

Fig. 1

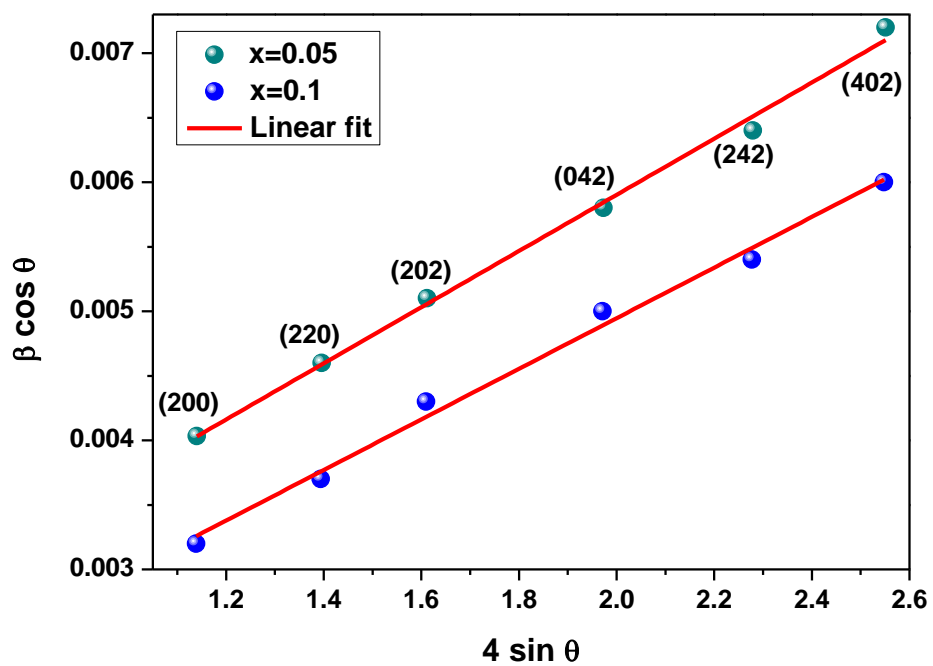


Fig. 2

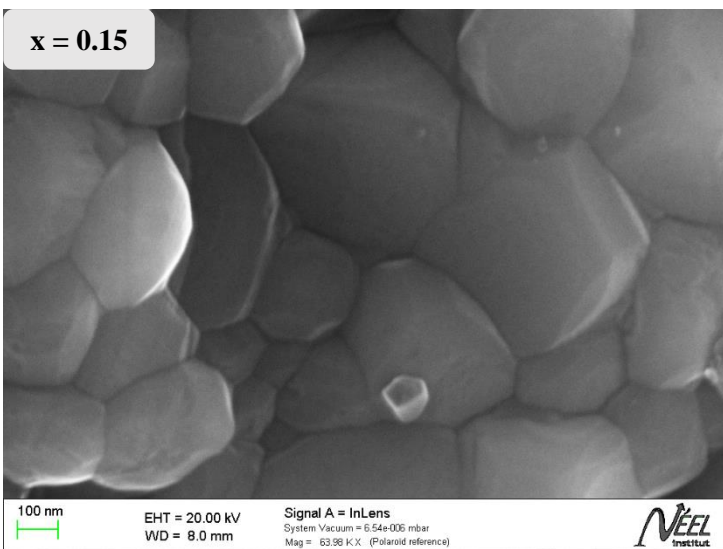
