

Supplementary information

Hollow Spherical $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ Built from Polyhedra with High-Rate Performance via Carbon Nanotube Modification

Luoluo Wang, Zhengyao Hu, Kangning Zhao, Yanzhu Luo, Qiulong Wei, Chunjuan

Tang, Ping Hu, Wenhao Ren, Liqiang Mai*

State Key Laboratory of Advanced Technology for Materials Synthesis and Processing, Wuhan University of Technology, Wuhan 430070, P. R. China

E-mail: mlq518@whut.edu.cn

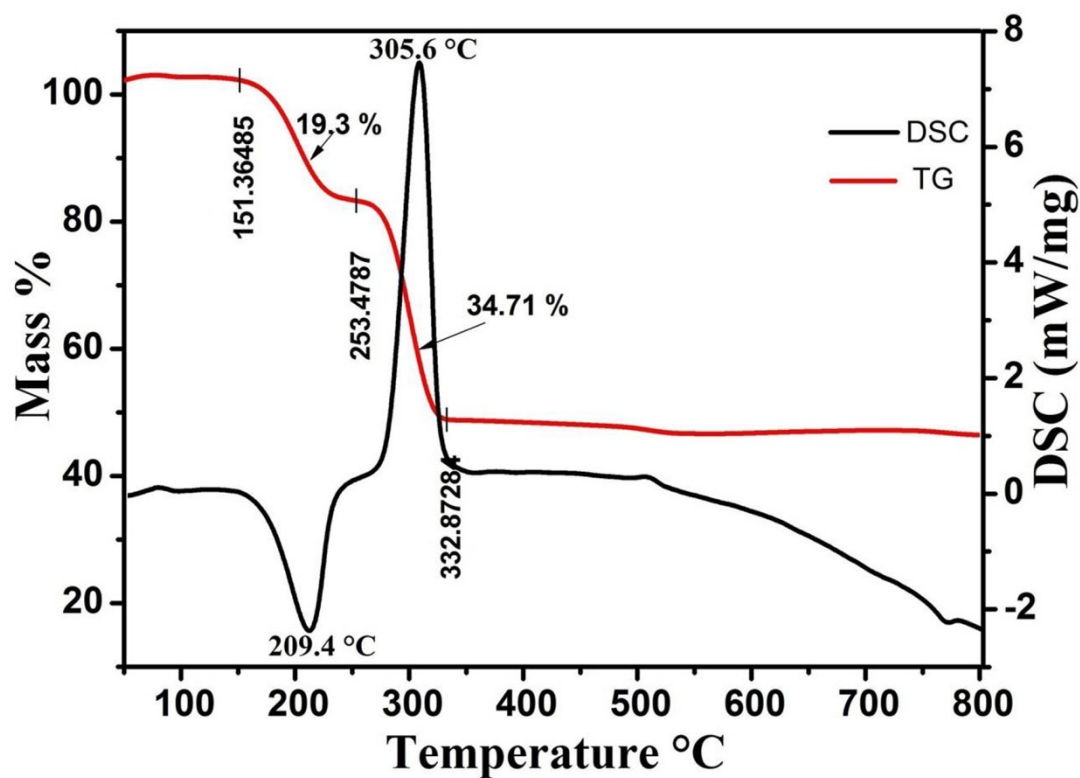


Figure S1. TG-DSC curves of LNMO precursor calcinated from 25 to 800 °C.

