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(54) **Title**: AN INTEGRATED PROCESS TO COPRODUCE AROMATIC HYDROCARBONS AND ETHYLENE AND PROPYLENE

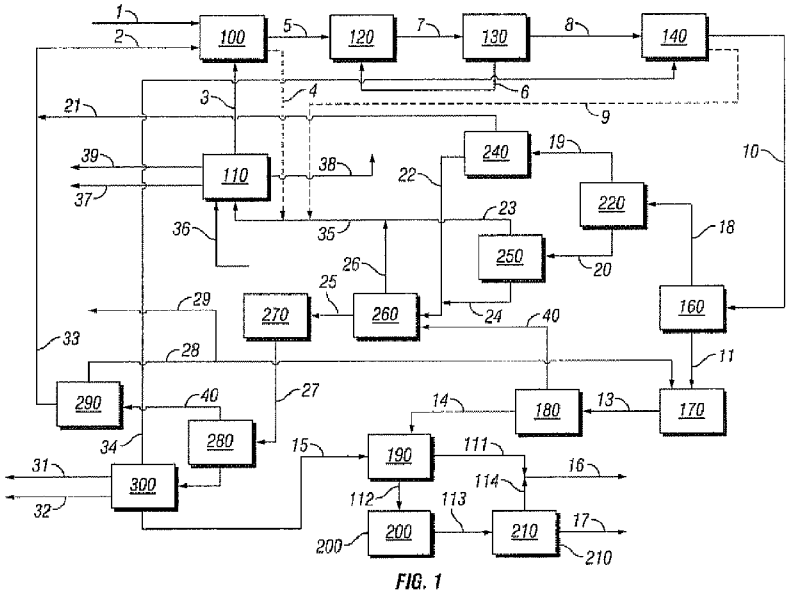


FIG. 1

(57) **Abstract**: An integrated process for producing aromatic hydrocarbons and ethylene and/or propylene and optionally other lower olefins from low molecular weight hydrocarbons, preferably methane, which comprises: (a) contacting at least one low molecular weight alkane, preferably methane, with a halogen, preferably bromine. under process conditions sufficient to produce a monohaloalkane, preferably monobromomethane, (b) reacting the monohaloalkane in the presence of a coupling catalyst to produce aromatic hydrocarbons and C_2+ alkanes, (c) separating the aromatic hydrocarbons from the product mixture of step (b) to produce aromatic hydrocarbons, and (d) cracking at least part of the C_2+ alkanes in an alkane cracking system to produce ethylene and/or propylene and optionally other lower olefins.

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