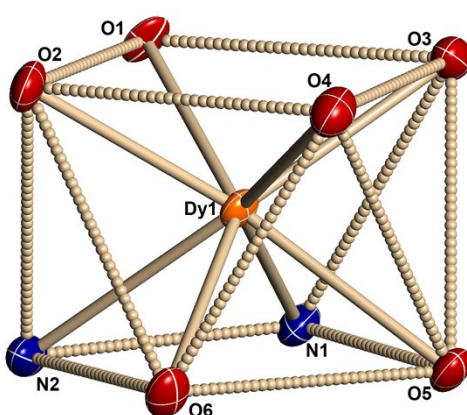


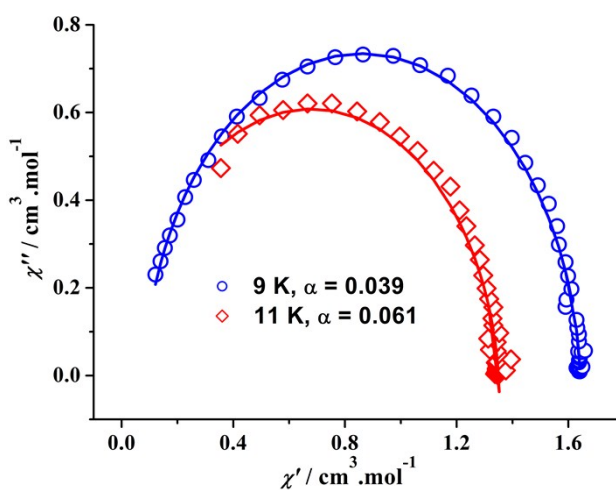
## Supporting Information

### A pair of mononuclear Dy(III) enantiomers showing single-ion magnet and ferroelectric properties

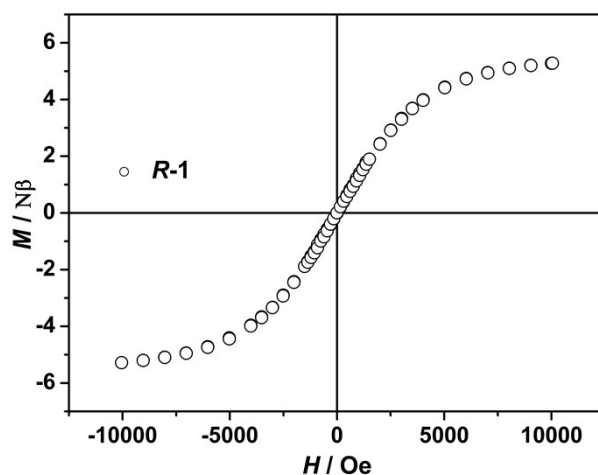
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**Fig. S1.** Coordination geometry of Dy(III) ion in *R*-1.



**Fig. S2.** Cole–Cole plots at 9 and 11 K for *R*-1 under zero dc field; the solid lines represent the best theoretical fitting.



**Fig. S3.** Plot of  $M$  versus  $H$  at 1.9 K from -10000 to 10000 Oe for ***R-1***.

**Table S1.** Selected bond lengths (Å) and angles (°) for ***R-1*** and ***S-1***.

Bond lengths for ***R-1***

Dy(1)—O(1)	2.309(5)	Dy(1)—O(2)	2.338(5)	Dy(1)—O(3)	2.328(5)
Dy(1)—O(4)	2.320(5)	Dy(1)—O(5)	2.341(5)	Dy(1)—O(6)	2.302(5)
Dy(1)—N(1)	2.523(7)	Dy(1)—N(2)	2.525(6)		

Bond lengths for ***S-1***

Dy(1)—O(1)	2.322(5)	Dy(1)—O(2)	2.325(5)	Dy(1)—O(3)	2.324(4)
Dy(1)—O(4)	2.335(5)	Dy(1)—O(5)	2.345(5)	Dy(1)—O(6)	2.316(5)
Dy(1)—N(1)	2.531(6)	Dy(1)—N(2)	2.539(6)		

Bond angles for ***R-1***

O(3)-Dy(1)-O(2)	117.38(18)	O(3)-Dy(1)-O(5)	74.83(18)	O(6)-Dy(1)-O(5)	73.28(18)
O(1)-Dy(1)-O(3)	76.92(18)	O(6)-Dy(1)-N(1)	111.5(2)	O(3)-Dy(1)-N(2)	141.0(2)

Bond angles for ***S-1***

O(2)-Dy(1)-O(3)	116.90(17)	O(3)-Dy(1)-O(5)	75.04(17)	O(6)-Dy(1)-O(5)	72.59(17)
O(1)-Dy(1)-O(3)	76.33(17)	O(6)-Dy(1)-N(1)	111.85(18)	O(3)-Dy(1)-N(2)	141.25(18)