

NONAQUEOUS ELECTROLYTE SOLUTION FOR SECONDARY BATTERY AND NONAQUEOUS
ELECTROLYTE SECONDARY BATTERY

ABSTRACT

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[Solution] In a nonaqueous electrolyte solution for a secondary battery,
comprising an electrolyte, a solvent and an additive, and in a
nonaqueous electrolyte secondary battery including the nonaqueous
electrolyte solution, the additive contains a compound represented
10 by the following formula (I). In the formula (I), n represents an
integer of 1 to 4, in the case of $n=1$, R^1 represents a halogen atom
or the like, in the case of $n=2$, R^1 represents an alkaline earth metal
atom or the like, in the case of $n=3$, R^1 represents a trivalent transition
metal atom or the like, in the case of $n=4$, R^1 represents a tetravalent
15 transition metal atom or the like, and R^2 represents an alkylene group
of 1 to 6 carbon atoms or an alkenylene group of 2 to 6 carbon atoms.
[Effect] The nonaqueous electrolyte secondary battery using the
nonaqueous electrolyte solution for a secondary battery of the present
invention has low-temperature characteristics of high level and has
20 high-temperature characteristics of high level.

No suitable figure