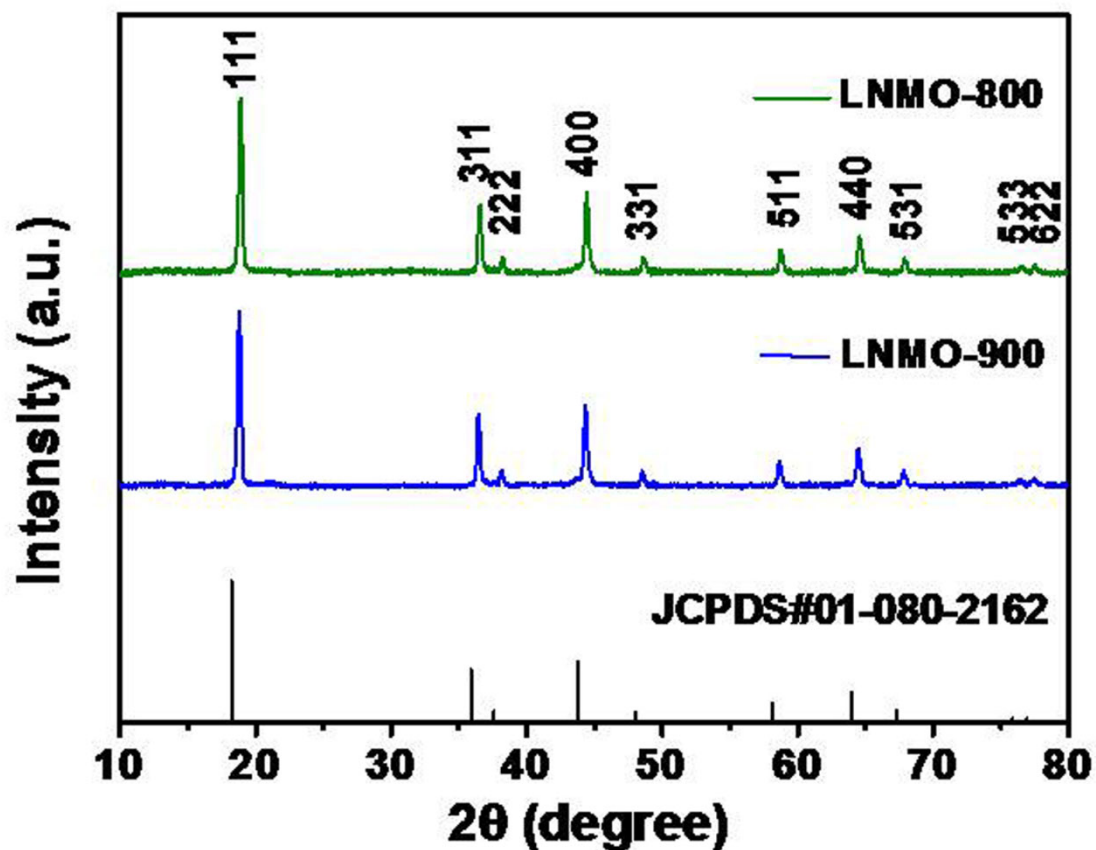


Figure S2. XRD patterns of LNMO-800 and LNMO-900.

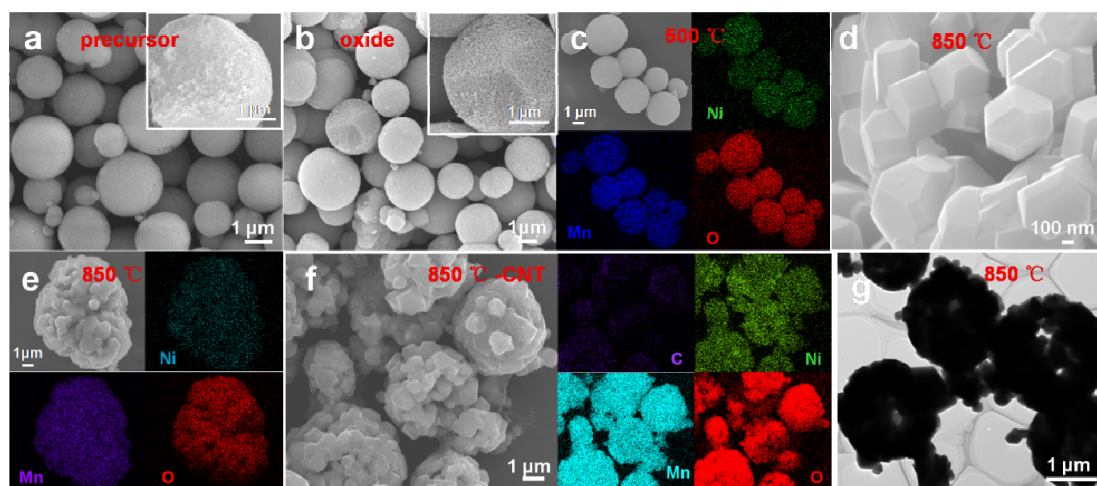


Figure S3. SEM images of (a) precursor, (b) oxide, (c) EDS images of oxide, (d) HRSEM of LNMO-850, (e) SEM and EDS images of LNMO-850, (f) SEM and EDS images of LNMO-850/CNT and (g) TEM of LNMO-850.

