Supplementary Information

Co-Crystallization of Achiral Components into Chiral Network by Supramolecular Interactions: Coordination Complexes - Organic Radical

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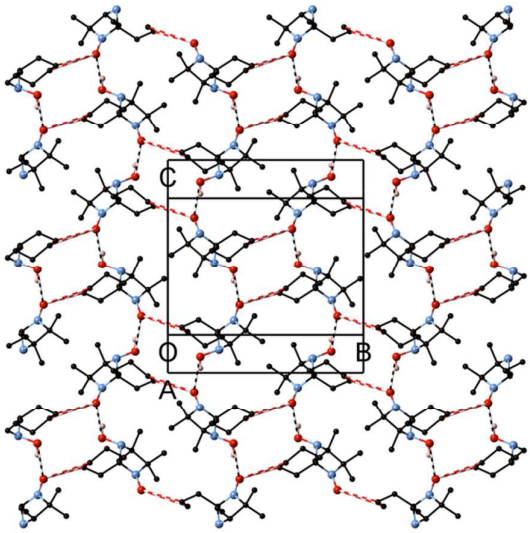

Figure S1. Structure of **2** highlighting the H-bonds between N-O···H-O-N connected chains along the *c*-axis and their (hexane)CH_2···O-N interchain connections in the formation of layers.

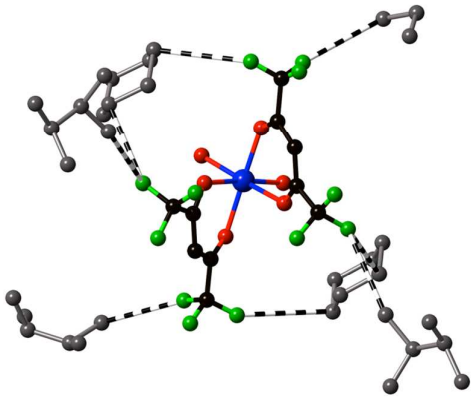

Figure S2. Structure of **1·Co** highlighting the F···C bonds between the inorganic cluster and the radicals.

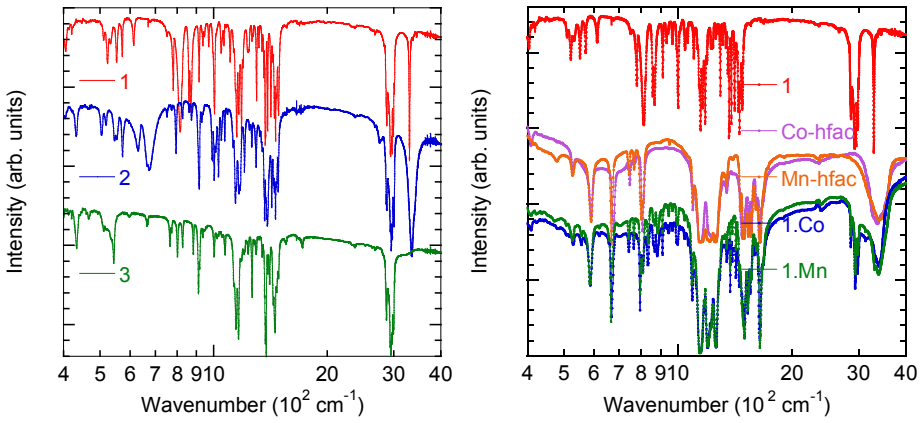

Figure S3. Infrared spectra of (a) radical **1**, **2**, **3**, (b) and *cis*-M(hfac)$_2$(H$_2$O)$_2$ and co-crystals **1**·**Co** and **1**·**Mn**.

