

SUPPLEMENTARY INFORMATION

for

Role of the Environment Polarity on the Photophysical Properties of Mesogenic Hetero-Polymetallic Complexes

Adelina A. Andelescú ¹, Angela Candrea ^{2,3,*}, Evelyn Popa ¹, Alexandru Visan ¹, Carmen Cretu ¹, Massimo La Deda ^{2,3,*} and Elisabeta I. Szerb ^{1,*}

¹ “Coriolan Drăgulescu” Institute of Chemistry, Romanian Academy, 24 Mihai Viteazu Blvd., 300223 Timisoara, Romania; aandelescú@acad-icht.tm.edu.ro (A.A.A.); pevelyn@acad-icht.tm.edu.ro (E.P.); visan.alexandru@acad-icht.tm.edu.ro (A.V.); cretucarmen@acad-icht.tm.edu.ro (C.C.)

² Department of Chemistry and Chemical Technologies, University of Calabria, 87036 Rende, Italy; angela.candrea@unical.it

³ Institute of Nanotechnology (NANOTEC), National Research Council (CNR), UOS Cosenza, 87036 Rende, Italy

* Correspondence: massimo.ladedda@unical.it (M.L.D.); eszerb@acad-icht.tm.edu.ro (E.I.S.)

¹ H NMR spectra of ligand L1 and complex Zn₁Fe₂ in CDCl ₃ . Figure S1	2
¹ H NMR spectra of ligand L2 and complex Zn₂Fe₄ in CDCl ₃ . Figure S2	3
FT-IR spectra of ligand L2 and complex Zn₂Fe₄ . Figure S3	4
Method preparation of the samples used for the investigation of the effect of the polarity of the environment. Table S1	5
Absorption spectrum of L1 in dichloromethane solution. Figure S4	6
Emission spectrum of L1 in dichloromethane solution. Figure S5	6
Absorption spectrum of L2 in dichloromethane solution. Figure S6	7
Emission spectrum of L2 in dichloromethane solution. Figure S7	7

