

Binder-free cathode enabling high capacity Li-ion battery

Li-ion batteries have polymeric binder in their electrodes resulting in high internal resistance and hence long charge times and short product lifetime. Binder-free Ni-Mn-Co (NMC) cathodes containing carbon nanotube (CNT) provide a solution to extend the product lifetime as well as providing increased capacity and rate capability. Our proprietary processing of CNT into viscous organic or water-based slurry without a surfactant or dispersant reduces or eliminates the need for organic binder and carbon black additives in conventional cathodes. Our batteries show superior performance over binder-containing cells.

