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Mehta

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[54] **HIGH PURITY LITHIUM SALTS AND LITHIUM SALT SOLUTIONS**

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[52] **U.S. Cl.** **423/179.5**

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[57] **ABSTRACT**

The present invention provides an inexpensive process for the preparation of lithium salts of formula LiX having a desired or required level of purity using lithium chloride and lithium sulfate. In the process of the invention, a lithium salt selected from lithium chloride, lithium sulfate, and combinations thereof is reacted with NaX or KX in a aqueous, semiaqueous, or organic solution and the precipitated salts are removed to obtain the LiX solution of desired purity. Preferably, a semiaqueous solution containing water and an organic solvent is used at some point in the reaction. The process of the invention eliminates the use of highly acidic materials and thus reduces the cost of raw materials and the need for specialized equipment.

12 Claims, No Drawings