Supporting Information

Effect of Methylene Chain Length on the Thermodynamic Properties, Ferroelastic Properties, and Molecular Dynamics of Perovskite-Type Layer Crystal [NH$_3$(CH$_2$)$_n$NH$_3$]MnCl$_4$ (n = 2, 3, and 4)

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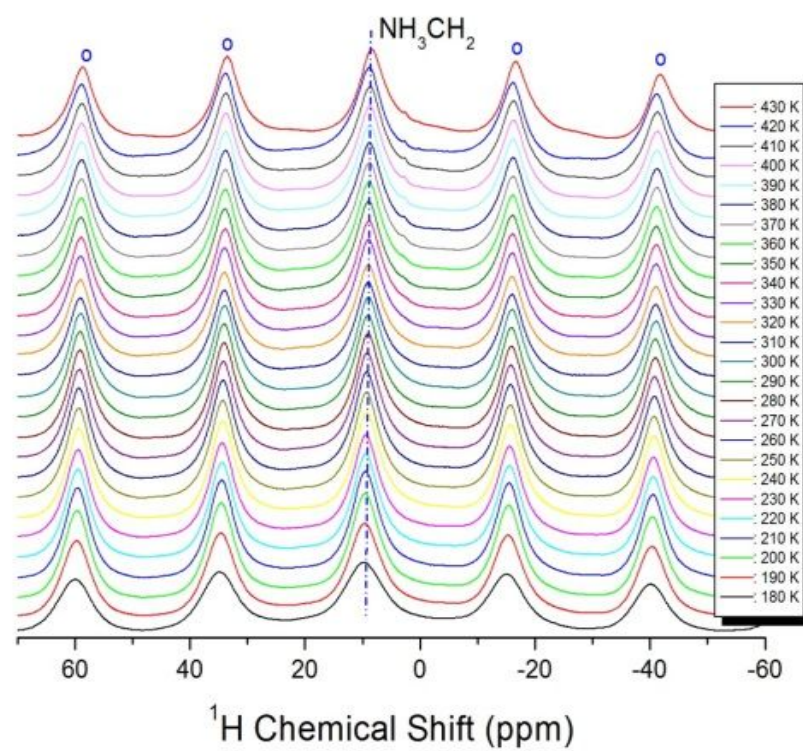
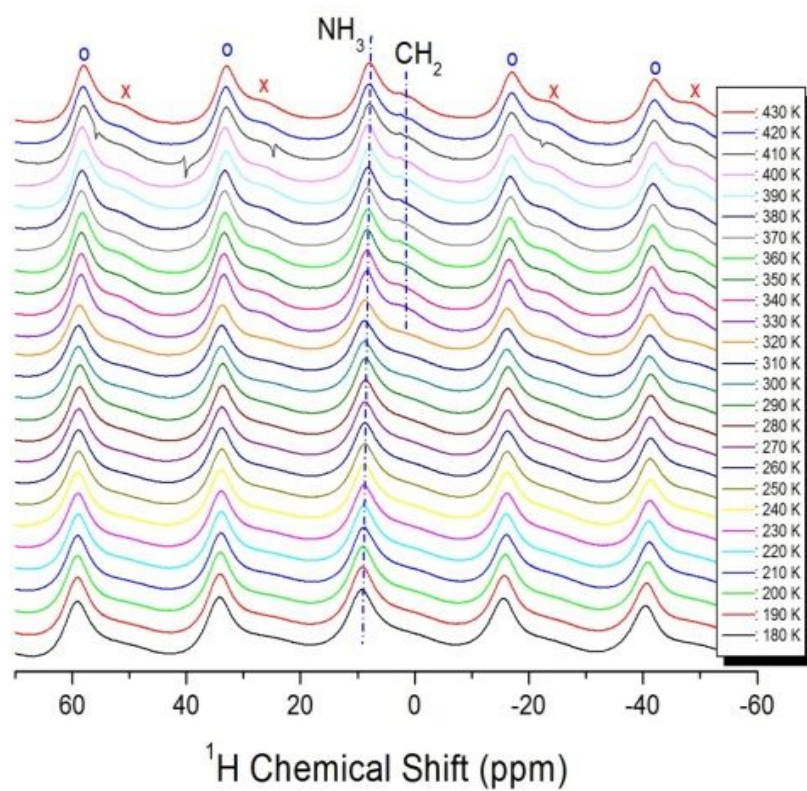**Figure S1**: ^{1}H chemical shifts of $[NH_3(CH_2)_2NH_3]MnCl_4$ as a function of temperature.

