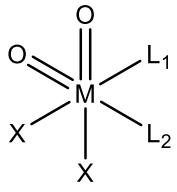
Claims

1. A process for preparing compounds of the Formula (I)



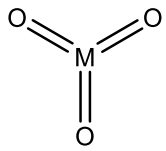
(I),

wherein M is molybdenum, X is chosen from fluoro, chloro, bromo, and iodo, and each L_1 and L_2 are the same or different and constitute:

(i) a monodentate hydrocarbyl ligand coordinated with M, or

(ii) are taken together to form a bidentate hydrocarbyl ligand coordinated with M; which comprises:

(A) contacting a compound of the formula



with (a) water containing 0.1% (w/w) to 48% (w/w) of a compound of the formula HX, and (b) a compound of the formula L_1 and/or L_2; followed by

(B) extraction of the compound of Formula (I) with a non-coordinating, water immiscible solvent, and isolation of the compound of Formula (I) as a solid or liquid.

2. The process of claim 1, wherein X is fluoro.

3. The process of claim 1, wherein X is chloro.

4. The process of claim 1, wherein X is bromo.

5. The process of claim 1, wherein X is iodo.

6. The process of claim 1, wherein L_1 and L_2 are dimethoxyethane.

7. The process of claim 1, wherein the non-coordinating, water-immiscible solvent is dichloromethane, ethyl acetate, diethyl ether, toluene, benzene, or pentane.

8. The process of claim 6, wherein the non-coordinating, water-immiscible solvent is dichloromethane.