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(54) Title: PROCESS FOR PRODUCING PHENOL AND/OR CYCLOHEXANONE FROM CYCLOHEXYLBENZENE

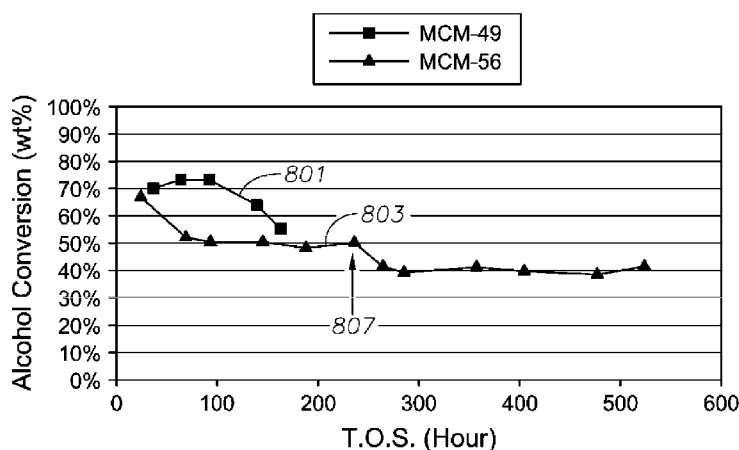


FIG. 8

(57) Abstract: A process for producing phenol and/or cyclohexanone is described in which cyclohexylbenzene is contacted with an oxygen-containing gas under conditions effective to produce an oxidation effluent comprising cyclohexylbenzene hydroperoxide and at least part of cyclohexylbenzene hydroperoxide is contacted with a cleavage catalyst under conditions effective to produce a cleavage effluent containing phenol and cyclohexanone. At least one of the oxidation effluent and the cleavage effluent contains at least one phenylcyclohexanol as a by-product and the process further comprises contacting the phenylcyclohexanol with a dehydration catalyst comprising a molecular sieve of the MCM-22 family under conditions effective to convert at least part of the phenylcyclohexanol to phenylcyclohexene.

**Declarations under Rule 4.17:**

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- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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