

ABSTRACTS OF PAPERS PUBLISHED IN OTHER JOURNALS

CHEMISTRY

ALKALOIDS

Cinchonamine, Quinamine and Yohimbol, Relation between. M. Raymond-Hamet. (*C. R. Acad. Sci., Paris*, 1948, **227**, 1182.) Cinchonamine has the same empirical formula as yohimbol, the ultra-violet absorption curves are identical, and both give similar colour reactions. On the other hand the different physiological actions of these two compounds suggest a difference in the nuclear skeleton. Cinchonamine only differs from quinamine by having one oxygen atom less, and it has been suggested that its structure only differs by having CH_2OH in place of CH_3 in the α -position on the indole group. Iodomethylation of yohimbine considerably decreases the sympathicolytic activity, whereas with cinchonamine and quinamine it produces a considerable increase in this action. Further the Sivadjian reaction gives quite different results with yohimbine and cinchonamine. In presence of an oxidising agent, cinchonamine gives with sulphuric acid an intense blue colour which is not obtained with quinamine, and is possibly due to the 2:3:4:5-tetrahydro- β -carbolinic grouping. The absorption spectra of cinchonamine and of quinamine are quite different. G. M.

ANALYTICAL

Acetone, Determination of. R. E. Byrne. (*Anal. Chem.*, 1948, **20**, 1245.) A method is described which is accurate for amounts of acetone up to 25 $\mu\text{g./ml.}$, being based on the estimation of the hydrochloric acid released after combination of the acetone with hydroxylamine hydrochloride. The release of acid causes a drop in pH and there is a definite relation between pH change and the quantity of acetone present. Standard curves are given connecting pH with acetone content under the prescribed conditions. The effect of ethyl alcohol on the pH is also studied. The range of sensitivity of the curves may be extended by varying the concentration of hydroxylamine hydrochloride used. Determinations are not perceptibly affected by variations of room temperature between 20° and 30°C. R. E. S.

Acetylacetone and Related β -Diketones, Colorimetric Determination of. R. F. Witter, J. Snyder and E. Stotz. (*J. biol. Chem.*, 1948, **176**, 493.) Methods are given for the colorimetric determination of 2 to 8 micromoles of a number of β -diketones. The colour reaction involves a condensation of the diketone with *o*-phenylenediamine in acid solution to produce a reddish purple colour. Acetylacetone in this reaction yields 2:4-dimethyl-1:5-benzodiazapine hydrochloride; triacetic acid appeared to be decarboxylated to acetylacetone during the period of colour development; ethyl triacetate either reacted directly or was partly hydrolysed since the colour per mole of ester was less than with acetylacetone or the free acid; triacetic lactone did not react and was determined after conversion to acetylacetone by hot acid hydrolysis. Detailed conditions for the reaction are given in which the colour developing during 30 minutes at room tem-