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(54) **COMPOSITE CATHODE ACTIVE MATERIAL, CATHODE AND LITHIUM BATTERY INCLUDING THE COMPOSITE CATHODE ACTIVE MATERIAL, AND METHOD OF PREPARING THE COMPOSITE CATHODE ACTIVE MATERIAL**

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ABSTRACT

A composite cathode active material may include a 1st core including a first lithium transition metal oxide, a 2nd core including a second lithium transition metal oxide, and a shell conforming to a surface of at least one of the 1st core or the 2nd core, wherein the shell may include first metal oxide, a first carbon-based material, and a second carbon-based material, the first metal oxide may be provided within a matrix of the first carbon-based material, the first metal oxide may be represented by M_aO_b , wherein $0 < a \leq 3$ and $0 < b < 4$, if a is 1, 2, or 3, b is not an integer, and M may be at least one metal selected from among Groups 2 to 13, 15, and 16 of the periodic table of elements.

