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(54) **ADAPTIVE CHARGING METHOD FOR LITHIUM-ION BATTERY CELLS**

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(58) **Field of Search** 320/124, 125, 320/127, 128, 137, 152, 157, 158, 159, 160, 162, 164

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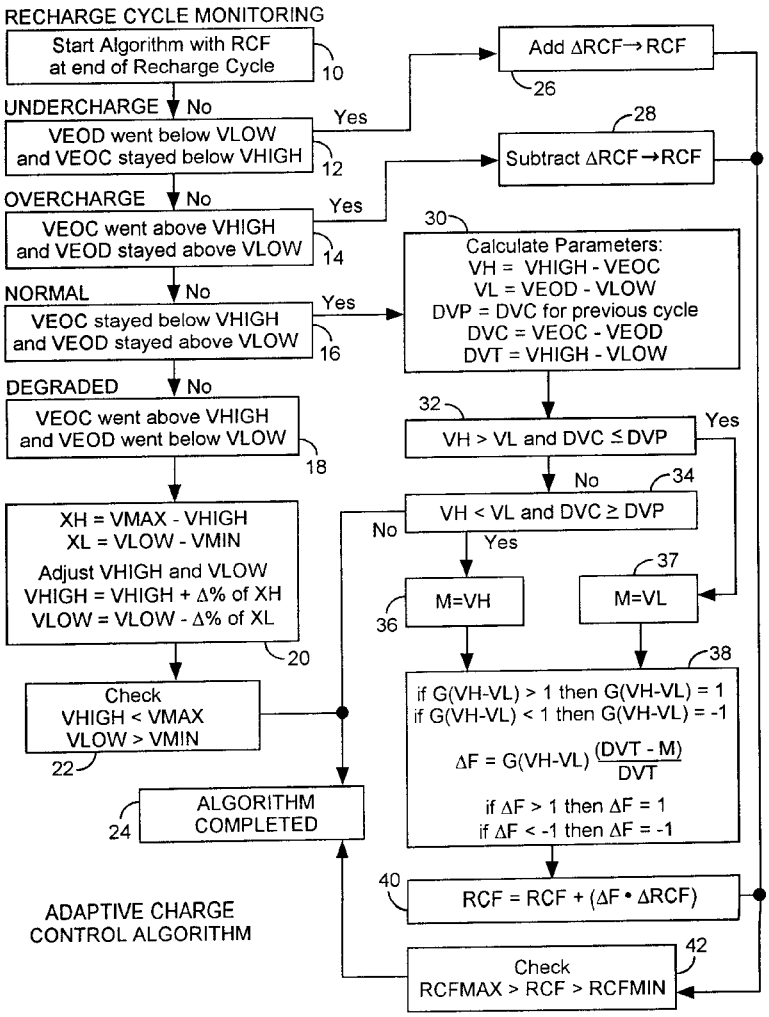
(57) **ABSTRACT**

A charging and discharging method for lithium-ion and lithium-polymer batteries determines overcharged, undercharged, normal and degraded operating conditions and adjusts a recharge fraction of recharge capacity to discharge capacity for improving battery life while maintaining the battery cells at a high charge state.

11 Claims, 2 Drawing Sheets