

Title (en)

SEMI-INTERPENETRATING POLYMER NETWORKS AS SEPARATORS FOR USE IN ALKALI METAL BATTERIES

Title (de)

SEMI-INTERPENETRIERENDE POLYMERNETZWERKE ALS SEPARATOREN FÜR DEN EINSATZ IN ALKALI-METALL-BATTERIEN

Title (fr)

RÉSEAUX POLYMÈRES SEMI-INTERPÉNÉTRANTS EN TANT QUE SÉPARATEURS DESTINÉS À ÊTRE UTILISÉS DANS DES BATTERIES À MÉTAL ALCALIN

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Application

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Abstract (en)

[origin: WO2021074074A1] The present invention relates to a solvent-free solid electrolyte for an alkali metal solid battery comprising an alkali metal conducting salt and a semi-interpenetrating network (sIPN) consisting of a cross-linked and a non-crosslinked polymer, wherein the semi-interpenetrating network consists of a non-cross-linked polymer selected from the group consisting of polyethylene oxide (PEO), polycarbonate (PC), polycaprolactone (PCL), chain-end-modified derivatives of said polymers or mixtures of at least two components thereof and the cross-linked polymer comprises polyethylene glycol dimethacrylate (PEG-dMA). The invention furthermore relates to a method for producing a solid electrolyte and an alkali metal battery having the solid electrolyte according to the invention.

IPC 8 full level

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Citation (search report)

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