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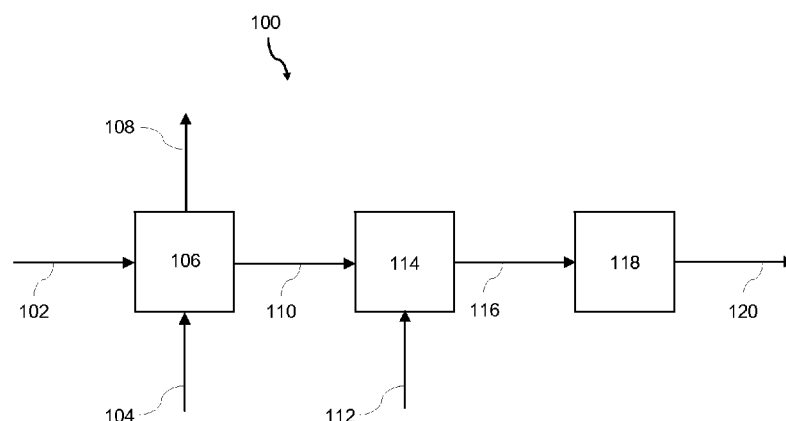
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- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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(54) Title: CYCLOHEXYLBENZENE COMPOSITIONS

Figure 1

(57) **Abstract:** In a process for producing phenol and cyclohexanone, a feed comprising cyclohexylbenzene is oxidized to produce an oxidation reaction product comprising cyclohexyl-1 -phenyl- 1 -hydroperoxide. At least a portion of the oxidation reaction product is then cleaved to produce a cleavage reaction product comprising phenol, cyclohexanone, and at least one contaminant. At least a portion of the cleavage reaction product is contacted with an acidic material to convert at least a portion of the at least one contaminant to a converted contaminant and thereby produce a modified reaction product. The composition comprising cyclohexylbenzene may have at least 10 wt% of cyclohexylbenzene; 1 wppm to 1 wt% of bicyclohexane; 1 wppm to 1 wt% of biphenyl; and 1 wppm to 2 wt% of methylcyclopentylbenzene, wherein the wt% and wppms are based upon total weight of the composition.



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