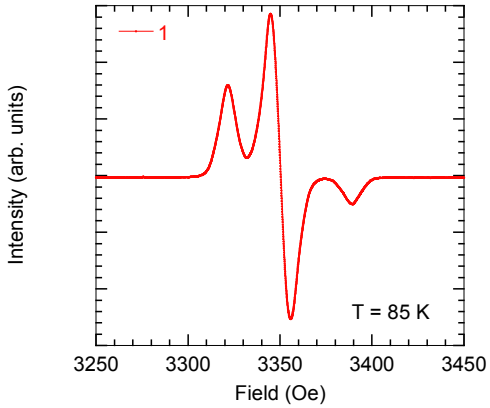

Figure S4. First derivative ESR spectrum of **1** in a frozen solution of 2-methyl tetrahydrofuran at 85 K.

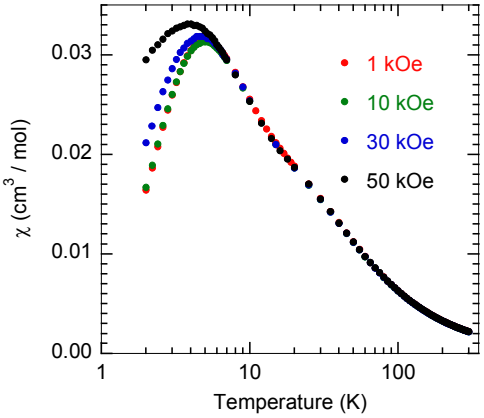

Figure S5. Temperature dependence of the magnetic susceptibility of **3** on cooling in different applied fields.

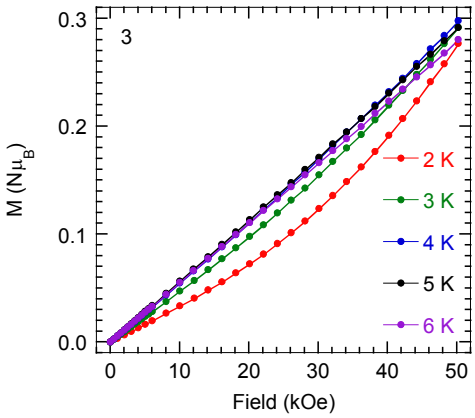

Figure S6. Field dependence of the magnetization of **3** at different temperatures.

Table S1. Crystal and refinement data for **1·Co** and **1·Mn** at 296 and 173 K.

	1·Co	**1·Co**	**1·Mn**	**1·Mn**
T (K)	296(2)	173(2)	296(2)	173(2)
formula	$C_{17}H_{26}Co_{0.5}F_6N_2O_4$	$C_{17}H_{26}Co_{0.5}F_6N_2O_4$	$C_{17}H_{26}Mn_{0.5}F_6N_2O_4$	$C_{17}H_{26}Mn_{0.5}F_6N_2O_4$
fw	465.86	465.86	463.87	463.87
cryst syst	Rhombohedral	Rhombohedral	Rhombohedral	Rhombohedral
space group	$P\,3_121$	$P\,3_121$	$P\,3_121$	$P\,3_121$
a (Å)	16.585(3)	16.409(1)	16.689(1)	16.479(1)
b (Å)	16.585(3)	16.409(1)	16.689(1)	16.479(1)
c (Å)	13.565(3)	13.483(1)	13.602(1)	13.562(1)
α (˚)	90.00	90.00	90.00	90.00
β (˚)	90.00	90.00	90.00	90.00
γ (˚)	120.00	120.00	120.00	120.00
V (Å^3)	3231.2(1)	3143.8(2)	3280.8(5)	3189.3(2)
Z	6	6	6	6
Refls. Total	17499	17042	49508	49103
Unique	5342	5193	5445	5288
Param.	327	324	327	327
R_{int}	0.0448	0.0317	0.0485	0.0351
R_1/wR_2	0.0585	0.0452	0.0519	0.0349
[I>2σ(I)]	0.1361	0.1030	0.1274	0.0865
R_1/wR_2	0.1139	0.0665	0.0878	0.0436
(all data)	0.1573	0.1116	0.1445	0.0912
GoF	1.023	1.021	1.027	1.039