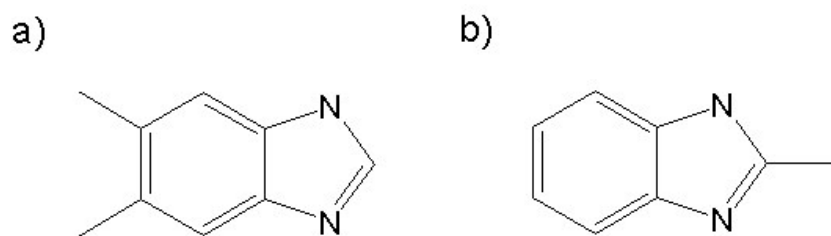


Figure S1 (a) The imidazole –based ligands for the construction of compound 1 (a) and 2 (b).

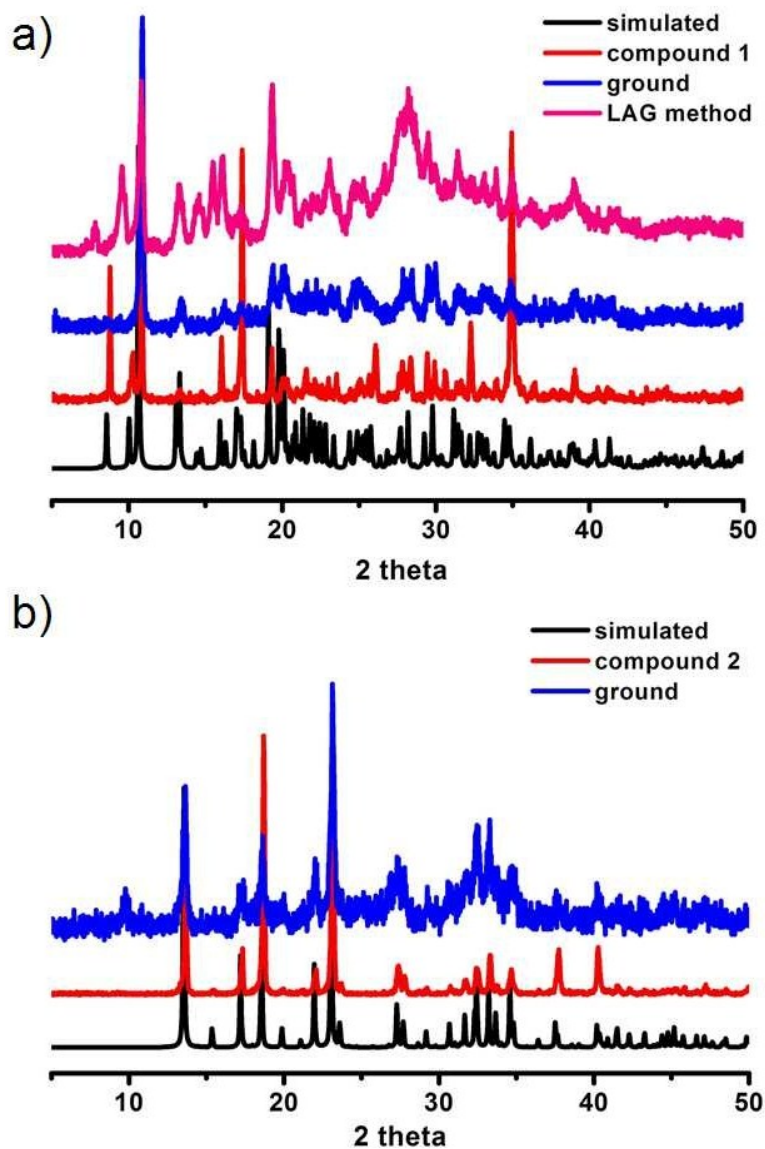


Figure S2 The PXRD patterns of 1 (a) and 2 (b) under different conditions.

