

Supplementary data for:

The Suppression of CMR in $\text{NdMn}_{1-x}\text{Co}_x\text{AsO}_{0.95}\text{F}_{0.05}$

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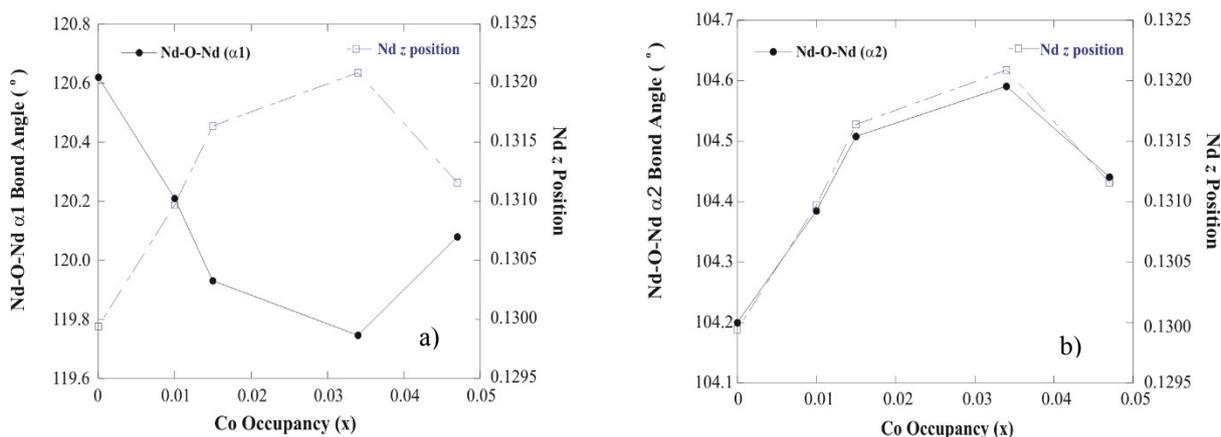


Figure S1. The Nd-O-Nd bond angles within cobalt doped $\text{NdMnAsO}_{0.95}\text{F}_{0.05}$ and its relationship with the Nd z position across the series.

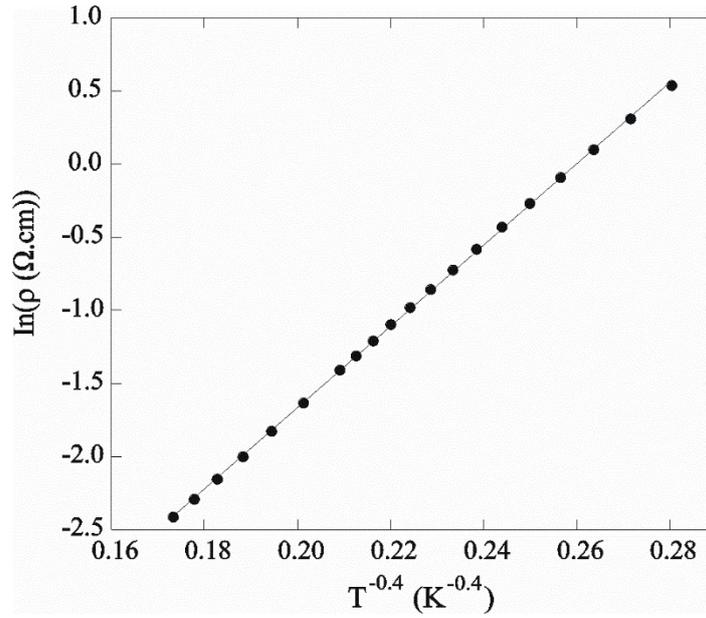


Figure S2. The fit to the 3D spin-polaron hopping equation $\rho = \rho_0 \exp(\tilde{T}/T)^{0.4}$ for $\text{NdMnAsO}_{0.95}\text{F}_{0.05}$ between 24 K - 75 K.

