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CHROMENES

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Chromenes are fairly common natural products. Virtually unknown until 1936. Many plant products possess a phenolic nucleus having an isoprenoid unit attached to carbon or oxygen. In chromenes both type of a attachments are present simultaneously giving rise to a ring system. A large number of compounds occurring in plants contain the 2,2-di-methyl chromene system notable among them being coumarins, flavonoids and quinolines. The 2,2-dimethyl unit represent a special case of an isoprenoid system being united simultaneously to carbon and oxygen. Usually one such chromene unit is present in a molecule, but recently compounds containing two chromene units have been encountered as natural products. Nearly all chromenes are 2,2 dimethylchromenes formed by combining one isoprenoid unit with a phenolic system, with few exceptions.

Naturally occuring chromenes have been classified under following heads:

(1) Simple chromenes

(substituted, 2,2-dimethyl, and 4 phenyl) Group A

(2) Chromeno α pyrones Group B

(3) Chromeno γ pyrones

(simple, xanthones, flavones and

isoflavones) Group C

(4) Chromeno chalcones Group D

Gereral methods of preperation of chromenes and their general properties have been discussed. The different paths suggested for biogenesis have been dealt with. A list of 150 naturally occuring chromenes with app.200 references has been given.