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**(54) Title (EN):** LITHIUM SECONDARY BATTERY

**(54) Title (FR):** BATTERIE SECONDAIRE AU LITHIUM

**(54) Title (JA):** リチウム二次電池

**(57) Abstract:**

**(EN):** A lithium secondary battery which is provided with a positive electrode, a negative electrode, a lithium ion-conductive nonaqueous electrolyte, and a separator that is arranged between the positive electrode and the negative electrode, wherein: at the negative electrode, lithium metal is precipitated during the charging and lithium metal is dissolved into the nonaqueous electrolyte during the discharging; the nonaqueous electrolyte contains cations and anions; the cations contain lithium ions, while containing at least one kind of cations X selected from among Na, K, Rb, Cs, Fr, Mg, Ca, Sr, Ba and Al cations; and the anions contain oxalate complex anions Y.

**(FR):** L'invention concerne une batterie secondaire au lithium qui est pourvue d'une électrode positive, d'une électrode négative, d'un électrolyte non aqueux conducteur d'ions lithium et d'un séparateur qui est disposé entre l'électrode positive et l'électrode négative. Au niveau de l'électrode négative, du lithium métallique est précipité pendant la charge et le lithium métallique est dissous dans l'électrolyte non aqueux pendant la décharge. L'électrolyte non aqueux contient des cations et des anions. Les cations contiennent des ions lithium, tout en contenant au moins un type de cations X choisis parmi Na, K, Rb, Cs, Fr, Mg, Ca, Sr, Ba et Al, et les anions contiennent des anions complexes oxalate Y.

**(JA):** 正極と、負極と、リチウムイオン伝導性の非水電解質と、正極と負極との間に配置されるセパレータとを備え、負極では、充電時にリチウム金属が析出し、放電時にリチウム金属が非水電解質中に溶解し、非水電解質は、カチオンと、アニオンとを含み、カチオンは、リチウムイオンを含み、且つ、Na、K、Rb、Cs、Fr、Mg、Ca、Sr、BaおよびAlからなる群より選択される少なくとも1種のカチオンXを含み、アニオンは、オキサレート錯体アニオンYを含む、リチウム二次電池。

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