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(54) Title: PROCESS FOR THE PRODUCTION OF HIGH-PURITY DIMETHYL CARBONATE

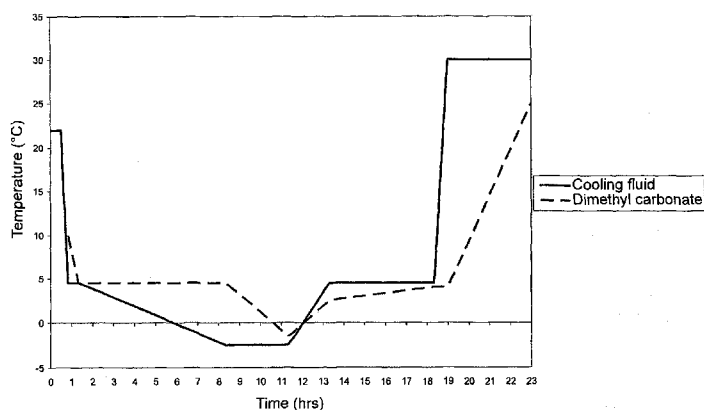


Fig. 1

(57) **Abstract:** A process for the production of high-purity dimethyl carbonate, comprising: - subjecting at least one commercial grade dimethyl carbonate, having a chlorine content higher than 1 ppm, to cooling, operating at a cooling temperature ranging from +60°C to -5°C, and at a cooling rate ranging from 0.5°C/hour to 2°C/hour, so as to obtain dimethyl carbonate in solid form; - subjecting said dimethyl carbonate in solid form to a first heating, operating at a heating temperature ranging from -5°C to +6°C, and at a heating rate ranging from 1°C/hour to 5°C/hour, so as to obtain a mixture comprising dimethyl carbonate in solid form and a predetermined amount of dimethyl carbonate in liquid form; - separating said dimethyl carbonate in liquid form from said mixture - subjecting said dimethyl carbonate in solid form to a second heating, operating at a heating temperature ranging from 20°C to 40°C, so as to obtain dimethyl carbonate in liquid form, said dimethyl carbonate in liquid form having a purity degree higher than 99.99% and a chlorine content lower than or equal to 1 ppm and use of the obtained dimethyl carbonate as organic solvent for the production of the electrolyte of lithium batteries.