

ABSTRACT

A process for the production of high-purity isophthalic acid, which enables easy treatment of the PIA mother liquor, enables the recovery of the useful materials contained in the PIA mother liquor, decreases the discharge amount of water and enables the recycling of water to be used as a solvent, without additional investment and expenses, the process comprising the steps of

a) separating a liquid-phase oxidation solution into an oxidation mother liquor and a crude isophthalic acid by crystallization and evaporating the oxidation mother liquor to form acetic acid vapor or a condensate thereof,

b) dissolving the crude isophthalic acid in water, then catalytically hydrogenating, catalytically treating or oxidizing the resultant solution of isophthalic acid in water to form a purified solution, cooling the purified solution to crystallize isophthalic acid and separating the purified solution into a PIA mother liquor and a crystal of the isophthalic acid, and

c) feeding the acetic acid vapor or condensate prepared by the evaporation of the oxidation mother liquor in step a) to a middle stage of a distillation column, feeding the mother liquor separated from the purified solution in the step b) to a top portion of the distillation column to carry out distillation, and discharging concentrated acetic acid containing aromatic carboxylic acids from a bottom portion of the distillation column.