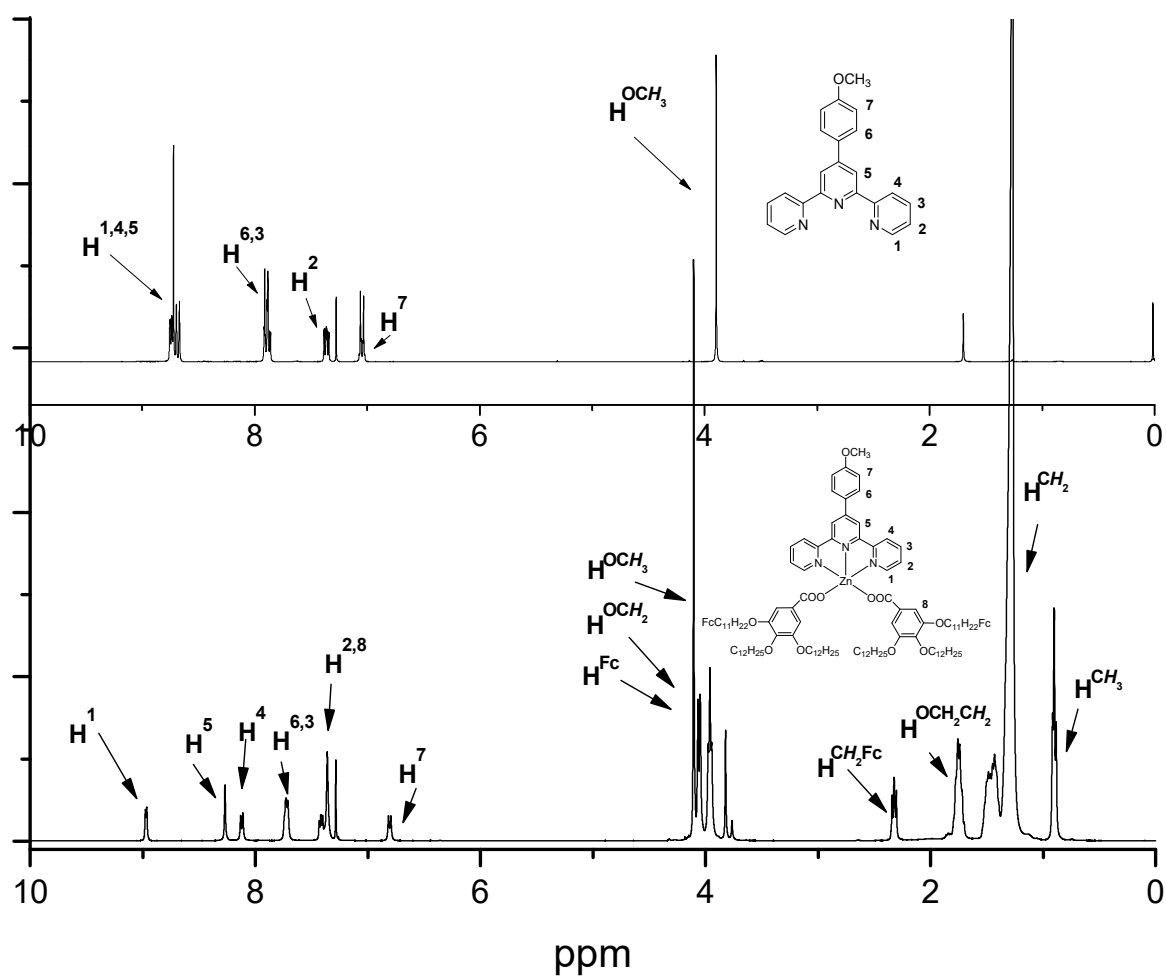


Figure S1. ^1H NMR spectra of ligand L1 and complex Zn_1Fe_2 in CDCl_3 .

