

Synthesis, Characterization, and Study the Lipophilicity Properties of Some Imine Compounds and Their Starting Materials

Abstract

Some Imines were prepared by condensation of 4-aminoantipyrrole with benzil or vanillin. The prepared compounds were identified by FT-IR and ¹H-NMR spectroscopy. The prepared compounds and the starting materials were studied their lipophilicity properties and the Log P (logarithm of partition coefficient) values were determined by four theoretical methods and two practical methods, and the antifungal activity was determined. The correlation coefficients between the methods was estimated, there are good agreement between the theoretical methods except Hyperchem. The practical methods showed best correlation between TLC (thin layer chromatography) and theoretical method Marvin. On the other hand, the antifungal activity enhanced the lipophilicity values that calculated from the theoretical and practical methods.