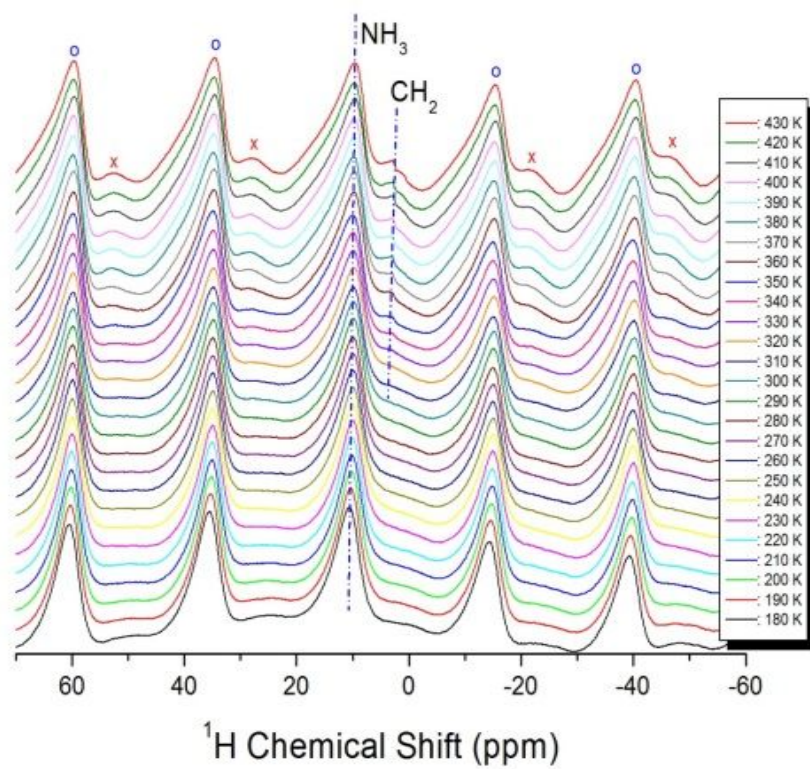**Figure S2**: ^{1}H chemical shifts of $[NH_3(CH_2)_3NH_3]MnCl_4$ as a function of temperature.

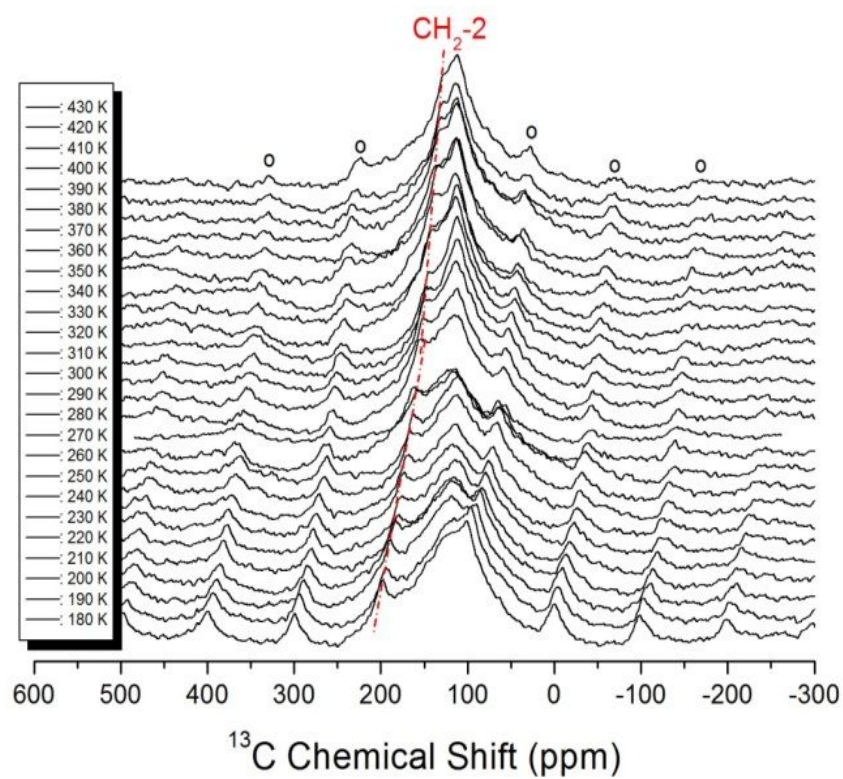**Figure S3**: ^1H chemical shifts of $[NH_3(CH_2)_4NH_3]MnCl_4$ as a function of temperature.

Figure S4: ^{13}C chemical shifts of $[NH_3(CH_2)_2NH_3]MnCl_4$ as a function of temperature.

