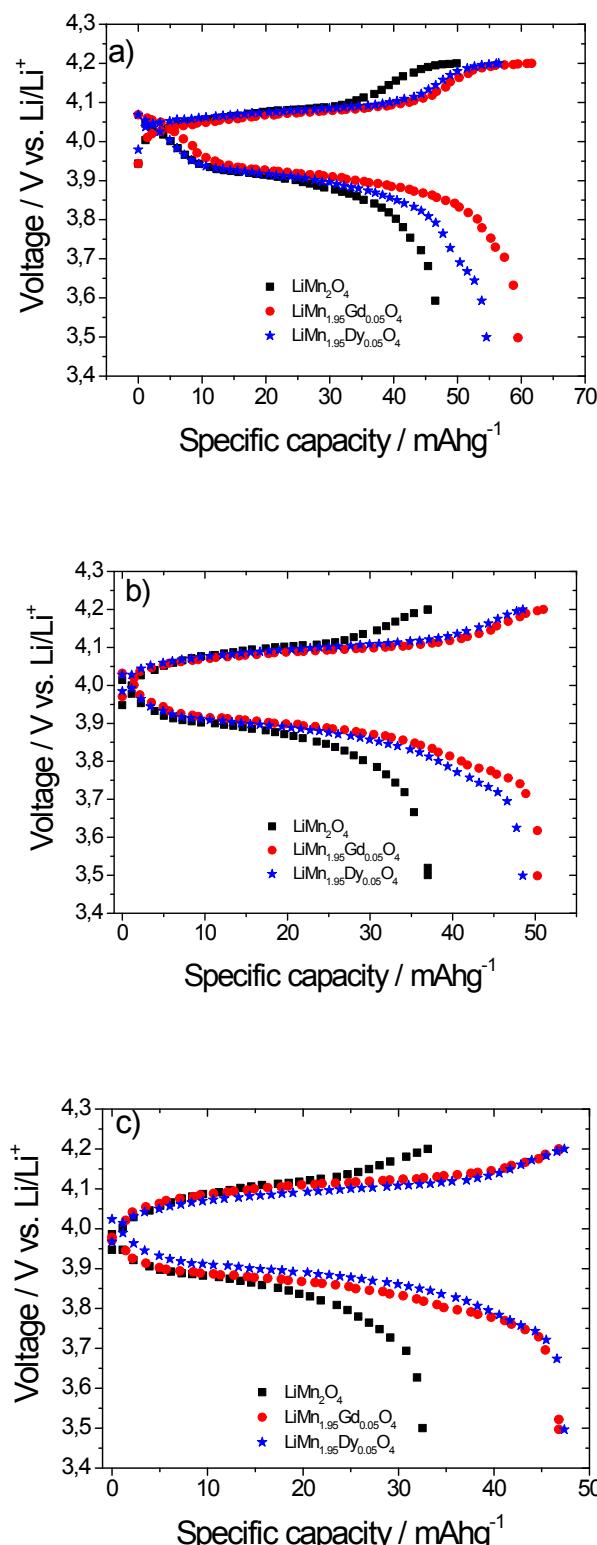


### Supplementary information



**Fig. S1-** Charge-discharge profile of LiMn<sub>2</sub>O<sub>4</sub>, LiMn<sub>1.95</sub>Gd<sub>0.05</sub>O<sub>4</sub> and LiMn<sub>1.95</sub>Dy<sub>0.05</sub>O<sub>4</sub> based electrodes for the 5<sup>th</sup> (a), 25<sup>th</sup> (b) and 45<sup>th</sup> (c) cycles at C/2.