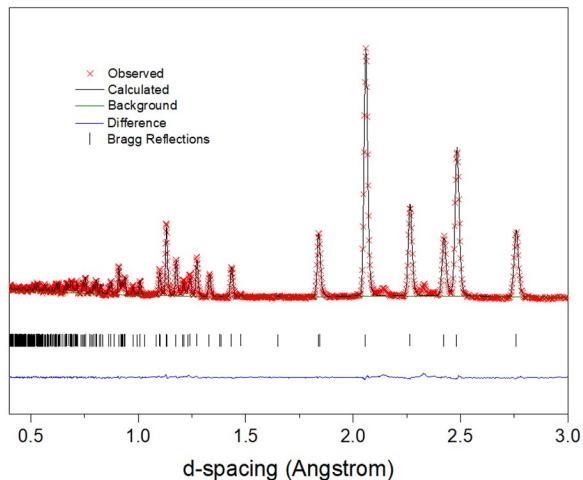
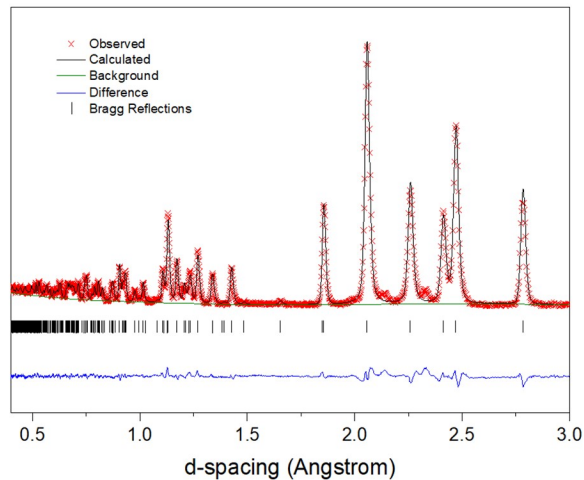


a Honeycomb Ordered $\text{Na}_{0.75}[\text{Li}_{0.25}\text{Mn}_{0.75}]\text{O}_2$ 

	Mult.	x	y	z	Occ.	U_{iso}
Li1	2	0.0	0.0	0.0	0.242(6)	0.0026(3)
Mn1	2	0.0	0.0	0.0	0.759(3)	0.0026(3)
O1	4	0.667	0.333	-0.093(1)	1.000	0.0082(1)
Na1	2	0.0	0.0	0.25	0.289(6)	0.0406(1)
Na2	2	0.667	0.333	0.25	0.486(7)	0.0406(1)

Space Group : $\text{P6}_3/\text{mmc}$,
 $a = 2.8655(1)$, $c = 11.0280(2)$,
G.O.F. = 1.714, $R_w = 2.89\%$

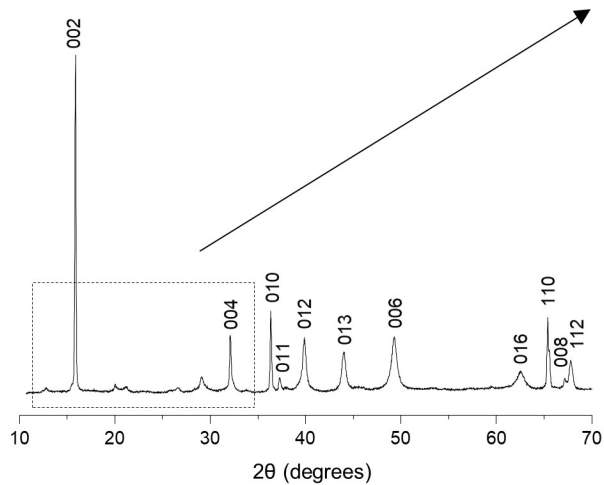
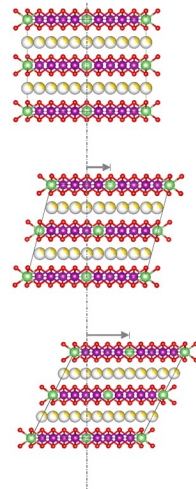
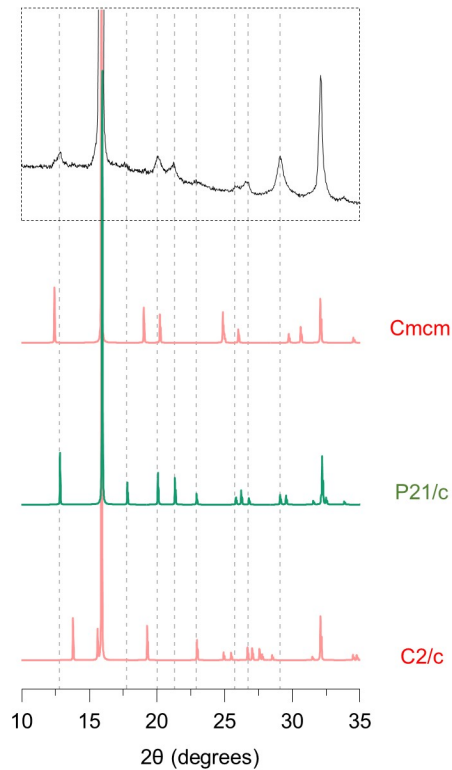
Composition from ICP: $\text{Na}_{0.78(2)}\text{Li}_{0.25(2)}\text{Mn}_{0.75(2)}\text{O}_2$