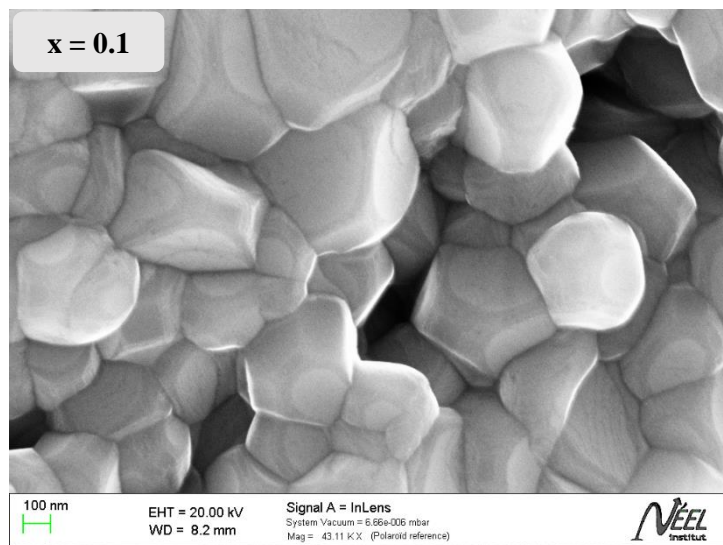
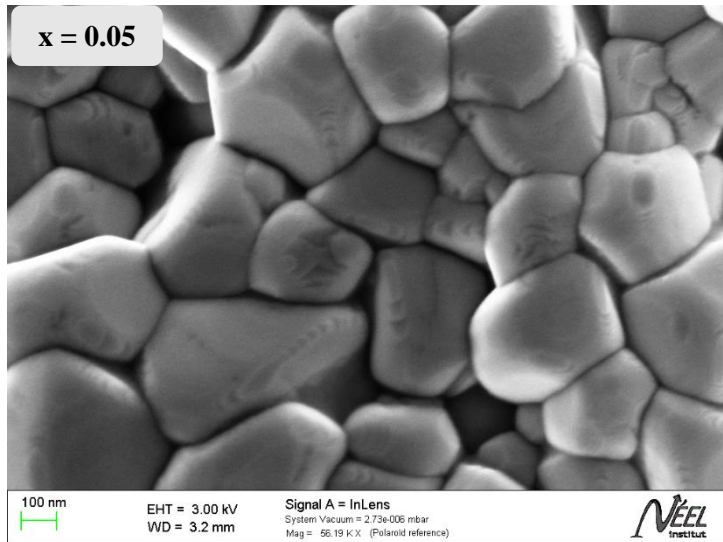


