

Title (en)

LITHIUM BATTERY OPERATING UP TO AN UPPER VOLTAGE BOUNDARY OF 3.5 VOLTS

Title (de)

LITHIUM-BATTERIE ARBEITEND BIS AUF EINE SPANNUNGSHÖHE VON 3,5VOLT

Title (fr)

ACCUMULATEUR AU LITHIUM FONCTIONNANT JUSQU'A UNE BORNE SUPERIEURE DE TENSION DE 3,5 VOLTS

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Application

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Priority

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Abstract (en)

[origin: FR2777388A1] The invention concerns a lithium battery operating up to an upper voltage boundary of 3.5 volts and comprising a negative electrode, an electrolyte and a positive electrode characterised in that said positive electrode comprises as active material, and before it has been subjected to a particular charging or discharging operation, a manganese oxide containing lithium or extra lithium obtainable by the following three steps performed successively or simultaneously: preparing a lithium alkoxide solution by dissolving metal lithium in the corresponding alcohol, said alcohol being selected among alcohols derived from linear or branched alkanes containing at least 3 carbon atoms, alcohols derived from unsaturated aliphatic hydrocarbons, and their mixtures; adding a manganese oxide powder to said lithium alkoxide solution to obtain a dispersion; controlled reduction of said manganese oxide by said alkoxide until a manganese oxide containing lithium or extra lithium with a stoichiometry Li: Metal is obtained. Said method further comprises the following steps: evaporating the residual alcohol; washing the resulting powder; drying the powder.

IPC 1-7

C01G 45/00; H01M 4/50

IPC 8 full level

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