Sodium iron hexacyanoferrate and potassium iron hexacyanoferrate nanoparticles for lithium ion battery cathodes

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Sodium iron hexacyanoferrate and potassium iron hexacynoferrate nanoparticles were synthesized by a coprecipitation method. When these nanoparticles were employed to cathode materials for lithium ion batteries, they exhibit very high cyclic stability. Especially, sodium iron hexacyanoferrate nanoparticles show the reversible capacity more than 100 mA/g at a current density of 100 mA/g. In addition, the compound can be synthesized through an environmentally friendly process at low temperature.