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ROUTES TO THE INSECTICIDE TEFLUTHRIN: UNUSUAL STEPS ON THE ROAD TO THE 4-METHYL-2,3,5,6-TETRAFLUOROBENZYL UNIT

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The choice of route for manufacture of Tefluthrin is strongly influenced by the presence of four halogeno substituents on the aromatic nuclei of its potential precursors.

Direct routes, which would be straightforward for halogen-free species, are rendered useless, but other, novel processes become practicable. Thus, p-$C_6Cl_4(NO_2)_2$ undergoes cyanodenitration [1], treatment of p-$C_6F_4(CN)_2$ with RMgBr affords RC_6F_4CN [2] and p-$C_6F_4(CH_2OH)_2$ can be readily monobrominated [3].

1 D.J.Milner, Syn.Comm., 15,479 (1985).

2 D.J.Milner, J.Organomet.Chem., 302,147 (1986).

3 A.T.Costello and D.J.Milner, Syn.Comm., 17,219 (1987).