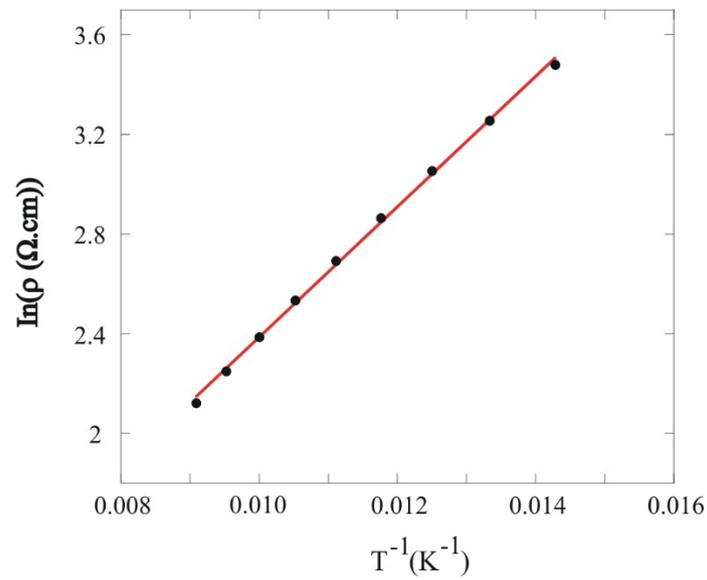


Figure S3. The fit to the Arrhenius equation for $\text{Nd}(\text{Mn}_{0.99}\text{Co}_{0.01})\text{AsO}_{0.95}\text{F}_{0.05}$ above 75 K.

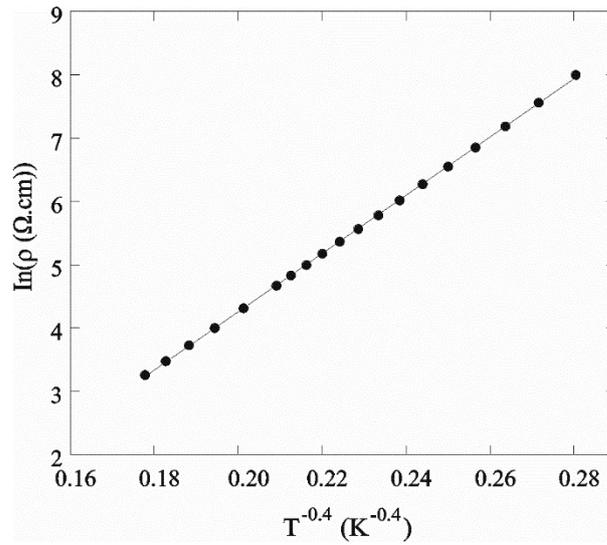


Figure S4. The fit to the 3D spin-polaron hopping equation for $\text{Nd}(\text{Mn}_{0.99}\text{Co}_{0.01})\text{AsO}_{0.95}\text{F}_{0.05}$ between 24 K - 75 K.

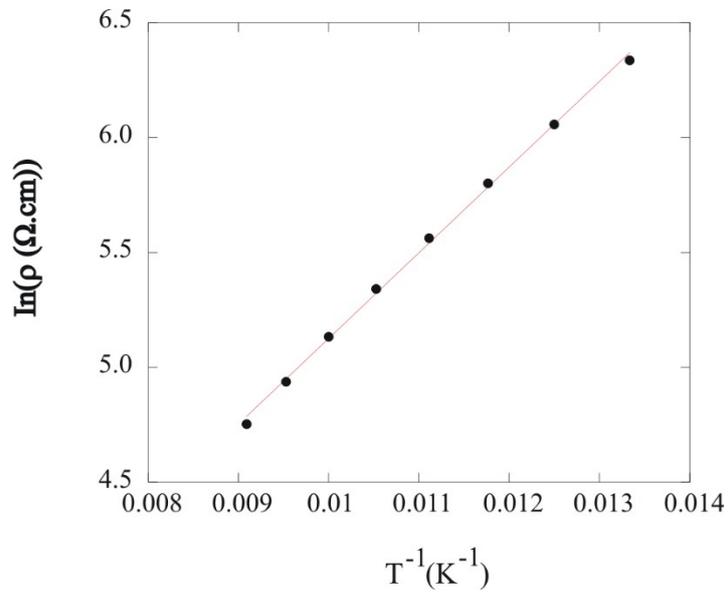


Figure S5. The fit to the Arrhenius equation for $\text{Nd}(\text{Mn}_{0.985}\text{Co}_{0.015})\text{AsO}_{0.95}\text{F}_{0.05}$ above 75 K.