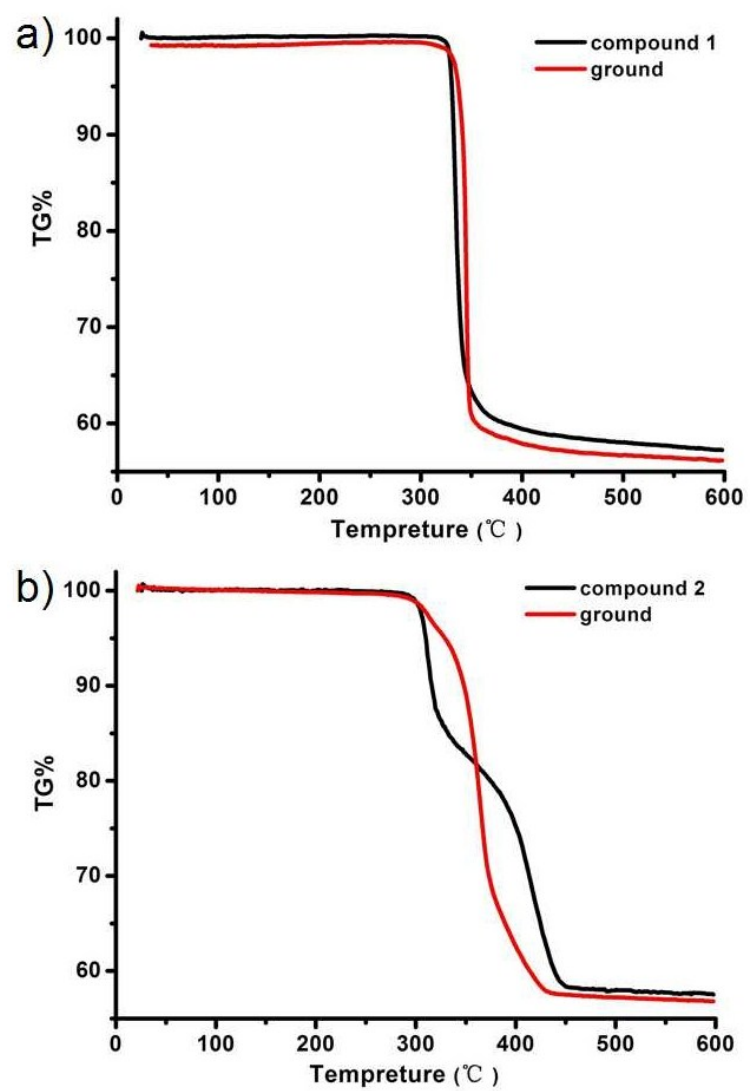


Figure S3 Thermogravimetric analyses of **1** (a) and **2** (b).

