

# Synthesis, Characterization, Antimicrobial Activity and Theoretical Studies of New Polymeric Schiff-base

## **Abstract**

A novel Schiff-base compound was synthesized by condensation of 4-hydroxybenzaldehyde and 4-aminoazobenzene. The prepared Schiff-base was converted to a polymer by reaction with formaldehyde and resorcinol. The two types of the prepared compounds were characterized with spectral techniques (FT-IR and <sup>1</sup>H-NMR). The biological activity as antibacterial and antifungal was tested using the cork well diffusion method against some standard microorganisms, which indicate that these compounds showed good antimicrobial activity. HyperChem-8 program has been used to determine total energy, LUMO-HOMO, bond length and angles.