

Electronic Supplementary Information

Polymorphism and “reverse” spin transition in the spin crossover system

[Co(4-terpyridone)₂](CF₃SO₃)₂·1H₂O

G. Agustí, C. Bartual, V. Martínez, F. J. Muñoz-Lara, A. B. Gaspar, M. C. Muñoz, J. A. Real

Table S1. Crystal data for **1** at 293 K and 120 K.

	1	
	293 K	120 K
Empirical formula	C ₃₂ H ₂₄ N ₆ O ₉ S ₂ F ₆ Co	
<i>Mr</i>	873.62	
Crystal system	triclinic	
Space group	P-1	
<i>a</i> (Å)	9.1020(5)	9.0803(2)
<i>b</i> (Å)	9.2410(5)	9.1039(3)
<i>c</i> (Å)	21.3860(18)	21.1499(7)
α (°)	94.896(2)	94.899(3)
β (°)	94.487(2)	94.810(2)
γ (°)	90.730(6)	91.322(2)
<i>V</i> (Å ³)	1786.4(2)	1735.05(9)

Selected bond lengths [Å] and angles [°] for **1** at 120 K.

Co(1)-N(1)	2.099(9)
Co(1)-N(2)	1.922(9)
Co(1)-N(3)	2.097(12)
Co(1)-N(4)	2.074(11)
Co(1)-N(5)	1.909(10)
Co(1)-N(6)	2.079(10)
N(1)-Co-N(2)	79.1(4)
N(1)-Co-N(3)	158.3(4)
N(1)-Co-N(4)	93.7(4)
N(1)-Co-N(5)	100.8(4)
N(1)-Co-N(6)	89.4(4)
N(2)-Co-N(3)	79.2(4)
N(2)-Co-N(4)	101.1(4)
N(2)-Co-N(5)	179.2(4)
N(2)-Co-N(6)	99.2(4)
N(3)-Co-N(4)	91.5(4)
N(3)-Co-N(5)	100.9(4)
N(3)-Co-N(6)	93.0(4)
N(4)-Co-N(5)	79.7(4)
N(4)-Co-N(6)	159.7(4)
N(5)-Co-N(6)	79.9(4)

Table S2. Crystal data for **2** at 293 K, 180 K and 120 K.

	2		
	293 K	180 K	120 K
Empirical formula	C ₃₂ H ₂₄ N ₆ O ₉ F ₆ S ₂ Co		
<i>Mr</i>	873.62		
Crystal system	triclinic		
Space group	P-1		
<i>a</i> (Å)	9.5700(4)	18.6610(6)	9.2500(4)
<i>b</i> (Å)	14.3510(9)	14.2520(4)	14.2320(7)
<i>c</i> (Å)	14.9540(8)	14.8710(5)	14.8280(10)
α	75.456(4)	75.246(2)	75.209(2)
β (°)	71.982(4)	72.662(1)	72.982(3)
γ	72.274(2)	72.439(1)	72.315(2)
<i>V</i> (Å ³)	1832.19(17)	3539.92(19)	1748.45(16)