Fig. 3

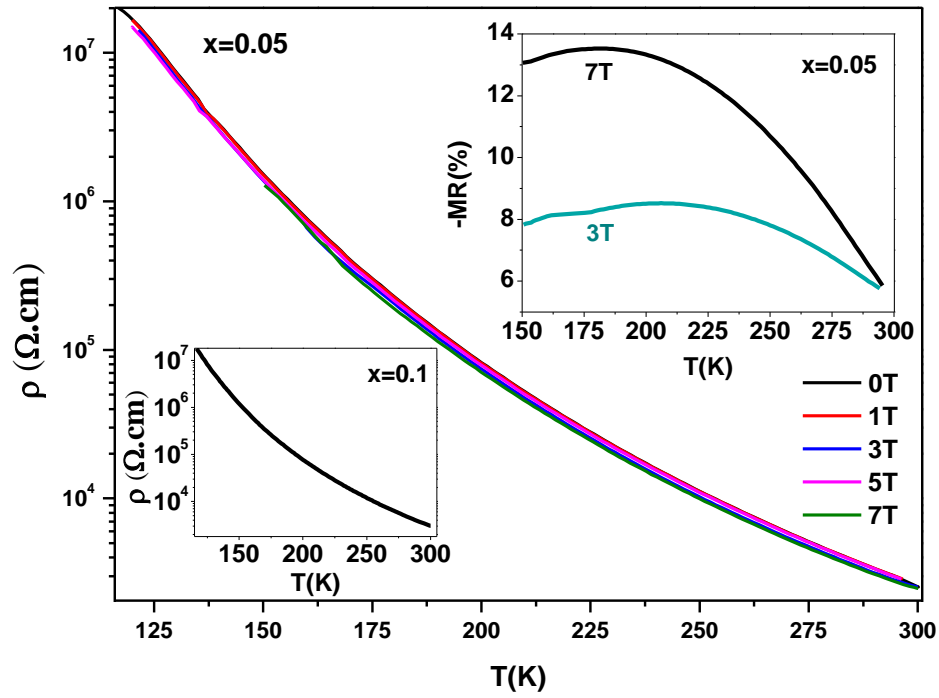


Fig. 4

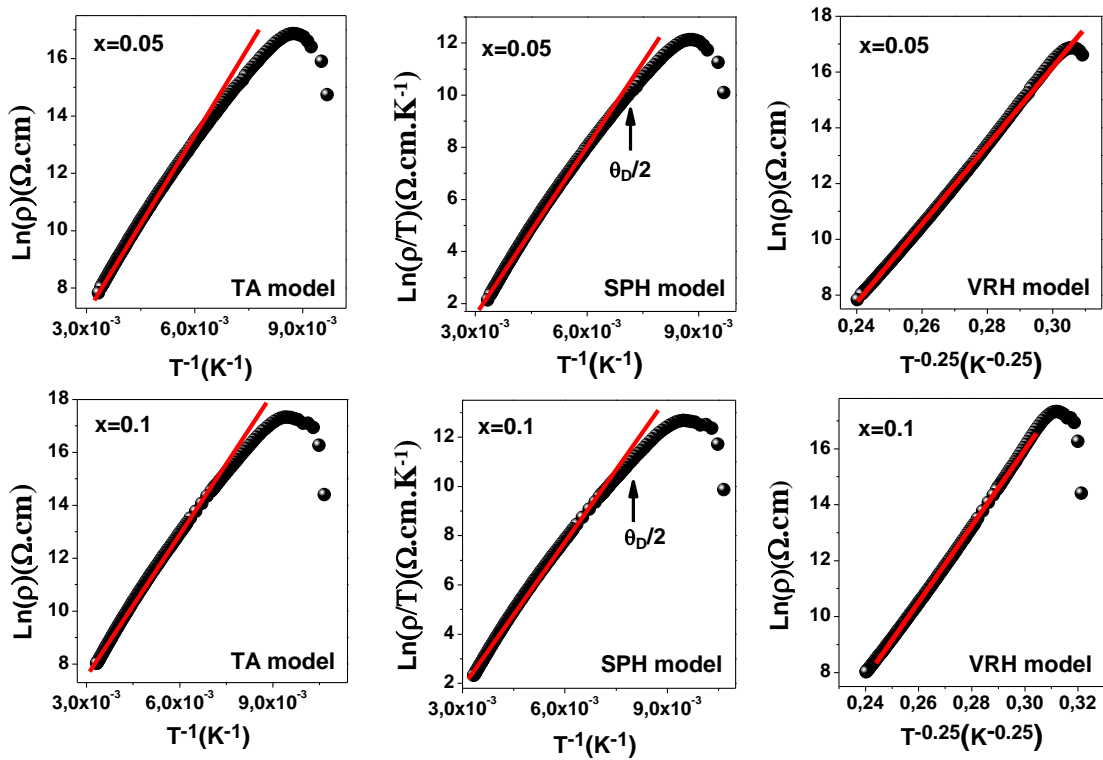


Fig. 5

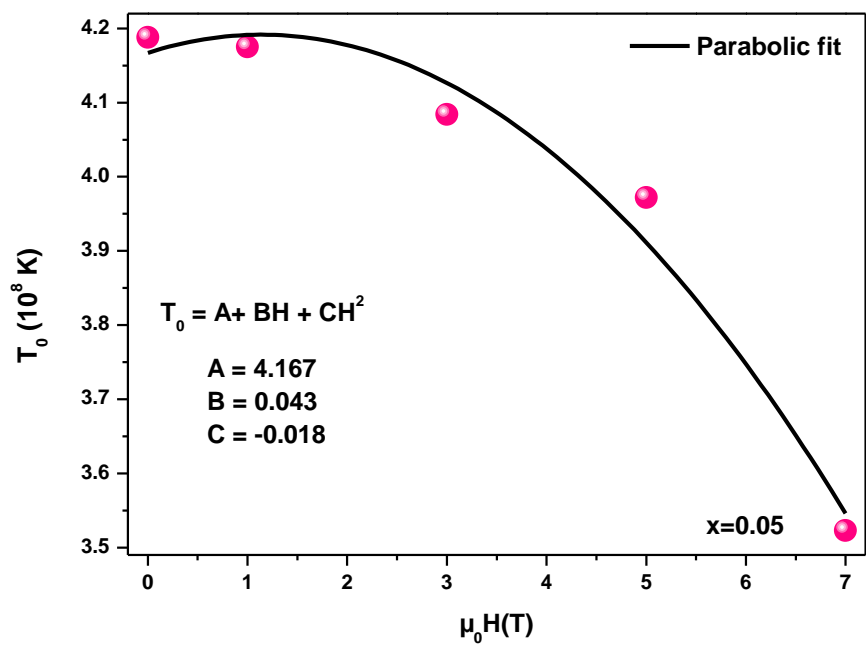


Fig. 6

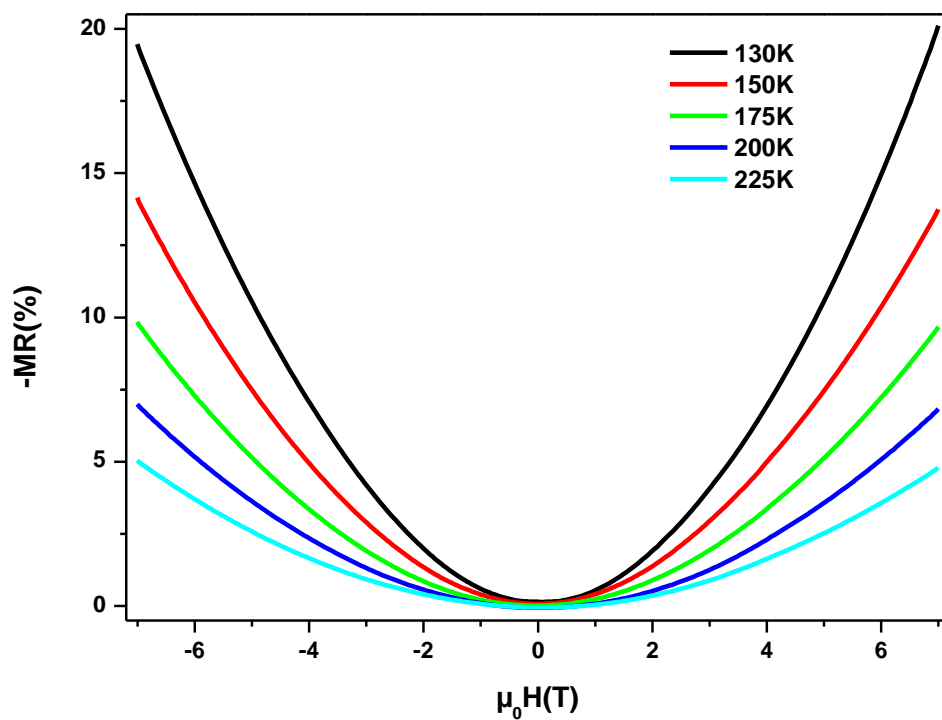


Fig. 7

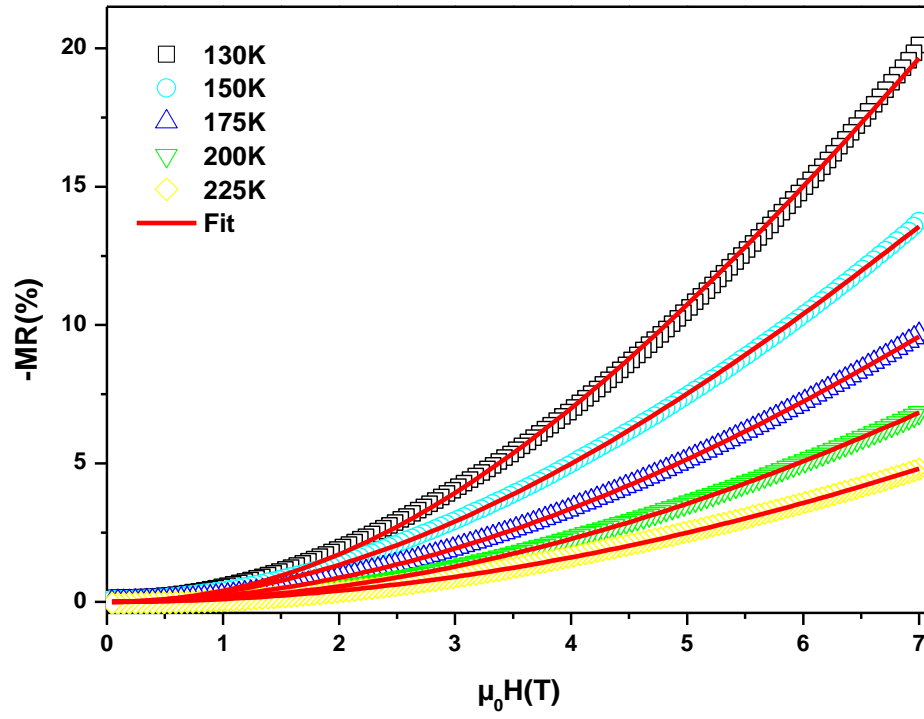


Fig. 8

Table 1: Structural parameters of $\text{La}_{0.5-x}\text{Ho}_x\text{Ca}_{0.5}\text{MnO}_3$ ($x = 0.05$ and 0.1) samples [6].

Samples	x=0.05	x=0.1
a (Å)	5.4113	5.4063
b (Å)	7.6599	7.6580
c (Å)	5.3998	5.3992