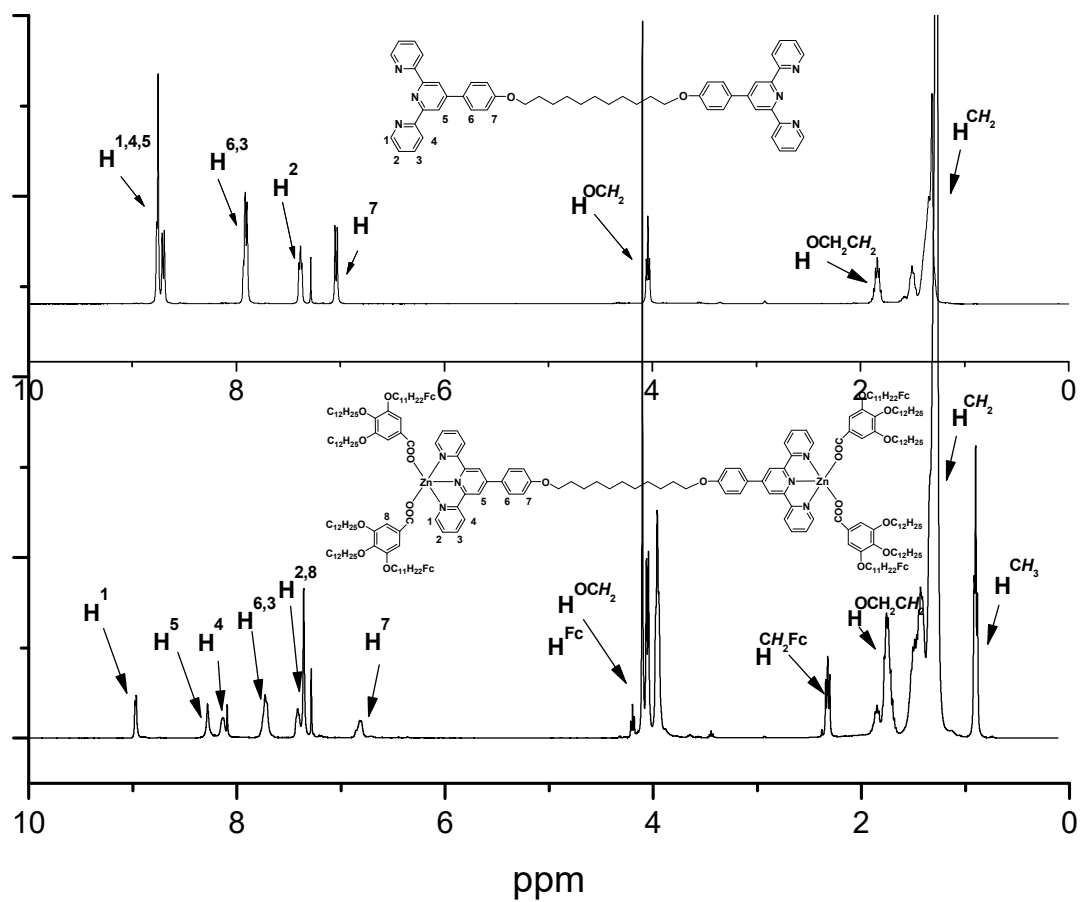


Figure S2. ^1H NMR spectra of ligand L2 and complex Zn_2Fe_4 in CDCl_3 .

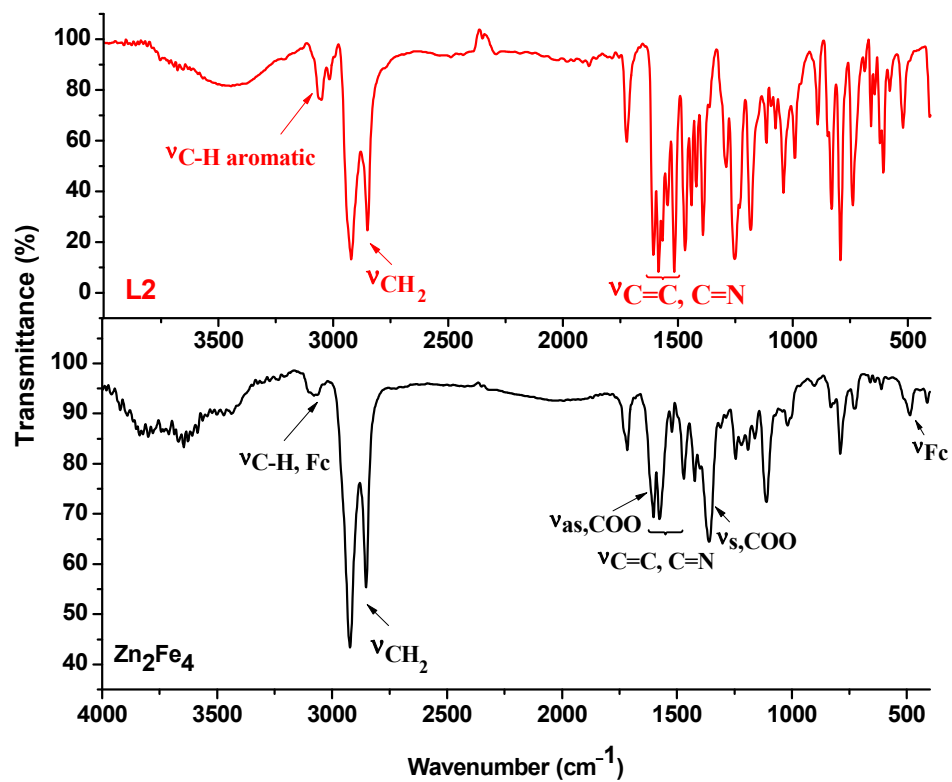


Figure S3. FT-IR spectra of ligand L2 and complex Zn₂Fe₄ with the principal absorption bands evidenced.

Table S1. Method preparation of the samples used for the investigation of the effect of the polarity of the environment.