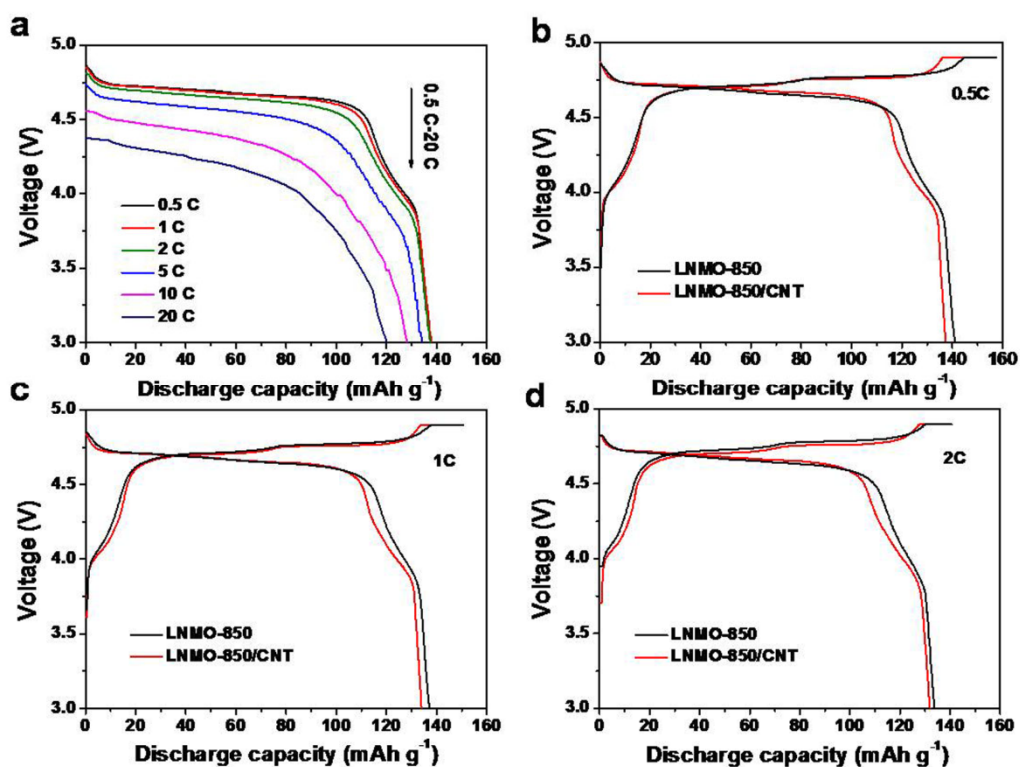


Figure S4. (a) Discharge curves of LNMO-850/CNT at different rate, Charge/discharge curves in a voltage range 3.0 – 4.9 V at (b) 0.5 C, (c) 1 C, (d) 2 C.

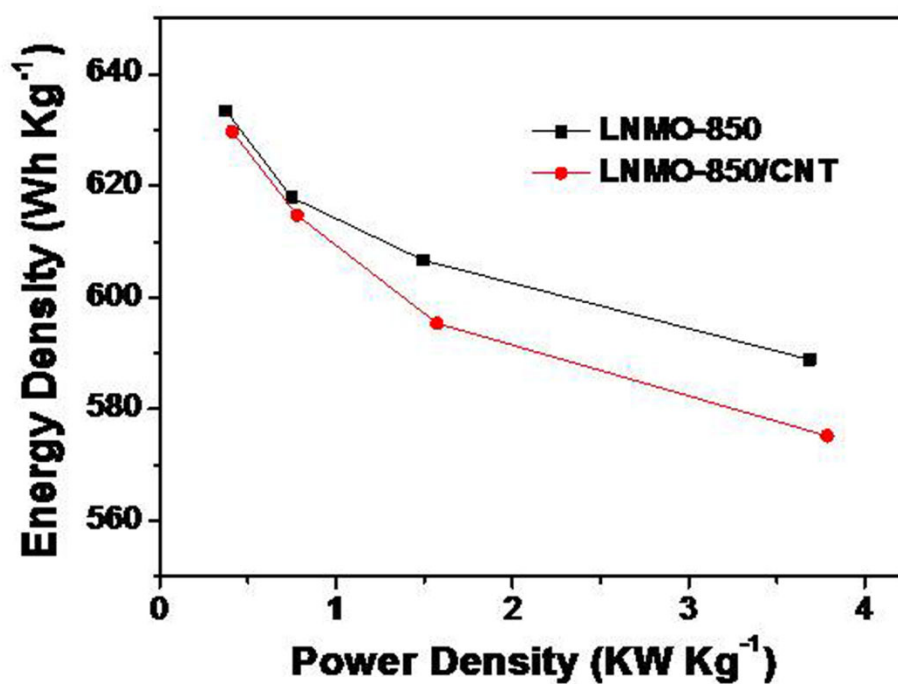


Figure S5. Curves of energy/power density of LNMO-850 and LNMO-850/CNT.

Table S1. Voltage difference values of LNMO-800, LNMO-850, LNMO-850/CNT, and LNMO-900.

voltage (V)	a	a'	Δa	b	b'	Δb
LNMO-800	4.763	4.586	0.177	4.838	4.633	0.205
LNMO-850	4.741	4.61	0.131	4.806	4.657	0.149
LNMO-850/CNT	4.741	4.624	0.117	4.804	4.672	0.132
LNMO-900	4.731	4.63	0.101	4.793	4.68	0.113