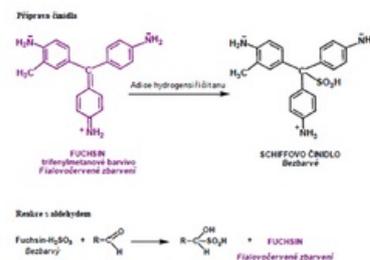


Schiff's reagent

Schiff's reagent is an aqueous solution of the violet-red dye fuchsin to which bisulfite or sulfite is added. Hydrogen sulphite is adducted to the central carbon atom, thereby disrupting the quinoid structure that conditions the colour. A colorless fuchsin sulfuric acid solution is formed. After adding even a small amount of aldehyde, sulfuric acid is released from the bond to fuchsin, which binds to the aldehyde group with a stronger bond. In the fuchsin molecule, the quinoid structure is restored and the solution turns violet-red again.



Links

Source

Leníček M, Muchová L: Organika I

Preparation of Schiff's reagent and principle of its reaction with aldehyde