

Title (en)
BIFUNCTIONAL IONIC LIQUIDS FOR ELECTROLYTES

Title (de)
BIFUNKTIONELLE IONISCHE FLÜSSIGKEITEN FÜR ELEKTROLYTE

Title (fr)
LIQUIDES IONIQUES BIFONCTIONNELS POUR ÉLECTROLYTES

Publication
EP 4146392 A1 20230315 (EN)

Application
EP 20934350 A 20200505

Priority
US 2020031453 W 20200505

Abstract (en)
[origin: WO2021225583A1] A solid polymer electrolyte including a cross-linked ionic liquid (IL) matrix having functional group capable of interacting with lithium ions; polymerizable PEM formulations containing polymerizable ionic liquid (IL) materials (monomers) having functional group capable of interacting with lithium ions and a reactive polymerizable functional group capable of crosslinking; electrolytes prepared from a polymerizable formulation including a lithium conducting salt, a plasticizer, a cross-linker, and a polymerizable IL compound that contains at least one functional group capable of interacting with lithium ions and a reactive polymerizable functional group capable of crosslinking; electrochemical cells containing the electrolytes incorporating these solid PEMs containing the polymerized ionic liquid (IL) materials; and methods thereof are disclosed.

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