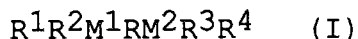


A B S T R A C T

HYDROFORMYLATION PROCESS

A process for the hydroformylation of ethylenically unsaturated compounds with carbon monoxide and hydrogen in the presence of a catalyst system comprising

- a) a source of platinum group metal cations;
- b) a source of non-halide anions;
- c) a source of at least one bidentate ligand of the formula



wherein M^1 and M^2 independently represent a phosphorus, arsenic or antimony atom, R represents a bivalent bridging group containing from 1-4 atoms in the bridge, R^1 and R^2 independently represent a substituted or unsubstituted hydrocarbyl group, or together represent a bivalent substituted or unsubstituted cyclic group whereby the two free valencies are linked to M^1 , and R^3 and R^4 independently represent a substituted or unsubstituted hydrocarbyl group, or together represent a bivalent substituted or unsubstituted cyclic group whereby the two free valencies are linked to M^2 ; and

- d) a source of halide anions chosen from the group of chloride, iodide and bromide and mixtures thereof, characterised by the additional presence of water, in an amount of more than 0.6 wt% based on the total of the reaction mixture and up to its solubility limit under the reaction conditions.

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