Stock solution of $1.0 \text{ E}^{-4} \text{ M}$ in dichloromethane	Dichloromethane	Methanol	Volume of the final solution	Final concentration	% Methanol
1 mL	9 mL	0 mL	10 mL	$1.0 \text{ E}^{-5} \text{ M}$	0
1 mL	8 mL	1 mL	10 mL	$1.0 \text{ E}^{-5} \text{ M}$	10
1 mL	7 mL	2 mL	10 mL	$1.0 \text{ E}^{-5} \text{ M}$	20
1 mL	6 mL	3 mL	10 mL	$1.0 \text{ E}^{-5} \text{ M}$	30
1 mL	5 mL	4 mL	10 mL	$1.0 \text{ E}^{-5} \text{ M}$	40
1 mL	4 mL	5 mL	10 mL	$1.0 \text{ E}^{-5} \text{ M}$	50
1 mL	3 mL	6 mL	10 mL	$1.0 \text{ E}^{-5} \text{ M}$	60
1 mL	2 mL	7 mL	10 mL	$1.0 \text{ E}^{-5} \text{ M}$	70
1 mL	1 mL	8 mL	10 mL	$1.0 \text{ E}^{-5} \text{ M}$	80
1 mL	0 mL	9 mL	10 mL	$1.0 \text{ E}^{-5} \text{ M}$	90

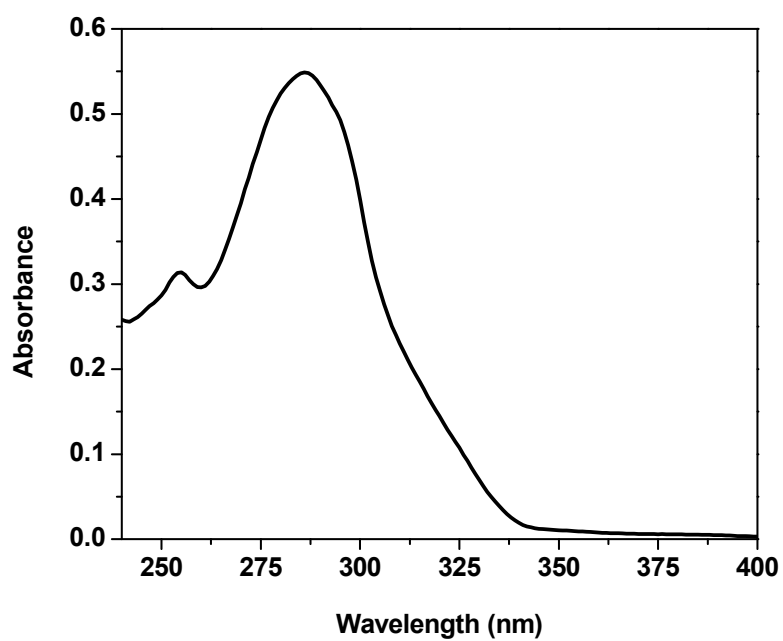


Figure S4. Absorption spectrum of L1 in 1.0×10^{-5} M dichloromethane solution (light path = 1 cm)

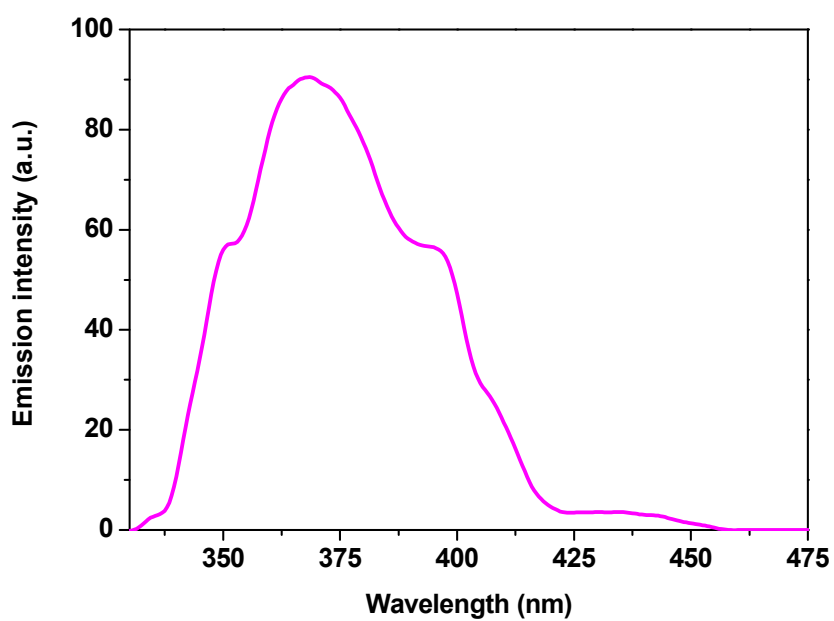


Figure S5. Emission spectrum of L1 in dichloromethane solution.

