

Abstract**Method and apparatus for obtaining purified phosphoric acid from phosphoric acid aqueous solution containing plural metal ions**

A method for obtaining purified phosphoric acid from a phosphoric acid aqueous solution containing a plurality of metal ions includes:

[1] crystallizing and coprecipitating that separate out an inorganic salt crystal from a phosphoric acid aqueous solution containing a plurality of metal ions and coprecipitate metal ions including:

(a) mixing a phosphoric acid aqueous solution containing a plurality of metal ions with an inorganic salt aqueous solution;

(b) separating out an inorganic salt crystal and coprecipitating simultaneously the metal ions by further mixing an organic poor solvent which is soluble in phosphoric acid and does not dissolve an inorganic salt with the above resultant mixture; and

(c) solid-liquid separating by filtering the inorganic salt crystal containing the metal ions; and

[2] evaporating that obtains purified phosphoric acid by evaporating an organic poor solvent and water in a filtrate obtained by the filtration,

wherein the amount of metal ions dissolved in the phosphoric acid / organic poor solvent mixture in the separating is less than the amount of metal ions in the phosphoric acid solution used in the mixing.

FIGURE 3