V (Å ³)	223.81	223.53
d _{Mn-O1} (Å)	1.93	1.93
d _{Mn-O2} (Å)	1.95	1.96
<d _{Mn-O} > (Å)	1.94	1.95
θ _{Mn-O1-Mn} (°)	162.94	161.37
θ _{Mn-O2-Mn} (°)	155.93	153.84
<θ _{Mn-O-Mn} > (°)	158.26	156.35
χ ²	3.30	1.93

Table 2: Fitting parameters of 0 T field resistivity for $\text{La}_{0.5-x}\text{Ho}_x\text{Ca}_{0.5}\text{MnO}_3$ ($x=0.05$ and 0.1) samples.

Sample		x=0.05	x=0.1
TA model	ρ ₀ (Ω.cm)	6.726	15.210
	E _a (meV)	181.51	153.53
SPH model	ρ ₀ (Ω.cm.K ⁻¹)	0.012	0.030
	E _a (meV)	175.70	166.19
	θ _D (K)	309	274
	v _{ph} (10 ¹² Hz)	6.441	5.711
VRH model	ρ ₀ (10 ⁻¹² Ω.cm)	4.76	16.30
	T ₀ (10 ⁸ K)	3.893	3.418
	N(E _F) (10 ⁻¹² eV ⁻¹ .m ⁻³)	2.039	2.319

Table 3: Fitting parameters of the magnetic field dependence of MR by using relation (9) for $\text{La}_{0.45}\text{Ho}_{0.05}\text{Ca}_{0.5}\text{MnO}_3$ sample.

T(K)	$\mu_0 H_H$ (T)	q	\bar{R}^2
130	13.659	2.107	0.999
150	18.038	1.956	0.999
175	21.630	1.989	0.999
200	24.986	2.053	0.999
225	30.678	2.019	0.999