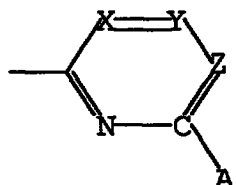


A B S T R A C TPROCESS FOR THE CARBONYLATION OF ACETYLENICALLY
UNSATURATED COMPOUNDS

The invention relates to a process for the carbonylation of acetylenically unsaturated compounds, whereby a feedstock comprising an acetylenically unsaturated compound and a relatively minor amount of an 1,2-alkadiene compound is contacted under carbonylation conditions with carbon monoxide and a hydroxylated co-reactant, in the presence of a catalyst system, based on:

- a) a source of cations of one or more metals of Group VIII of the Periodic Table;
- b) a phosphine of the general formula $PR^1R^2R^3$ or $R^2R^3M-R-PR^1R^2$, wherein R^1 represents a heteroaryl group of the formula



- wherein A represents a functional group that is electron-withdrawing relative to hydrogen, and each of X, Y and Z independently represents a nitrogen atom or a C-Q group, whereby Q is a hydrogen atom or a substituent, R^2 and R^3 independently represent a substituted or non-substituted (hetero)hydrocarbyl group or have the aforesaid meaning of R^1 , M is an element of Group VIa, preferably a nitrogen or phosphorus atom, R represents a bridging (substituted) hydrocarbyl group having 1 to 4 carbon atoms in the bridge; and
- c) a protonic acid.