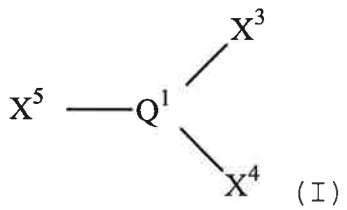
CLAIMS

1. A method of increasing the TON of a catalyst system for the monocarbonylation of an ethylenically unsaturated compound using carbon monoxide in the presence of a co-reactant, other than water or a source thereof, having a mobile hydrogen atom, the catalyst system obtainable by combining:

(a) a metal of Group 8, 9 or 10 or a suitable compound thereof;

(b) a ligand of general formula (I)



(I)

wherein

the groups X^3 and X^4 independently represent univalent radicals of up to 30 atoms or X^3 and X^4 together form a bivalent radical of up to 40 atoms and X^5 has up to 400 atoms;

Q^1 represents phosphorus, arsenic or antimony; and

c) optionally, a source of anions;

wherein the method includes the step of adding water or a source thereof to the catalyst system and characterised in that the method is carried out in the presence of an electropositive metal.

wherein the electropositive metal is selected from the list consisting of titanium, niobium, tantalum, zirconium or alloys thereof, hastelloy, Monel, Inconel and stainless steel.