

PATENT

INSTITUT FRANÇAIS DU PÉTROLE

PROCESS FOR PRODUCTION OF PARAXYLENE COMPRISING A HIGH-TEMPERATURE CRYSTALLIZATION WITH AT LEAST ONE STAGE AND A PARTIAL MELTING OF THE CRYSTALS

ABSTRACT

Described is a process for production of paraxylene from a charge containing C7-C9 aromatic hydrocarbons in which a first fraction is enriched to at least 30% weight with paraxylene and this fraction is purified by at least one high-temperature crystallization in at least one crystallization zone. More specifically, said first fraction that is enriched to at least 30% weight with paraxylene is crystallized in a crystallization zone (50) at high temperature T_1 and advantageously between $+10$ and -25°C , crystals in suspension in a mother liquor are recovered, the crystals are separated from the mother liquor in at least a first separation zone (52), the crystals obtained are partially melted in at least a zone (53) for partial melting and a suspension of crystals is recovered, the crystals in suspension are separated and washed in at least one separation and washing zone (57) and pure paraxylene crystals and a washing liquor (58) are recovered, and said pure

crystals are optionally completely melted (61) and a liquid stream (60) of melted paraxylene is collected. The mother liquor can be crystallized in a second crystallization zone at high temperature T_2 that is lower than T_1 and the second crystals can be partially melted, separated and washed as indicated above.

Figure 2 to be published.