

ALKALI METAL SALTS WITH LIPOPHILIC ANIONS FOR ALKALI BATTERIES

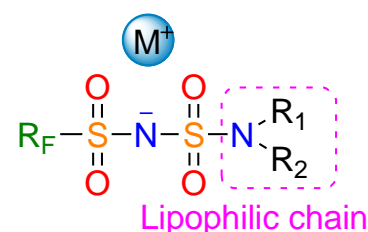
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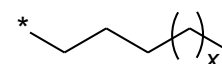
Researchers at CIC energigUNE have developed a new series of alkali metal salts with lipophilic anions for battery application. The electrolytes based on these lipophilic salts show higher cationic conductivities due to the highly delocalized negative charge distribution in perfluorinated sulfonylimide anion parts and intramolecular interaction via lipophilic chains.

Furthermore, the high cation conductivity of the electrolyte composition can avoid several drawbacks encountered in conventional dual-ion electrolytes, such as internal resistivity increase, voltage loss, and undesirable reactions electrode surface.

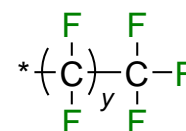
The lipophilic salts and their electrolyte compositions of the invention can be made by a high-efficiency process that uses commercially available and low-cost compounds, enabling the upscaling of the materials at the industrial level.



$R_1/R_2 =$



$R_F =$



$M =$

Li, Na, K...

ADDED VALUE

- Higher cationic conductivities compared to conventional dual-ion electrolytes.
- Avoiding of internal resistivity increase, voltage loss and undesirable reactions on electrode surface in dual-ion electrolyte.
- Low cost, highly efficiency process, low-cost compounds.

APPLICATION OF THE TECHNOLOGY

- Electric vehicle energy storage

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