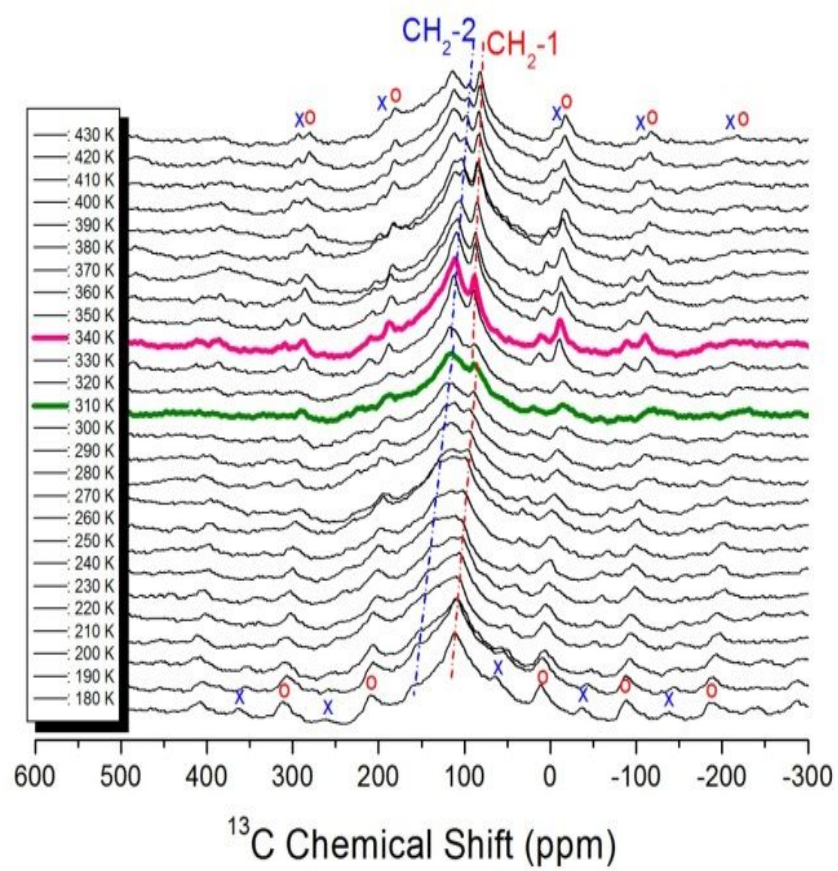**Figure S5**: ^{13}C chemical shifts of $[NH_3(CH_2)_3NH_3]MnCl_4$ as a function of temperature.

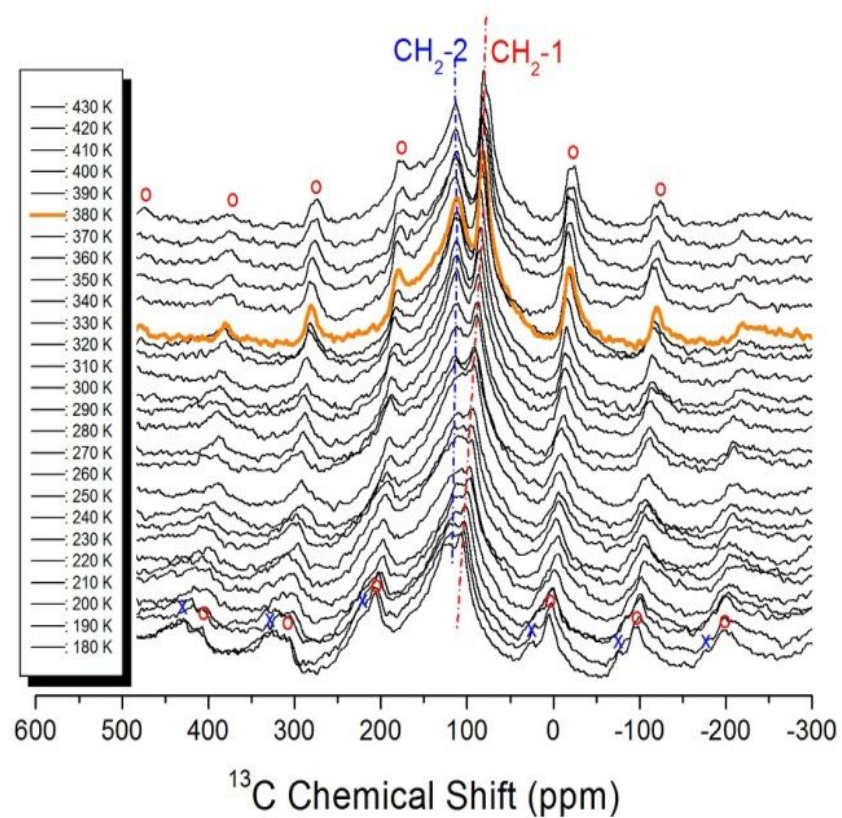**Figure S6**: ^{13}C chemical shifts of $[NH_3(CH_2)_4NH_3]MnCl_4$ as a function of temperature.