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(54) Title: THERMALLY COUPLED DISTILLATION SCHEME FOR PURIFICATION OF CUMENE

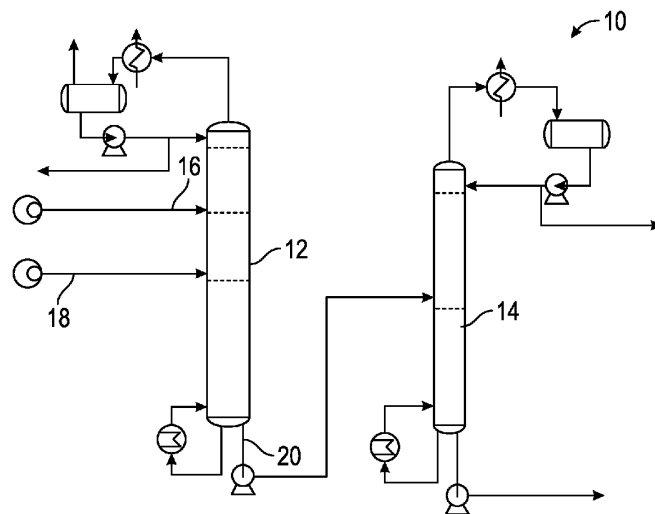


FIG. 1
(PRIOR ART)

(57) Abstract: A method for purifying cumene may include splitting an alkylation reaction product into a first portion and a second portion; feeding the first portion as mostly a liquid into a benzene column; at least partially vaporizing the second portion in a heater; feeding the at least partially vaporized second portion into the benzene column. A method for purifying cumene may also include the steps of providing a benzene column and a cumene column; directing a liquid side draw from the benzene column to the cumene column, the liquid side draw being a liquid substantially free of DIPB; returning a benzene enriched vapor from the cumene column to the benzene column using an overhead line, the benzene enriched vapor having a higher concentration of benzene than the liquid side draw; and drawing purified cumene from the cumene column.

[Continued on next page]



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