DETAILED DESCRIPTION

[0018] In the following detailed description, numerous specific details are set forth to provide a full understanding of the subject technology.

[0019] It should be understood that the subject technology may be practiced without some of these specific details. In other instances, well-known structures and techniques have not been shown in detail so as not to obscure the subject technology.

[0020] Further, while the present description sets forth specific details of various embodiments, it will be appreciated that the description is illustrative only and should not be construed in any way as limiting. Additionally, it is contemplated that although particular embodiments of the present disclosure may be disclosed or shown in the context of recycling certain types of lithium ion batteries, such embodiments can be used with all types of lithium ion batteries using modifications within the scope of the present disclosure and claims. Furthermore, various applications of such embodiments and modifications thereto, which may occur to those who are skilled in the art, are also encompassed by the general concepts described herein.

[0021] A typical lithium-ion battery, depending on the battery chemistry used, may contain graphite powder, and salts of one or more valuable metals such as lithium, aluminum, copper, cobalt, manganese, nickel, iron, and the like. Some of the commonly used lithium-ion battery types and the content of graphite and various metals in those battery types is provided in tables 1-6.

[0022] Table 1: Lithium Cobalt Oxide (LCO) batteries

LCO	
Components	**%**
With Respect to Scrap	
Aluminum	8.00%
Copper	17.00%
Graphite (anode)	16.00%
Active cathode material	24.00%
Compositions in Active Mass	