

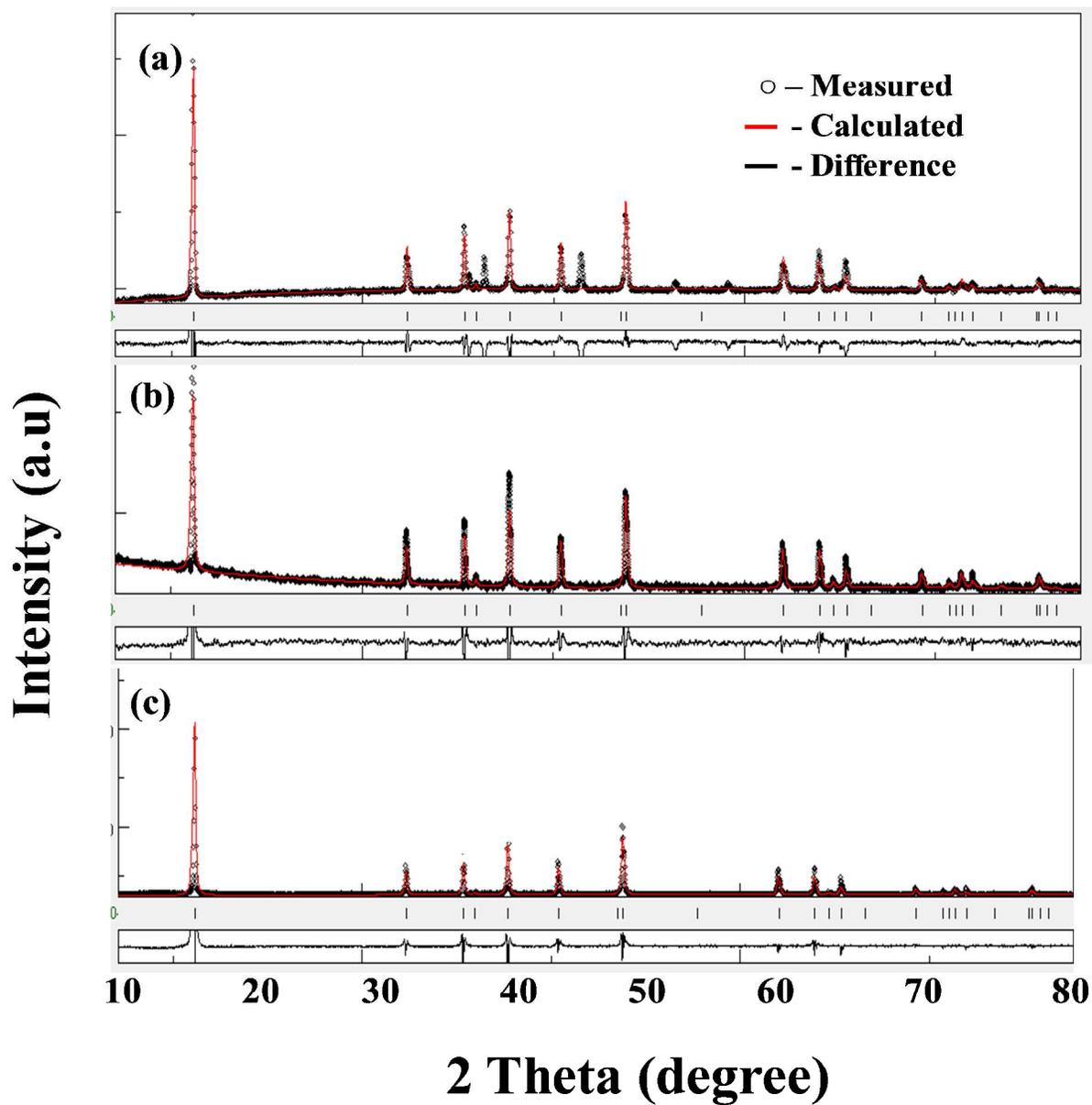
**Designing high performance nanostructured P2 type cathode based on  
template-free modified pechini method for Sodium-Ion Batteries**

