

Supporting Information

1. UV-Vis characterization of magnetic GUMBOS:

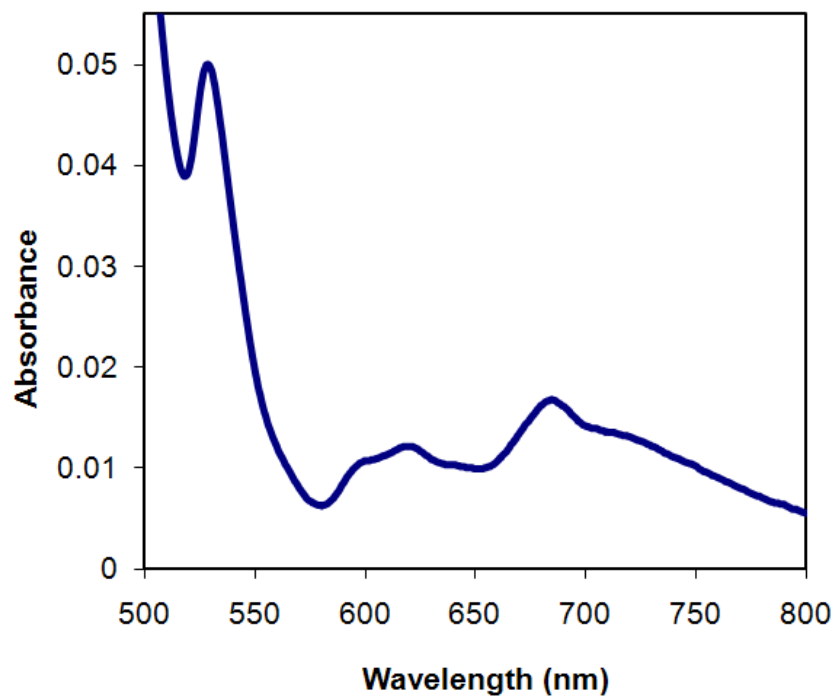


Figure S1. Visible absorption spectrum of [Bm₂Im][FeCl₄] GUMBOS showing the three signature peaks of FeCl₄⁻ at 528, 617, and 684 nm.

2. Determination of melting point of $[\text{Bm}_2\text{Im}][\text{FeCl}_4]$ bulk using differential scanning calorimeter (DSC):

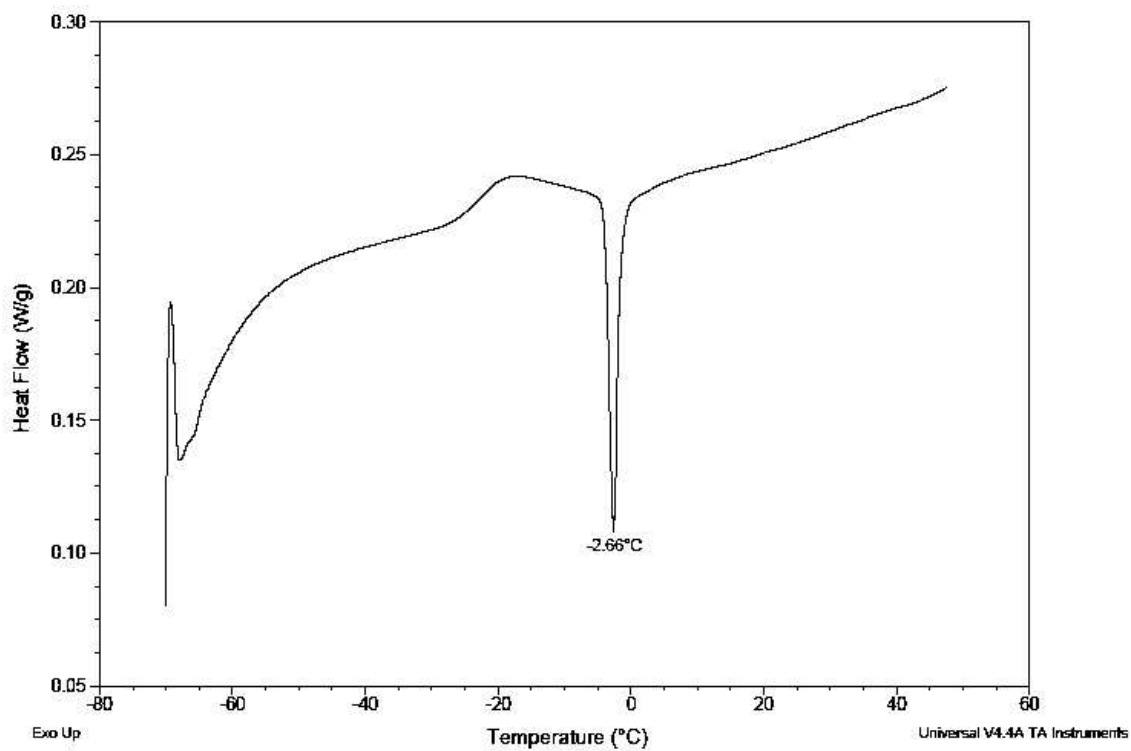


Figure S2. Melting point of bulk $[\text{Bm}_2\text{Im}][\text{FeCl}_4]$. The melting point of the bulk material $[\text{Bm}_2\text{Im}][\text{FeCl}_4]$ is $-2.66\text{ }^{\circ}\text{C}$.