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(54) Title: PRINTED LITHIUM FOIL AND FILM

(57) Abstract: A substrate coated with a printable lithium composition is provided. The printable lithium composition includes lithium metal powder; a polymer binder, wherein the polymer binder is compatible with the lithium powder; and a rheology modifier compatible with the lithium powder and the polymer binder, wherein the rheology modifier is dispersible within the composition and provides a three-dimensional support structure for further improvement of the electrochemical performance of the electrode when coated with the composition. The substrate may be incorporated into a battery. In one embodiment, the battery comprises a cathode, an electrolyte and an anode, wherein the cathode, the electrolyte, the separator, the anode, or a combination thereof may each comprise a substrate coated with a printable lithium composition.



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