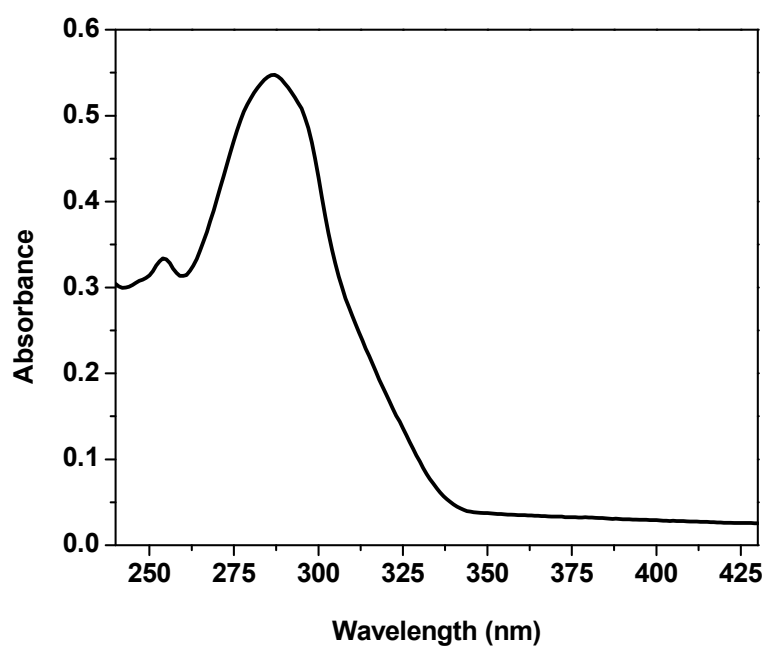


Figure S6. Absorption spectrum of L2 in 1.0×10^{-5} M dichloromethane solution (light path = 1 cm).

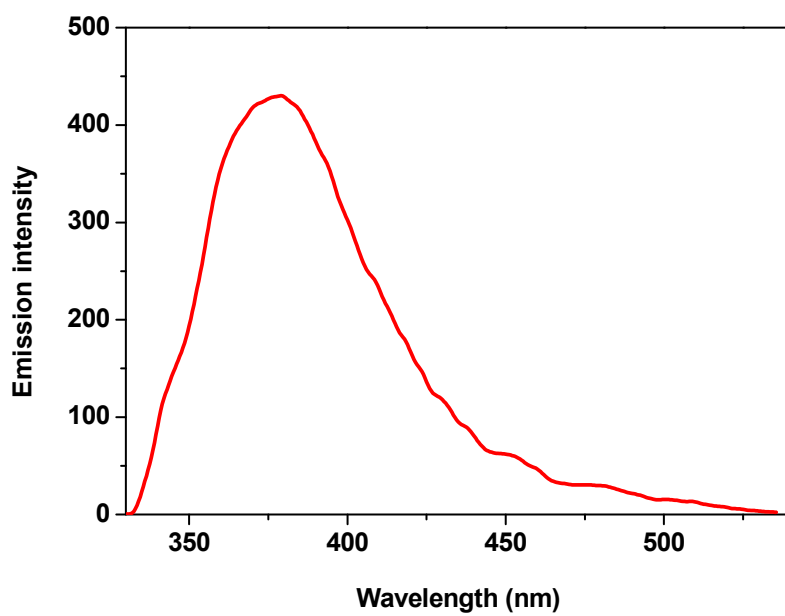


Figure S7. Emission spectrum of L2 in dichloromethane solution.