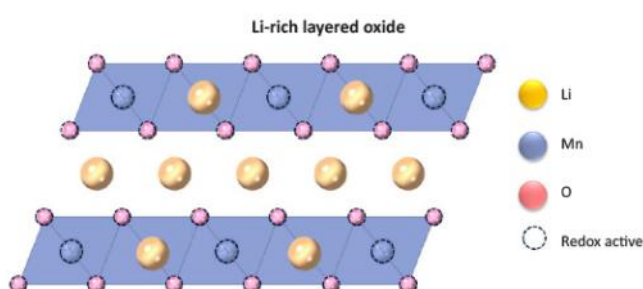


Single-phase Li-rich nickel-manganese-cobalt oxide

Novel cathode material, namely Li-rich NMC, outperforming the conventional NMC materials and other Li-rich NMC with normal synthesis approaches.

Applications: Cathode material, high-energy batteries



Features	Benefits
Single monoclinic-phase Li-rich nickel manganese-cobalt oxide (LRNMC)	LRNMC samples can be scaled directly for manufacturing through novel and facile sintering and cooling processes
The monoclinic ordered domain of the LRNMC can be manipulated to be larger than 100nm and extend across the entire particle	Large domain size will enable a more robust structure during electrochemical cycling thus improving stability
The interlayer stacking faults can be manipulated as high as 59.2% quantified by the X-ray diffraction refinement	LRNMC with a higher stacking fault frequency and large domain size shows better stability and increased capacity than traditional ones
Slow sintering is used to form an equilibrium LRNMC phase and minimize the kinetic-limited reaction	Slow sintering is the key to the formation of a large ordered domain observed in LRNMC

Patented and Available for

- Co-development
- Consulting
- Licensing

To find out more, contact enquiries@innovation.ox.ac.uk and quote the project number.

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