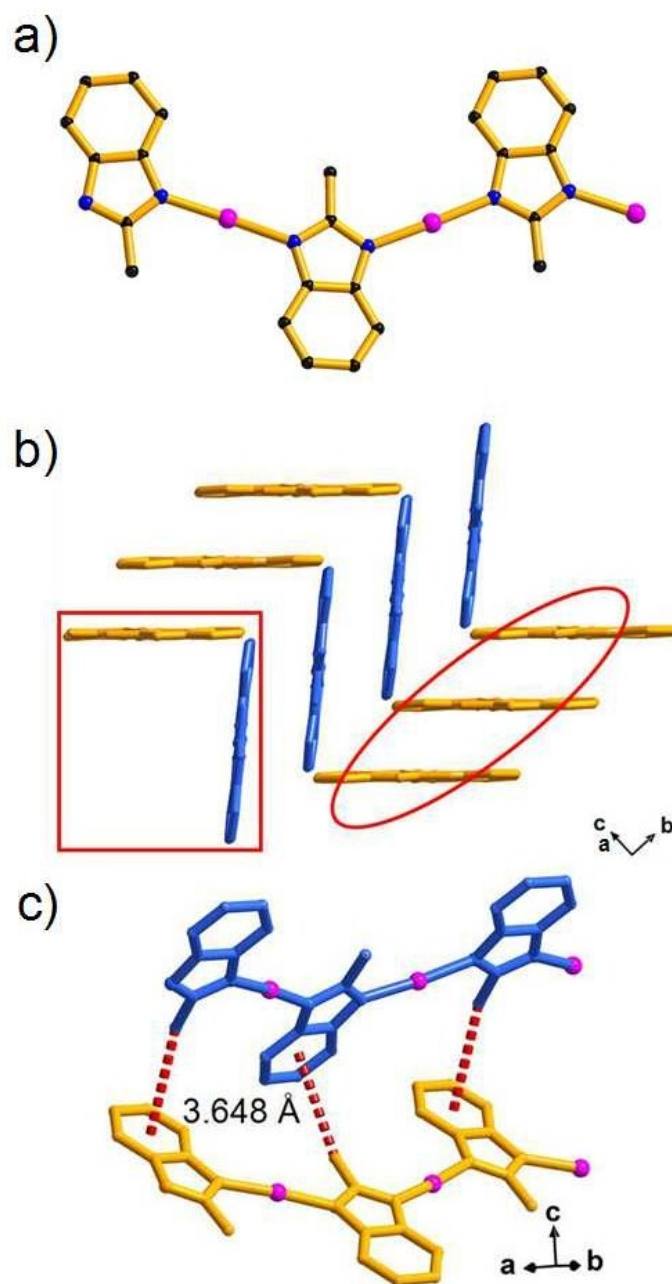


Figure S4 (a) The coordination environment in **2**, showing zigzag chain; (b) Chain to chain packing form along the *c* axis in **2**; (c) Edge-to-face packing form showing C- π interaction (red dashed line) in **2**.

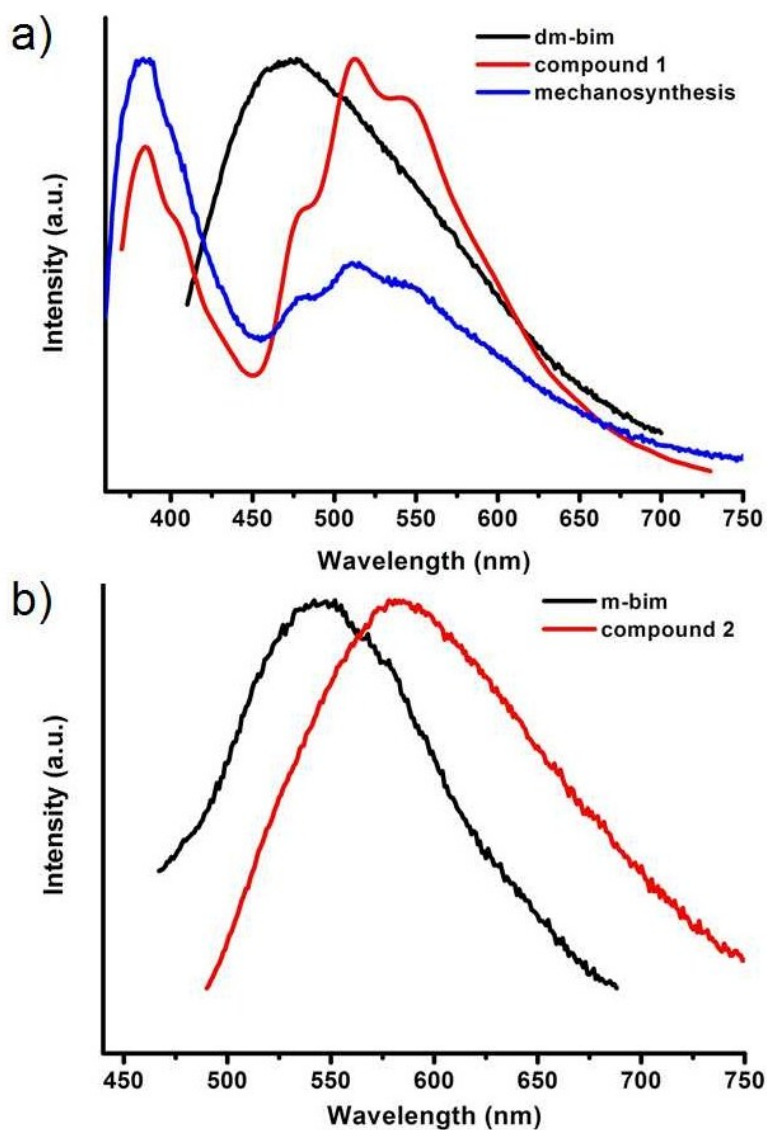


Figure S5 The solid-state photoluminescent spectrum of **1** (a), **2** (b) and ligand at room temperature.

T (K)	τ_1 (s) (%)	τ_2 (s) (%)	τ_3 (s) (%)
77(Unground)	6.146E-11 (7.76)	2.809E-9 (44.39)	7.565E-9 (47.86)
298(Unground)	4.925E-11 (10.31)	2.006E-9 (37.78)	6.322E-9 (51.91)
298(Ground)	3.457E-10 (12.82)	2.696E-9 (50.97)	8.686E-9 (36.21)

Table S1 The solid-state photoluminescent Lifetimes (τ) of **1** under different conditions.