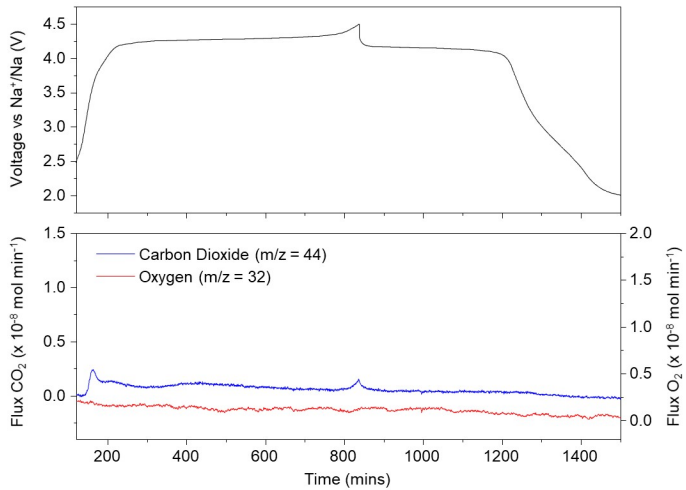
b Ribbon Ordered $\text{Na}_{0.6}[\text{Li}_{0.2}\text{Mn}_{0.8}]\text{O}_2$ 

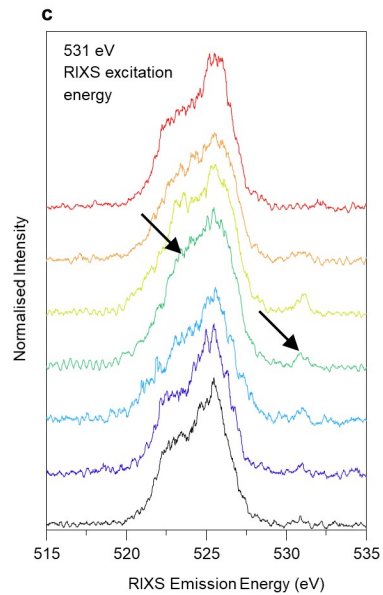
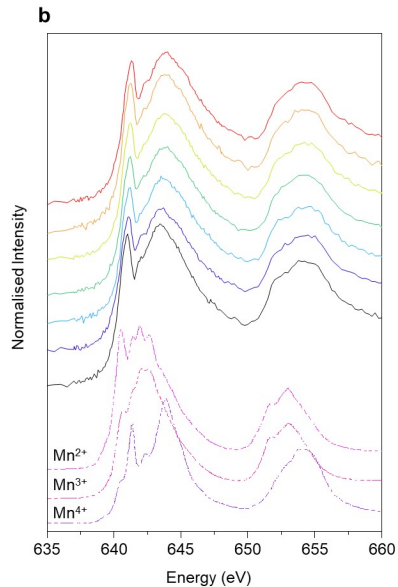
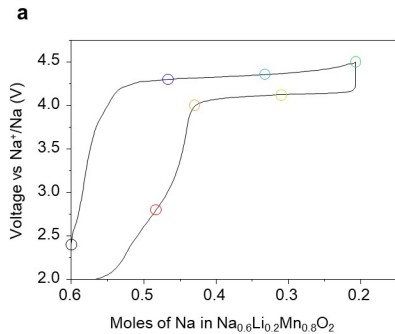
	Mult.	x	y	z	Occ.	U_{iso}
Li1	2	0.0	0.0	0.0	0.210(6)	0.0023(2)
Mn1	2	0.0	0.0	0.0	0.790(3)	0.0023(2)
O1	4	0.667	0.333	-0.092(1)	1.000	0.0069(1)
Na1	2	0.0	0.0	0.25	0.302(7)	0.048(2)
Na2	2	0.667	0.333	0.25	0.326(7)	0.048(2)

