CAFFEINE: A HETEROAROMATIC STIMULANT

Caffeine, a cyclic compound containing nitrogen, is present in both tea and coffee. It has a dramatic stimulating effect on people, and both tea and coffee have been consumed for centuries for this effect. In this century, caffeine has been marketed by itself and in combination with other ingredients for use as a stimulant by those who do not like coffee or when drinking a beverage is not convenient. Until recently, the caffeine sold in this way was prepared by adding a methyl group to theobromine, a related compound obtained from cocoa fruits. (Theobromine is also present in tea.)

However, the relatively large demand for decaffeinated coffee has resulted in large quantities of caffeine being available by extraction from coffee beans. At first, halogenated organic solvents were used to remove the caffeine from the bean, but concern about possible adverse effects of these solvents on health has stimulated the development of an alternate process that uses steam or supercritical carbon dioxide.