**Karthikeyan Kaliyappan<sup>1</sup>, Wei Xiao<sup>2</sup>, Keegan R. Adair<sup>1</sup>, Tsun-Kong Sham<sup>2</sup> and Xueliang  
Sun<sup>1\*</sup>**

Email: [xsun9@uwo.ca](mailto:xsun9@uwo.ca)

Email: [karthik506@gmail.com](mailto:karthik506@gmail.com)

Supporting information



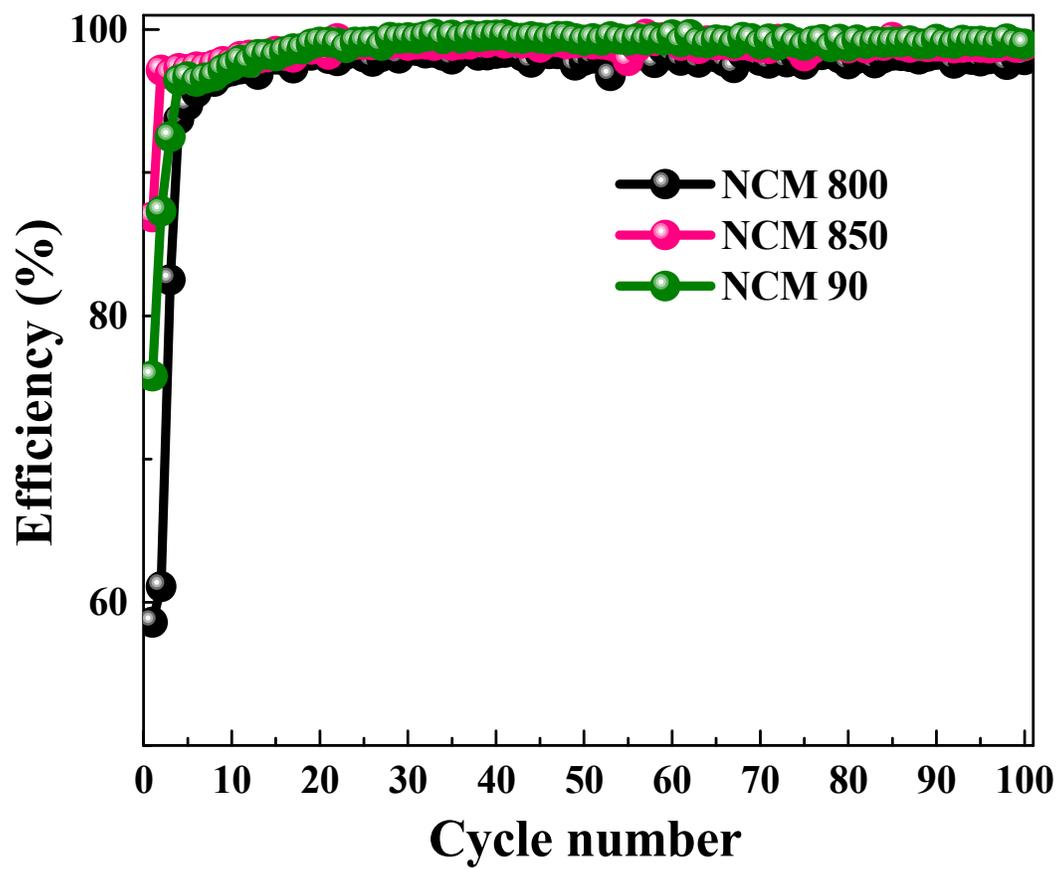
**Figure S1** Rietveld analysis of the sample prepared at (a) 800, (b) 850 and (c) 900 °C using pechini method

