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Electronic Supplementary Information

Synthesis of Perovskite-type Manganites $\text{Yb}_{1-x}\text{Dy}_x\text{MnO}_3$ ($0.1 \leq x \leq 0.5$) via Solid-State Reaction and High-pressure Flux Method Followed by, Structural Characterization and Magnetic Property Studies

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Table S1. Bond lengths [Å] and angles [deg] for the $o\text{-Yb}_{0.5}\text{Dy}_{0.5}\text{MnO}_3$

Yb(1)-O(1)#1	2.236(4)	O(1)#1-Yb(1)-O(2)	100.87(10)
Yb(1)-O(2)	2.279(3)	O(1)#1-Yb(1)-O(2)#2	100.87(10)
Yb(1)-O(2)#2	2.279(3)	O(2)-Yb(1)-O(2)#2	78.17(13)
Yb(1)-O(1)	2.304(4)	O(1)#1-Yb(1)-O(1)	91.29(9)
Yb(1)-O(2)#3	2.515(3)	O(2)-Yb(1)-O(1)	138.46(7)
Yb(1)-O(2)#4	2.515(3)	O(2)#2-Yb(1)-O(1)	138.46(7)
Yb(1)-O(2)#5	2.562(3)	O(1)#1-Yb(1)-O(2)#3	137.99(8)
Yb(1)-O(2)#6	2.562(3)	O(2)-Yb(1)-O(2)#3	118.85(5)
Mn(2)-O(2)#10	1.908(3)	O(2)#2-Yb(1)-O(2)#3	76.24(6)
Mn(2)-O(2)#4	1.908(3)	O(1)-Yb(1)-O(2)#3	68.58(10)
Mn(2)-O(1)	1.9467(14)	O(1)#1-Yb(1)-O(2)#4	137.99(8)
Mn(2)-O(1)#11	1.9467(14)	O(2)-Yb(1)-O(2)#4	76.24(6)
Mn(2)-O(2)#6	2.227(3)	O(2)#2-Yb(1)-O(2)#4	118.85(5)
Mn(2)-O(2)#12	2.227(3)	O(1)-Yb(1)-O(2)#4	68.58(10)
		O(2)#3-Yb(1)-O(2)#4	69.69(12)
		O(1)#1-Yb(1)-O(2)#5	69.01(7)
		O(2)-Yb(1)-O(2)#5	150.11(6)

O(2)#2-Yb(1)-O(2)#5	76.47(11)
O(1)-Yb(1)-O(2)#5	71.19(7)
O(2)#3-Yb(1)-O(2)#5	69.64(4)
O(2)#4-Yb(1)-O(2)#5	130.52(5)
O(1)#1-Yb(1)-O(2)#6	69.01(7)
O(2)-Yb(1)-O(2)#6	76.47(11)
O(2)#2-Yb(1)-O(2)#6	150.11(6)
O(1)-Yb(1)-O(2)#6	71.19(7)
O(2)#3-Yb(1)-O(2)#6	130.52(5)
O(2)#4-Yb(1)-O(2)#6	69.64(4)
O(2)#5-Yb(1)-O(2)#6	121.65(13)
O(2)#10-Mn(2)-O(2)#4	180.00(15)
O(2)#10-Mn(2)-O(1)	90.23(14)
O(2)#4-Mn(2)-O(1)	89.77(14)
O(2)#10-Mn(2)-O(1)#11	89.77(14)
O(2)#4-Mn(2)-O(1)#11	90.23(14)
Mn(2)-O(1)- Mn(2)	141.3(2)
O(2)#10-Mn(2)-O(2)#6	91.30(5)
O(2)#4-Mn(2)-O(2)#6	88.70(5)
O(1)-Mn(2)-O(2)#6	85.48(13)
O(1)#11-Mn(2)-O(2)#6	94.52(13)
O(2)#10-Mn(2)-O(2)#12	88.70(5)
O(2)#4-Mn(2)-O(2)#12	91.30(5)
O(1)-Mn(2)-O(2)#12	94.52(13)
O(1)#11-Mn(2)-O(2)#12	85.48(13)
Mn(2)-O(2)- Mn(2)	143.42(14)

Symmetry transformations used to generate equivalent atoms:
#1 $x+1/2, y, -z-1/2$ #2 $x, -y+1/2, z$ #3 $x-1/2, -y+1/2, -z+1/2$
#4 $x-1/2, y, -z+1/2$ #5 $-x+1, y-1/2, -z$ #6 $-x+1, -y+1, -z$
#10 $-x+1/2, -y+1, z-1/2$ #11 $-x, -y+1, -z$ #12 $x-1, y, z$

Table S2. Atomic coordinates and equivalent isotropic displacement parameters ($\text{\AA}^2$) for $\text{Yb}_{0.5}\text{Dy}_{0.5}\text{MnO}_3$

	x	y	z	U(eq)
Yb(1)	4161(1)	2500	173(1)	5(1)
Dy(1)	4161(1)	2500	173(1)	5(1)
Mn(2)	0	5000	0	3(1)
O(1)	396(6)	2500	-1146(8)	5(1)
O(2)	6707(4)	4455(3)	1999(6)	7(1)

