Electronic Supporting Information

Figure S1.- HR-TEM (a) and HR-SEM (b) images of the bulk polymer $\{[Fe(HTrz)_2(Trz)](BF_4)\}_n$ prepared in following a classical procedure.

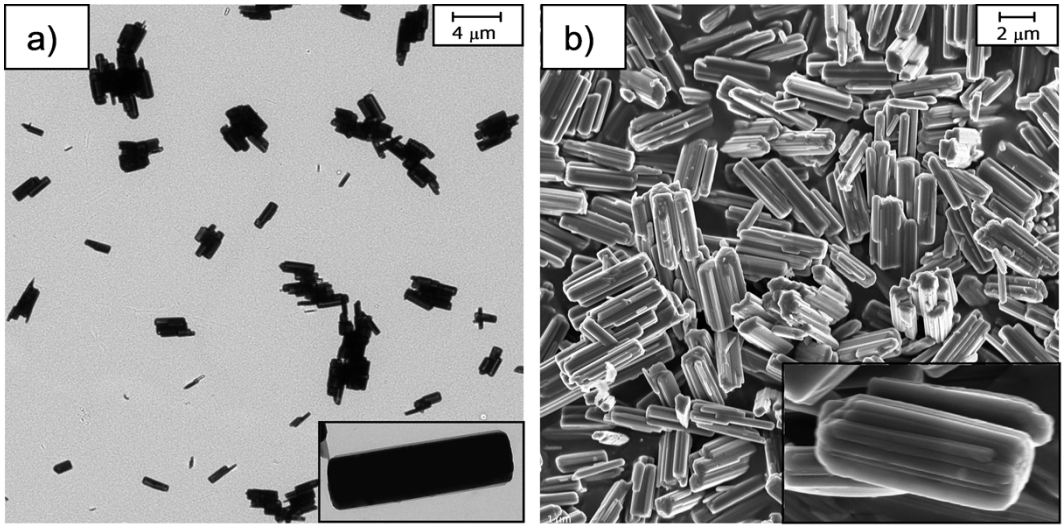


Table S1.- Elemental analysis of samples described in this work

		C [%]	N[%]	H[%]
1	exptl	19.30	32.81	2.58
Proposed Formula: $[Fe(HTrz)_2(Trz)](BF_4)\cdot(H_2O)_{1.25}$	calcd	19.41	33.95	2.85
2	exptl	19.18	33.31	2.61
Proposed Formula: $[Fe(HTrz)_2(Trz)](BF_4)\cdot(H_2O)_{1.25}$	calcd	19.41	33.95	2.85
3	exptl	19.31	33.71	2.65
Proposed Formula: $[Fe(HTrz)_2(Trz)](BF_4)\cdot(H_2O)_{1.25}$	calcd	19.41	33.95	2.85
4	exptl	19.59	34.43	2.52
Proposed Formula: $[Fe(HTrz)_2(Trz)](BF_4)\cdot(H_2O)_{1.25}$	calcd	19.41	33.95	2.85
1@SiO$_2$	exptl	16.68	28.33	2.36
Proposed Formula: $[Fe(HTrz)_2(Trz)](BF_4)\cdot(SiO_2)_{1.2}\cdot(H_2O)_{0.9}$	calcd	16.43	28.75	2.25
2@SiO$_2$	exptl	15.50	26.07	2.13
Proposed Formula: $[Fe(HTrz)_2(Trz)](BF_4)\cdot(SiO_2)_{1.8}\cdot(H_2O)_{1.1}$	calcd	15.11	26.44	2.16
3@SiO$_2$	exptl	15.38	25.46	2.20
Proposed Formula: $[Fe(HTrz)_2(Trz)](BF_4)\cdot(SiO_2)_{1.9}\cdot(H_2O)_{1.3}$	calcd	14.82	25.91	2.19
4@SiO$_2$	exptl	16.84	28.56	1.98
Proposed Formula: $[Fe(HTrz)_2(Trz)](BF_4)\cdot(SiO_2)_{1.3}\cdot(H_2O)_{0.6}$	calcd	16.45	28.78	2.11

Figure S2.- Thermal variation of the $\chi_M T$ product of **1-dansyl**.

