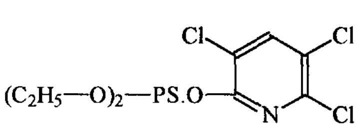
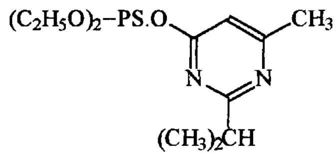


V



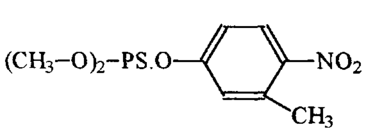
VI

$(CH_3\text{–}O)_2\text{-}PO.O\text{—}CH\text{=}C\text{—}Cl_2$

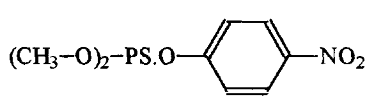
VII

$(CH_3\text{–}O)_2\text{—}PS.S\text{—}CH_2\text{–}CO.NH\text{—}CH_3$

VIII



IX



X

Figure 2 Organophophorus insecticides. V, Chlorpyrifos; VI, diazinon, VII, DDVP; VIII, dimethoate; IX, fenitrothion; X, parathionmethyl.

thionate and phosphorothiolothionate pesticide detection was also mentioned (151). The TLC of carbaryl and related compounds on silica sequentially developed with benzene, CCl_4, chloroform, distilled water, 1,4-dioxane, ethyl acetate, etc., was reported (289).

An organonitrogen insecticide, *N*′-(2,4-dimethylphenyl)-*N*′-methylformamidine, was determined (290). Methods used in the pharmaceutical research of a carbamate pesticide mixture were compared (161). TLC of degradation products of ethylenebisdithiourea on silica with acetone, acetone–water, and ethanol was reported (154). Thifensulfuron insecticide synergism in soybeans and corn was examined (291). Chlorotoluron and its metabolites were chromatographed on silica gel (193). Development of a selective enzyme-linked immunosorbent assay for 1-naphthol, the major metabolite of carbaryl, was reported (292).

The chromatographic systems examined are listed in Table 5 and Fig. 2.

F. Herbicides and Growth Regulators

1. Herbicides

Because of the frequency of their use, triazines were the most frequently analyzed herbicides over the 1990s. In vitro studies were conducted of the metabolism of atrazine, simazine, and terbutryn in vertebrate species (293). A TLC study of triazine herbicide lipophilicity and an investigation of the effect of different solvent systems on R_m values were reported (295). Various TLC systems were used for *s*-triazine herbicide quantification (82), and the influence of mobile-phase pH on retention was examined (83). TLC studies on 24 new chlortriazines on silica gel were done with 14 different solvents to monitoring their synthesis and determine their stability (298). Reversed-phase HPTLC was used for the separation and detection of atrazine and its major metabolites and for the analysis of their residues in two surface soils and five subsoils. Recoveries were between