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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

[Continued on next page]

(54) Title: HYDROALKYLATION PROCESS

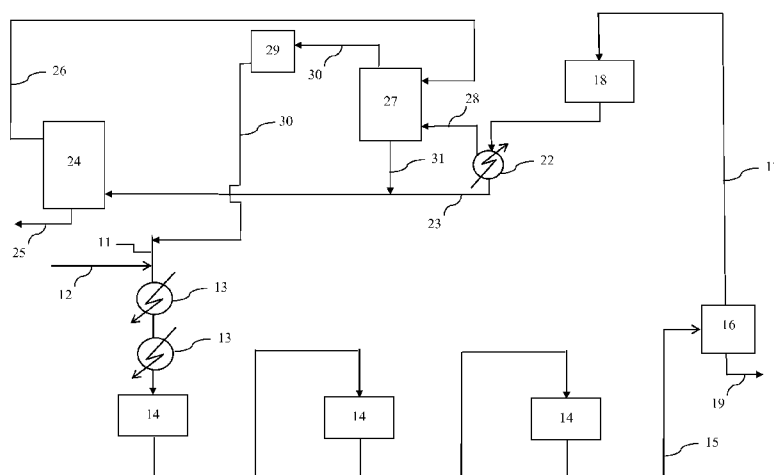


Figure 1

(57) **Abstract:** In a process for producing phenol, benzene is hydroalkylated with hydrogen in the presence of a catalyst under conditions effective to produce a hydroalkylation reaction product comprising cyclohexylbenzene and cyclohexane. At least a portion of the cyclohexane from said hydroalkylation reaction product is then dehydrogenated to produce a dehydrogenation effluent comprising benzene, toluene and hydrogen. At least a portion of the dehydrogenation effluent is washed with a benzene-containing stream to transfer at least a portion of the toluene from the dehydrogenation effluent to the benzene-containing stream.

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