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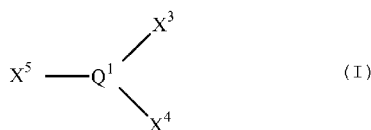
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(54) Title: IMPROVED CARBONYLATION PROCESS



(57) **Abstract:** A method of increasing the TON of a catalyst system for the monocarbonylation of ethylenically unsaturated compounds using carbon monoxide in the presence of a co-reactant, other than water or a source thereof, having a mobile hydrogen atom is described. The catalyst system is obtainable by combining: (a) a metal of Group (8, 9) or (10) or a suitable compound thereof; (b) a ligand of general formula (I) wherein the groups X³ and X⁴ independently represent univalent radicals of up to 30 atoms or X³ and X⁴ together form a bivalent radical of up to 40 atoms and X⁵ has up to 400 atoms; Q¹ represents phosphorus, arsenic or antimony; and c) optionally, a source of anions. The method includes the step of adding water or a source thereof to the catalyst system. The method is preferably carried out in the presence of an electropositive metal.



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