Supplementary Information

The Critical Role of Titanium Cation for the Enhanced Performance of P2-Na $_{0.5}$ Ni $_{0.25}$ Mn $_{0.60}$ Ti $_{0.15}$ O₂ Cathode Material for Sodium-Ion Batteries

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Fig. S1 XPS spectra of (a) Ni 2p, (b) Mn 2p, (c) Ti 2p of NNMO and NNMTO.



Fig. S2 The first charge/discharge profiles of the NNMO and NNMTO samples between 2-4 V.



Fig. S3 Comparison of initial discharge capacities and capacity retention of NNMO materials.

 Table S1
 The ICP-OES results of NNMO and NNMTO materials.

Samble	$Na_{0.5}Ni_{0.25}Mn_{0.75}O_2$	$Na_{0.5}Ni_{0.25}Mn_{0.60}Ti_{0.15}O_2$
ICP-OES	$Na_{0.50}Ni_{0.26}Mn_{0.75}O_2$	$Na_{0.51}Ni_{0.25}Mn_{0.60}Ti_{0.15}O_2$

 Table S2
 Element analysis of Mn in mixed EC/PC electrolyte after 35 cycles of NNMO and NNMTO.

Sample	Mn content (mg L ⁻¹)	Mn content (mg/kg)
NNMO	0.101	8
NNMTO	0.034	3