8. An activating support according to claim 7 wherein the organoaluminium compound is triethylaluminium.

9. An activating support according to any of the preceding claims wherein the porous mineral oxide support material is silica.

10. An activating support according to any of the preceding claims wherein the functionalized support from step (b) is heated under an inert gas at a temperature in the range 100 – 600°C and preferably in the range 150 – 450°C.

11. An activating support according to any of the preceding claims wherein the functionalized support from step (b) is heated under an atmosphere comprising oxygen at a temperature in the range 70 – 600°C, preferably in the range 100 – 600°C and most preferably in the range 150 – 450°C.

~~12. An activating support comprising a porous mineral oxide support material, fluorine and a Group 1, 2 or 13 metal, said support prepared by a method comprising contacting a fluorine-containing compound having a reactive group, an organometallic compound having a Group 1, 2 or 13 metal and said porous mineral oxide support material, characterised in that the organometallic compound and fluorine containing compound.~~

~~are contacted together before contact with the porous mineral oxide support material.~~

~~13. An activating support comprising a porous mineral oxide support material, fluorine and a Group 1, 2 or 13 metal, said support prepared by a method comprising contacting a fluorine-containing compound having a reactive group, an organometallic compound having a Group 1, 2 or 13 metal and said porous mineral oxide support material, characterised in that the organometallic compound is contacted with the porous mineral oxide support material before the addition of the fluorine containing compound.~~

~~14. An activating support comprising a porous mineral oxide support material, fluorine and a Group 1, 2 or 13 metal said support prepared by a method comprising contacting a fluorine-containing compound having a reactive group, an organometallic compound having a Group 1, 2 or 13 metal and said porous mineral oxide support material, characterised in that the fluorine containing compound is contacted with the porous mineral oxide support material before the addition of the organometallic compound.~~

~~15. An activating support according to any of claims 12 – 14 wherein the porous mineral oxide support is silica.~~

~~16. An activating support according to claims 12 – 14 wherein the fluorine-containing compound has the formula R(Fn) – X as hereinbefore described.~~

12~~17~~. An activating support as prepared according to any of the preceding claims.

~~18. An activating support comprising a porous mineral oxide support material, aluminium and fluorine, said support having a F/Al ratio of > 1.8.~~

~~19. An activating support according to claim 18 having a F/AL ratio in the range 1.8 – 10, more preferably in the range 1.9 – 3.0 and most preferably in the range 1.95 – 2.3.~~

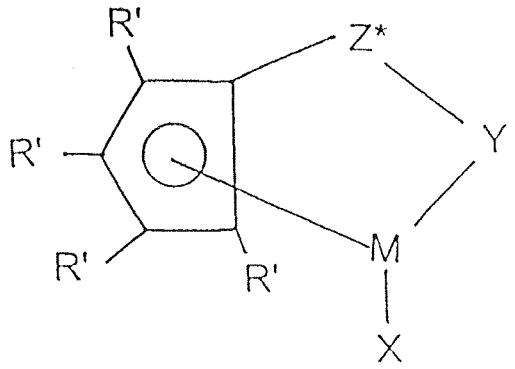
~~20~~13. A supported catalyst system for the polymerisation of olefins comprising

(a) a transition metal compound, and

(b) an activated support according to claims 1 – 12~~19~~.

~~21~~14. A supported catalyst system according to claim ~~20~~13 wherein the transition metal compound is a metallocene.

~~22~~15. A supported catalyst system according to claim ~~21~~14 wherein the metallocene has the general formula:



wherein:-

R' each occurrence is independently selected from hydrogen, hydrocarbyl, silyl, germyl, halo, cyano, and combinations thereof, said R' having up to 20 nonhydrogen atoms, and optionally, two R' groups (where R' is not hydrogen, halo or cyano) together form a divalent derivative thereof connected to adjacent positions of the cyclopentadienyl ring to form a fused ring structure;

X is a neutral η^4 bonded diene group having up to 30 non-hydrogen atoms, which forms a π-complex with M;

Y is -O-, -S-, -NR*-, -PR*-,

M is titanium or zirconium in the + 2 formal oxidation state;

Z* is SiR^*_2, CR^*_2, $SiR^*_2SiR^*_2$, $CR^*_2CR^*_2$, $CR^*=CR^*$, $CR^*_2SiR^*_2$, or GeR^*_2, wherein:

R* each occurrence is independently hydrogen, or a member selected from hydrocarbyl, silyl, halogenated alkyl, halogenated aryl, and combinations thereof, said

R* having up to 10 non-hydrogen atoms, and optionally, two R* groups from Z* (when R* is not hydrogen), or an R* group from Z* and an R* group from Y form a ring system.

~~23~~16. A catalyst system according to claim ~~22~~15 wherein M is titanium.

~~24~~17. A process for the polymerisation of ethylene or the copolymerisation of ethylene and α-olefins having from 3 to 10 carbon atoms, said process performed under polymerisation conditions in the presence of a supported catalyst system according to claim ~~20~~13.

~~25~~18. A process according to claim ~~24~~17 performed in the slurry or gas phase.

~~26~~19. A process according to claim ~~24~~17 wherein the α-olefin is 1-hexene.