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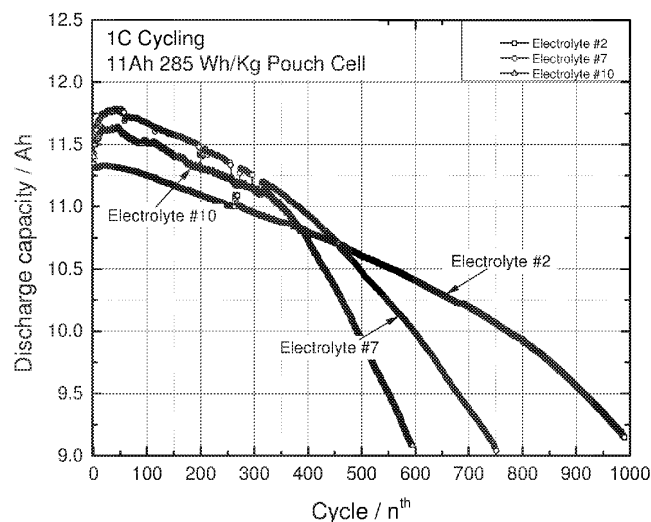
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(54) Title: LITHIUM ION CELLS WITH HIGH PERFORMANCE ELECTROLYTE AND SILICON OXIDE ACTIVE MATERIALS ACHIEVING VERY LONG CYCLE LIFE PERFORMANCE

FIG. 24



(57) Abstract: A lithium ion cell comprises: a negative electrode comprising an active material comprising silicon oxide-based material and graphite; a positive electrode; a separator; an electrolyte comprising lithium salt and non-aqueous solvent; and a container. The electrolyte provides unprecedented cycling performance for batteries comprising negative electrode with substantial amounts of silicon based active material to achieve high specific capacities. The electrolyte also uses significant amounts of fluoroethylene carbonate solvent and excludes other unstable components and appropriately selects the other solvent components such as dimethylcarbonate, methylethylcarbonate and diethylcarbonate, to provide the achieved stabilities.

[Continued on next page]



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