

A resource recycling method for waste acids produced from surface treatment processes in electronics, semiconductors and photovoltaics industries

ABSTRACT

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The present invention discloses a method for recovering various acids in the mixed acid solution which comprises of two or more kinds of acids selected from the group of hydrochloric acid, nitric acid, hydrofluoric acid, phosphoric acid and sulfuric acid, which are preferably produced in the process of surface treatment such as in the electronic, semiconductor and photovoltaics industries. The disclosed method comprises a series of treatment

10 steps selected from filtering, oxidizing, separating, precipitating, reacting, transforming, electrodialysis, agent reuse and the like. All the resources in the mixed acid solution can be recycled and the auxiliary agents can be reused used during the production, under certain conditions the production system can achieve closed loop production. The method disclosed in the invention is simple for operation, the regeneration process has no secondary pollution and the resources in the mixed acid solution can be regenerated at high utilization level.

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Fig. 1