

OXIDATION OF CYCLOHEXYLBENZENE

ABSTRACT

In a process for oxidizing a feed comprising cyclohexylbenzene, the feed is contacted with oxygen and an oxidation catalyst in a plurality of reaction zones connected in series, the contacting being conducted under conditions being effective to oxidize part of the cyclohexylbenzene in the feed to cyclohexylbenzene hydroperoxide in each reaction zone. At least one of the plurality of reaction zones has a reaction condition that is different from another of the plurality of reaction zones. The different reaction conditions may include one or more of (a) a progressively decreasing temperature and (b) a progressively increasing oxidation catalyst concentration as the feed flows from one reaction zone to subsequent reaction zones in the series.