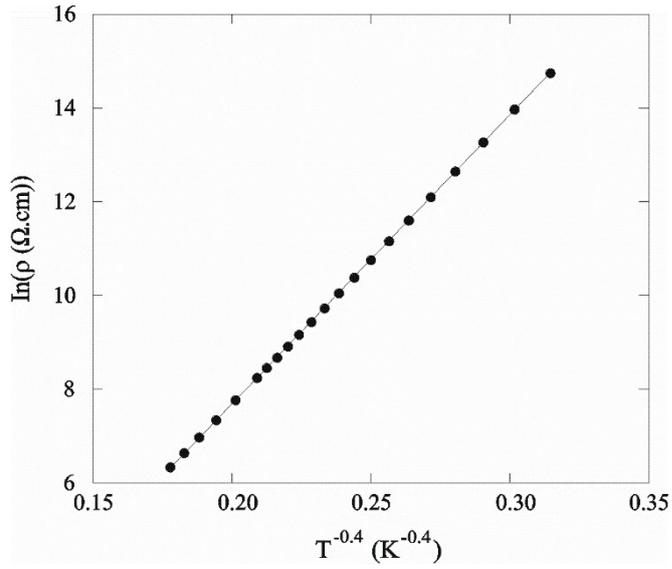


Figure S6. The fit to the 3D spin-polaron hopping equation for $\text{Nd}(\text{Mn}_{0.985}\text{Co}_{0.015})\text{AsO}_{0.95}\text{F}_{0.05}$ between 18 K - 75 K.

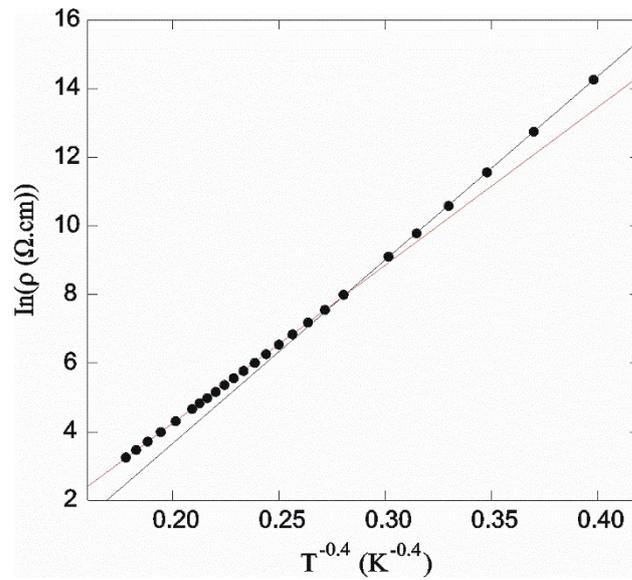


Figure S7. The fit to the 3D spin-polaron hopping equation for $\text{Nd}(\text{Mn}_{0.99}\text{Co}_{0.01})\text{AsO}_{0.95}\text{F}_{0.05}$ between 10 K - 75 K evidencing a change in \tilde{T} at T_{SR} .

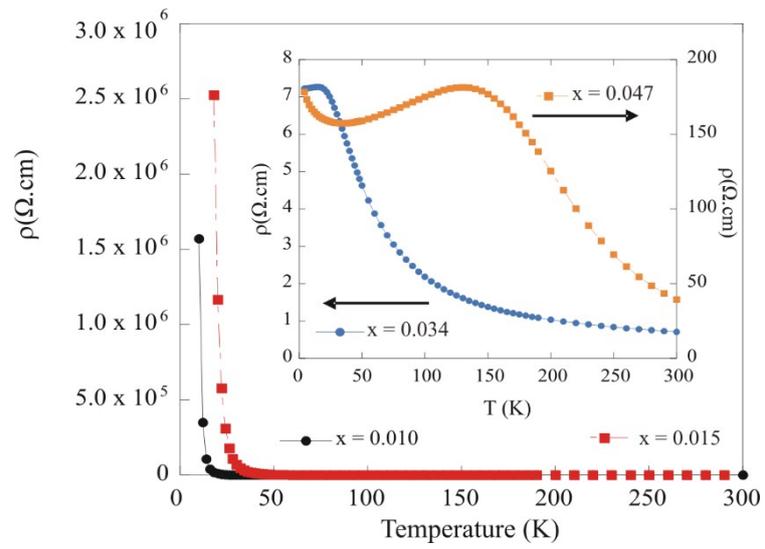


Figure S8. The $\rho(T)$ data for Nd(Mn_{1-x}Co_x)AsO_{0.95}F_{0.05} ($x = 0.010$ and 0.015) below 300 K. The inset shows the degenerate semiconducting behaviour of $x = 0.034$ and 0.047 .