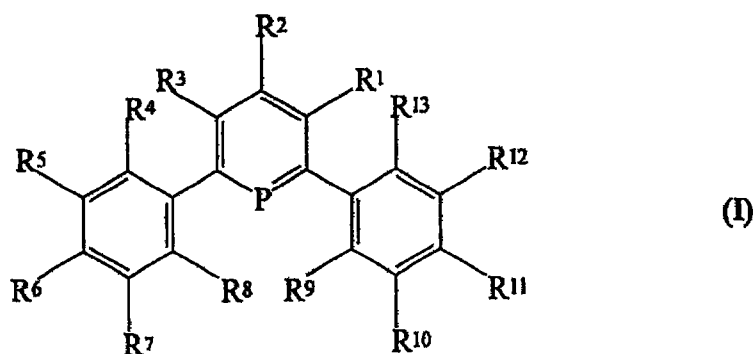


Phosphabenzene compounds and their use in hydroformylation

Abstract

Phosphabenzene compounds of the formula (I)



where the radicals R^1 to R^{13} are, independently of one another, hydrogen, COOM, SO_3M , NR_3X , NR_2 , OR, COOR or SR (where M = hydrogen, NH_4 or alkali metal, X = anion, R = hydrogen or C_1 - C_6 -alkyl), or C_1 - C_{12} -alkyl, C_6 - C_{12} -aryl, C_7 - C_{12} -aralkyl, C_7 - C_{12} -alkaryl or C_3 - C_6 -heteroaromatics, where the alkyl, aryl, alkaryl and aralkyl radicals may bear the abovementioned radicals as substituents and two or more of the radicals may be joined to form aliphatic or fused-on rings, where at least one of the radicals R^4 and R^8 and at least one of the radicals R^9 and R^{13} is not hydrogen, can be used for preparing hydroformylation catalysts.