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(54) **Title**: PROCESS FOR PRODUCING PROPYLENE OXIDE

(57) **Abstract**: A process for producing propylene oxide comprising reacting propene with hydrogen peroxide in the presence of a catalyst to give a mixture (GI) comprising propylene oxide, unreacted propene, and oxygen; separating propylene oxide from mixture (GI) to give a mixture (GII) comprising propene and oxygen; and adding hydrogen to mixture (GII) and reducing the oxygen comprised in mixture (GII) at least partially by reaction with hydrogen in the presence of a catalyst comprising copper in elemental and/or oxidic form on a support, wherein copper is present on the support in an amount of 30 to 80 wt.-% based on the whole catalyst and calculated as CuO.