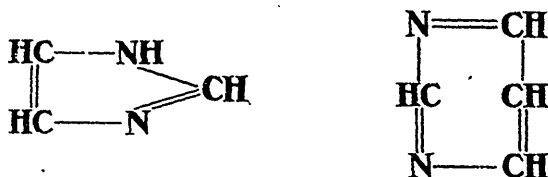
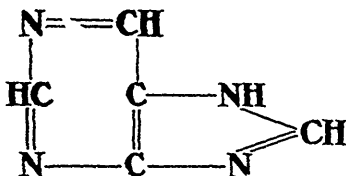


by the well-known fact that the colon bacillus in many culture-media produces indol.

Imidazol and pyrimidine are other compounds which take important parts in the molecular structure of many proteins, especially nucleo-proteins. They have respectively the formulæ:

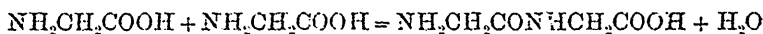


From a physiological standpoint the most important compounds of this class are purine and its derivatives. Purine is formed by grafting imidazol on pyrimidine, as shown by the following formula:



Adenin, guanin, hypoxanthin, xanthin, caffeine, theobromine, and uric acid are derivatives of purine.

Recently much activity has been paid to the study of the chemistry of proteins. It has been shown that the hydrolytic cleavage effected by boiling with dilute acids is practically the same as that produced by proteolytic ferments; and that the cleavage is much more complete than was formerly believed, amino acids instead of albuminoses and peptones being the final products. Moreover, chemists are attempting, with a fair degree of success, to convert amino acids into proteins. Products called polypeptides, containing two to eleven molecules of amino acids condensed into one, have been prepared. Thus two molecules of glycine condense to form a dipeptide called glycyl glycine.



All these polypeptides give the biuret reaction, probably the most important and general of all the tests for proteins; and the higher members of the series much resemble the proteins in their physical properties. It is, therefore, quite probable that polypeptides and proteins have something in common