

POLYFLUORO ORGANOMETALLIC COMPOUNDS CONTAINING HETERO  
ATOMS (S, P)

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Polyfluoro organometallic compounds with heterocyclic systems containing sulphur, phosphorus, metal, and carbons have been prepared :

- a) By reaction between polyfluorinated acetylenes and metal thiolates and metal trifluorophosphine complexes;
- b) By reaction between prior-formed ligands and metal halide derivatives.

The formation of the polyfluorinated heterocyclic derivatives will be described. The formation of heterocyclic derivatives by method (a) depends markedly upon the absence or presence of fluorinated substituents and, for example, with trifluoromethane thiolate derivatives intermediate heterocyclic derivatives are rare although with alkane thiolates initial reaction appears to be to heterocyclic systems. Fluorine-substituted alkynes are more reactive than their hydrocarbon analogues.

Within the heterocyclic systems fluorine-substitution influences structure by steric effects as well as by electro-negativity.