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(54) **ELECTROLYTE SOLUTION FOR LITHIUM SECONDARY BATTERY AND LITHIUM SECONDARY BATTERY INCLUDING THE SAME**

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(57) **ABSTRACT**

An electrolyte solution for a lithium secondary battery includes an organic solvent, a lithium salt, and a fluorine-based additive in which a terminal difluoro-phosphite group (—OPF_2) is bonded to a branched saturated hydrocarbon group. The fluorine-based additive prevent side reactions in the electrolyte solution to improve stability of a cathode active material.