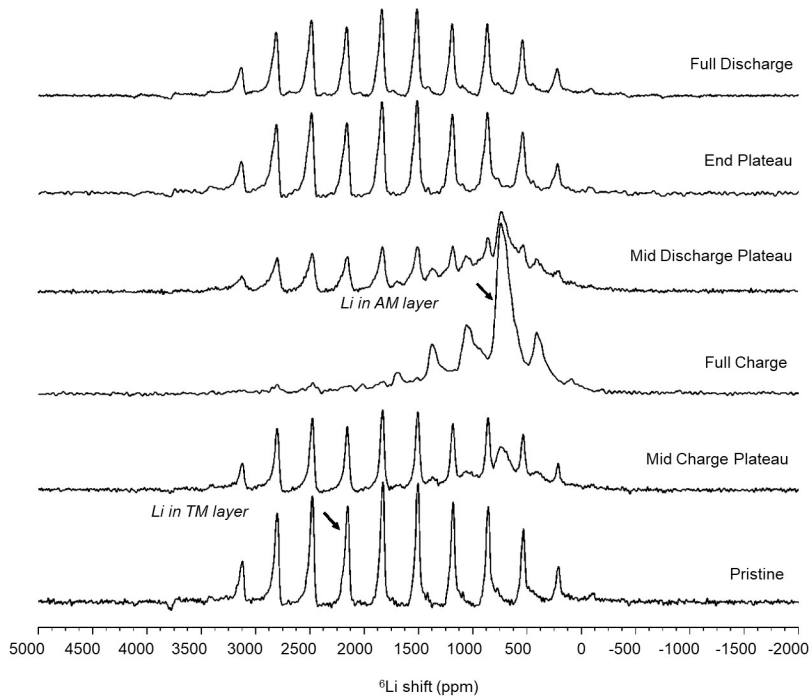
Space Group : $\text{P6}_3/\text{mmc}$,
 $a = 2.8513(1)$, $c = 11.1301(2)$,
G.O.F. = 2.305, $R_w = 4.04\%$

Composition from ICP: $\text{Na}_{0.63(2)}\text{Li}_{0.21(2)}\text{Mn}_{0.79(2)}\text{O}_2$

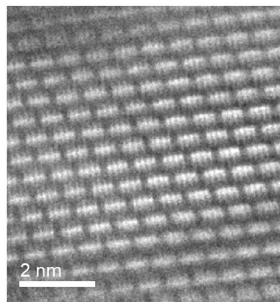
a**b**



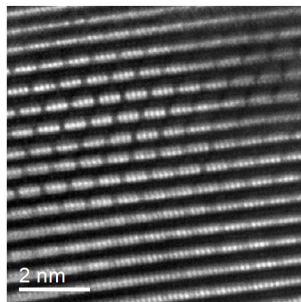




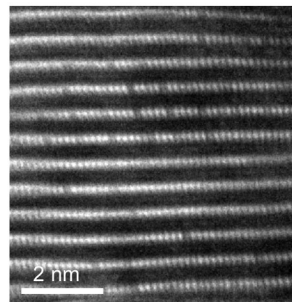
a Ribbon Ordered $\text{Na}_{0.6}[\text{Li}_{0.2}\text{Mn}_{0.8}]\text{O}_2$



Charged

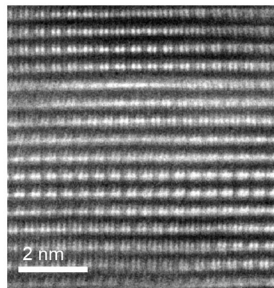


Discharged

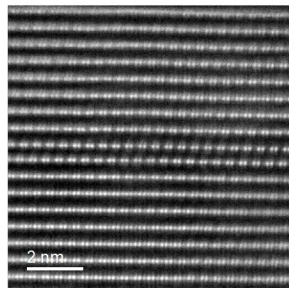


After 10 Cycles

b Honeycomb Ordered $\text{Na}_{0.75}[\text{Li}_{0.25}\text{Mn}_{0.75}]\text{O}_2$

