CLAIMS

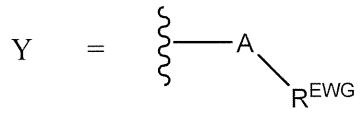
1. A process for the oligomerisation of ethylene to predominantly 1-hexene or 1-octene or mixtures of 1-hexene and 1-octene, the process including contacting ethylene with a catalyst under ethylene oligomerisation conditions, said catalyst comprising:

   i) a source of chromium;

   ii) a ligating compound of the formula

   $$R^1R^2P^1XP^2R^3R^4$$

   wherein P^1 and P^2 are phosphorus atoms;
   X is a linking group between P^1 and P^2; and
   R^1 to R^4 are independently a hydrocarbyl group, an organoheteryl group or a heterohydrocarbyl group, wherein at least one of R^1, R^2, R^3, and R^4 includes a substituted aromatic ring directly bonded to P^1 or P^2 and which is substituted at a ring atom adjacent to the ring atom bonded to P^1 or P^2 with a substituent Y, where Y is:

   such that A is selected from the group consisting of O, S and NR^5, where R^5 is a hydrocarbyl, heterohydrocarbyl or organoheteryl group; and
   R^{EWG} is an electron withdrawing group; and

   iii) optionally a catalyst activator or combination of catalyst activators.

2. The process as claimed in claim 1, wherein R^1 to R^4 all include aromatic or heteroaromatic moieties directly bonded to P^1 or P^2.

3. The process as claimed in claim 1 or claim 2, wherein at least one of the R^1 to R^4 groups is a substituted phenyl group and all of the remaining R^1 to R^4 groups are optionally substituted phenyl groups.