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(54) Title: LITHIUM RECOVERY PROCESS

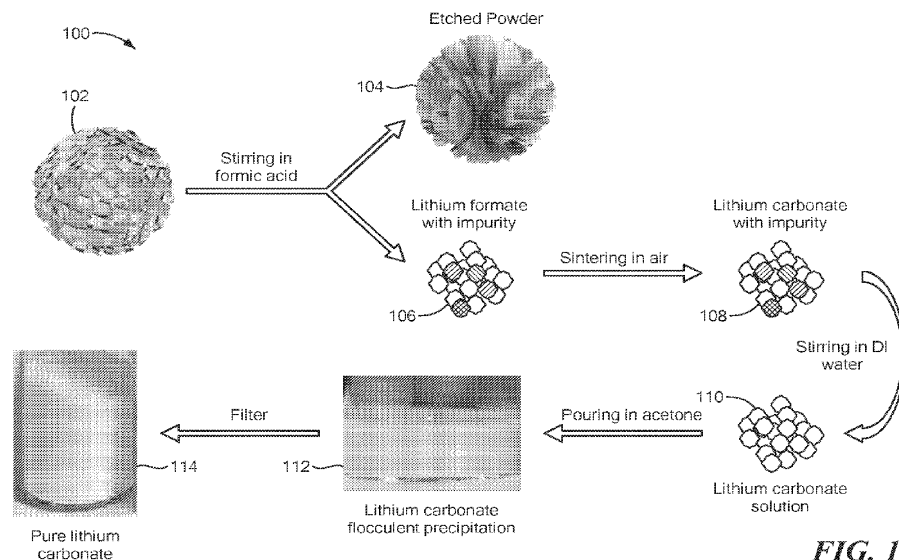


FIG. 1

(57) Abstract: Lithium recycling from expended Li-Ion batteries occurs through selective recovery of lithium charge materials from a recycling stream including transition metals used for the charge material. Li recovery includes dissolving the lithium based charge material in an organic acid having a resistance or lack of affinity to dissolution of transition metals, and distilling a leach solution formed from the dissolved charge material for generating a powder including lithium and trace impurities of the transition metals. Sintering of the generated powder forms lithium carbonate and carbonates of the trace impurities that eluded the selective leach, however, since the trace impurities are insoluble in water, the lithium carbonate is recoverable by water washing.

[Continued on next page]

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