

**LIGANDS AND CATALYST SYSTEMS FOR THE OLIGOMERIZATION OF  
OLEFINIC MONOMERS**

**Abstract**

The present invention relates to a ligand having the general formula (I) :  $(R^1)_2P-P(R^1)_m(R^2)_n=N(R^3)$  (I) wherein  $R^3$  is selected from hydrogen, a hydrocarbyl group, a substituted hydrocarbyl group, a heterohydrocarbyl group, a substituted heterohydrocarbyl group, a silyl group or derivative thereof; the  $R^1$  groups are independently selected from an optionally substituted aromatic group bearing a polar substituent on at least one of the ortho-positions; and the  $R^2$  groups are independently selected from hydrocarbyl, substituted hydrocarbyl, heterohydrocarbyl and substituted heterohydrocarbyl groups with the proviso that when the group is aromatic it does not contain a polar substituent at any of the ortho-positions, with the proviso that  $m$  is 0 or 1,  $n$  is 1 or 2 and the total of  $m + n$  is 2. The present invention also relates to catalyst systems and a process for the simultaneous trimerization and tetramerization of olefinic monomers using said ligands.