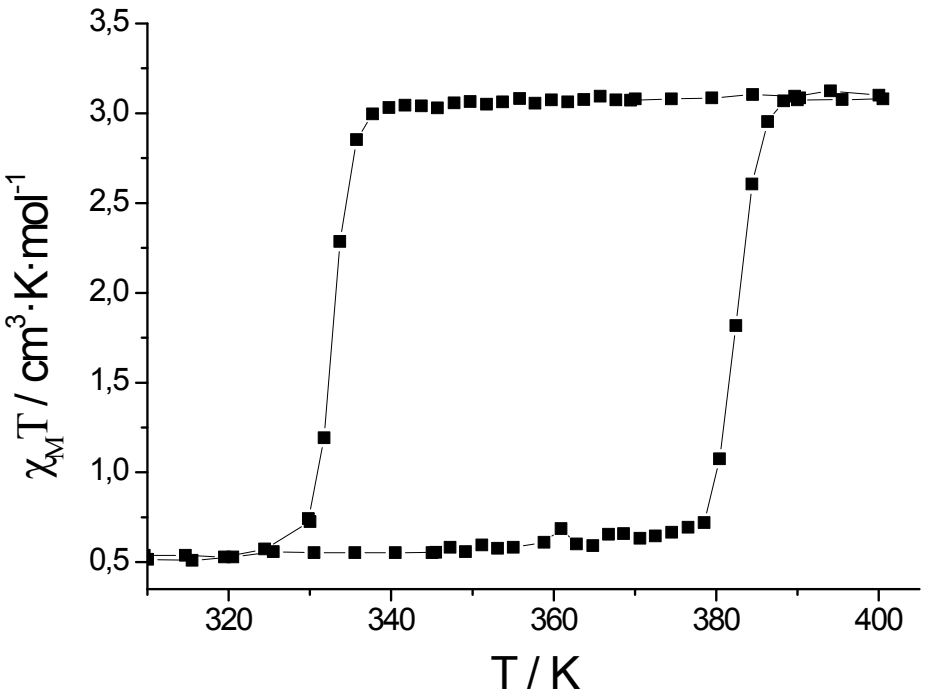


Figure S3.- HR-TEM image of **1-dansyl**

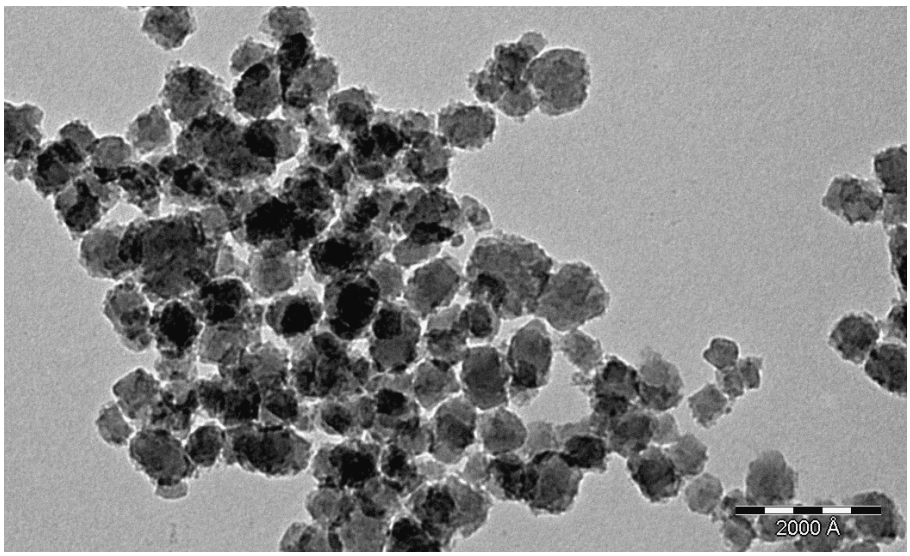
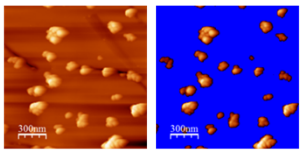


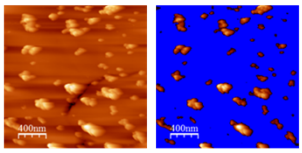
Figure S4.- AFM images of **1@SiO_2-SH** nanoparticles deposited on a gold surface at two different immersion times.

immersion time: 6 hours

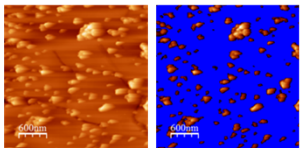
Density = 31 / 2,25 = 13,77 particles/µ2



Density = 55 / 4 = 13,75 particles/µ2

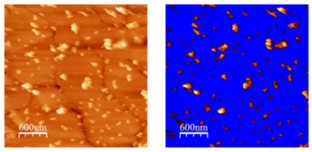


Density = 125 / 9 = 13,88 particles/µ2

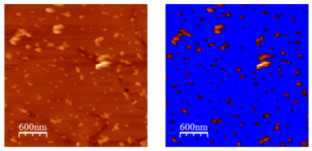


immersion time: 12 hours

Density = 153 / 9 = 17 particles/µ2



Density = 169 / 9 = 18,77 particles/µ2



Density = 59 / 2,89 = 20,41 particles/µ2