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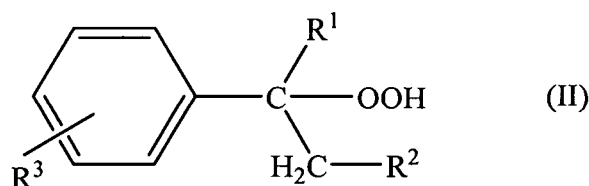
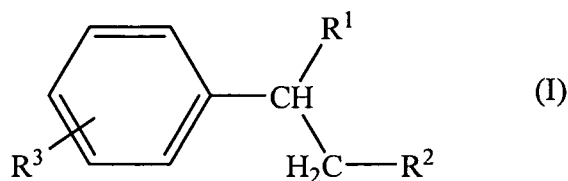
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(54) **Title:** PROCESS FOR OXIDIZING ALKYLAROMATIC COMPOUNDS

(57) **Abstract:** In a process for producing hydroperoxides, an alkylaromatic compound of general formula (I) in which R^1 and R^2 each independently represents an alkyl group having from 1 to 4 carbon atoms, provided that R^1 and R^2 may be joined to form a cyclic group having from 4 to 10 carbon atoms, said cyclic group being optionally substituted, and R^3 represents hydrogen, one or more alkyl groups having from 1 to 4 carbon atoms or a cyclohexyl group, with oxygen in the presence of a catalyst comprising a manganese oxide molecular sieve to produce a hydroperoxide of general formula (II) in which R^1 , R^2 and R^3 have the same meaning as in formula (I). The hydroperoxide of formula (II) may then be converted to a phenol and an aldehyde or a ketone of the general formula $R^1COCH_2R^2$ (III), in which R^1

and R^2 have the same meaning as in formula (1). In the case where the ketone is cyclohexanone, this may then be dehydrogenated to produce further phenol.