

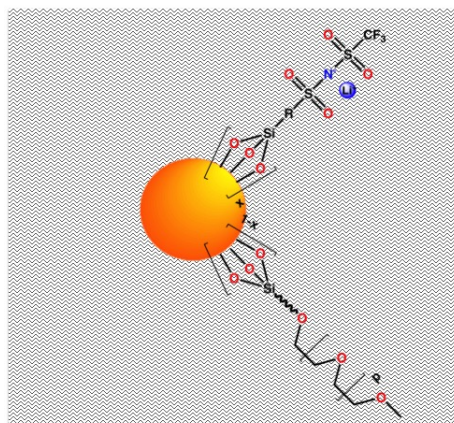
HYBRID ELECTROLYTE

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In this patent four aspects are considered. On one hand, researchers at CIC energigUNE have developed a new solvent-free nanoscale organic hybrid material in which the anion of a lithium or sodium salt is covalently grafted in the surface of inorganic nanoparticles.

Furthermore, a second aspect of this invention relates to a process for the preparation of the nanoparticle organic hybrid material of the invention. The process comprises attaching at least an anion of an inorganic sodium or lithium salt to an inorganic nanoparticle via a covalent bond through an organic linker.



An additional aspect of the invention refers to an electrolyte, comprising hybrid material developed according to this invention, suitable for its use in a sodium or lithium battery.

Finally, another aspect of the invention relates to a lithium or sodium rechargeable battery comprising an electrolyte, obtained according to this invention, a lithium or solid anode and a cathode.

ADDED VALUE

- No concentration gradients
- No decrease in ionic conductivities
- Good mechanical properties
- Good electrochemical stability window

APPLICATION OF THE TECHNOLOGY

- Lithium and sodium secondary batteries

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