**Table S1:** Summary of refined structural parameters

Electrode material	<b>R<sub>p</sub></b> (%)	<b>R<sub>wp</sub></b> (%)
<b>NCM-800</b>	5.87	5.77
<b>NCM-850</b>	6.32	6.21
<b>NCM-900</b>	6.45	6.38

**Table S2** ICP results of NCM samples

<b>Electrode material</b>	<b>Na</b>	<b>Mn</b>	<b>Ni</b>	<b>Co</b>
NCM-800	0.643	0.524	0.124	0.126
NCM-850	0.649	0.528	0.127	0.124
NCM-900	0.641	0.522	0.126	0.125



**Figure S2** Coulombic efficiency of cells containing NCM cathode obtained through pechini method at different calcination temperatures.

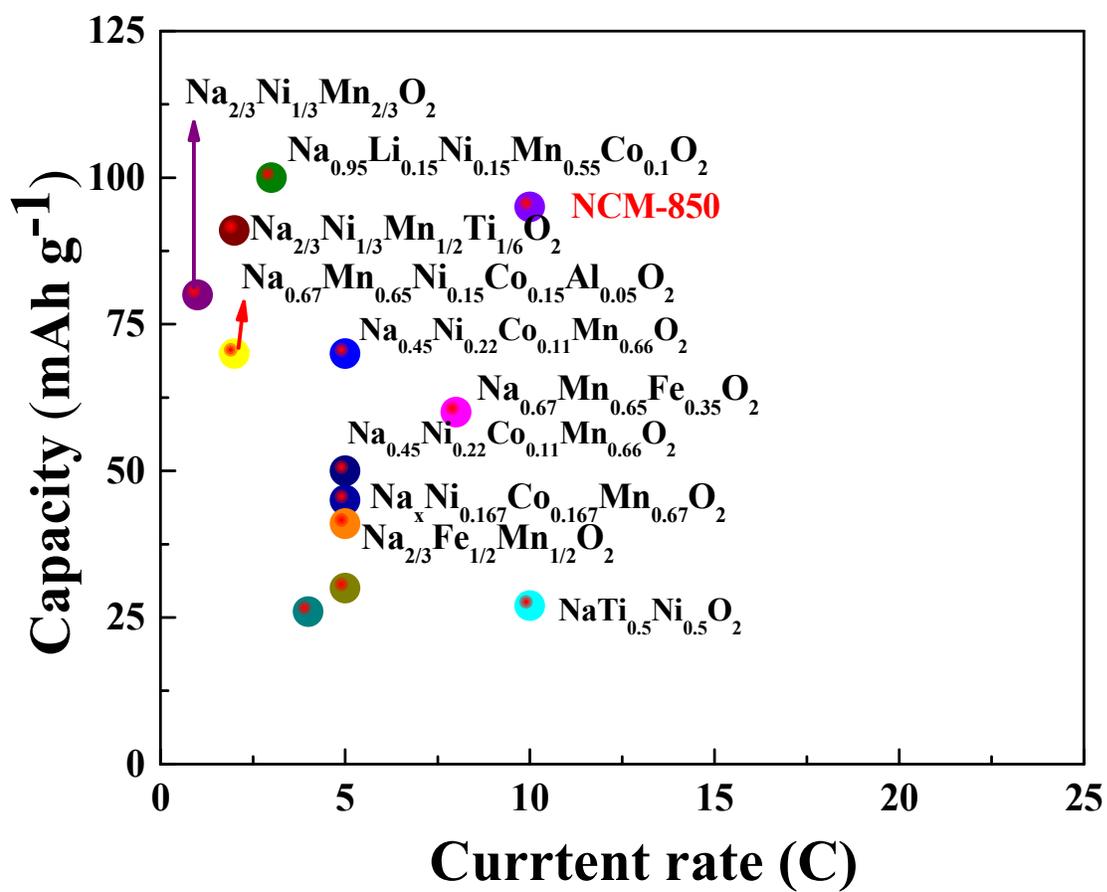


Figure S3 Comparison of various P2 layered materials with NCM-850 at various current rates

