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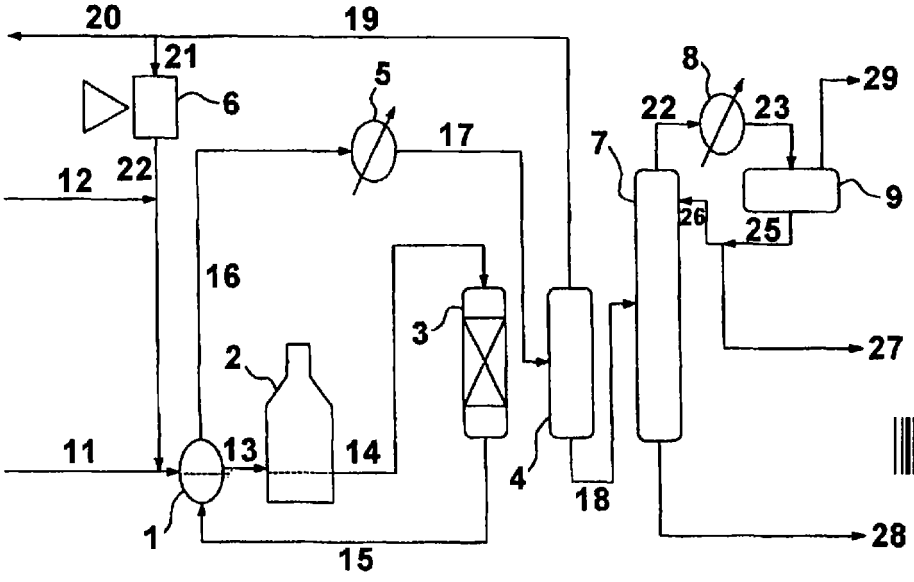

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(57) Abstract: Fisclosed are a process for producing aromatic hydrocarbon compounds and liquefied petroleum gas (LPG) from a hydrocarbon feedstock having boiling points of 30-250 °C and a catalyst useful therefor. In the presence of said catalyst, aromatic components in the hydrocarbon feedstock are converted to BTX-enriched components of liquid phase through hydrodealkylation and/or transalkylation, and non-aromatic components are converted to LPG-enriched gaseous materials through hydrocracking. The products of liquid phase may be separated as benzene, toluene, xylene, and C9 or higher aromatic compounds, respectively according to their different boiling points, while LPG is separated from the gaseous products, in a distillation tower.

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