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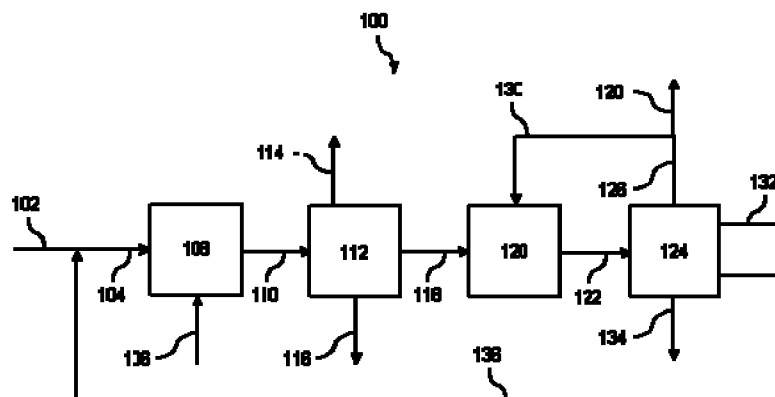
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(54) Title: PROCESS OF PRODUCING CYCLOHEXYLBENZENE

Figure 1



(57) Abstract: In a process for producing cyclohexylbenzene, benzene is contacted with hydrogen under hydroalkylation conditions effective to form a first effluent stream comprising cyclohexylbenzene, cyclohexane, methylcyclopentane, and unreacted benzene. At least a portion of the first effluent stream is contacted with a dehydrogenation catalyst under dehydrogenation conditions to convert at least a portion of the cyclohexane to benzene thereby forming a second effluent stream. The amount of methylcyclopentane in the second effluent stream is different by no more than 65% of the total amount of the portion of the first effluent stream, said amounts being on a weight basis. A methylcyclopentane-containing stream is removed from either the first or the second effluent stream and at least a portion of the second effluent stream containing benzene is recycled to the hydroalkylation step.