

# Calcium battery and its electrolyte and composition

**New Ca electrolyte composition which satisfies all essential properties required for rechargeable battery**

## Overview

The Ca-rechargeable battery is expected to replace the Li-rechargeable battery in the future, but there is no electrolyte having the essential characteristics for a rechargeable battery.

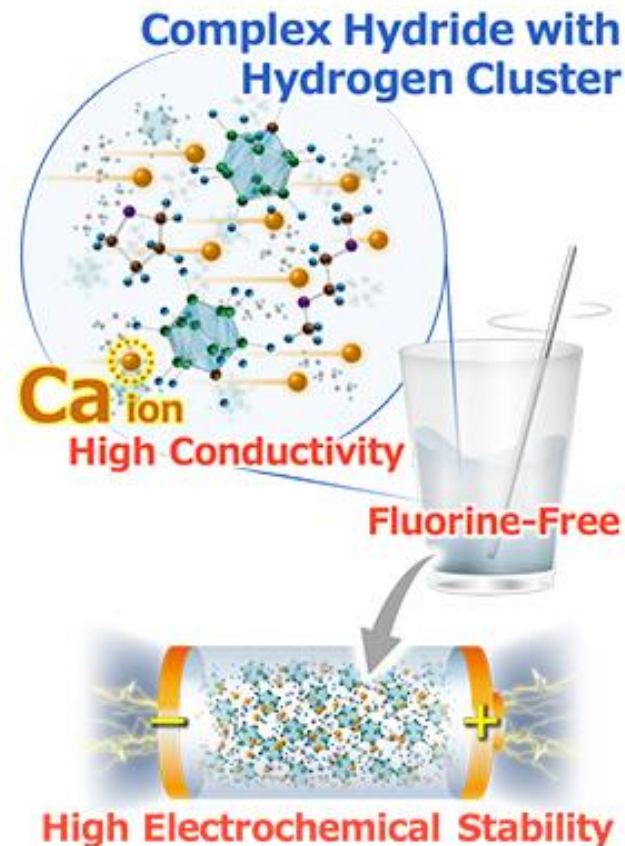
This invention solves above problems and realizes an electrolyte solution for Ca-rechargeable battery with high Ca-ion conductivity, large potential window, and high stability of metal dissolution & precipitation against Ca with limited property degradation, using a novel composition halogen-free Ca salt.

**We can provide the electrolyte samples.**

The information can be disclosed after concluding a fee-based contract that includes a confidentiality clause since the application has not yet been published.

## IP Data

IP No. : JP2021-012000  
Inventor : KISU Kazuaki, KIM SANGRYUN, ORIMO Shinichi  
Admin No. : T20-1055



Reference [2]

## Related Works

- [1] Kisu, K., Kim, S., et al. Sci Rep 11, 7563 (2021).  
<https://doi.org/10.1038/s41598-021-86938-0>
- [2] Tohoku University Research News April-6th 2021.  
[https://www.tohoku.ac.jp/en/press/new\\_material\\_calcium\\_batteries.html](https://www.tohoku.ac.jp/en/press/new_material_calcium_batteries.html)

## Contact