

# Conduction mechanism at interface of metal oxide

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図解



Content :

In order to extract electricity from a lithium battery, an aluminum wire must be connected inside the battery. Aluminum conducts electricity well. However, its surface is covered with an oxide film that conducts almost no electricity. The thickness of the film is very thin, a nano world smaller than a virus. And with the material that touches the film, electricity may or may not flow. If electricity stops flowing in the battery, the battery will stop working.

To clarify the conduction mechanism at interface of metal oxide... it is guidelines for material selection and structural design of various energy devices.

You can't waste your precious energy. In order to make it flow more smoothly in a battery that takes out electricity, and to prevent leakage in a capacitor that stores electricity, we must carefully study what is happening at the interface of metal oxides and devise a way to pass that electricity.

Appealing point :

It has been 150 years since aluminum was practically used. But there are things I don't want you to forget. Before there is a good industrial product, there is a long history of failure.

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