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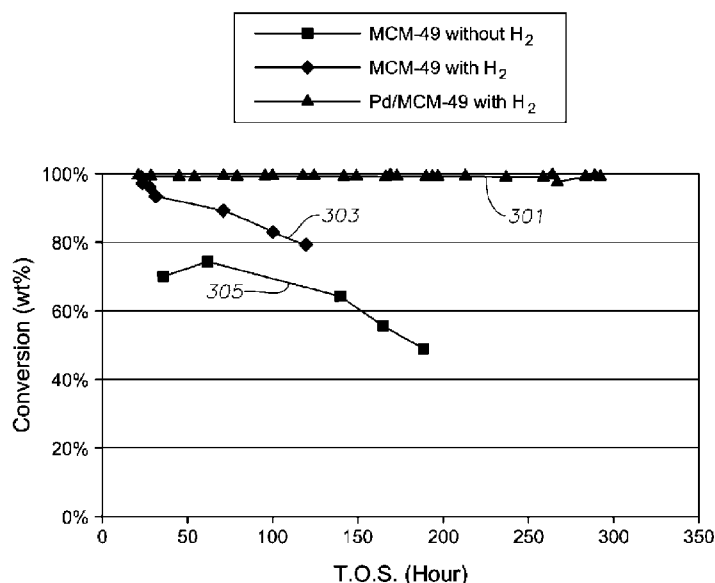
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(54) Title: PROCESS FOR PRODUCING PHENOL AND/OR CYCLOHEXANONE FROM CYCLOHEXYLBENZENE



(57) Abstract: In a process for producing phenol and/or cyclohexanone, cyclohexylbenzene is contacted with an oxygen-containing gas to produce an oxidation effluent containing cyclohexylbenzene hydroperoxide and the cyclohexylbenzene hydroperoxide is then contacted with a cleavage catalyst to produce a cleavage effluent containing phenol and cyclohexanone. At least one of the oxidation effluent and the cleavage effluent also contains at least one by-product selected from phenylcyclohexanols and phenylcyclohexanones and the process further comprises contacting the by-product with a dehydration catalyst to convert the by-product to phenylcyclohexene and hydrogenating the phenylcyclohexene to cyclohexylbenzene. The dealkylation and hydrogenation may be conducted in a single stage.

**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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