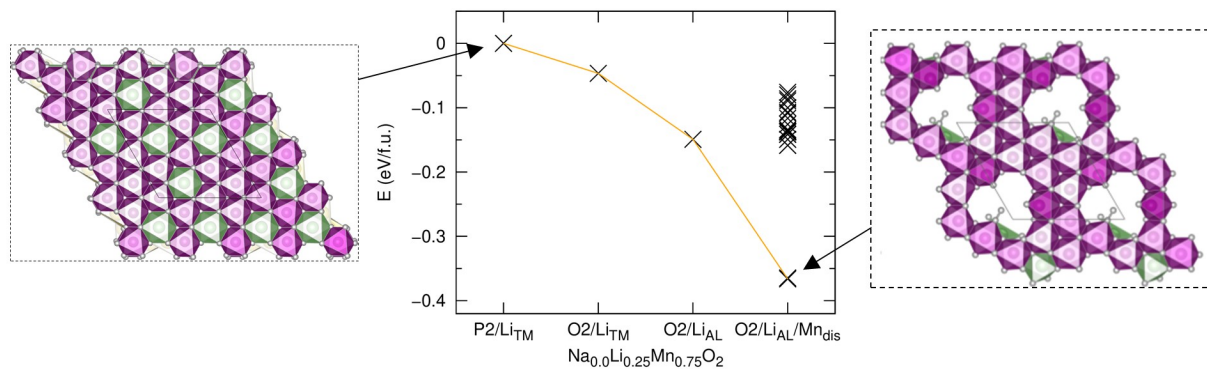


Charged



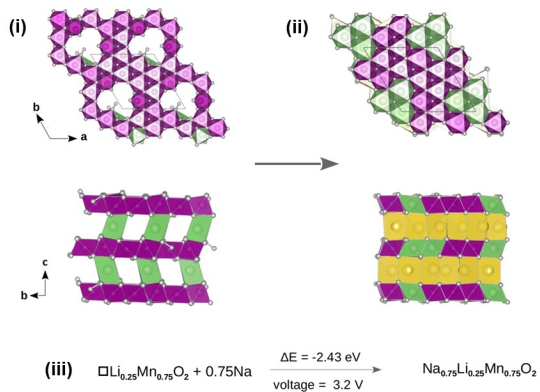
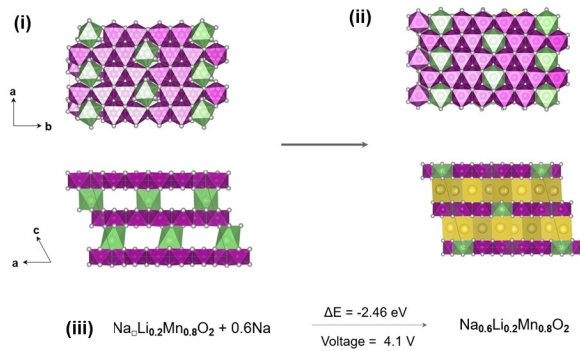
Discharged

