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(19) **United States**(12) **Patent Application Publication**
KANG et al.(10) **Pub. No.: US 2023/0231125 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **METHOD FOR ACTIVATING
ELECTROCHEMICAL PROPERTY OF
CATHODE ACTIVE MATERIAL FOR
LITHIUM SECONDARY BATTERY AND
CATHODE ACTIVE MATERIAL FOR
LITHIUM SECONDARY BATTERY**(71) Applicant: **POSTECH RESEARCH AND
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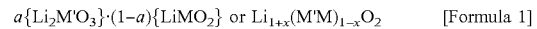
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2004/028 (2013.01)**ABSTRACT**

The method includes a delithiation step of deintercalating a part of lithium of a Li-rich metal oxide represented by [Formula 1] below and having a layered structure, and a heat-treatment step of heat-treating the delithiated Li-rich metal oxide, thereby allowing dispersion to be achieved through diffusion of M' and/or M elements constituting the Li-rich metal oxide:



(wherein $0 < a < 1.0$, M' and M are one or more selected from 3d, 4d, 5d transition metals or non-transition metals including Al, Mg, Mn, Ni, Co, Cr, V and Fe, and satisfy electrical neutrality according to the type and oxidation number of M' and M and an amount of lithium in a layered structure of a material.

