## Electronic Supplementary Material (ESI) for CrystEngComm. This journal is © The Royal Society of Chemistry 2016

Supporting information

Figure S1.

 $T\bar{G}\text{-}DTA$  profiles of mixed powders of Mn, LiOH·H\_2O, and fluxes under heating rate of 15 °C/min: (a) flux free, (b) KCl, (c) KOH, and (d) KNO\_3.

## Figure S2.

Cross-sectional SEM-EDS mapping images of FIB-milled  $\text{LiMn}_2\text{O}_4$  dot array.

## Figure S3.

 $X\bar{R}D$  profiles of Mn microstructures directly deposited on Pt substrates after heating at 500 °C for (a) 10 h and (b) 20 h under  $O_2$  flow atmosphere.

## Figure S4.

(a) Cross-sectional SEM-EDS mapping images of the Ni/Co/Mn stacked microstructures. (b) XRD profiles of the Ni/Co/Mn stacked microstructures after the flux growth in molten KCl at 900 °C for1 h under air atmosphere (top layer), LiNi<sub>1/3</sub>Co<sub>1/3</sub>Mn<sub>1/3</sub>O<sub>2</sub> (PDF 56-0147, middle layer), and LiMn<sub>2</sub>O<sub>4</sub> (PDF 70-8342, bottom layer).