Electronic supplementary information

Tetranuclear Manganese (II) Complexes of sulfonylcalix[4]arene Macrocycles: Synthesis, Structure, Spectroscopie and Magnetic Properties.

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Figure LU1: Emission spectrum of p-tert-butylsulfonylcalix[4]arene (ThiaSO₂) in solid state



Figure LU2: Emission spectrum (Phosphorescence mode) of (2) in DMF (5.10⁻⁴M)



Figure LU3: Comparison between the intensity of emission spectra of (1) and (2) (excited 300nm) in solid state. Measured at room temperature. PL measurements were carried out at room temperature using as excitation source a Xe lamp at 300nm selected by a Gemini 180 Jobin-Yvon monochromator. The photoluminescence was collected by an optical fibre and analysed by a TRIAX 320 Jobin-Yvon monochromator and a Peltier cooled charge coupled device detector.



Figure LU4: Decay lifetime emission of (2). Exc 400. Em 600



Figure LU5: Absorption spectra of complexes (1) (bold line) and (2) (slide line) in solid state.



Figure SM1. Magnetic susceptibility χT versus T plots data for (2). The black solid line corresponds to the best fit according the model and parameters indicated in text



Figure DSC1. Differential scattering calorimetry ran between 25°c to 300°c under air. The blue line and red line represents respectively compounds (1) and (2). The endothermic pic are attributed at the desolvation.