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(54) **ELECTROLYTE SEPARATORS INCLUDING LITHIUM BOROHYDRIDE AND COMPOSITE ELECTROLYTE SEPARATORS OF LITHIUM-STUFFED GARNET AND LITHIUM BOROHYDRIDE**

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**ABSTRACT**

Set forth herein are compositions comprising  $A \cdot (LiBH_4) \cdot B \cdot (LiX) \cdot C \cdot (LiNH_2)$ , wherein X is fluorine, bromine, chloride, iodine, or a combination thereof, and wherein  $0.1 \leq A \leq 3$ ,  $0.1 \leq B \leq 4$ , and  $0 \leq C \leq 9$  that are suitable for use as solid electrolyte separators in lithium electrochemical devices. Also set forth herein are methods of making  $A \cdot (LiBH_4) \cdot B \cdot (LiX) \cdot C \cdot (LiNH_2)$  compositions. Also disclosed herein are electrochemical devices which incorporate  $A \cdot (LiBH_4) \cdot B \cdot (LiX) \cdot C \cdot (LiNH_2)$  compositions and other materials.

