PATENT

INSTITUT FRANÇAIS DU PÉTROLE

PROCESS FOR SEPARATING PARAXYLENE COMPRISING AT LEAST ONE CRYSTALLIZATION STAGE AT HIGH TEMPERATURE AND AT LEAST ONE CLAY TREATMENT UPSTREAM FROM THE ADSORPTION ZONE

ABSTRACT

In a process for separating paraxylene at very high purity from a charge of xylene isomers, comprising a selective adsorption (8) of a fraction that is rich in paraxylene, at least one high-temperature crystallization (5a) of this fraction, and an isomerization (21) of the fraction depleted of paraxylene, the mother liquor (3) is recycled to the selective adsorption (8) optionally via a clay treatment (26) followed optionally by a distillation (28) of the treated effluent. The mother liquor can be introduced into a distillation unit (23) depending on the isomerization before being treated in the clay reactor (26). The crystallization can comprise several high-temperature stages, the temperature in one of these stages being able to be higher or lower than that of the other stage.

Application to the preparation of very pure paraxylene for the synthesis of terephthalic acid.

Figure 1 to be published.