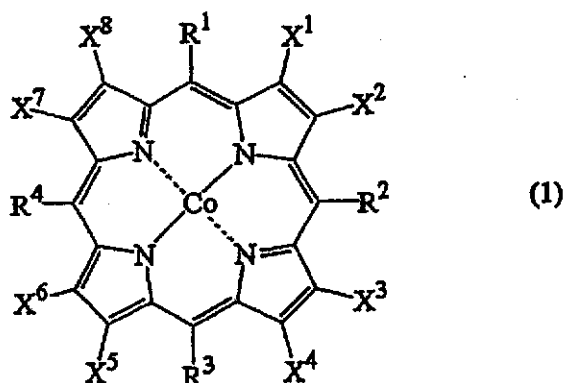


ABSTRACT OF THE DISCLOSURE

PROCESS FOR PRODUCING CYCLOALKANOL AND/OR CYCLOALKANONE

The object of the present invention is to produce cycloalkanol and/or cycloalkanone with good selectivity by oxidizing cycloalkane with molecular oxygen. The method of the present invention comprises the step of oxidizing cycloalkane with molecular oxygen in the presence of cobalt salt of carboxylic acid and cobalt complex with porphyrin as a ligand; such cobalt complex typically represented by the formula (1):



(wherein, each of X¹ to X⁸ independently represents a hydrogen atom, a halogen atom, a nitro group, a cyano group, a hydrocarbon group, a halogenated hydrocarbon group or a sulfonyl group, each of R¹ to R⁴ independently represents a hydrogen atom, a nitro group, a cyano group, a hydrocarbon group or a halogenated hydrocarbon group.)