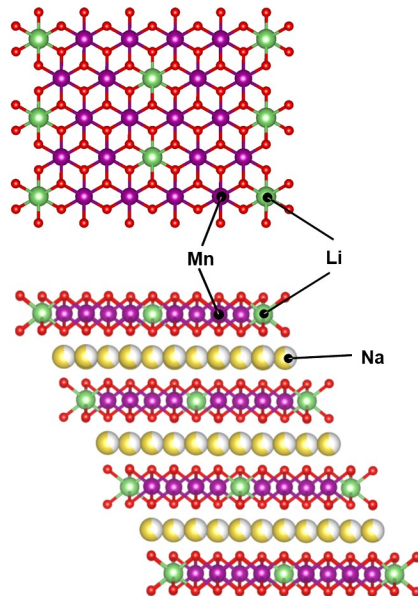
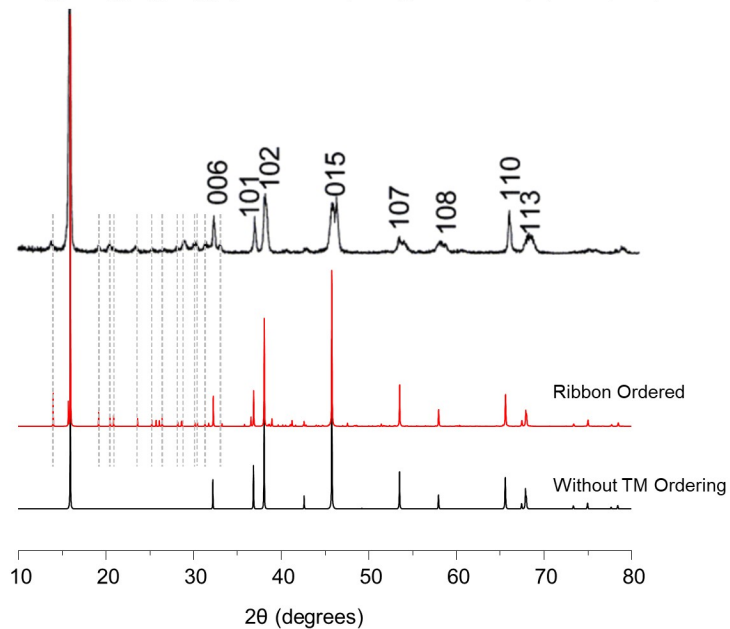
a

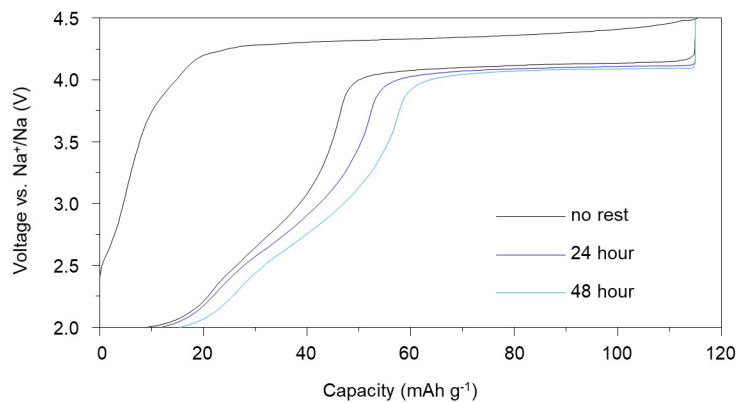
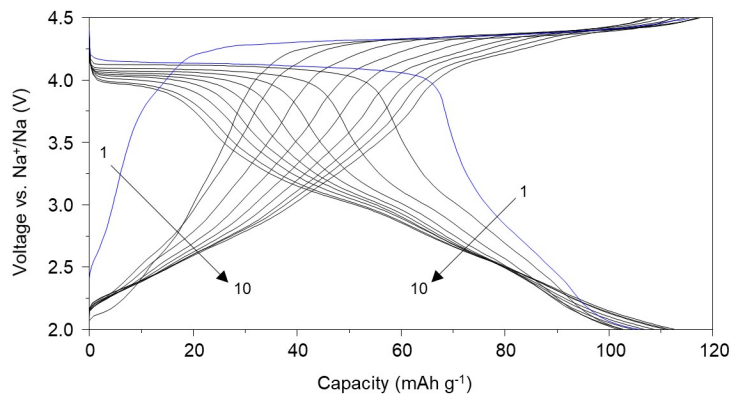


b

Model	a (Å)	b (Å)	c (Å)	α (°)	β (°)	γ (°)
Pristine (DFT)	5.01	5.01	11.04	89.75	90.14	120.16
Pristine (exp.)	4.99	4.99	10.95	90.0	90.0	120.0
Deviation (%)	0.4	0.4	0.8	0.3	0.2	0.1
Charged (DFT)	5.0	5.0	10.38	90.07	89.99	120.1
Charged (exp.)	-	-	10.0	-	-	-
Deviation (%)	-	-	3.8	-	-	-
Discharged (DFT)	5.12	5.15	11.08	89.56	89.82	120.73

c Honeycomb Ordered $\text{Na}_{0.75}[\text{Li}_{0.25}\text{Mn}_{0.75}]\text{O}_2$ d Ribbon Ordered $\text{Na}_{0.6}[\text{Li}_{0.2}\text{Mn}_{0.8}]\text{O}_2$ 



a**b****c**