present may lead to the production of potentially dangerous pools. This is more likely to occur when the number of components of the pool is small (such as 4) and less likely to occur when the number of components is large (such as 16). It is suggested that the isoagglutinin titer of all pools be determined in order to exclude those possessing dangerously high titers of isoagglutinins.

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A CAUTION ON THE USE OF MALEIC ANHYDRIDE AS A REAGENT FOR CONJUGATED DIOLEFINS

ALTHOUGH maleic anhydride is commonly used as a selective reagent for the conjugated diolefins in gasolines and other hydrocarbon mixtures from cracking, it is not generally known that certain dienes fail to respond.

Farmer and Warren[1] early showed that 4-methylpentadiene-1,3 fails to form the expected simple adduct with the anhydride. Since that time other observations reported in the literature indicate that dienes with doubly substituted carbon atoms in the terminal (1,4) positions of a conjugated system RRC = C – C = CRR either give polymeric adducts or, under antioxidation conditions, no appreciable reaction of any kind.

More recently the writer and his coworkers reported that the *cis* isomer of pentadiene-1,3 fails to show significant reaction with maleic anhydride.[2] Since pentadiene-1,3 (piperylene) is the first member in the homologous series of conjugated dienes to exhibit geometrical isomerism, there seems little doubt that analogous isomers of higher dienes will behave similarly, although this has not yet been proved. The writer has also observed in the case of piperylene that the *cis* isomer is much more prominent in mixtures from high temperature processes.

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PYRIDOXIN AND COACERVATES IN PLANT CELLS

PYRIDOXIN may enter into the formation of characteristic aggregates in the vacuoles of senescent or poorly nourished cells which we have recently studied. Free-hand sections of the stems of stunted mustard plants grown without zinc under rigidly controlled conditions show, in the vacuoles of the cells, globular aggregates which have the characteristics of autocomplex "coacervates." A similar phenomenon has been described whereby the phenolic compounds originally distributed at random in the water phase of the vacuolar solution may be condensed into globular aggregates surrounded by lipoids.[1]

Pyridoxin-indophenol may be demonstrated by the Scudi reaction[2] when free-hand sections of tissues are immersed in an alkaline phosphate or, preferably, veronal buffer, in which 2–6 dichloro quinone chloroimide is suspended. Indophenol first forms where pyridoxin exists, within the coacervates; indophenol, being fat soluble, is then absorbed by the lipoid coating the coacervate which it stains blue. The reaction does not occur in a borate buffer where the phenolic group of pyridoxin is known to be masked by the formation of a complex.

We have found *per contra* that in the post-meristematic or the perivascular cells in the roots of mustard or of snapdragon plants grown in a nutrient solution containing zinc and other necessary elements pyridoxin is randomly diffused in the vascuolar solution. It appears to become "coacervated" in the older cells of plants which remain stunted. A healthy condition is probably dependent upon the presence of pyridoxin in the vacuole. Coacervates may therefore inactivate an important constituent of the cell system.

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X-RAY EVIDENCE FOR A THIRD POLYMORPHIC FORM OF SODIUM STEARATE

THE x-ray work of Thiessen and Stauff gave evidence that there are two distinct crystallographic forms of sodium stearate[1] called by them the α and β forms. The authors have discovered a third form[2] which may be called the γ form, in conformity with the notation of Thiessen and Stauff.

The new γ form was detected by noting that it had a unique long spacing. The several spacings assumed to be $d_{(001)}$, are as follows:

Form	Spacing
α	51.8Å
β	46.6Å
γ	44.6Å

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