

ABSTRACT

In the presence of (1) an oxidizing catalyst comprising an imide compound such as N-hydroxyphthalimide, or (2) an oxidizing catalyst comprising such imide compound and a transition metal element-containing compound as a co-oxidizing agent (e.g., oxides, halides, complexes, hetero polyacid salts) a hydrocarbon, an alcohol, an aldehyde, or a ketone as a substrate is brought into contact with molecular oxygen for oxidation.

10 In the above-described oxidation process, the water content of the oxidizing reaction system is 200 mol or lower relative to 1 mol of the imide compound. According to the present invention, a substrate is efficiently oxidized with molecular oxygen under mild conditions, and there can be obtained the object

15 compound(s) of high quality.