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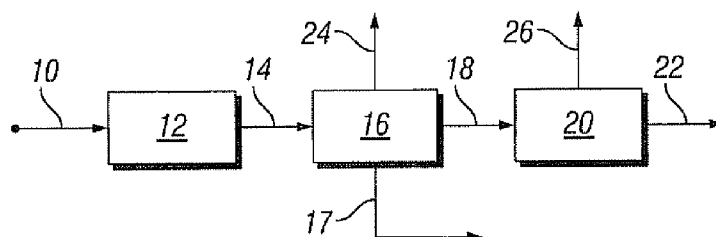


FIG. 1

(57) Abstract: The present invention provides an integrated process for producing ethylene and aromatic hydrocarbons, specifically benzene, which comprises: (a) contacting a mixed lower alkane feed with an aromatic hydrocarbon conversion catalyst to produce a product mixture which is comprised of aromatic reaction products including benzene, unreacted ethane and non-aromatic products, (b) separating and recovering the benzene and any other aromatic reaction products, (c) separating and recovering the ethane, and (d) introducing the ethane into a cracker to produce ethylene.