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(54) **PROTECTIVE COATINGS FOR LITHIUM METAL ELECTRODES AND METHODS OF FORMING THE SAME**

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(57) **ABSTRACT**

An electrode includes an electroactive material layer and a protective layer disposed on or adjacent to a surface of the electroactive material layer. The protective layer includes a polymerized cyclic ether and a salt dispersed therewithin. The salt includes a nitrate salt and a phosphate salt. The salt may also include a Lewis acid salt. The protective layer is formed by disposing a solution, including the salt and solvent, on or adjacent to the surface of the electroactive material layer, and polymerizing the solvent. The solvent includes the cyclic ether, and also, one or more organic phosphates.