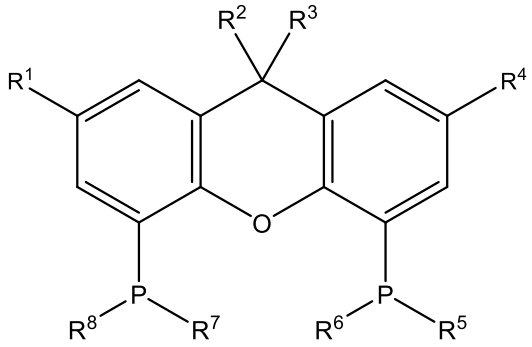
Abstract

Process for preparing an acetal from an olefin using an iodine-alkyl compound

There is provided a process comprising the process steps of:

a) initially charging an olefin;

b) adding a compound of formula (**I**):



(**I**)

where R^1, R^2, R^3, R^4, R^5, R^6, R^7, R^8 are selected from: -H, -(C_1-C_{12})-alkyl, -(C_6-C_{20})-aryl;

and, if R^1, R^2, R^3, R^4, R^5, R^6, R^7, R^8 are -(C_6-C_{20})-aryl, the aryl ring may have substituents selected from: -(C_1-C_{12})-alkyl, -O-(C_1-C_{12})-alkyl;

c) adding a Pt compound selected from: Pt(II)(COD)Me_2, diphenyl(1,5-COD)Pt(II), Pt(II)$(acac)_2$, Pt(0)$(PPh_3)_4$, Pt(0)(DVTS) solution (CAS: 68478-92-2), Pt(0)(ethylene)$(PPh_3)_2$, tris(benzylideneacetone)Pt(0), Pt(II)$(OAC)_2$ solution, Pt(0)$(t\text{-}Bu)_2$, Pt(II)(hexafluoroacetylacetonate)$_2$;

d) adding an iodine-alkyl compound;

e) adding an alcohol selected from: methanol, ethanol, 1-propanol, 1-butanol, 1-pentanol, 1-hexanol, 1-heptanol, 1-octanol, ethane-1,2-diol, propane-1,2-diol, propane-1,3-diol, butane-1,4-diol;

f) feeding in CO and H_2;

g) heating the reaction mixture from steps a) to f), to convert the olefin to an acetal.

[No figure]