In this paper, Pre-lithiated multiwalled carbon nanotubes and activated carbon(AC) materials were used as anode and cathode respectively for Lithium-ion capacitors (LICs). Pre-lithiated multiwalled carbon nanotube anode was prepared by internal short circuit approach (ISC). LICs have higher power density than lithium-ion batteries and higher energy density than the electric double layer capacitors (EDLCs).

LICs are capable of storing approximately 5 times energy higher than conventional EDLCs. LICs were considered to be one of the best energy storage device, which is expected to have broad prospects in electric cars, solar energy, wind energy and other areas.

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