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(81) **Designated States** (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

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(54) **Title:** METHOD AND SYSTEM FOR RECOVERY OF METALS FROM SPENT LITHIUM ION BATTERIES

(57) **Abstract:** A method for obtaining a metal salt from a spent lithium-ion (Li-ion) battery may include contacting a leaching solvent to a portion of the spent lithium-ion battery to form a first dispersion. The first dispersion is heated to a temperature in a range from 50 °C to 90 °C by applying microwave radiation. The temperature of the first dispersion is maintained to be in the range from 50 °C to 90 °C for a period in a range from 10 seconds to 5 minutes by further applying microwave radiation to the heated first dispersion. The first dispersion is filtered to obtain a first filtrate. A first base is contacted with the first filtrate to increase a pH of the first filtrate to a first predetermined value to precipitate a first metal salt.

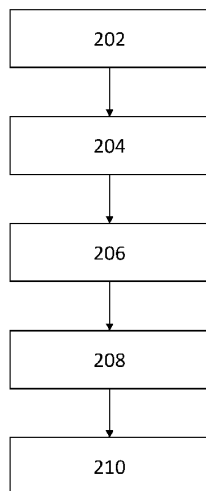


FIGURE 2

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