

Title (en)

LITHIUM-AIR BATTERY WITH A MIXED CONDUCTOR LAYER

Title (de)

LITHIUM-LUFT-BATTERIE MIT GEMISCHTER LEITERSCHICHT

Title (fr)

BATTERIE LITHIUM-AIR AVEC UNE COUCHE DE CONDUCTEUR MÉLANGÉ

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Application

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Abstract (en)

[origin: WO2011038773A1] The invention provides a lithium-air battery comprising an anode structure and a cathode structure. The anode structure further comprises a Li-electrolyte layer forming an insulator for electrons and a conductor for Li-ions. The battery further comprises a mixed conductor layer being conductive for Li-ions and for electrons. The mixed conductor layer is arranged on a surface of the Li-electrolyte layer facing towards the cathode structure. The invention further provides a lithium-air battery system comprising at least one lithium-air battery according to the invention. The lithium-air battery system comprises a housing enclosing the at least one lithium-air battery as well as the cathode structure thereof. The lithium-air battery system further comprises a support for a gas comprising oxygen, the support comprising a cleaning assembly having at least one of a CO₂ retention assembly and a H₂O trap. The cleaning assembly is connected upstream the cathode structure thereby supporting the cathode structure with gas cleaned from CO₂ and H₂O.

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