Supplementary Information

Three-Dimensional Fusiform Hierarchical Micro/Nano

$Li_{1.2}Ni_{0.2}Mn_{0.6}O_2$ with Preferred Orientation (110) Plane as

High Energy Cathode Material for Lithium-Ion Batteries

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Table S1 Comparison of the electrochemical performance of sample LNM10with other Li-rich cathode materials.

| Samples | Method | Rate/Capacity(mAh g ⁻¹) | | | | | Ref. |
|--|-----------------|-------------------------------------|---------|---------|---------|-------|--------------|
| | | 0.1 C | 0.5 C | 1 C | 2 C | 5 C | |
| Li _{1.2} Ni _{0.2} Mn _{0.6} O ₂ (LNM10) 1 C=200mA g ⁻¹ | Hydrothermal | 286.9 | 258.5 | 230.5 | 188.1 | 166.8 | This work |
| Li[Li _{0.2} Mn _{0.54} Ni _{0.13} Co _{0.13}]O ₂ 1 C=200mA g ⁻¹ | Sol-gel | ca. 298 | ca. 228 | ca. 165 | ca. 135 | _ | Ref. 1 |
| Li[Li _{1/6} Fe _{1/6} Ni _{1/6} Mn _{1/2}]O ₂ 1 C=200mA g ⁻¹ | Sol-gel | 282 | 243.3 | 221.9 | 189.1 | _ | Ref. 2 |
| Li _{1.5} Ni _{0.25} Mn _{0.75} O _{2+d} 1 C=200mA g ⁻¹ | Coprecipitation | 275 | ca. 220 | 211 | 194 | 159 | Ref. 3 |
| Li(Li_{0.17}Ni_{0.2}Co_{0.05}Mn_{0.58})O ₂ 1 C=200mA g⁻¹ | Solvothermal | _ | 257 | 229.7 | 183.2 | 161.1 | Ref. 4 |
| | Coprecipitation | _ | 196.8 | 174.2 | 129.1 | 96.9 | |

Reference

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